Technical Report

ASEAN Integration in East Asian Integration: Towards the Development of a Private Sector Framework for ASEAN Trade Negotiations

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Preface

This report is the result of technical assistance provided by the Economic Modernization through Efficient Reforms and Governance Enhancement (EMERGE) Activity, under contract with the CARANA Corporation, Nathan Associates Inc. and The Peoples Group (TRG) to the United States Agency for International Development, Manila, Philippines (USAID/Philippines) (Contract No. AFP-I-00-03-00020-00, Delivery Order 800). The EMERGE Activity is intended to contribute towards the Government of the Republic of the Philippines (GRP) Medium Term Philippine Development Plan (MTPDP) and USAID/Philippines' Strategic Objective 2, "Investment Climate Less Constrained by Corruption and Poor Governance." The purpose of the activity is to provide technical assistance to support economic policy reforms that will cause sustainable economic growth and enhance the competitiveness of the Philippine economy by augmenting the efforts of Philippine pro-reform partners and stakeholders.

This grant was in response to an initial request from Ambassador Donald Dee of the Office of the Presidential Envoy for International Trade Negotiation and President of the Philippine Chamber of Commerce and Industry (PCCI) to help his office strengthen the private-public sector linkage and partnership in defining the country's trade policies and positions in international trade negotiations, as well as to strengthen the competitiveness of the business sector. The request for support was initially made to the Partnership and Advocacy for Competitiveness and Trade (PACT) Project of the De La Salle University/Angelo King Institute for Economic and Business Studies-PhilExport consortium (DLSU/AKI-PhilExport), which in turn requested EMERGE to co-finance the activity, which was dubbed the Access for Competitiveness and Trade (ACT) Project. Ambassador Dee sent PACT and EMERGE a letter of support for ACT on July 5, 2005. USAID/Philippines approved the EMERGE grant to PACT for ACT on June 19, 2006, after the terms of reference had gone through a number of revisions. The grant supported analyses of international trade opportunities and problems facing 11 major industrial sectors in the ASEAN region, which are presented and summarized in this final report.

The views expressed and opinions contained in this publication are those of the authors and are not necessarily those of USAID, the GRP, PACT, EMERGE or the latter's parent organizations.

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1. Introduction

East Asia is emerging as an economic powerhouse similar to the North American Free Trade Area (NAFTA) and the European Union (EU). Already, intra-regional trade within East Asia is higher than when the North American Free Trade Area (NAFTA) was established. ASEAN will do well to help shape the process of economic integration in the region. ASEAN is indeed moving in that direction with the slew of free trade or economic partnership agreements signed or being negotiated with the ASEAN partners in Northeast Asia, specifically China, Japan and South Korea.

Despite the fact that the private sector is at the heart of the economic integration process, the private sector has not been very active in the ASEAN trade negotiation at the regional level, although there is varying involvement at the national level in the member ASEAN countries. Indeed, majority of the private sector in the ASEAN countries do not seem to know the details and ramifications of various trade agreements being negotiated by the ASEAN and the member ASEAN countries. Not surprisingly, there have been snags in the implementation of ASEAN agreements in part because of private sector pressures.

In this regard, ASEAN, through its Business Advisory Council (ABAC), has set an action plan to reach out to private businesses and elicit their cooperation. Recognizing the private business sector's role in the trade negotiations, ABAC

intends to solicit their participation in the crafting of strategies to strengthen the region's economic position.

The ABAC is active in its initiatives to encourage private business participation in shaping the region's future. It has developed several projects that complement each member states' national economic agenda in order to strategically position ASEAN in regional and international trade. The development of a sector private framework for ASEAN regional cooperation has undergone many changes since its inception during the past four years. Initially, ABAC identified only two priority sectors – agriculture and tourism – in its ASEAN Pioneer Project Scheme (APPS) the purpose of which is to eliminate tariffs in these sectors in order to make it more competitive vis-à-vis products and services of the +3 countries. ABAC believes that by developing a uniquely "ASEAN Brand" in these two sectors will increase the region's competitiveness thus turning it as a major economic player. Now, ABAC has identified nine more sectors that forms part of its priority integration sectors (PIS). These include, (1) information and communication technology, (2) automotive, (3) rubber products, (4) fisheries, (5) wood-based products, (6) electronics, (7) health care, (8) garments and textiles, and (9) air travel. It is argued that ASEAN's interest in expanding its influence in the region can be achieved once these sectors are completely integrated into the region's economic dynamics thus, showcasing it as the next destination for foreign direct investments with a vibrant market.

ABAC also seeks to develop a private sector framework that will be used side by side the ASEAN's regional agenda in its trade negotiations with the three most influential countries in East Asia, namely, the People's Republic of China, the Republic of South Korea, and Japan (ASEAN + 3). Additionally, the proposed private sector trade negotiations framework is an important step towards the challenge of achieving greater ASEAN economic integration. This is because a region-wide view of ASEAN + 3 economic integration also implies an understanding of the challenges and opportunities of ASEAN economic cooperation and integration.

In support of the ABAC's objective of strengthening the private sector role in ASEAN trade negotiations, the Philippine ABAC members who were hosting the ASEAN Business and Investment Summit (BIS) in Cebu in 2006 engaged a group of researchers and industry players to prepare ASEAN trade negotiations framework papers for the ABAC on the 11 ASEAN priority sectors. The draft sectoral papers and draft integrative report were presented at the Cebu ASEAN BIS last December 2006.

This integrative report highlights the findings of the 11 ASEAN framework papers written by eleven experts identified and commissioned by this research project. Section 2 of this paper describes the evolution of the trading environment in order to have a flavor of the possible challenges and opportunities facing the region. Sections 3 and 4 discusses the challenges of ASEAN integration in the context of East Asian integration. Section 5 presents recommendations toward an integrated and dynamic ASEAN. Section 6 presents key recommendations toward concerted and smart negotiations ASEAN with dialogue partners. The paper ends with brief concluding remarks.

2. The Evolving Regional Economic Landscape in East Asia

2.1. From "Factory East Asia" to "Market East Asia" and towards an "Innovative East Asia"

East Asia is fast changing and growing. There has a rapid growth of East Asia's overall trade and intra-regional trade. East Asia accounts for 27.6 percent of world exports and 22.25 of world imports as of 2004 (ADB Outlook 2007), and its intra-regional trade intensity has been rising. East Asia has been particularly successful in the fast growing machinery sectors, which have also been the centerpiece of regional production networks in East Asia. The fast growing intra-regional trade is due mainly to cross-border production networks along the value chain consistent with the comparative advantages of economies in the region. A large proportion of such products is exported to Japan, the United States, European Union and the rest of the

world. In a sense, East Asia has become the "factory" of the world, i.e, "Factory East Asia".

The strong reliance on export-oriented regional production networks in East Asia for goods that are eventually exported to the rest of the world and the heterogeneity of levels of development in the region means that volume of intra-regional trade is dominated by relatively well distributed within the region although with pronounced importance of countries that are well integrated in the global and regional production networks. The composition of intra-regional trade is as follows: China and Hong Kong accounts for one-third of intra-regional trade. The newly industrialized economies of South Korea, Taiwan and Singapore account for a quarter of intra-regional trade. Both Japan and the ASEAN (less Singapore) account for about one-fifth each. The high share of China and Hong Kong reflects the emergence of China as the "factory" of the world, which was largely complementary to the rest of East Asia. Specifically, China is a net importer from the rest of East Asia while it is a net exporter to the rest of the world. This is because China puts in the final assembly for many of the manufactured products exported to the rest of the world, with many of the parts being imported from the rest of East Asia. Thus, to some extent, the rise of China as a "factory" of the world has been puling up the rest of East Asia.

The remarkable economic growth of East Asia, bannered by China, together with the huge population base in the region has meant that East Asia has increasingly become an attractive market for the world's producers. Increasingly, the foreign direct investment into China has been for the domestic market. Similarly, a growing share of East Asia's exports to China is for the domestic market. The China experience is also operative in the other developing Asian countries, with the domestic or sub-regional (e.g., ASEAN) markets as the market destination.

As East Asia remakes itself from being a factory of manufactured goods to a world's center of market demand growth – i.e., Market East Asia – it would offer more profitable opportunities to the Asian region. It is characterized by regional

production networks with tremendous potential for production complementarity from economies and sub-national regions of varying development levels, augmented by rising, widening and changing regional demand patterns from high income growth. In fact, market leaders see the potential of Market East Asia and could be the next breakthrough second to that of China's inclusion to the World Trade Organization.

The rise of "Market East Asia" will likely increasingly drive the growth process in the region. At the same time, "Market East Asia" offers tremendous opportunities for profitable trade and investment integration within the region. The rise in per capita incomes encourages product and market differentiation, which given the lower transportation cost within the region as compared to transpacific trade, for example, would encourage more producers in the region to tap into the increasingly variegated markets in the region. There is also another knock-on effect on regional investment flows. Already, Chinese foreign investors as highly sought after by the more capital deficient countries in the region such as the Philippines. This is expected to push further the economic integration in the region, in the same way that the flows of capital from Hong Kong and Taiwan earlier paved the way to the full blown export machine called China.

In addition, East Asia needs to become "Innovative East Asia" in addition to being "Market East Asia" in order to sustain high income growth in the region for a long time. East Asia's robust market demand growth and high savings rates provide the conducive factors toward such an "Innovative East Asia". Nonetheless, the determining factors for an "Innovative East Asia" include investments in and capacity of the region's R and D sector, the quality of its human capital (especially in the sciences and engineering) and the innovation regulatory environment. To a large extent, a number of the region's economies are already moving towards this direction. Already, Japan and the newly industrialized economies of South Korea, Singapore and even Taiwan have been investing heavily in research and development. Countries like China. Malaysia and Thailand have also been expanding fast their R & D

investments. The region has had successes in R & D; indeed, a number of Japanese and South Korean multinationals have been world leaders in patents. Nonetheless, much remains to be done on the human capital front for a number of East Asian developing countries in order to improve the R & D capability in the countries. In addition, East Asia needs stronger and well managed financial systems in the region in order to develop robust risk capital that supports innovation (especially in the private sector) in the region.

` Robust productivity growth which is facilitated by regional complementation, competition and cooperation will underpin East Asia's long term economic growth. Eventually, such productivity growth will result in East Asia's deepening from "Factory East Asia" to "Market East Asia" and eventually "Innovative East Asia". However, the maturation of Market East Asia demands lower trade barriers in the region, especially in the key large economies which include China, Japan and South Korea. The challenge, therefore, is to ensure a less discriminating, disciplined and competitive market environment for the region's firms. At the same time, the lower intra-regional trade barriers need to be complemented by stronger regional cooperation to strengthen institutional, infrastructural and regulatory foundations for heightened intra-regional cross-border business relationships.

The discussion above implies the need for the following:

- (a) low (and with no sharp peaks) or no tariff and non-tariff barriers within the region;
- (b) transparent, less complex, and region-wide harmonized rules of origin and standards among others;
- (c) fair competition rules that include clear rules and transparency on state subsidies especially on state firms; and
- (d) strengthened institutional and infrastructural capacities in poorer developing East Asian countries.

2.2 China: opportunities and challenges for ASEAN.

Together with East Asia's economic upsurge is the rise of China as a major world economic power. China's economic emergence accelerated the dynamic resource allocation and international specialization in East Asia, complementing ASEAN, Japan and NIEs in regional distribution of labor. Japan, NIEs and even ASEAN moved up the skill and technology ladder providing inputs to China's export oriented labor intensive "processing trade". Thus, China **so far** has been mainly an "engine of export growth rather than a competitive threat to most of its neighbors, except Hong Kong" (Lall and Albaladejo).

China's continued fast growth, robust East Asia growth and Northeast Asia's demographics offer tremendous opportunities for profitable niching of ASEAN firms along comparative advantage. Examples abound. Thus, China's fast growing and huge middle class and Northeast Asia's ageing but well off population offer tremendous growth opportunities for tourism, healthcare and wellness service industries where ASEAN countries have strong comparative advantage. East Asia's robust growth would lead to large and growing demand for more income elastic products (e.g., tropical fruits, design based garments and furniture) and industrial materials (minerals, bio-fuels, rubber). ASEAN countries have comparative advantage in a number of agricultural and resource based products and minerals. ASEAN region is a significant world player in electronics, with strong presence of multinationals and a number of homegrown firms. If ASEAN upgrades alongside China's fast improvement in the industry as well as Japan and NIEs technological advances, East Asia remains the global production hub for the industry. ASEAN countries have proven (e.g., Philippines, Singapore, Malaysia) and potential (e.g., Vietnam, Thailand) international competitiveness in the fast growing voice and non-voice business and knowledge process outsourcing and ICT-based service industries (e.g., animation).

Nonetheless, China's fast and dynamic transformation presents tremendous competitiveness challenges to ASEAN industries and firms in third-country and domestic markets across a wide range of industries. For instance, its dominance in low-tech manufactures have made it increasingly supplier of choice in ICT technology equipment. It also has strong potential in terms of economies of scale in motor vehicles and automotive parts. The wide gap in FDI flows between China and ASEAN heightens ASEAN competitiveness challenges viz China. During 2001-2005, US $ 50 billion FDI net inflow to ASEAN and US $ 274 billion to China. Upturn in FDI flow to ASEAN in 2005 may indicate investors renewed interest on ASEAN as complement to China ("China plus one") and on ASEAN's growing and significant domestic market.

Model simulations indicate that China would **significantly crowd out ASEAN exports** (including electronics) in most western and other non-East Asian economies by 2020 if China unilaterally liberalizes and ASEAN does not follow suit and does not adjust accordingly (Roland-Holst). The model simulations suggest that ASEAN would benefit most from an ASEAN –China FTA to the disadvantage of Korea and Japan. East Asia as a whole would benefit most from global, multilateral liberalization. (Roland-Holst). Liberalized ASEAN + 3, through a region-wide FTA/EPA, is likely a good approximation of global liberalization given East Asia's high and rising intra-regional trade.

The changes that are taking place outside the ASEAN region calls for drastic but well-defined and intelligently crafted policies. Unless acted upon quickly, the tendency of ASEAN to go down the value ladder in the face of these changes is probably high and economically disastrous. It is imperative that ASEAN needs to get its priorities straight if it still wants to be counted as a region that matters economically.

3. ASEAN Attraction and Challenges

As the weaker but critical complement of Northeast Asia, ASEAN is the fulcrum of East Asia regional integration. At the same time, ASEAN has its own attraction. ASEAN is a large market in itself with robust growth rate above the world average. It has rich natural resources and is considered as a major player in the world and Asia-Pacific in terms of food and high value crops, wood, rubber, fisheries, oil and gas. It has also succeeded in becoming significant players in some of the fast growing global industries like electronics.

ASEAN countries of varying economic development stages have successfully positioned themselves in more attractive industries and present opportunities for complementary regional production networks. These networks are coupled by world class dynamic firms that can stand and compete head to head and toe to toe with competitive multinational firms.

As a result of the changing trading landscape, ASEAN has started to become integrated mainly due to market forces and partly due to regional Free Trade Areas. However, the region's intra-industry and intra-ASEAN linkages are mixed. Intra-industry and intra-ASEAN linkages are strongest in electronics and ICT equipment which are centered on Singapore and Malaysia. In fact, out of the top eight Asian electronics producing countries, five of which are from ASEAN and have generated revenues amounting to US$ 176.7 billion in 2005 (Santiago, 2007). Malaysia's electronics alone constitute 57% of its total export that is equivalent to US$47.4 billion. ASEAN countries tend to specialize by stages of processing, in other words, the type of market integration taking place is determined not only by ASEAN initiatives but partly by individual countries trying to find its own niche.

In healthcare products, regional integration is by product specialization with a country serving as regional production center for a specific product. In the area of healthcare services, Malaysia, Singapore and Thailand are the top exporters with

generated revenues amounting to US$ 40 million for Malaysia and US$ 480 million for Thailand (Abidin, Alavi, et al, 2005; Arunanondchai, 2005). Singapore generated more than 230,000 medical tourists in 2003 and is targeting a million tourists a year by 2012 with medical tourism revenues of about US$ 3.0 billion a year (Wee, n.d.) . This is primarily caused by increasing health expenditures in some countries coupled by increasing private sector participation in the health sector, availability of well-trained professionals, and availability of medical services comparable with global standards (Tullao, 2007).

Intra-ASEAN trade linkages in the automotive industry are becoming stronger although still spotty in some respects. As it turns out, Thailand is fast becoming a regional hub in this sector while others, for example the Philippines, have been specializing in selected automotive parts. While still relatively small compared to the big world players, automotive trade in East Asia highlight and confirm the notable performance of Thailand which constitutes an average world share of 0.5 % and an average ASEAN+3 share of 2.5% respectively (Medalla, 2007).

Although some ASEAN countries have recorded high growth in the industries previously mentioned, there are other intra-industry/intra-ASEAN trade linkages that remain weak or at best mild. This is evident in the cases of fisheries, agro-based, rubber-based and wood-based industries partly because of their nature in which there is less leeway for breaking up the production process and disperse it in different locations as in electronics. In the fisheries sector, for example, ASEAN accounts for 21.4% of total capture fisheries and aquaculture production and a little over 15% the world's total (Corpuz, 2007). In other words, there is weak ASEAN integration in this sector due to current production and technology which entails simple transformation of raw materials that are not suited to division across economies in the region (Austria, 2004).

In terms of market geography and industrial status, ASEAN's market is relatively more fragmented compared to that of China. ASEAN is at a likely

disadvantage when compared to China's industry clusters and therefore requiring ASEAN to invest more on technological premium and far more efficient logistics to leverage over China's economies of scale. Also, ASEAN countries need to accelerate its industrial upgrading measures as well as integrate more in order for ASEAN countries to grow in step with China and remain significant cogs in the deepening and widening regional production networks.

It is apparent that ASEAN needs to manage the East Asian and ASEAN integration well in order for ASEAN to become stronger economically and remain a critical cog in the regional economic landscape. Unless managed well, the slew of bilateral and regional FTAs and EPAs in the region can create complex rules of origin and distortionary market access, to the detriment especially of firms in developing ASEAN countries with weak trade facilitation support because of increased transactions costs. In addition, distortionary market access would also create trade and economic tensions in East Asia in the future as preferential tariff margins start to bite (Baldwin).

If ASEAN manages East Asian integration arrangements well, ASEAN becomes stronger and will deliver credible benefits to its firms and peoples. If ASEAN manages the East Asian integration well, ASEAN can reap large gains from the on going dynamic transformation of China and East Asia, as well as India. In short, **ASEAN needs a well performing ASEAN + 3 (or 4, incl. India) in order for ASEAN to have significant impact on its firms and peoples** in view of the dynamics of the regional production networks and changing comparative advantage in East Asia and the nature of regional market demand.

4. ASEAN integration in East Asian integration

There have been a plethora of ASEAN integration programs during the past three decades. Indeed, ASEAN is moving towards ultimately an economic

community in the future drawing from official pronouncements from the region. The time table for ASEAN integration has also been accelerated. However, ASEAN's accelerated integration plans are poorly disseminated and have so far little private sector "buy-in". Also, ASEAN strategic action plans on the priority industries are not well known to stakeholders, especially outside of the capitals and are barely operational. ASEAN strategic action plans leave much to be desired with respect to private sector involvement and commitments.

Much remains to be done in order to strengthen private sector-public sector partnership towards economic integration in the region. Specifically, needed are the following:

- stronger private sector leadership, participation and commitment to regional integration and complementation initiatives
- private sector investment at the regional level on technical analysis and coordination on the **details** of regional industrial complementation, cooperation and integration
- private sector- led and government supported regional industry- or cluster-specific complementation, integration and upgrading programs and commitments. A few industries (e.g., electronics, textiles and garments) forging ahead.
- widespread dissemination of the regional complementation, integration and cooperation programs at the national and local levels.
- institutionalized private sector, government and academe collaborative mechanism at the regional and national level

The fundamental challenge for the ASEAN is that the ASEAN complementation, cooperation and integration programs need to be in the context of the evolving East Asia (or even Asia, incl. India) production network system. In this regard, there may be need for a two-pronged ASEAN integration strategy:

- One, government-led:
  - Harmonization of policy and regulatory environment (e.g., tariffs, subsidies, standards, investment rules) and streamlining of procedures (e.g., customs, certification)
  - Cooperation in capacity building, information sharing, logistics and infrastructure, R & D.
- Two, private sector-led:
  - Industry by industry regional complementation, upgrading and integration strategy and program in the context of East Asia integration

The government-led and private sector – led programs need to be congruent and mutually agreed upon. While the government- led programs have been initiated, private sector-led programs and initiatives are still lacking.

There are still a lot of things that still need to be done within the ASEAN region even in the age-old issues of market access as well as in regional trade facilitation and capacity building. The papers on the 11 priority integration sectors bear out the still significant barriers to intra- ASEAN regional trade and economic integration. The case of the ASEAN healthcare sector is a good example of the significant challenges ahead. Although characterized by trillions of US dollars in revenues annually, the sector is enmeshed with barriers in terms of movements of professionals from one ASEAN country to the next. As shown by Tullao (2007), there are various national and regional constraints in the conduct of healthcare service in the ASEAN.

On the one hand, international trade in health is problematic since countries in the region consider it as a basic citizen right. Governments are expected to provide free health services as mandated in their basic law. In other words, health service cannot be subject to forces and disciplines of global trade as this should be made

affordable and equitable (Tullao, 2007). One example Tullao provides is the limitations imposed by domestic regulations to foreign medical professionals. In Malaysia, foreign specialists can be employed in private and public hospitals with fewer than two specialists with the approval of the Ministry of Health. Private general practitioners are not allowed although there are foreign medical officers in government clinics. The same holds true for the Philippines in which there are constitutional and legal prohibitions in the employment of foreign doctors and nurses. To practice in the medical profession requires that one be a Filipino citizen first. In Indonesia, the health care sector is closed to foreign doctors and nurses although some of them are employed mainly for administrative and managerial work in several foreign hospitals and teachers in overseas twinning programs for nurses in 2004 (Ibid, 2007).

Similar to the problems just mentioned is experienced by the fisheries and the automotive sectors. For fisheries, market access barriers are typified by high tariff rates that hinder South-South trade. In addition, tariff escalation and tariff peaks continue to persist. On the one hand, the presence of tariff peaks and tariff escalation applied to processed or value-added fish products continue to deter the growth of fish processing industries in many developing countries. On the other hand, major importing countries like Japan, the US and the EU have exercised varied approaches in dealing with fish products imported from developing countries ranging from preferential rates and duty-free access for some countries to the near-total removal of tariffs for certain types of products (Corpuz, 2007).

For automotive, Medalla (2007) argues that a necessary condition to building one ASEAN production base for this industry is free movement of labor and capital. However, ASEAN is far from making this a reality since there are unresolved barriers to market access and flow of investments. Several examples come to mind such as the design of rules of origin which is characterized by simplicity and transparency. Add to that is the practical knowledge of the industry's role is regarding the trade requirements. In terms of investment measures, although the

industry could play a huge role in its facilitation, many governments are still apprehensive about relaxing national treatment restrictions. Thus, reforms in the way how industries can take advantage of other markets are necessary.

5. Toward an integrated and dynamic ASEAN

ASEAN is faced with two options: (1) To allow the natural flow of things and sit on the passenger's seat as it moves down the value ladder while China brings its economic onslaught to the rest of the region; (2) ASEAN to adjust and upgrade in step with China, thereby maximizing the "China bandwagon effect" on East Asia and ASEAN with ASEAN's own dynamism, underpinned by cooperation in a competitive environment among ASEAN + 3 countries.

Of course, industrial upgrading and adjustment for regional cooperation and competition is easier said than done. To deepen ASEAN integration, the region is compelled to address two long-term issues negatively affecting its economic performance. These two are: (a) market fragmentation – which include, customs processing, harmonization, certification, and other standards, and inadequate logistics system; (b) lack of industry clusters at the local, national, and regional levels.

The industry papers bring out a number of common concerns and similar recommendations. This section deals with the broad canvass of moving ASEAN integration forward in the context of an increasingly integrated East Asia. The Annex summarizes recommendations in each industry paper. (Please see Annex.) The first major set of recommendations has to do with deepening ASEAN integration. The following are recommendations toward deepening ASEAN integration.

1. Address market fragmentation in ASEAN

What holds ASEAN from becoming fully integrated and competitive is its fragmented market. It is characterized by complex customs procedures that tend to discourage market players from engaging the region. ASEAN needs to accelerate its streamlining of its customs procedures to reduce the turn around time of transactions. Once this is achieved, it will facilitate regional complementation, economies of scale and hierarchy of production clusters in the region which is an important requirement for sectors such as textile and garments, electronics, and automotive industries which are the ones most vulnerable to the China competition.

Among the key recommendations are the following:

a. ***Accelerate streamlining of customs processing.***

The most important is to reduce turn around time and to facilitate regional complementation, economies of scale and hierarchy of production clusters in the region. This is an important requirement for the textile and garments, electronics and automotive industries which are the ones most vulnerable to the China competition.

- *Accelerate the implementation of an ASEAN Single Window.* An ASEAN "Single Window" for trade facilitation and ASEAN integration by 2015 is highly suggested. It can provide an expeditious and timely clearance of goods and commodities within the international supply chain by achieving an average of thirty minutes time of customs and release of a containerized shipment at any ASEAN entry point. This allows for synchronization of the business trading environment provided there is electronic processing and trade-related documentation (Limpongpan, 2005).
- *Simplify ASEAN rules of origin.* e.g., emphasize substantial transformation or change of tariff classification, as in EFTA

- *Full implementation of the green lane system for CEPT.* The green lane system allows for very fast customs processing for no-risk imports.
- *Fully implement rosettanet for the ASEAN electronics industry*

b. ***Accelerate regional standards harmonization, certification and MRAs.***

The Bangkok declaration states that "*ASEAN shall introduce greater transparency in standards and conformance, align product standards with international standards and undertake projects to facilitate mutual recognition agreements on a bilateral or plurilateral basis, to facilitate greater intra-regional trade...*" (Le Chau, 2006). Its Action Plan covers the following areas:

- *Harmonize standards and technical regulation through alignment with international practices*;
- *Develop and implement Mutual Recognition Arrangements (MRAs) on Conformity Assessment;*
- *Enhance the technical infrastructure and competency in laboratory testing, calibration, certification and accreditation based on internationally accepted procedures and guides; and*
- *Strengthen information networking on standards and technical regulations with the aim of meeting the requirements of the WTO Agreement on Technical Barriers to trade and WTO Agreement on the application of Sanitary and Phytosanitary Measures (Ibid, 2006).*

This is further emphasized by the tourism, healthcare, ICT-based, electronics and fishery industries as they are the ones that most need overarching and comprehensive procedures in the conduct of trade. Harmonized regional standards and uniform ratings of hotels and other facilities will strengthen ASEAN advantage in tourism. Also, MRAs on degrees and training programs in the region will help further the region's ICT-based, electronics and health care industries. A region-wide Standards and Compliance portal may help accelerate information on and the process of regional standards harmonization.

The suggested harmonization will strengthen and at the same facilitated by ASEAN's certification capability and deepened MRAs.

c. ***Address inadequate intra-ASEAN logistics system to allow for faster flow of goods in the region.***

- Liberalize intra-ASEAN air and shipping services. E.g., sub-regional waters in the BIMP-EAGA; open skies in designated secondary airports
- Promotion of an efficient door-to-door cargo transport & cross-border transport facilitation
- ASEAN framework agreement on the facilitation of goods in transit
- ASEAN framework on multimodal transport

2. **Facilitate development of hierarchy of industry clusters at the local, national and ASEAN levels, with strong intra-cluster linkages.**

Intra-ASEAN linkages and clusters are emerging in the region, e.g., electronics industry with Singapore-Malaysia as the hub at present and automotive industry with Thailand as the de facto hub. Nonetheless, much remains to be done here. Needed are the private sector-led regional upgrading, complementation, cooperation and integration plans and programs industry by industry. There is a need to be mainly market determined and private sector – led. This is a dynamic process given the fast developments of China (and India) as both competitor and complementary production centers.

Special attention needs to be given to SMEs, the backbone of local production networks. Access to credit is a particularly important problem for SMEs. Regional sharing of best practices and efforts at improving credit information

system and less-collateral based project financing for SMEs are important initiatives for SME development in the ASEAN region.

3. Facilitate ASEAN Industrial Upgrading

- Enhance the value added of the clusters and expand the value chain
  - Cooperation in R & D capability building and initiatives
  - Cooperation in human resource development, esp., in key technical skills
  - Aggressive propagation of good manufacturing and agriculture practices

- Regional resource pooling and cooperation on scarce "mission critical" resources for industrial upgrading such as scientists
  - Address poor intra-ASEAN job mobility for scientists and professionals (one suggestion: a Southeast Asian can be allowed to practice his or her profession in the ASEAN)
  - Accelerate MRAs on professional qualifications
  - Allow cross-posting in ASEAN electronics centers of excellence among ASEAN nationals

- Deepen capital market development (risk capital is critical for financing innovation) and maintain robust structural and macroeconomic foundations for good investment climate.
  - ASEAN + 3 initiatives are important here.

6. Toward Concerted and Smart Negotiations with ASEAN + 3 Partners

The second set of recommendations has to do with concerted and smart negotiations with dialogue partners especially with respect to the ASEAN + 3 partners; i.e., Japan, China and Korea. Among the key recommendations are the following:

- ***Ensure harmonized and simple rules of origin in the trade and economic partnership agreements with dialogue partners.***
  - Current approach of mix of bilateral and regional trade negotiations with dialogue partners could lead to:
    - ASEAN countries as spokes in East Asia "hub-spoke" system
    - Complex, expensive rules of origin to the detriment of ASEAN firms
  - Extensive use of change of tariff classification and use of ASEAN Plus Cumulation System (i.e., cumulation of ASEAN and partner countries) will reduce trade costs to ASEAN firms
  - Note that efficient regional integration occurs under less distorted market environments, as East Asian production networks highlight.
- ***Accelerate preparation of, and ensure strong and widespread private sector participation and consultation on, the ASEAN industry by industry integration regional complementation, upgrading and integration plans and programs.***
  - Regional industry plans important for determining specifics of ASEAN positions on negotiations on implementation arrangements of the ASEAN + 3 (or +4 with India) trade and economic partnership agreements.

- Note that the best ASEAN services to ASEAN firms are on reducing cost of doing business nationally and regionally and on facilitating smooth industry adjustments, not on effecting distortionary trade policy preferences.

- ***Negotiate concertedly for improved market access and fair competition rules with dialogue partners.***
  - Again, the ASEAN regional industry plans are important inputs here.

- ***Negotiate concertedly for stronger technical cooperation support from dialogue partners, especially for the poorer ASEAN members.***
- ***Institutionalize private sector participation at the regional level on ASEAN trade negotiations with dialogue partners***

7. CONCLUDING REMARKS

ASEAN has no choice but to step up its regional initiatives in view of the fast and dynamic transformation of China, (increasingly India) and East Asia. The ASEAN private sector has no choice but to step up its participation and commitment to the regional integration efforts. The ASEAN government and business sectors have no choice but to step up their partnerships in this regional effort if they want ASEAN to succeed, be credible, and deliver significant benefits to their firms and peoples.

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ANNEX

Key Recommendations on Selected Industries

The recommendations below were culled from the presentations and reports of the industry paper writers.

Garments (see Siy and Carnillo, 2006)

1. Benchmarked policies and program on investment, infrastructure, logistics, and legal structure to compliment the effective measures and incentives of 3rd countries
    - This is the fastest way to integrate the region if players can expand instead of having to join up with someone else
        - One stop investment with papers and approval
    - High-tech FDI will enable ASEAN to rapidly scale the technology ladder and produce higher value-added products faster and with more depth
        - Introduce high-tech and state-of-the-art production the region, including the location of global production centers, research and development centers, and procurement and logistics centers
2. Improve ASEAN competitiveness through industrial restructuring and faster and deeper integration into a regional production base and market
3. Standardize the process between ASEAN countries

4. Review existing regional/bilateral agreements, improving and expanding trade access

    - On Rules of Origin (ROO)
        - Implement compatible ROO
        - Avoid complex and contradictory rules of origin in its agreements with the larger East Asian and South Asian partners
        - Introduction of flexibility into rules of origin. In particular, regional content requirements might be adjusted to accommodate lower-income, smaller, LDCs
        - Mimic the Pan-European Cumulation System that allows inputs from all participating partners to count in regional content requirements of preferential tariffs

- Development of a cumulation system within the region, based upon the ASEAN Plus agreements, would facilitate development of efficient production networks rather than disrupting them

5. Liberalize cross border investments and services
6. Infrastructure and logistic process investments, Gov't. policies need to be integrated and implemented
7. Development of industry clusters and support services
8. Enhance supply chain management
9. Brand development
10. Move up the value chain by focusing on higher value-added goods, processes
11. Improve designing skills
12. Enhance domestic capabilities and facilitating the utilization of ICT and new technologies
13. Expand to emerging markets, and gain more market niches.
14. Combine into an integrated and larger market
15. Improve labor productivity thru training
16. Promote flexible and performance-based wage schemes
17. Get unions support to industry restructuring plan
18. Establish satellite complementary network operations in neighboring countries
19. Shift operations to ASEAN neighbor(s) with relative advantages
20. Negotiate and implement FTAs other trade agreement with leading trade partners, study ROO allow cumulation
21. Maintain on-going development programs and strengthen ASEAN intra-linkages

- Liberalize and harmonize intra-ASEAN investment
- Expand sector/product coverage
- Unilateral lowering of tariffs and other barriers
- Invest on trade facilitation measures
- Streamline and harmonize, greenlane customs procedure
- Improve port structure and other logistics
- Improve business environment to generate industry investments

Electronics (see Santiago, 2006)

Tariff Elimination:

The ASEAN Electronics Forum agreed, in principle, that the Temporary Exclusion List (TEL) and Sensitive List (SL) shall be eliminated. For security reasons, however, those in the SL can be transferred to the general exception list.

For the phased-in products, it was likewise agreed to have 0% tariff by 2010 and 0-5% tariff range from 2007-2009.

Non-tariff Measures (NTMs)

AEF to work on the removal of all NTMs for electronics sector soonest.

Rules of Origin (ROO)

AEF is amenable to the adoption of 40% ASEAN content based on cumulation method to qualify for ROO and recommend its early implementation by all ASEAN member countries. This method has been adopted by the Ministers but is still subject to full implementation.

AEF is considering using substantial transformation as another ROO option in view of the fact that other countries have difficulty meeting the 40% ASEAN content.

Customs Procedures

It was reported that integration measures under Customs Procedures are on track. However, not all ASEAN member countries are already in compliance with said implementation measures, i.e., only the ASEAN 5 have complied with measure #10, while Indonesia, Malaysia, Philippines and Singapore have already been implementing Green Lane (GL) for electronics, etc.

Indonesia, Philippines, Malaysia and Singapore, in principle, agreed to fast track the implementation of ASEAN Single Window (ASW) and not wait for 2011.

Standards and Conformance

AEF proposed all ASEAN countries to recognize test reports and certificates issued by the seven accredited testing laboratories and the lone certification body, provided that there is a bilateral MOU between the countries (exporting and importing countries)

Logistics Services

There is a need to fast track recommended measures to improve logistics services within the ASEAN.

Outsourcing and Industrial Complementation

Measures to enhance outsourcing activities within ASEAN include provision for incentives especially in R & D, and the promotion of investments in low value electronics to CLMV.

Trade and Investment Promotion

Push for the holding of Regional Reverse Trade Fair involving industry associations of electronics products of various ASEAN member countries.

Encourage ASEAN to push for joint investment promotion efforts among its member countries. Japan, US, Taiwan and Korea are among the identified significant country partners in electronics sector for possible sources of FDIs for the region

Tap the ASEAN Business Advisory Council (ABAC) for the ASEAN joint investment promotion efforts

Movement of Business Persons, Skilled Labor, Talents, and Professionals

ASEAN countries' visa policy to ensure that there is free movement of natural persons within ASEAN, specifically Lao PDR's and Myanmar's Visa policy for traveling businessmen/government officials from ASEAN using regular passport

AEF was amenable to adapting the provision of visa exemption for experts from non-ASEAN countries. ASEAN member countries will have to work with their respective Ministry of Foreign Affairs regarding its implementation.

Facilitation of Travel in ASEAN

In principle, AEF was amenable to harmonizing procedures for issuance of visas to international travellers.

Human Resource Development

AEF to work on an agreement among institutions in ASEAN for sharing information, programs/ coursewares and trainors

Customs Procedures

Promote the establishment of the Rosettanet in the ASEAN

Capacity Building

Develop and strengthen centers of excellence in the ASEAN and encourage cross posting/staffing of industry professionals and academic researchers from and among ASEAN nationals.

Fast track EEE MRA in order to start laboratory activity for product testing and accreditation.

Automotive (see Medalla, 2006)

Areas for Negotiation with ASEAN + 3 Dialogue Countries

- Technical Cooperation and Capability Building
- Trade facilitation, e. g. in Customs paperless trading
- Capacity building for complying with standards
  - Creation of conformity assessment body
  - Capability building/ technical assistance for ISO standard testing and certification
- SME cooperation
- Training– for necessary skills
- Movement of people
- Key is to draw up concrete programs for cooperation
- Allow ASEAN cumulation in Rules of Origin

Role of Regional Cooperation

- Reducing barriers to trade, investments, and movement of people
- Building the networking infrastructure for:
  - Fostering closer linkages with markets
  - For identifying impediments and strategic actions to deal with the related problems
  - For greater interaction between parent and local company
  - For information sharing. particularly on management and technology
- Strengthening cooperation and links:
  - Between private and public management
  - Between academe, business and government

Fisheries (see Corpuz, 2007)

1. Support regional collaboration through the harmonization of trade policies, including tariffs and non-tariff measures such as product quality, safety and sanitary measures in line with international standards, and establishment of harmonized guidelines for fish inspection and quality control systems;
2. Promote and ensure the socio-economic and environmental sustainability of the region's coastal and marine resources;
3. Address certification and eco-labeling concerns in trading fish and fishery products;
4. Assess the impacts of subsidies on sustainable fisheries; and

5. Increase the capacity of developing countries in technical, institutional and legal areas affecting fisheries management

Recommendation 1: Harmonize SPS measures and procedures with international standards

- SPS measures should reflect standards agreed in relevant international institutions such as the Codex Alimentarius
- Allow for special and differential treatment for lesser developed countries, to be matched by appropriate technical assistance
- Establishment of a seafood safety network composed of a pool of experts who will spearhead the preparation of common fish safety and quality standards and monitoring system suitable to the region's needs;
- Promote and support seafood trade risk assessment; and
- Strengthen the implementation of ASEAN's "Protocol 8 on SPS Measures to Implement the ASEAN Framework Agreement on Facilitation of Goods in Transit"

Recommendation 2: Implement coastal resources development and management strategies and guidelines

- Regional Guidelines for Responsible Fisheries in Southeast Asia: Fisheries Management (2003); Regional Guidelines for Responsible Aquaculture in Southeast Asia (2001); and, Regional Guidelines for Responsible Fisheries Operations in Southeast Asia (1999)
- Sustainable Development Strategy for the Seas of East Asia: Regional Implementation of the World Summit on Sustainable Development Requirements on Sustainable Development Requirements for the Coasts and Oceans (2003)

Recommendation 3: Harmonize customs procedures and simplify rules of origin

- Harmonize CEPT Rules of Origin and Operational Certification Procedures with those prevailing in Japan, China and RO Korea

Recommendation 4: Develop regional policy and guidelines for fisheries subsidies

- Assess the effect of fisheries subsidies on resource sustainability and trade in fish and fishery products;
- Remove capacity and effort-enhancing subsidies that contribute and promote overexploitation of the fisheries resources and unsustainable fisheries practices (e.g., support given to construction and operation of distant water fishing fleets);
- Exceptions may be considered for assistance extended to artisanal or small-scale fisheries operating within the confines of an under-exploited and well-managed fishery; and,

- Allow subsidies/incentives which promote sustainable utilization of fisheries and support the poor and disadvantaged communities (e.g., fisheries resource management initiatives; re-training of fisher folks; infrastructure and facilities for fish processing)

Recommendation 5: Develop and promote fish and fishery product brands that support responsible fisheries and food safety practices

- Example: Thailand's "Q-mark", which represents high-quality agricultural commodities (including fishery products) and ensures safety in consumption;
- Provide incentives to firms that support sustainable fisheries management as well as food safety and quality programs involving the entire supply chain – from production, harvesting, post-harvest handling and processing;
- Create a platform for greater cooperation by linking small-scale producers with big producers; and
- Establish appropriate regulatory and enforcement measures

Recommendation 6: Implement programs to increase the capacity of developing countries in technical, institutional and legal areas affecting fisheries management

- Provide training in SPS to enhance capacity to analyze and implement international SPS standards;
- Support the establishment of a network of laboratories/institutions handling SPS and certification programs; and,
- More aggressive information dissemination on commodity policies, production, marketing, and food quality standards

Wood-based Industries (see Ofreneo, 2006)

Recommendations toward increased intra-ASEAN integration:

1. WBPS integration should be in context of the whole value chain (recommendation of Cebu furniture makers, who are also interested in IPRs on furniture designs)

2. Regional approach to combat illegal trade in forest products should be further strengthened

3. More concrete programming in ASEAN integration of WBPS, especially on how to produce made-in-ASEAN products, complementation and promote investments

4. Strengthening and operationalization of positive measures such as HRD, MRA, common data base, etc. and other harmonization measures

5. Strategizing WBPS in the context of China and global WBPS trends

Rubber (see Raymundo, 2006)

Recommendations for ASEAN

1. The intra ASEAN trade pattern for rubber based products indicates that less developed members (Indonesia, Myanmar, the Philippines, Thailand and Vietnam) exported natural rubber to more developed members (Malaysia and Singapore) who in turn supplies them with rubber based products (Austria 2004).

2. Deeper integration can be achieved if the value added of the natural rubber and other rubber based industries will be increased through further industrial processing, with each economy specializing in the production of a particular rubber based product for export to the rest of the region, with specialization being driven by each country's comparative advantage (Austria 2004)

3. Encourage the formation of joint ventures (e.g., for the Philippines, between the National Development Company (NDC) and foreign investors/ firms which use natural rubber as major inputs) particularly in the development of new rubber plantations, (with clusters of 500 hectares) which could exploit the advantages behind economies of scale, and new production technologies which increase yields and improve quality.

4. Explore the possibility of forming technical and product cooperative agreements among ASEAN countries which would involve technology transfers in raising yields from natural rubber trees and improving the quality of processed rubber products as well as possible agreements to purchase natural rubber intermediate inputs from less developed member countries to be used by more developed member nations in the production of higher value added rubber based products.

5. To further promote ASEAN natural rubber exports in the world market, it will also be important to put more emphasis on the environmental implications of using more natural rubber based products compared to synthetic rubber substitutes. Increasing the number of hectares and trees planted for rubber will generate more environmental benefits for ASEAN countries, relative to the use of petroleum based synthetic rubber substitutes.

6. Form an ASEAN Rubber Organization that will facilitate stability in rubber prices, ensuring consistent supply, strengthening rubber industries in other member countries to sustain demand, as well as support research and development in technology that would raise farm yields, improve farming methods, and improve the quality of both intermediate and finished rubber based products.

Biofuels (see de los Reyes, 2007)

1. Initiate Industry Academe Partnership in Research and Advocacy about Bio-fuels

    - The private sector may initiate partnership between corporations manufacturing or blending bio fuels with petroleum fuels and the academe. Faculty and students may conduct research to improve bio fuels and discover other sources of bio fuels. This will allow industry to assist the academe in their research.

    - Tapping the academe to conduct research studies will also mean savings for industry since the academe has the equipment and trained research personnel needed for testing bio fuels.

2. Initiate cross country collaboration in bio fuels **research and development** of bio fuels by universities within ASEAN

    - The private sector may sponsor cross country collaboration among universities in bio fuel development to hasten development of bio fuel sources. This may include visits by faculty to countries where there is ongoing research and development for bio fuels.

3. Encourage petroleum companies to assist or be partners of manufacturers of bio fuels.

    - The private sector may encourage petroleum companies to assist manufacturers of bio fuels. They may also assist farmers who cultivate crops which may be utilized as bio fuels. This can be done by matching petroleum companies which need bio fuels with manufacturers of bio fuels.

4. Common Standards for Bio Fuels in ASEAN, Japan, China and South Korea

    - ASEAN countries with a potential to produce bio fuels such as the Philippines, Malaysia and Indonesia should negotiate with Japan, China and South Korea for a common standard on bio fuels which will be acceptable to them. This will facilitate the entry of ASEAN bio fuels to their markets. The fact that Japan imports 60 percent of its food and has limited arable land will make it difficult for her produce bio fuels.

5. Negotiate for preferential tariff on bio fuels

    - ASEAN as a body should negotiate for a preferential tariff on bio fuels particularly with Japan which has very limited sources of bio fuels at present and has to meet its obligations to the Kyoto Protocol.

    - ASEAN as a body should negotiate with South Korea for lower or no tariff on raw intermediate materials for bio fuels to be exported to South Korea to increase markets for newly developed sources for bio fuels such as jatropha which is now being introduced in Indonesia and the Philippines.

6. Bio Fuels Should Form Part of the Energy Stockpile or Reserves of ASEAN Countries

    - In order to help ASEAN countries, such as Indonesia, Malaysia and the Philippines with potentials for manufacturing bio fuels develop their bio fuel resources and reduce greenhouse gases in ASEAN, ASEAN member countries should agree to have a specific percentage of their oil reserves devoted to bio fuels from fellow ASEAN countries.

7. ASEAN countries should give investment incentives to investors in the bio fuels technology.

8. ASEAN country providers of bio fuels should negotiate with China, Japan and South Korea to provide for investment incentives to importers and users of bio fuels in their respective countries.

ICT/BPO (see Polishety, 2007)

1. Establishment of free trade zone by 2010.
2. Encouragement of free movement of people by simplifying the Visa and work permit process
3. Full recognition of certificates /Degrees awarded by universities /professional bodies/Institutes
4. Recognition of the Infrastructure Quality ,Standards and Environmental Standards etc.-CMM,COCP,BS7000.
5. Recognition of Techno Park and Economic zones.
6. Better and direct Air links in between BPO/ITS/KPO Hubs.
7. Single organization promoting the ASEAN cluster to the world like setting EAI (Enterprise for ASIAN initiatives) by US for trading with ASEAN.
8. Encouragement of e-government services like IDA in Singapore to cut bureaucracy.
9. Tax rebates and smooth legal steps in start ups.
10. Friendly ties with World Super Powers and strategic alliance .e.g. WTO ties.

Health (see Tullao and Cortez, 2006)

The recommendations to strengthen ASEAN integration with respect to market access, competitiveness. industry upgrading and trade facilitation are the following:

1. *Ways of addressing market access limitations in various modes of supply*

   Mode I or Cross Border Transactions
   Openness to the liberalization of cross border transactions in health and medical related activities

   Mode 2 or Consumption Abroad
   Lifting the restrictions on the number and duration of stay of foreigners seeking medical treatment in the country
   Lifting the limitations on the kind of ailments that foreign patients can seek medical treatment in the country
   Lifting the limitations on the number of foreign students allowed to enter and study in health related programs

   Mode 3 or Commercial Presence
   Reducing or lifting the limitations on the number, and type of hospitals, health clinics, and home for the aged that can be established by foreigners
   Reducing or lifting the limitations on foreign equity participation in the establishment of hospitals, medical and nursing schools

   Mode 4 or Movement of Natural Persons
   Reducing or lifting the restrictions on the number of foreign health professionals allowed to practice in the country
   Measures taken in the country to lift these limitations

2. *Ways of improving competitiveness and upgrading the industry*

   Mode I or Cross Border Transactions
   Improve country's telecommunications infrastructure to enhance the cross border trade in health and medical services
   Availability of trained human resources to carry out cross border trade in health and medical services
   Improve the English language competency of country's graduates

   Mode 2 or Consumption Abroad
   International accreditation of hospitals to facilitate the portability of health insurance of foreign patients
   Increase the number of accredited hospitals

International accreditation of medical and nursing schools
Improvement of quality and standards of medical and nursing schools

Mode 3 or Commercial Presence
Create an environment conducive to foreign investment in health and medical services
Availability of qualified health and medical professionals to attract foreign capital in the field of health services and medical and nursing education

Mode 4 or Movement of Natural Persons
Attractive compensation package for health and medical professionals to attract foreign health and medical professionals to practice in the country

3. *Ways of improving trade facilitation in health services*

Mode I or Cross Border Transactions
Ease in the release the imported computers and telecommunications equipment in the country's customs bureau

Mode 2 or Consumption Abroad
Make immigration policies less restrictive in the entry of students, patients, and tourists
Measures undertaken to address portability of foreign health insurance in the country

Mode 3 or Commercial Presence
Assist hospitals in getting international accreditation

Mode 4 or Movement of Natural Persons
Establish mutual recognition arrangements to facilitate the movement of natural persons in health services
Participation in the discussions on the establishment of a mutual recognition arrangement (MRA) in the health sector in the ASEAN

Suggested strategy for trade negotiations with Japan, China and Korea

In order for the ASEAN to exploit the demographic asymmetry among ASEAN and East Asian nations and enhance East Asian integration via health and medical services, the following are recommended:

1. *Push for the opening of the health sector in Japan and South Korea.*

- Conduct language and cultural training programs for ASEAN doctors, nurses and other health professionals to facilitate the entry to Japan and Korea

- Promote health tourism
- Establish retirement homes in ASEAN countries
- Allow the temporary movement of health professionals in countries with shortages of health professionals

2. *Development of programs in alternative medicine*
   - International accreditation of curricular programs in medicine, nursing and other health professions
   - What can ASEAN do in exploiting the regional health tourism route in enhancing regional economic integration?

3. *Establish an ASEAN+3 wide framework for portability of medical and health insurance*
   - More liberal immigration policies pertaining to the stay of patients seeking treatment overseas
   - Development of ASEAN+3 visa for health tourism and temporary movement of health professionals in the region
   - Accreditation of hospital and medical centers
   - Promote ASEAN+3 as haven for sophisticated type medical treatment and exotic alternative medicine
   - Development of rules of rules on the privacy and confidentiality of patient

4. *Training and transfer of skills towards the harmonization of standards in the practice of various health professions and in medical and health education towards the establishment of MRA in health*
   - Assist countries in the development of regulatory boards in health professions
   - Facilitate the accreditation of hospitals and medical and nursing schools
   - Development of a regulatory framework for alternative medicine

5. *Technical assistance measures that can be extended by developed countries in the region to facilitate trade in health services*
   - Assist developing countries improve their medical and nursing curricular programs to meet international standards
   - Language training for foreign health professionals seeking employment overseas or in the region.

6. *Promotion of best practices in the health and medical services field*

   - Hasten the international accreditation of hospitals by addressing the limitations of hospitals through technical assistance
   - Expand intra-ASEAN trade based on the relative strengths of the country
   - Work towards the portability of health and medical insurance
   - Harmonization of pharmaceutical products

- The regional competitiveness in health and medical sector can also be addressed by making medicine and pharmaceutical products competitive.

7. Address the problem of variable professional fees in the Philippines

Tourism (Neri and Milano, 2006)

I. POLICY ISSUES - Political/Governance Level

1. ASEAN needs to immediately put in place and empower an Asean Tourism Council, composed of ten (10) representatives (council members) from each of the member nations plus three (3) designated private sector tourism and tourism-related practitioner recommended by the majority of the ten council members. For the more regular month-to-month meeting of the ATC, an Excom be formed representing at least six (6) of the ten (10) members, plus one (1) private sector representative.

   The council can meet every quarter to be held at different member country venue, whereas, the ATC Excom will meet at least bi-monthly to take care of the month-to-month agenda at hand.

   The ATC will lay-out the various implementing action programs in tourism and tourism-related activities such as:

   - Asean Amazing Race Program
   - Asean Eco-tourism Program
   - Asean Surfing and other water- sports Program
   - Asean Volcano Discovery Program
   - Tour de Asean for pedal and motor bikes Racing
   - Asean Cruise (similar to the Mediterranean/Carribean and similar tour packages)
   - Or a BIMP-EAGA sub-region cruise variation
   - Asean Car Rally/Off-Road Race Program

2. There should be an "Asean Tourism Champion" who could well be the concurrent Chairman of the Asean Tourism Council with a 2 year fixed term but rotating to other member countries. Hence, we can adopt the "flying Geese formation" where the strongest take the initial lead then replaced in succession by the next most able member. He or she should carry the equivalent title of "Minister".

3. Work towards the establishment and issuance of an AAP Personal Card to support the incentive mechanism of the various AATP that ATC has designed and operationalized. This can also serve as an additional identity card to the Asean member holder containing home country address and passport details for quick reference. This could serve as alternate identity card for any inter-island travels within the country visited.

4. Representation with an Asean perspective in each member country's banking and international finance policies/laws especially those that touch on regional trade, commerce and taxation. This is important in breaking down barriers that obstruct the free flow of business and commerce amongst Asean country members as an operating regional community.

5. Need to provide some meaningful incentive programs through ATC policy directives such as 30-50% discounts on "Asean Week", "Asean Month" and "Asean Day" programs as is appropriate.
   Collaborate with IATA/PATA/UNDP and other similar international organization where synergies can be derived. Where possible, provide tax or tariff incentives for whatever tourism programs the ATC may declare as priority promotion to advance the AA theme. (1-2 year time-frame)

6. The ATC should have regular communication and interaction with other equivalent global organizations like IATA/UN/APEC/EU/CAFTA to insure that Asean Tourism is in step with the rest of the world in matters of travel and tourism at the regional and sub-regional level. This initiative should be ongoing and immediate.

7. Establish and promote a Tourism Summit bi-yearly to encourage greater and higher levels of interaction amongst member countries to be hosted on rotating basis with all tem (10) member countries.

8. Pledging of commitment by member counties to the budget requirement of the AAP Institutions that will be responsible for the various initiatives that will be carried out. (Immediate time frame)

9. Support a reciprocal "Open-Sky" policy for landing rights and privileges of member flag carriers and the now emerging Low Cost Carrier (LCC) which have been robust in the last three years among member

countries like Malaysia, Singapore, Indonesia, Thailand, and more recently, the Philippines. This should be initiated immediately with a 1-2 year period of adjustment and preparation.

10. Unified Visa application and issuance by Asean Member Country. What is issued by one is honoured by all policy. This will strengthen the solidarity of ASEAN as one geographical, economic and political block much like the EU is. (Target is within 1-2 years)

11. Information campaign program to announce and promote the various AAP that the ATC will launch and implement. This should cover tri-media format of advertising and promotion to cover maximum ground.

12. Asean should form its own equivalent of an "Interpol" to weed-out and police the region of undesirable criminal elements or organizations.

II. INSTITUTIONAL STRUCTURES

1. Asean Tourism Council needs to assume some quasi regulatory function to enable it to pursue such programs drawn up for all member countries to implement. It will also carry out, on a region-wide basis, the promotion of such programs promulgated and approved by the majority of the ATC.

2. Establish an Asean Desk/Asean Kiosk in all member countries major international airports and inter-representations with member countries local tourism boards or council.

3. Cultural and Educational Activities that will promote the ASEAN ADVANTAGE THEME. Intensify Asean Inter-Cultural programs amongst member countries. Existing activities have been lacking in vigor due perhaps to lack of support and budgets from member countries. This is where individual member country's financial commitment will spell the difference of either a lackluster program or a highly energized sustained regional activity.

4. At the educational Level, establish special Asean scholarship programs in its field of expertise in the tourism service industry, hotel/resort management, second or third language learning programs,

airline and aircraft maintenance proficiency courses. Educational exchanges in the Arts, Entertainment and Music, Culinary Arts so unique to the Asean Region. Prop-up the Asean Desk in International Book Fairs that is dominated by mostly western world literature. Continued support to existing awards programs like the Magsaysay Award that in many ways promote the Asean Region's social and economic concerns including journalism, film-making, applied sciences, and indigenous arts, painting, and music.

III. THE HARD INFRASTRUCTURE ISSUES

1. Tourism growth will more and more be essentially fed by the international airports of member countries. It is obvious that the member country with the most modern, fully equipped, expansive and inter-modally connected with other modes of transport like expressways, light rail systems, traditional rail systems for cargos, modern ports nearby (40-60 km radius) will attract the greater number of tourist within Asean and outside Asean. For US and EU markets special concerns on security and safety will have to be put-in-place to conform with their respective comfort levels for such concerns. In this regard, some regional cooperation and mutual assistance program among member countries can accelerate region wide compliance to current safety measures required by Europe and the US.

2. International seaports also have to be of global standard to be able to accommodate such large cruise vessels as Queen Mary, Carnival Cruise ships, and its equivalent customs and immigration rules may be specialized for Asean member countries to facilitate and encourage an increasing flow of tourist traffic intra-Asean. Of critical importance is the need for night time navigational aids system if we are to develop the Asean regional cruise traffic in the South China Sea, Java Sea, Andaman Sea, and Banda Sea.

3. Primary hotels and accommodation facilities must be present to allow for the inflow of tourists. Standards must be set and followed to assure an acceptable level of appearance ad safety to visiting tourists. They must be accessible to the modern mode of electronic bookings and search via the internet. Rates should also be openly established to prevent unscrupulous practices of "hostage pricing" and the like. Move towards an Asean Seal of Excellence in Housekeeping and Quality. Thailand has its "Orchids" ratings, Indonesia its "Diamond" ratings, and Singapore and the Philippines "Star" category ratings, perhaps there is need to harmonize these ratings on a region wide Asean basis.

These needs are even more critical in the secondary category dwellings and accommodation facilities which are not covered by the international standards of excellence, safety and security.

4. Other transport support services and facilities like taxis, buses, shuttle service to and from international airports and seaports, local fast ferries, ships and ethnic modes of transport like jeepneys of the Philippines, tuktuk of Bangkok, outriggers in Indonesia, Philippines, and Malaysia – all must carry a minimum of safety and hygiene standards that will not discourage repeat business from foreign tourists. So not just exotic Asean but also safe Asean for all.

Other recommendations from the ASEAN BIS delegates:

a) As mentioned, one major obstacle to the full realization of a full-blown ASEAN TOURISM milieu is the inadequacy of basic hotel and dwelling facilities to accommodate volume increase. This is true of places like the Philippines, Vietnam, Cambodia, Laos and Myanmar. If al all, many tourist dwellings are not up to par with international standards in cleanliness/hygiene, safety and order and systems like reservations and payments. (Philippines/Singapore delegates)

b) Need for a common acceptable definition of standards and ratings that is perhaps more ASEAN thank European or American. All member countries have to <u>agree</u> and to <u>abide</u> by the accepted standards. This cannot just be a purely private sector arrangement or agreement. Government agencies have to accept and promulgate such mutual agreements amongst Tourist Operators in all its sectors: hotels, resorts, travellers inns, hostels; service operators including transport services (land, sea, and secondary transporters). (BIMP-EAGA attendees)

c) Customs and immigration policies have to be transparent, consistent and clear-cut. Oftentimes, lack of transparency and consistency become areas of abuse especially amongst non-ASEAN travellers. (BIMP-EAGA delegates)

d) Tariffs and rates of hotels/resort/hostels. As well as airline rates, both regular and the now popular LCCs that offer much lower budget fares have to be appropriately published and disseminated to all member county service and tour operators. Conversely, all legitimate tourist/services operators have to be accredited and graded to prevent unscrupulous or travel business scams from emerging especially when tourism expands and booms. An official directory has to be published by the ASEAN Tourism Board, as the highest tourism authority for the community of ten

nations. (Philippines and BIMP-EAGA and Singaporean attendees)

e) Emergency standard procedures for both medical and security matters have to be set and agreed upon to ensure an internationally acceptable level of response and attention. This will enhance the comfort levels of foreign tourists especially from the West. (varied participants, American/Australian)

f) In regard to sea travel, especially for tourist cruise ships, certain infrastructural requirements were mentioned: (1) special berth for cruise ships, (2) adequate depth and water approach facilities, (3) navigational aids for night time travel maneuvers. Oftentimes, outside of Singapore, Malaysia and Thailand, this is inadequate, thus hindering the greater expansion of ASEAN cruise programs like the Carribean, Alaskan, and Mediterranean cruises which have become a reliable and steady volume-oriented segment of the world tourism market. The BIMP-EAGA sub-region could well benefit immensely from this untapped market. Currently, it is only Singapore, Malaysia and Thailand that have exploited this segment but still in a limited way since the potential is vast considering the kind of tourists that this segment caters to viz., the burgeoning "retiree" market that are swelling in most of the advanced developed countries of Europe, Japan, Korea, China and America, estimated at 400 million young retirees (45-59 yrs.) and 327 million older retirees (60 and above) based on 2006 figures. This is quite a potent segment if effectively tapped and the ASEAN region is a perfect match considering the inherent "caring character" of ASEAN members' citizens, not to mention the conducive tropical climate of most of the ten member countries.

g) The more extensive use of electronic information/communication technologies in the marketing, booking and settlements at all levels of tourism services from airlines to shipping, hotel bookings and reservations, choice of destinations and satellite tracking for outdoor and adventure tourism that is also growing in popularity and traffic volume.

h) Monitoring and standardization of the medical and wellness service tourism that is also becoming popular amongst the younger segment of tourist in point of lower-cost and boldness of treatment offered, like gender bender type of procedures otherwise not allowed in western home countries.

i) ASEAN tourism should keep in-step with the level of intra-and international trade that have been growing in leaps and bounds through the 80's, 90's, and now the 21st century. Intra-Asia trade valued at US$1.4 trillion and Asian international trade at US$900 billion as of 2005. All the more, ASEAN tourism must be viewed as the twin sister of trade and commerce, perhaps preceeding the latter than trailing behind.

Many of these policy programs initiatives will be of a long-term nature but initial impetus has to be provided now to reap the benefits in the succeeding years up to 2010 which WTO/ASEAN has set as ultimate target date for the final breakdown of tariff barriers and a more efficient regional and sub-regional economic integration. The Asean Advantage Tourism Program (AATP) should be viewed and approached as a lead opener and gateway facilitator to this 2010 target. Trade and commerce are greatly enhanced and propelled when the entry point of travel and tourism have been smoothened and softened to visitor-friendly levels.

Aviation (Sosa, 2006)

The following are recommended for the Philippines:

1. Open Skies Gradual Program

Within the next 2 years, one or three secondary gateways may be encouraged to adopt an open skies policy within ASEAN. Clark, Cebu, and Davao would be appropriate test cases in Luzon, Visayas and Mindanao.

Although, unilateral open skies within ASEAN in these airports would mean no reciprocity, a local airline with initiative entering into an alliance with the airlines flying into these secondary gateways may still gain some benefits in areas such as ground services and other aviation supports.

While this experiment is in-phase, an oversight team should be established to document aspects in the areas of:

- Airline Dynamics
- Cross Industry Effects
- Passenger Behavior, Frequency Statistics and Topography
- Price and Tariff Sensitivities
- Safety Regulation Issues

Another option would be to sign a two year bi-lateral open skies agreement with one ASEAN country such as Thailand or Singapore which has a healthy population of Overseas Filipino Workers. However prior to signing such a treaty, the Philippine ATO must undertake steps to upgrade its safety oversight capabilities.

2, Re-engineer Existing Government Structures

If there is any entity which needs to be reformed prior to any bilateral open skies agreement, it would be the government technical and economic regulating agency or the Air Transportation Office and the Civil Aeronautics Board which was created through Republic Act 776 in 1952.

The following are the key areas for reform:

- **Corporatization of the Technical Regulator, the ATO** – A legislative agenda should be made to re-structure the ATO into an independent authority with fiscal autonomy. It shall be responsible for planning and implementing functions in the areas of Air Safety Enforcement in flight operations and airport inspections, Air Traffic Services, Air navigation Services, Aeronautical Information Services, and the conduct of flight Calibration. Airport Development and Management should be devolved from the ATO so that it will be a consistent regulator. All airports shall be merely assessed and inspected by ATO for ICAO compliance on Standards and Recommended Practices (SARPs). On the other hand Air Navigation facilities shall remain within the jurisdiction of ATO due to some regulatory nature of Air Navigation Services.

  By turning ATO into a corporatized body which shall enjoy fiscal autonomy, it will have the ability to hire Pilots to conduct Air Surveillance in competition to market rates. Currently, there are less than 20 organic Check Pilots to conduct Air Safety Checks to more than 5,000 licensed Pilots. This ratio may place the Philippine aviation sector in a bind when open skies policy is adopted in 2012.

  The following would need to be rationalized within ATO

  - ***Debtor rectification, Financial Management and Balance Sheet Re-structuring*** – The creation of the new ATO would need to start with a clean slate, assets would need to be transferred and loans assumed by the national government. The current ATO operates under traditional government cash accounting procedures which rely on annual budgets, an accrual-based accounting system would need to be established now that ATO is corporatized. Self sufficiency in operations must be undertaken.

  - ***Safety Regulation*** – Over the last decades, countries have re-structured their civil aviation with the common theme of separating the service areas and safety regulation; however, other countries have opted to devolve only airport services and lump air safety regulation and air navigation. Thus the issue for the Philippines is to provide adequate attention and resources in order to acquire the

appropriate personnel exempted from Civil Service Rules and pay rates, and bureaucratic procedure of a government agency.

- ***Tariff Reform*** – Based on ICAO cost recovery guidelines, ATO would require its Air Navigation Charges to be increased being the lowest in the region. This will lead to self sufficiency.

- ***Human Resource Training and Development*** – The current Civil Aviation Training Center (CATC) must be revitalized. Since its funding from UNESCO in the early 1980s, much development is needed to put it at par with the training Center in the region. This will form an important backbone in modernizing Philippine Aviation and gearing it towards open skies.

- ***Economic Regulation*** – For administrative convenience the economic regulator and the technical regulator must be embodied into the same organization. It is also envisioned that this role may have to be redefined as it will slowly diminish as a world trend. It would need to establish minimum regulations on passenger protection, assist the technical regulator in evaluating management competence, and coordinate with the Department of Foreign Affairs in the negotiation of Air Service Agreements.

- **Devolution of Airport Development and Management** – In recognizing that Airports are economic hubs and are profitable, the creation of government Airport Authorities is encouraged. A clear example would be Manila International Airport Authority. ATO would then be merely in charge of determining airport compliance to ICAO SARPS.

3. Re-structure Economic Regulation – Preparing Local Carriers

The second area which would require reform would be how the government is treating the Aviation industry. Here are some aspects that need some support to prepare Local Carriers

- Aviation Tax Reform – The primary care and push which may be granted to local airlines to prepare them for open skies would be a Tax Reform Agenda. This would require legislation. It must be considered that the nature of the type of people who avail of the services of Air Travel has changed. A tax reform if not a tax break would be helpful

- Access to Cheap Sources of Funding – Although a subsidy is not really helpful or encouraged, there may be some sources of cheap funding which the government may have (i.e. National Development Corporation has a China Fund worth US$2 Billion which until now has not yet been allocated).

4. Integrated Approach in Developing Tourism and Air Infrastructure

Integration of airport development into the Department of Tourism is not necessary, but a close and consistent coordination is what is required. Similar to the structures of Malaysia, Thailand and Singapore, a representative from Tourism is consulted and has an imprimatur on airport developments. Congressional Legislation is not required, an executive order mandating the participation and consultative approval of the Tourism Department will suffice for the purpose.

ASEAN Textile and Garment Industry Outlook (2007)

By George Siy, Rosette Carrillo, Congep (Confederation of Garments Exporters of the Philippines)
April 10, 2007

ASEAN TEXTILES and Garments Recent History

The textile and garment industry has been one of the most dynamic and important industries among the members of the Association of Southeast Asian Nations (ASEAN). Typically at some stage the industry is the largest industrial employer in most of the countries, with employment ranging from 10% to over 70 % of industrial employed, and is frequently among the best organized of the industries, having active trade associations not only in the industry but within its subprocess industries (eg. Associations for spinners, weavers, dyers, finishers, garment manufacturers, traders, etc…). The organizations actively meet both within a country as well as an ASEAN industry, through the AFTEX or ASEAN Federation of Textile Industries which meets several times a year. Having been through a meticulously detailed international regulatory regime of quotas (having more categories than other industries, eg. Garments by sex, age group, by material, by process, etc… regulated, compared to agriculture or autos…) that dominated the industry has also made these organizations fairly sophisticated in international trade negotiations compared to other industries. Further, the size of the industry is large relative to the economies it is a player in whether taken as a whole or independently as an export industry, or as a domestic industry. This paper is concerned primarily with the export side of the industries.

From the time the "**East Asian Dragons"** of Japan, Korea, Taiwan, Hongkong (and Singapore) started leaving the textile and garment industry (which was widely recognized as the key stage of their industrial takeoff that allowed wide employment, cumulation of capital, training in logistics management and world trade processes and finance, practice in international-market orientation, opening relations that lead to other industries and investments...) and migrating their local labor to higher value industries in electronics, heavy industry, (and investing in the textile n garment factoriess in the new production areas of ASEAN) etc.. until the opening up of the communist countries, the industry was poised to be a continuing major **engine of growth for the ASEAN** due to the well organized and efficient production in the region, relatively low wages, low cost of inputs. The opening of the communist countries undercut the industry with lower wages and cost of inputs, although **for a while trade restrictions and lack of capital, technology, logistic infrastructure, management know-how, government support for business in these newly opened economies allowed ASEAN to continue leading** the textile/garment export as well as other industries.

That was **until China began to adopt capitalist economics and private enterprise** as acceptable practice, and among the liberalized socialist economies actually started to adopt economically viable policies, and became

increasingly hospitable to foreign investment, private capital, and modern operating methods. While **increased liberalization of world trade and communications, technology transfers, lowered communication barriers, increasing focus by nations on economics and trade rather than cold war politics, worker and professional movement, capital markets**, gave increasing advantages to the newly opened economies and created greater competition on the ASEAN in textile and other labor intensive industries, China's vast labor and entrepreneurial pool coupled with a capitalist mentality from the top created a manufacturing machine and efficiencies that came to dominate world manufacturing. This domination was furthered by informal trade liberalizations even while formal structures existed, and on the termination of the quota system threatened to swamp the manufacturers of textile and garments in the ASEAN as well as most of the rest of the world. Other countries like India, Indonesia, Vietnam, Cambodia benefited, but in a less dramatic way. The ending of the quota trading system under the Multi Fiber Agreement created a sea change in the perspectives not only of the textile/garment industries, but reflected itself in the entire global manufacturing and trading system. The power to impose trade restrictions was being eroded over the years both due to agreements between nations and due to realities of technologies allowing mobility of persons, resources, and capital at lower costs than before, and a race for greater access to cost efficiencies, creativity, emerging markets superseded the philosophy of control as the guiding principles of the major economic players. Even dictatorships and closed economies edged and sometimes jumped into these economic (if not political) moves toward openness.

While all countries felt the changes taking place rapidly from year to year, one country seemed to an unusual set of advantages. China had the low wage and highly motivated and skilled work force, entrepreneurs, business-minded government, cultural homogeneousness and logistic integration to begin dominating most manufacturing industries, obtaining in a few short years more than 60 % of the toy and shoe import market share in the US, increasing shares in light industrial produce, with market share in garments being held back only by the remnants of the quota system. Once quotas were dropped, in a few short months market share of China apparel imports in the USA increased nearly 20 market share points. Overall trade surplus with the US reached hundreds of billions of dollars a year and continues to increase at double digit rates.

In response to what appeared to be threatening domination of industries by a single foreign power, the major importing countries like the US **reimposed quantitative restrictions til 2008**, and this served to restrain the tidal wave of manufactures from China, allowing some respite, growth, and opportunities to the rest of the manufacturing countries. The sudden leap of Chinese exports in 2005 after the demise of quotas and its effect on the exports of ASEAN in those few months prior to reimposed constraints served warning on the ASEAN manufacturers. Since the reimposition of restraints, the various Southeast Asian nations and other textile powers of Asia were able to make substantial increases in their exports (see attachments).

How did ASEAN countries respond to these developments in the Textile and Garment Industries? Industry restructuring within the countries, allowing freer integration of quotas, lower financing rates, subsidized training of workers, more aggressive and organized marketing, incentives for integration and merger or increased efficiencies and investments by companies, subsidized designer upgrading, migration to higher value goods and more specialized services, etc.. up to **migration to other non-manufacturing, service industries,** eg., moving to software, business process outsourcing, tourism, etc.. **General business restructuring-** creation of estates and infrastructures allowing better logistics, lower interest rates, faster bureaucratic responses, customs highways, liberalized hiring of professionals, etc.

Regional industry restructuring the fast growing regional integration through Thai-Malaysian- Vietnam, Laos, Cambodia cross border investments, increased customs coordination, speeding up of tariff reduction between ASEAN and increasing the coverages, giving of unilateral tariff and other concessions as some ASEAN countries are doing for CLMV, trading information on the trade situation and on what programs are effective or not, inter-country investments in infrastructure, specialization of roles in the textile and Garment trades, (the attachments show both individual country strategies in response to opening of quotas, as well as the ASEAN group plans to respond to open competition, formulated in a series of meetings between the 10 countries as led by Thailand, Philippines, and Malaysia). There are also the Singapore-Indonesia-Malaysian investment triangles. Indonesian textile/garment industry although a major beneficiary of the opening up of quotas and by size and costs a potential effective competitor post quota, has not been active in ASEAN talks due to domestic issues. The Philippines is an active participant although the government does not spend much time on the issues, and as a country is also somewhat divorced from the investment and logistic loops of ASEAN because its distance and geographic location, as well as the absence of a significant textile industry makes sourcing its fabric and other material easier to do from Hong Kong (therefore China) than from the mainland ASEAN players. Although there are imports into the Philippines from Thailand, Pakistan, India as a source of material, the predominant imports of textile are from China.

International trade negotiations both multilaterally and bilaterally- the different countries of ASEAN negotiate with other trading blocs and countries like the US, EU, Japan as an ASEAN bloc, and simultaneously lobby for trade arrangements individually as countries negotiation with individual countries. (the attachments list the various regional trade negotiations with ASEAN countries as a bloc, and as individual countries, eg., China, Japan, EU, India, Australia, etc… with the ASEAN or with specific ASEAN countries).

INTERNATIONAL EVENTS affecting Textiles/Garments

Issues and Development

There are changes in the global political and economic dynamics that have significant effects on the Association of Southeast Asian Nations (ASEAN) policy structure, as well as on regional trade and investments. Individually viewed, the following issues and developments are briefly discussed in terms of its implications on and measures undertaken by ASEAN or by any of its members.

Suspension of WTO DOHA Negotiation The collapse of the Doha Round of global trade talks in July 2006 because of disputes over customs duties and agricultural subsidies and its indefinite resumption reinforced initiatives towards bilateral and regional preferential trade agreements. However, because regional integration in Southeast Asia is mainly concerned with facilitating integrated production in the region for exports to other parts of the world, ASEAN remains supportive of efforts to renew Doha Round Negotiation and gain from non-preferential Most-Favored Nation (MFN) liberalization. "ASEAN leaders would be adopting a statement that would reaffirm the region's commitment to the Doha Round of talks[1]."

Vietnam WTO Accession Vietnam officially becomes a WTO member by January 11, 2007. On that date, it will benefit from elimination of quotas limiting textile exports to the United States. The US is the only country in the world, which imposes quotas on imports of textile and apparel from Vietnam. Both Canada and the European Union (EU) eliminated all quotas on apparel/textile imports from Vietnam last January 1, 2005 together with WTO-member countries.

With the removal of quotas, US retailers and consumers are expected to source more from Vietnam which has been regarded as a potential competitor to China, India and other low-cost country supplier. Investments from other ASEAN countries, in particular investments from Thailand, Malaysia and Singapore, as well as from countries outside of ASEAN are expected to expand with Vietnam's accession to WTO. Notable recent investments made are the US$80 million investments of the U.S. International Textile Group, Inc. (ITG) for a garment and textile complex (to include cotton manufacturing); Indonesia's Pamatex Berhad investment worth over $100 million in the construction of a factory in the Chu Lai economic zone in central Quang Nam Province; Korea's $8 million garment factory for export in the Hoa Khanh industrial zone, a plant in Ho Chi Minh City's Vinh Loc industrial zone and a textile factory in the Nhon Trach I industrial zone of the southern Dong Nai Province; and a number of joint ventures between Vietnam's large garment companies with Japan's Mitsui for the production of suits and trousers[2].

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[1] ASEAN Summit spokesman Ambassador Victoriano Lecaros statement in the 12th ASEAN Summit held in Cebu, Philippines (January 2007)

[2] Asia Pulse News VIETNAM'S TEXTILE SECTOR REGISTERS RISE IN FOREIGN INVESTMENT

Last December, President Bush signed the Bill granting Permanent Normal Trading Relations (PNTR) status to Vietnam. This bill includes a 'subsidies enforcement mechanism' to ensure that the Administration acts quickly and decisively if Vietnam grants any prohibited subsidies to its textile and apparel industry in violation of the terms of its accession to the World Trade Organization (WTO). The United States may automatically re-impose quotas on textile and apparel imports from Vietnam for up to one year at any time during the first year of Vietnam's WTO membership if Vietnam continues to provide prohibited subsidies. In exchange for WTO membership, Hanoi has agreed to certain concessions including removal of its subsidies and massive tariffs protecting certain industries, including the textile and apparel industries.

While the US administration is setting up its monitoring system, the Vietnamese government is also reviewing a system to monitor exports to avoid any threat of anti-dumping duties.

EC also resorts to filing anti-dumping charges in case Vietnam products are priced lower than it is priced domestically. Such protest and consequent removal of subsidies occurred on protests made against Vietnam shoes exported to EC.

China: Quota Restrictions and Export Subsidy Reduced Limitations ordered by the U.S. over textile exports of China til the first half of 2006 has benefited other countries with active textile exporters. The U.S., as the world's biggest trading economy, began importing its textile needs from other exporters.

Last October 1, 2006, the export tax rebate for textiles and apparel was cut from 13 percent to 11 percent. The cut was just one of many announced by China to slow the growth of rapidly-growing and energy-intensive industries as part of the government's effort to improve the environment and reduce the country's trade surplus. It is expected to affect the price structure of China for textiles and clothing, accounting the effect of rebate reduced from 11% to 8 % for footwear that has dramatically affected cost[3].

US Majority Redirects Policy on International Trade The USA is til today by far the biggest single importer of garments in the world and is the most influential in the world structuring of garment manufacture. Its moves and policies are closely monitored by all nations, and when trade agreements are created, until recently, these agreements are generally benchmarked against those defined with the US. The definition of the world trading order has until very recently been predominantly US-defined, or patterned after, or referred to against.

The US Congress power shift resulting from recent elections in 2006 brought back majority leadership to the Democratic Party after being held by the

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[3] Reference: American Apparel and Footwear Association

Republicans for the past twelve years. The shift has yet to define the level of support from the Democrats, which is critical for trade liberalization.

Before Democrats took control of Congress in January 4, 2007, President George W. Bush pushed hard for the legislation of a bill law that extends normal trade relations with Vietnam and provides trade benefits to nations of sub-Sahara Africa, Haiti and four Andean countries.

Emphasizing the Democrats' concern on the impact of free trade agreements (FTA) on US industry and labor, it is anticipated that the Democrats' reservation would mean longer deliberations on FTAs subject to renewal, amendment or for negotiations. This expected 'delay' in Congress together with the expiration of the U.S. fast-track authority, the *Trade Promotion Authority* (TPA) by June 1, 2007 adds pressure to on-going or new FTA negotiations.

Amidst changes in the US political dynamics, ASEAN foremost concern is for US policy on international trade to present a unified position that is both pro-trade and pro-development favoring interests to increase market access to ASEAN's leading export market. (The US outlook, definition of acceptable or desired partnership arrangements, and individual country strategies in relation to this can be found in the attachments following this write-up).

CURRENT SITUATION IN ASEAN

Industry Performance Post Quota Period

The performance of ASEAN in the post quota period, the groupings has been made according to preferential and non-preferential suppliers to the US and EC markets. This is to highlight how conditions set in preferential tariff could actually manufacturing less efficient and cost more, eg rules of origin if too tightly defined can render intended benefits useless.. Conversely, ASEAN countries have performed better export growth rates than those countries under FTAs free trade agreements, but not having the factors to convert these opening ups to economic gain. (Refer to attachments to have an overview of post quota export performances by blocs of ASEAN and by specific countries).

ASEAN TRADING ARRANGEMENTS with the WORLD

Over the last couple of decades, ASEAN have made continuous efforts to attain regional economic development thru market integration, increasing significantly the number of bilateral or regional free trade agreements (FTAs)[4]. Ten years after its inception in 1993, the *ASEAN Free Trade Agreement* (AFTA) is the first regional FTA in East Asia that is being implemented. ASEAN's "Vision 2020" is to establish a free trade area creating the "ASEAN Economic Community" (AEC) by 2020, though it could be realized by 2015.

[4] Annex _ list various trade agreements of ASEAN and individual ASEAN-member countries

An ASEAN economic integration could provide a free flow of goods, services, investment creating a seamless market of 500 million consumers[5].

Although ASEAN members regard AFTA as the most important trade liberalization framework, Singapore, Thailand, Malaysia and the Philippines have recognized FTAs with countries outside ASEAN as an important and substantial policy alternative. These countries have individually signed a bilateral Economic Partnership Agreement with Japan. Singapore has signed bilateral FTA with New Zealand, Australia, European Free Trade Area (EFTA), US and in negotiations with a number of other countries. In different stages, Malaysia and the Philippines are individually pursuing FTA negotiations with the US, although the Philippines appears uncertain on its direction here. Thailand's negotiations with the US have been suspended due to the country's political instability, but have concluded agreements with Australia, New Zealand, Bahrain, China and India.

Enhancing ASEAN trade relations with major Asian trade partners, ASEAN is presently negotiating free trade agreements (FTA) with each partner dialogue such as China, India, and South Korea; and as well as engaging in economic partnership agreements with Japan, Australia and New Zealand. The signed framework of the ASEAN-China agreement explicitly sets a timeline for the establishment of an ASEAN-China Free Trade Area that is within 10 years or by 2010 for the ASEAN 6 and China; and 2015 for the newer member states and China. If concluded, the zone would create a huge trading bloc with a free flow of goods, services and investment, with a combined population of nearly two billion and gross domestic product or over $2 trillion[6].

China is the first country that concluded a framework agreement with ASEAN as a group. A significant progress on the interest and capability of ASEAN to act as a group which could suggest similar developments in trade agreements with Japan, South Korea, India and other countries.

Among the ASEAN regional trade initiatives directed towards enhancing market access, most significant would be the ongoing dialogues and consultations for the realization of an *East Asia Free Trade Area* (EAFTA) under the mechanism of the ASEAN+3 group (ASEAN plus China, Japan and South Korea). The concept, presented initially in the 1998 Summit Leaders' Meeting by ASEAN+3, proposed the need for greater cooperation and gradual regional economic integration in East Asia.

Subsequent developments of intra-regional trade partnership initiatives and economic cooperation boost support within ASEAN to lesser economies (Cambodia, Laos, Myanmar and Vietnam – CLMV). The CLMV countries benefit substantially from programs such as the *Initiative for ASEAN Integration* (IAI)[7]; *ASEAN Integration System of Preferences* (AISP)[8]; *Greater*

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[5] Reference: FTA and Market Liberalization: Creating a Seamless Market in East Asia
[6] Reference: All Headline News (Nanning, China - Oct 2006)
[7] Identified and focuses on priority areas for development for the CLMV
[8] Original members of ASEAN extend unilateral tariff preferences to the CLMV countries pending the latter's tariff liberalization

Mekong Sub-Region (GMS)[9] and *Ayeyawady-Chao Phraya-Mekong Economic Cooperation Strategy* (ACMECS)[10]. Such programs allows cross border investments, setting up regional financing, infrastructure, technical resources support, as well as provide preferential treatment. Conversely, integrated projects such as cross-border economic cluster zones (i.e. Thailand-Cambodia-Laos-Myanmar border) allowed shifting production (i.e. satellite network operations) to ASEAN neighbors with relative advantages. China, Korea and Japan (plus three) are also contributing resources and providing development assistance.

WITHIN-ASEAN STRATEGY

Although ASEAN has been meeting continuously to work on the integration of ASEAN into an ASEAN Economic Community (AEC),. ASEAN leaders have set 2020 as the target date for reaching the ASEAN Economic Community. Some countries, such as Singapore and Thailand, have tried to push for an earlier target date because 2020 is very far away, and ASEAN may have already lost a lot of competitiveness by that time. However, many ASEAN countries, both from the older and newer member countries, still feel that they are not ready for deeper integration at this stage and the effort has not been successful so far. As a sort of compromise, ASEAN has opted for a sectoral integration approach where eleven priority sectors have been targeted for ASEAN integration. These are agro-based products, fisheries, wood-based products, rubber-based products, textiles and apparels, electronics, automotives, air travel, tourism, healthcare and e-ASEAN.

The ASEAN Framework Agreement for the Integration of Priority Sectors was endorsed by ASEAN Leaders in November 2004, and roadmaps for the integration of these sectors have been drawn up covering a broad range of issues; such as, tariff elimination, non-tariff measures (NTMs), rules of origin, customs procedures, standards and conformance, logistics services, investments, trade and investment promotion, intellectual property rights, movement of business persons, skilled labor and professionals, human resource development and research and development.

It is difficult to judge whether these sectoral integration roadmaps will be effective in significantly improving ASEAN competitiveness in these sectors. In many areas, detailed implementation plans remain to be worked out. More worrying is that countries still put many products into sensitive lists excluding them from the Framework Agreement, so it is not clear how serious are the intentions for real integration among ASEAN countries. Many of the contingents feud among themselves, or are faced with governments paying

[9] The Greater Mekong Subregion (GMS) comprises Cambodia, the People's Republic of China, Lao People's Democratic Republic, Myanmar, Thailand, and Viet Nam. In 1992, with ADB's assistance, the six countries entered into a program of subregional economic cooperation, designed to enhance economic relations among the countries.

[10] The Ayeyawady - Chao Phraya - Mekong Economic Cooperation Strategy (ACMECS) is a cooperation framework amongst Cambodia, Lao PDR, Myanmar, Thailand and Vietnam to utilize member countries' diverse strengths and to promote balanced development in the sub-region.

lip service to integration of ASEAN, conducting summits regularly without concern for implementations and benchmarks.

An ASEAN bloc is attractive not only for ASEAN nations.
***Politically*, USA, Europe and Japan** favor having a counterweight to balance Chinese economic, political (and military?) dominance in the region. Japan's recent racial issues (due to indiscretions in the conduct of business,racial rivalry, and historical issues like the Japanese prime minister honoring their war dead who were involved in Chinese atrocities) with China have set Japanese investments to increase their diversification to Southeast Asia although not leaving China as the major manufacturing base. The US international policies on human rights, military activities, and thoughts on the sharing of roles on international issues have sometimes run differently from Chinese policy, etc…

Economically, **most of the world's major businesses including Asean businesses themselves would rather deal with one market with unified or harmonized legal systems, customs, taxes, banking, distribution systems etc..** rather than a gamut of practices, currencies, multiple corruptions, contracts, etc…Obviously **the combined ASEAN population of 500 million is very interesting to any business, but fragmented markets may not merit the time of major players while larger opportunities are yet untapped. Even then, medium sized businesses may have better chances of success in a niche market than slugging it out with goliaths in a large, open, homogeneous market**.

SOME INTEGRATION <u>IS</u> TAKING PLACE successfully, not just in textile and garments. Particularly in the main Indochina peninsula, private investment is leading the way. Thai and Malaysian, Singaporean factories are being set up in Vietnam and Cambodia, Singaporeans are investing in Indonesia, etc… Customs issues are being seriously studied and implemented, highways and logistic systems are being built between these countries, which are even planned together and subsidized by fellow ASEAN. Tariff reduction is allowing the building of cross-border brands and distribution systems and companies. It has become clear that the fastest movement is coming not from mergers or consolidations between businesses in the region, but from loose partnerships and private wholly controlled investments.

Some reasons preventing faster private sector integration include unclear rules, rules that are not detailed, clear rules with wide discretion for interpretation or even direct violation by locals, insular thinking by government agencies and legislators, foreign ownership limits on companies and properties, etc… that all make one very prone to being cheated by a local business or government agency. There are also of course infrastructural constraints, expensive communications, unwieldy labor laws and practices, etc… that exist in some countries. The investor may have to deal with problems like power outages, unresponsive agencies, etc…or with unusual risks eg as legal recourse, justice, and governance is less developed between ASEAN than with third countries, so many ASEAN businesses would invest as much or more in Australia, USA, even China than in their

neighboring country. Vietnam among the ASEAN countries is receiving substantial investments from ASEAN

Some integration plans are imaginary. Some of the ASEAN governments are serious in the effort to be competitive, some have not giving much time or thought to rationalized or expanded, integrated trade and business arrangements either between ASEAN or with the rest of the world. Even if not opposed to the idea, for various reasons the governments/agencies involved do not wish to or are unable to think through, decide, plan and manage the role of their country in world trade, and will allow the situation to float and relying on maybe just eventually get dragged along. **But all of them talk the talk**, so the differentiator is to see if efforts at implementation are being seriously made in this direction. **This creates a burden on the rest of ASEAN**.

SUB-ASEAN trade arrangements. Since getting the whole of ASEAN together to even just make the effort is taking more time and effort than the results justify, some of the ASEAN players are proceeding with their own integration, and in the interim this **will yield its own scale, market, logistics, cost and diversity benefits. (The others will make excuses for another decade or two**). Although it is clear that certain realities of cost structures and geography make it hard to make policies/benefits the same for everyone, there are clear areas of commonality of interest that are good for everyone but some are not moving on. Given this, it is reasonable and beneficial to the whole to let some achieve what they can and just letting the rest catch up later. **However since there is no official body for the sub-groups, this will complicate negotiation of group arrangements and will not be as attractive a trade bloc having more or less homogeneous rules for the conduct of business**.

The CHINA-centered TRADE BLOC, and/or ASEAN plus 3. What is happening due to the fragmented nature of ASEAN is the reality that the investments by the ASEAN countries in China, both garment and non-garment has grown far greater than their investments in each other. While there are few statistics collected on this, the experience has also shown that of these enterprises, esp. for manufacturing, within China, has been good. ASEAN investments have been given low cost land, subsidized loans, assisted construction of building road, utility infrastructure, and many other benefits that ASEAN does not extend to its own members. Further, China has made major efforts to develop the ASEAN relationship, declaring that its interests coincide with those of a healthy ASEAN. Putting its money where its mouth is, it has subsidized government programs all over ASEAN, given promotional grants in millions of dollars to each government, and sent dozens of high powered trade and investment missions to ASEAN countries in the last 3 years, resulting in billions of dollars in committed investments, and increasing purchases from ASEAN in billions of dollars, becoming the biggest trading partner of most of the countries in the region, surpassing the EU or USA in many cases. In 2005 and 2006, it also conducted the most diversified ASEAN fair in the CHINA-ASEAN trade fair in November in Nanning, sometimes subsidizing ASEAN members' businesses to display goods in the

fair. In view of this, by default a China-centric ASEAN may be the course of the future. Or China plus 3, including Korea, Japan, The Asean-China negotiations have proceeded faster than between ASEAN and 3rd countries or within ASEAN itself, has been less controversial, has begun implementation already much earlier and more flexibly. This can overall be beneficial to the whole economically, although some independence in policy will necessarily by lost where some members are so dominant.

NEW LESSONS and CURRENT THINKING on ASEAN

Re Recommendations for ASEAN textile/garment competitiveness. This write-up will not repeat the recommendations for integration and trade negotiation that have been repeated in various papers. A summary of general approaches and some examples is in the last few paragraphs of section 1 (ASEAN TEXTILES and Garments Recent History section, How Did ASEAN countries respond subsection) of this paper, and detailed roadmaps created by the ASEAN body itself as well as by different organizations and countries are in the attachments. Various sections of the paper include various suggestions as well. Here, we add also some considerations for those mulling ASEAN competitiveness.

The consciousness is growing among the ASEAN leadership that these trade arrangements have huge potential effects on the economic performance of a country (which apparently did not seem obvious, or a priority, to some), as they have seen some nations' economies grow tremendously as others have declined. Once insular governments, including both communist and democratic nations (and every other kind) have become active in analyzing and lobbying their trade arrangements. *While most nations realize there is more leverage in negotiating as a bigger group, there is also much greater difficulty at arriving at a consensus agreement, and many have begun to negotiate as individual countries. Once one country in a bloc starts to negotiate individually, it becomes nearly impossible for others, if competitiveness is important to them, to wait for bloc agreements, as rival nations may woo investments and markets away*, for **along with access to markets often will come the investments, infrastructure, technology transfers and tourism as well.**

Original nationalist, isolationist sentiments in the ASEAN governments that opposed opening of markets are being converted to a more open view favoring liberalized if not full free trade.

Experience is showing that liberalized trade alone is not going to improve economics if the right factors and programs are not in place, eg investments in logistic and communication infrastructure, customs harmonization and speedier processing, available finance and management skills, regulations that protect investments sufficiently, an active entrepreneurial sector, key skills training programs,... Where these are present, the payoffs are substantial, and a country that is not part of the system is clearly going to be left out of the most rapid and widespread economic development the world has seen in history. At this time, advantages and disadvantages will shift

rapidly within a relatively short period, new positions established over a decade instead of several.

Preferential Sector-specific negotiations has been overtaken by more comprehensive agreements, up to a period when comprehensive **Free Trade Agreements or FTAs** had become the main vehicle. The low-hanging fruit for FTAs have been substantially picked, and now the negotiations and politics are more complex and difficult, such that there may be a return to non-comprehensive agreements with different models and time tables. **QIZs or qualified industrial zones** may be a quick model for some, while Trade Enhancement Agreements (**TEAs**) of various sorts including phased negotiations/implementations may allow a politically gentler entry to what can also be eventual comprehensive free trade.

As governments change, the emphasis also changes, eg with the US majority shifting to the Democratic party in 2006 elections, the negotiations issues are shifting as well, eg., with serious verifications being made on political and media freedoms, human rights, etc…

Negotiations in goods are also spilling over to other areas, to negotiations on **services** like integrations and inter-recognition of professional licenses, education, standard services, travel, migration and visa policies, etc… **Investments, Intellectual Property and Governance standards** are major tradables that can jumpstart a lot of economies for finance, technologies and markets access.

Is there room for ASEAN textile and garment manufacturers? Indonesian and Vietnamese, etc., wages are lower than China's, and even the Philippine wages are now lower than those of the coastal provinces. Many of the buyers have had long and trusted relationships with the ASEAN producers, finance costs in ASEAN are dropping as capital is becoming more mobile around the world, **quick production fashion is becoming more important than the lowest prices** in important segments of the market. Brands are becoming important even to the Chinese to the extent that mainlanders travel to ASEAN to buy brands rather than buy their own cheaper knock-offs. If ASEAN improves their joint infrastructure and service logistics in the next few years as some are doing now, the capital, labor and skills are definitely there to compete or at the least maintain a significant share of the market.

The greatest obstacle is the attitude and the leadership, not the physical economics. Like the situation that existed for thousands of years, perhaps the datus and sultanates and little kingdoms of ASEAN will never join to form their own center of gravity, and become satellites to the middle kingdom, despite all the wealth of resources and talent of their peoples and lands. Certainly integrating with an organized center even if it is not your own , having a greater interchange of resources, goods, talents, services with the rest of the world creates more value and is not necessarily bad. The question is **will ASEAN leaders play for a greater portion, a better position, or will they coast along as a group , will they accept or will they mold more of their destiny?**

China's areas of dominance and advantage are shifting as well. The workers' wages of the coastal areas are not only higher than most of ASEAN now, there is also a shortage of garment workers in the areas till about 1.5 hours ride to the interior. The increasingly affluent Chinese are not only beginning to reject garment work in favor of other work, their work hours are also diminishing – unlike when there are no holidays for the workers, they now expect to take longer holidays than their ASEAN counterparts during Chinese New Year and other holidays. They are the major world force in tourism, taking more time for travel, golf, luxury spending, and have **themselves become a major market instead of just being the world's biggest supplier.** Conceivably if this trend still continues, in some years the dynamics of cost and logistical competitiveness could change again affecting economics for garments in favor of ASEAN.

Globalization and Liberalization goes beyond garments and textiles and even beyond traditional industry. That means beyond the US and China, we have the rising suppliers and markets of India, Europe, and the rest of the world. Beyond the garment and textile industries, there are the other industries to develop overall advantages in, and beyond that there are the services trade. Services trade in the world has surpassed the trade in goods. These are on the periphery of and should be part of the plans and negotiations of liberalization in goods… movements of persons, finance, insurance, tourism, health care, research, software, construction, entertainment, etc… **ASEAN should look beyond this stage and plan for the probable next stages as well, for garments/textiles, and for business as a whole.**

Notes

ASEAN Free Trade Area (AFTA) - eliminate tariffs on all products in the region within 15 years commencing 1 January 1993 & completed by 2015
• The Common Effective Preferential Tariff (CEPT) scheme is the major instrument in moving ASEAN to its goal of a free trade area
• CEPT requires that the tariff rates of those products included in the scheme be ultimately reduced to 0-5% - In AFTA, Textile and Articles (HS Codes 50 to 63) would be subjected to tariff reductions to 0-5% by 2008. (see Figure 6). In addition, measures are currently undertaken to eliminate non-tariff barriers and harmonize tariff nomenclatures, customs procedures and valuation. These comprehensive measures would ensure the effective implementation of AFTA.
•• CEPT rates have to reduce to 0-5% on at least 90% of member states' tariff lines in the Inclusion List by 2002
• CEPT rates of most products in the six original ASEAN members i.e. Brunei, Indonesia, Malaysia, Philippines, Singapore and Thailand are between 0-5% as of January 1, 2003
• Textile and Articles (HS Codes 50 to 63) Tariffs of Thailand and Indonesia will be reduced from tariff rates as high as 24.12% and 21.15% in 1993 to a mere 5.16% and 4.9% in 2003 • Under the terms of AFTA, Vietnam has to

reduce the tariff rates to 0-5% by 2006, Laos and Myanmar have to meet this target by 2008 and Cambodia by 2010
• Companies which manufacture products with at least 40% ASEAN content may enjoy CEPT rate

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ØASEAN Integration System of Preferences (AISP)q **Original members of ASEAN extend <u>unilateral</u> tariff preferences to the CLMV countries** pending the latter's tariff liberalization

•2010 - Established free trade zone among ASEAN+3 expected to cover nearly one-third of the world's population or 1.8 billion and US$ 2 trillion in gross domestic product (GDP)
- Zero tariff for textile and apparel, and other normal products for China and six original ASEAN member nations, including Brunei, Indonesia, Malaysia, the Philippines, Singapore and Thailand

APPENDIX I

TEXTILES and GARMENTS INDUSTRY
ASEAN OUTLOOK 2006 AND BEYOND

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TEXTILES & GARMENTS INDUSTRIES

ASEAN OUTLOOK 2006 AND BEYOND

ASEAN Position & Strategies for Textiles

Presented by

GEORGE T. SIY

ANGELO KING INSTITUTE / DLSU

OUTLINE OF PRESENTATION

2. Some recent Trade Issues and Developments

3. Performance of ASEAN in Post-Quota Period

1. 2006 Growth for Southeast Asia

   3.1. US Market

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4. ASEAN Position & Integration Strategies for Textiles

   4.1. ASEAN Integration

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   Trade Barriers & Recommendations

SOME RECENT TRADE ISSUES & DEVT.

- **Indefinite suspension of the WTO DOHA Round**
  - **Renewed momentum for bilateral trade agreements**

- **US/EU Safeguards against China**
  - **Other major textile and clothing exporters benefit**

- **China cuts down export rebate from 13% to 11%**
  - **Increase textiles and apparel price structure of China**

- **Vietnam formally joins WTO by Dec 28**
  - **Removal of all quotas for apparel & textiles**

Source: ADB OUTLOOK database

SOME RECENT TRADE ISSUES & DEVT.

- **US Elections lead to Democrat Majority**
  - Increased US Congress deliberation delays FTA renewal, amendments, negotiations for legislation

- **Increased barriers to US Market**
  - Onerous label requirements proposed and excessive documentation requirements imposed on US-branded apparel

- **Preferential tariff treatments vs. non-preferential**
  - Tariff discrimination for clothing and textiles are more pronounced against non-preferential suppliers

Source: ADB OUTLOOK database

PERFORMANCE IN POST-QUOTA ERA

Clothing

NON-PREFERENTIAL, BY VOLUME

PREFERENTIAL, BY VOLUME

NON-PREFERENTIAL, BY VALUEeee

PREFERENTIAL CLOTHING SUPPLIERS, BY VALUE

Textiles

NON-PREFERENTIAL, BY VOLUME

PREFERENTIAL, BY VOLUME

NON-PREFERENTIAL, BY VALUE

PREFERENTIAL CLOTHING SUPPLIERS, BY VALUE

Textiles and Clothing

BY VOLUME

BY VALUE

Source: ADB

PERFORMANCE IN POST-QUOTA ERA

NONPREFERENTIAL CLOTHING SUPPLIERS TO US, BY VOLUME

	Volume, million square meter equivalent						Market share (%)			
	2004	2005	Change (%)	Jan–Jun 2005	Jan–Jun 2006	Change (%)	2004	2005	Jan–Jun 2005	Jan–Jun 2006
Nonpreferential developing Asian suppliers	10,974.7	13,878.2	26.5	6,366.9	6,585.3	3.4	55.0	63.1	60.9	64.5
People's Republic of China	2,972.5	5,883.4	97.9	2,769.4	2,364.0	-14.6	14.9	26.7	26.5	23.2
Bangladesh	941.7	1,124.8	19.4	512.9	613.5	19.6	4.7	5.1	4.9	6.0
Indonesia ●	703.4	823.5	17.1	397.6	● 476.8	19.9	3.5	3.7	3.8	● 4.7
India	609.3	790.2	29.7	413.8	470.5	13.7	3.1	3.6	4.0	4.6
Viet Nam ●	777.1	801.4	3.1	354.7	● 451.9	27.4	3.9	3.6	3.4	● 4.4
Cambodia ●	634.7	710.0	11.9	289.3	● 379.6	31.2	3.2	3.2	2.8	● 3.7
Pakistan	519.3	577.8	11.3	265.2	302.9	14.2	2.6	2.6	2.5	3.0
Philippines ●	513.6	518.7	1.0	231.4	● 296.0	27.9	2.6	2.4	2.2	● 2.9
Thailand ●	533.1	536.8	0.7	249.4	● 277.6	11.3	2.7	2.4	2.4	● 2.7
Hong Kong, China	739.0	596.6	-19.3	198.8	247.8	24.7	3.7	2.7	2.4	2.7
Sri Lanka	415.0	453.8	9.3	225.5	219.8	-2.5	2.1	2.1	2.2	2.2
Taipei,China	572.0	391.5	-31.6	164.0	172.4	5.1	2.9	1.8	1.6	1.7
Republic of Korea	624.4	359.4	-42.4	150.4	158.7	5.5	3.1	1.6	1.4	1.6
Malaysia ●	210.6	211.3	0.4	93.4	● 114.3	22.3	1.1	1.0	0.9	● 1.1
Mongolia	61.5	39.6	-35.5	17.1	14.2	-16.7	0.3	0.2	0.2	0.1

Source: ADB

back

PERFORMANCE IN POST-QUOTA ERA

PREFERENTIAL CLOTHING SUPPLIERS TO US, BY VOLUME

	Volume, million square meter equivalent						Market share (%)			
	2004	2005	Change (%)	Jan–Jun 2005	Jan–Jun 2006	Change (%)	2004	2005	Jan–Jun 2005	Jan–Jun 2006
Preferential suppliers	7,434.8	7,236.6	-2.7	3,599.4	3,172.9	-11.9	37.3	32.9	34.4	31.1
CAFTA-DR	3,790.8	3,912.9	3.2	1,926.5	1,634.0	-15.2	19.0	17.8	18.4	16.0
Mexico	1,896.2	1,703.4	-10.2	876.1	755.5	-13.8	9.5	7.7	8.4	7.4
AGOA	440.3	376.8	-14.4	191.0	158.3	-17.2	2.2	1.7	1.8	1.6
Jordan	227.4	260.9	14.8	123.7	140.5	13.6	1.1	1.2	1.2	1.4
CBI	228.2	254.7	11.6	120.4	134.2	11.5	1.1	1.2	1.2	1.3
Egypt	156.0	164.7	5.5	73.5	105.1	43.0	0.8	0.7	0.7	1.0
ANDEAN	252.7	238.2	-5.8	122.3	104.8	-14.3	1.3	1.1	1.2	1.0
Canada	244.6	189.6	-22.5	100.9	86.1	-14.6	1.2	0.9	1.0	0.8
Israel	102.8	80.3	-21.9	42.1	34.0	-19.2	0.5	0.4	0.4	0.3
Singapore	46.7	28.7	-38.5	15.3	12.6	-17.9	0.2	0.1	0.1	0.1
Morocco	13.8	6.7	-51.4	3.1	5.3	69.8	0.1	0.0	0.0	0.1
Australia	32.8	17.3	-47.2	3.6	1.5	-59.4	0.2	0.1	0.0	0.0
Chile	2.4	2.4	1.0	0.9	0.9	2.0	0.0	0.0	0.0	0.0

Source: ADB

back

PERFORMANCE IN POST-QUOTA ERA

NONPREFERENTIAL CLOTHING SUPPLIERS TO US, BY VALUE

	Value ($ million)						Market share (%)			
	2004	2005	Change (%)	Jan–Jun 2005	Jan–Jun 2006	Change (%)	2004	2005	Jan–Jun 2005	Jan–Jun 2006
Nonpreferential developing Asian suppliers	34,284.1	41,107.8	19.9	18,807.0	19,987.8	6.3	52.9	59.8	58.1	62.1
People's Republic of China	8,927.9	15,142.9	69.6	7,402.9	6,612.8	-10.7	13.8	22.0	22.9	20.5
India	2,217.1	2,976.2	34.2	1,537.6	1,810.5	17.8	3.4	4.3	4.8	5.6
Indonesia ●	2,402.8	2,875.4	19.7	1,330.4	● 1,694.6	27.4	3.7	4.2	4.1	● 5.3
Viet Nam ●	2,562.5	2,724.7	6.3	1,182.0	● 1,541.4	30.4	4.0	4.0	3.7	● 4.8
Hong Kong, China	3,849.0	3,510.6	-8.8	1,115.8	1,386.1	24.2	5.9	5.1	3.4	4.3
Bangladesh	1,977.6	2,371.7	19.9	1,054.0	1,333.8	26.5	3.1	3.5	3.3	4.1
Philippines ●	1,785.6	1,830.4	2.5	812.6	● 955.8	17.6	2.8	2.7	2.5	● 3.0
Cambodia ●	1,429.0	1,712.8	19.9	731.2	● 950.0	29.9	2.2	2.5	2.3	● 2.9
Thailand ●	1,799.4	1,807.8	0.5	840.4	● 888.6	5.7	2.8	2.6	2.6	● 2.8
Sri Lanka	1,549.4	1,650.2	6.5	796.0	817.3	2.7	2.4	2.4	2.5	2.5
Pakistan	1,137.7	1,258.9	10.7	551.7	622.8	12.9	1.8	1.8	1.7	1.9
Taipei,China	1,548.9	1,134.4	-26.8	498.2	477.1	-4.2	2.4	1.7	1.5	1.5
Republic of Korea	1,808.8	1,154.6	-36.2	522.4	468.8	-10.2	2.8	1.7	1.6	1.5
Malaysia ●	712.0	677.9	-4.8	294.0	● 310.8	5.7	1.1	1.0	0.9	● 1.0

Source: ADB OUTLOOK database

Source: ADB

back

PERFORMANCE IN POST-QUOTA ERA

NONPREFERENTIAL CLOTHING SUPPLIERS TO US, BY VALUE

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India	2,217.1	2,976.2	34.2	1,537.6	1,810.5	17.8	3.4	4.3	4.8	5.6
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Viet Nam ●	2,562.5	2,724.7	6.3	1,182.0	● 1,541.4	30.4	4.0	4.0	3.7	● 4.8
Hong Kong, China	3,849.0	3,510.6	-8.8	1,115.8	1,386.1	24.2	5.9	5.1	3.4	4.3
Bangladesh	1,977.6	2,371.7	19.9	1,054.0	1,333.8	26.5	3.1	3.5	3.3	4.1
Philippines ●	1,785.6	1,830.4	2.5	812.6	● 955.8	17.6	2.8	2.7	2.5	● 3.0
Cambodia ●	1,429.0	1,712.8	19.9	731.2	● 950.0	29.9	2.2	2.5	2.3	● 2.9
Thailand ●	1,799.4	1,807.8	0.5	840.4	● 888.6	5.7	2.8	2.6	2.6	● 2.8
Sri Lanka	1,549.4	1,650.2	6.5	796.0	817.3	2.7	2.4	2.4	2.5	2.5
Pakistan	1,137.7	1,258.9	10.7	551.7	622.8	12.9	1.8	1.8	1.7	1.9
Taipei,China	1,548.9	1,134.4	-26.8	498.2	477.1	-4.2	2.4	1.7	1.5	1.5
Republic of Korea	1,808.8	1,154.6	-36.2	522.4	468.8	-10.2	2.8	1.7	1.6	1.5
Malaysia ●	712.0	677.9	-4.8	294.0	● 310.8	5.7	1.1	1.0	0.9	● 1.0

Source: ADB OUTLOOK database

Source: ADB

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PERFORMANCE IN POST-QUOTA ERA

PREFERENTIAL CLOTHING SUPPLIERS TO US, BY VALUE

	Volume, million square meter equivalent						Market share (%)			
	2004	2005	Change (%)	Jan–Jun 2005	Jan–Jun 2006	Change (%)	2004	2005	Jan–Jun 2005	Jan–Jun 2006
Preferential suppliers	23,486.7	22,005.0	-6.3	10,971.6	9,844.0	-10.3	36.3	32.0	33.9	30.6
CAFTA-DR	9,509.5	9,104.1	-4.3	4,612.0	3,981.1	-13.7	14.7	13.2	14.3	12.4
Mexico	6,684.8	6,078.3	-9.1	3,066.0	2,640.2	-13.9	10.3	8.8	9.5	8.2
ANDEAN	1,323.0	1,429.2	8.0	707.0	650.7	-8.0	2.0	2.1	2.2	2.0
Canada	1,504.4	1,273.4	-15.4	656.0	607.1	-7.5	2.3	1.9	2.0	1.9
AGOA	1,757.5	1,464.5	-16.7	717.3	589.8	-17.8	2.7	2.1	2.2	1.8
Jordan	956.2	1,082.5	13.2	486.3	575.4	18.3	1.5	1.8	1.5	1.8
Egypt	422.3	444.3	5.2	188.5	288.9	53.3	0.7	0.6	0.6	0.9
CBI	442.7	490.9	10.9	242.5	245.2	1.1	0.7	0.7	0.7	0.8
Israel	336.2	288.6	-14.2	150.6	128.1	-15.0	0.5	0.4	0.5	0.4
Singapore	242.5	156.8	-35.3	76.7	67.9	-11.5	0.4	0.2	0.2	0.2
Morocco	74.3	55.9	-24.8	27.2	47.8	75.8	0.1	0.1	0.1	0.1
Australia	209.3	113.1	-45.9	31.0	11.3	-63.5	0.3	0.2	0.1	0.0
Chile	24.0	23.4	-2.5	10.5	10.5	-0.2	0.0	0.0	0.0	0.0

Source: ADB OUTLOOK database

Source: ADB

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PERFORMANCE IN POST-QUOTA ERA

NONPREFERENTIAL TEXTILES SUPPLIERS TO US, BY VOLUME

	Volume, million square meter equivalent						Market share (%)			
	2004	2005	Change (%)	Jan–Jun 2005	Jan–Jun 2006	Change (%)	2004	2005	Jan–Jun 2005	Jan–Jun 2006
Nonpreferential developing Asian suppliers	5,281.8	6,103.3	15.6	2,896.5	3,321.5	14.7	41.4	46.4	43.9	50.3
People's Republic of China	968.4	1,769.3	82.7	777.8	860.6	10.6	7.6	13.5	11.8	13.0
Republic of Korea	1,403.7	1,485.8	5.9	727.8	834.8	14.7	11.0	11.3	11.0	12.6
Pakistan	1,024.7	917.3	-10.5	460.6	508.7	10.5	8.0	7.0	7.0	7.7
Taipei,China	567.4	574.3	1.2	267.2	305.7	14.4	4.4	4.4	4.0	4.6
India	213.7	383.2	79.3	186.3	281.0	50.8	1.7	2.9	2.8	4.3
Indonesia ●	334.7	357.2	6.7	155.3	● 246.0	58.4	2.6	2.7	2.4	● 3.7
Thailand ●	325.1	301.6	-7.2	142.1	● 139.4	-1.9	2.5	2.3	2.2	● 2.1
Malaysia ●	144.5	107.6	-25.6	55.6	● 62.1	11.7	1.1	0.8	0.8	● 0.9
Viet Nam ●	48.1	56.1	16.8	21.0	● 37.4	78.0	0.4	0.4	0.3	● 0.6
Hong Kong, China	62.6	69.5	10.9	55.9	20.0	-64.2	0.5	0.5	0.8	0.3
Philippines ●	108.3	42.7	-60.6	22.3	● 12.2	-45.2	0.8	0.3	0.3	● 0.2
Sri Lanka	27.7	16.6	-39.9	9.0	7.5	-16.4	0.2	0.1	0.1	0.1
Bangladesh	8.9	3.2	-63.8	1.3	4.0	203.8	0.1	0.0	0.0	0.1
Cambodia ●	6.3	2.9	-53.2	1.4	● 0.9	-32.4	0.0	0.0	0.0	● 0.0

Source: ADB OUTLOOK database

Source: ADB

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PERFORMANCE IN POST-QUOTA ERA

PREFERENTIAL TEXTILES SUPPLIERS TO US, BY VOLUME

	Volume, million square meter equivalent						Market share (%)			
	2004	2005	Change (%)	Jan–Jun 2005	Jan–Jun 2006	Change (%)	2004	2005	Jan–Jun 2005	Jan–Jun 2006
Preferential suppliers	4,690.9	4,411.4	-6.0	2,296.7	1,952.0	-15.0	36.7	33.5	34.8	29.5
Canada	2,747.9	2,590.7	-5.7	1,348.4	1,126.1	-16.5	21.5	19.7	20.4	17.0
Mexico	1,227.8	1,154.9	-5.9	590.7	508.3	-14.0	9.6	8.8	8.9	7.7
Israel	500.3	473.3	-5.4	262.7	224.8	-14.4	3.9	3.6	4.0	3.4
Egypt	74.6	68.5	-8.2	36.7	30.8	-16.1	0.6	0.5	0.6	0.5
CAFTA-DR	67.0	44.9	-33.0	24.2	20.7	-14.8	0.5	0.3	0.4	0.3
ANDEAN	20.3	27.0	32.8	12.9	16.2	26.0	0.2	0.2	0.2	0.2
Australia	28.9	33.5	15.7	13.3	14.9	12.6	0.2	0.3	0.2	0.2
AGOA	17.5	11.0	-37.3	4.9	5.3	7.7	0.1	0.1	0.1	0.1
Chile	2.9	3.2	10.8	1.7	1.9	14.1	0.0	0.0	0.0	0.0
Singapore	1.2	2.1	71.0	0.1	1.7	1,766.7	0.0	0.0	0.0	0.0

Source: ADB OUTLOOK database

Source: ADB

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PERFORMANCE IN POST-QUOTA ERA

NONPREFERENTIAL TEXTILES SUPPLIERS TO US, BY VALUE

	Value ($ million)						Market share (%)			
	2004	2005	Change (%)	Jan–Jun 2005	Jan–Jun 2006	Change (%)	2004	2005	Jan–Jun 2005	Jan–Jun 2006
Nonpreferential developing Asian suppliers	2,805.2	2,954.4	5.3	1,441.5	1,514.8	5.1	38.5	39.7	38.1	42.0
People's Republic of China	575.7	896.9	55.8	409.1	459.4	12.3	7.9	12.1	10.8	12.7
Republic of Korea	666.4	665.5	-0.1	341.6	332.6	-2.6	9.1	9.0	9.0	9.2
Pakistan	509.2	411.3	-19.2	208.0	227.9	9.6	7.0	5.5	5.5	6.3
Taipei,China	432.4	415.1	-4.0	200.9	175.0	-12.9	5.9	5.6	5.3	4.9
India	150.6	183.6	21.9	88.8	116.0	30.6	2.1	2.5	2.3	3.2
Indonesia ●	134.0	138.8	3.6	63.6	● 92.5	45.5	1.8	1.9	1.7	● 2.6
Thailand ●	129.1	123.1	-4.6	58.6	● 58.2	-0.6	1.8	1.7	1.5	● 1.6
Malaysia ●	45.3	35.1	-22.6	19.1	● 22.9	20.3	0.6	0.5	0.5	● 0.6
Viet Nam ●	16.9	16.2	-4.0	6.5	● 10.4	60.6	0.2	0.2	0.2	● 0.3
Hong Kong, China	50.7	34.4	-32.1	25.0	9.7	-61.3	0.7	0.5	0.7	0.3
Philippines ●	57.7	17.6	-69.6	9.5	● 4.8	-49.9	0.8	0.2	0.3	● 0.1
Sri Lanka	13.0	7.7	-40.9	4.3	3.1	-26.8	0.2	0.1	0.1	0.1
Bangladesh	3.3	1.1	-65.3	0.5	1.1	132.7	0.0	0.0	0.0	0.0
Cambodia ●	2.5	1.9	-25.0	0.9	● 0.7	-23.3	0.0	0.0	0.0	● 0.0

Source: ADB OUTLOOK database

Source: ADB

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PERFORMANCE IN POST-QUOTA ERA

PREFERENTIAL TEXTILES SUPPLIERS TO US, BY VALUE

	Value ($ million)						Market share (%)			
	2004	2005	Change (%)	Jan–Jun 2005	Jan–Jun 2006	Change (%)	2004	2005	Jan–Jun 2005	Jan–Jun 2006
Preferential suppliers	2,141.5	2,168.9	1.3	1,123.9	993.5	-11.6	29.4	29.2	29.7	27.5
Canada	1,205.5	1,209.3	0.3	629.0	567.7	-9.7	16.5	16.3	16.6	15.7
Mexico	654.6	674.7	3.1	343.4	291.6	-15.1	9.0	9.1	9.1	8.1
Israel	155.4	153.9	-1.0	89.3	74.2	-16.9	2.1	2.1	2.4	2.1
ANDEAN	32.0	42.6	33.3	18.9	19.8	4.9	0.4	0.6	0.5	0.5
Egypt	30.0	26.3	-12.5	14.5	12.4	-14.4	0.4	0.4	0.4	0.3
Australia	20.6	21.9	6.4	10.4	9.2	4.9	0.3	0.3	0.3	0.3
CAFTA-DR	19.2	15.5	-19.3	7.8	7.2	-8.3	0.3	0.2	0.2	0.2
AGOA	18.7	14.6	-21.8	7.1	6.3	-8.3	0.3	0.2	0.2	0.2
Chile	3.1	5.0	62.2	1.7	3.3	-10.9	0.0	0.1	0.0	0.1
Morocco	0.6	3.5	496.9	1.2	0.7	-41.4	0.0	0.0	0.0	0.0
CBI	1.1	0.8	-30.7	0.5	0.5	-5.6	0.0	0.0	0.0	0.0
Singapore	0.7	0.8	10.3	0.1	0.5	227.7	0.0	0.0	0.0	0.0
Jordan	0.0	0.0	-87.5	0.0	0.1	0.0	0.0	0.0	0.0	0.0

Source: ADB OUTLOOK database

Source: ADB

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PERFORMANCE IN POST-QUOTA ERA

EU IMPORTS FROM ASIA, TEXTILES & CLOTHING BY VOLUME

	Volume change over previous period (%)						Market share (%)					
	2001	2002	2003	2004	2005	2006	2001	2002	2003	2004	2005	2006
Developing Asia	55.1	-22.6	13.7	6.0	11.0	3.7	68.0	63.5	65.6	66.0	69.2	69.2
China, People's Rep. of	44.4	3.9	28.4	10.9	34.4	-2.4	16.9	21.2	24.7	26.0	33.0	29.3
India	5.9	-6.2	6.4	2.9	4.5	4.0	8.4	9.5	9.2	9.0	8.9	9.7
Bangladesh	401.2	-78.0	27.0	17.7	-0.9	9.8	19.4	5.1	5.9	6.6	6.2	7.1
Pakistan	8.2	11.7	13.0	6.8	-4.6	6.7	4.2	5.7	5.9	5.9	5.4	5.6
Indonesia ●	18.7	-6.1	-7.8	-7.9	-6.3	● 18.5	4.1	4.7	3.9	3.4	3.0	● 3.4
Malaysia ●	10.8	10.0	0.1	-0.1	-2.1	● 15.3	1.9	2.6	2.3	2.2	2.1	● 2.4
Thailand ●	9.0	7.0	3.7	-4.7	-3.4	● -2.3	2.0	2.6	2.5	2.2	2.0	● 2.1
Hong Kong, China	40.6	-12.8	-8.9	-17.0	-16.0	66.1	2.4	2.5	2.1	1.6	1.3	1.8
Korea, Rep. of	-3.1	-1.8	2.0	-2.9	-20.8	-13.8	2.6	3.0	2.8	2.6	1.9	1.7
Viet Nam	20.1	-1.7	7.2	7.0	3.1	98.2	0.9	1.1	1.1	1.1	1.0	1.7
Taipei,China	26.8	-19.8	-0.2	-12.1	-4.8	-6.4	2.5	2.4	2.2	1.8	1.6	1.6
Sri Lanka	-4.2	5.1	6.6	12.1	-8.0	14.2	0.7	0.9	0.9	0.9	0.8	0.9
Cambodia ●	71.1	-9.1	19.7	24.7	-8.1	● -0.5	0.3	0.4	0.4	0.5	0.4	● 0.4
Philippines ●	2.0	-3.6	0.7	14.7	-32.1	● 21.2	0.4	0.4	0.4	0.4	0.3	● 0.4
Myanmar ●	34.6	-3.6	11.0	53.0	-54.2	● 21.9	0.3	0.3	0.3	0.5	0.2	● 0.3
Uzbekistan	20.6	12.8	34.7	-11.0	-31.1	-39.5	0.3	0.5	0.6	0.5	0.3	0.3
Turkmenistan	13.2	13.6	-9.5	21.2	-18.4	85.5	0.1	0.1	0.1	0.1	0.1	0.1
Lao People's Dem. Rep. ●	18.9	46.2	-28.5	13.5	1.7	● 38.8	0.1	0.2	0.1	0.1	0.1	● 0.1
Tajikistan	7.2	18.9	41.1	-30.5	-4.1	-4.3	0.1	0.1	0.1	0.1	0.1	0.1
Nepal	-21.7	-20.6	-0.3	9.5	-11.8	-3.9	0.1	0.1	0.1	0.1	0.1	0.1

Source: ADB OUTLOOK database

Source: ADB

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PERFORMANCE IN POST-QUOTA ERA

EU IMPORTS FROM ASIA, TEXTILES & CLOTHING BY VALUE

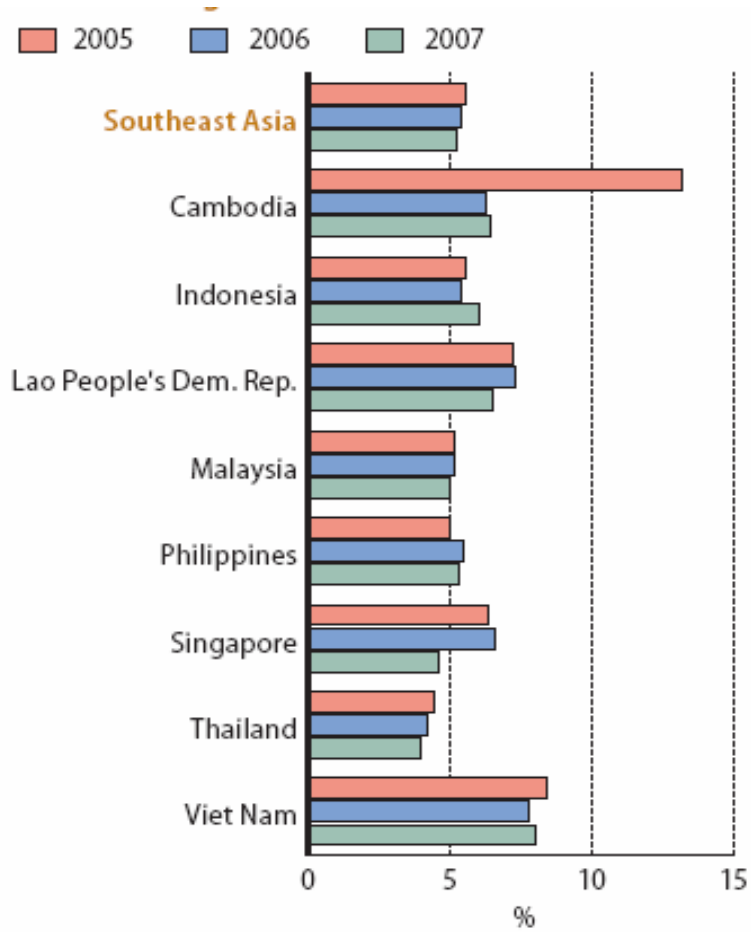
	Value change over previous period (%)						Market share (%)					
	2001	2002	2003	2004	2005	2006	2001	2002	2003	2004	2005	2006
Developing Asia	1.2	-0.3	0.1	8.1	13.8	23.6	53.2	53.2	53.5	55.2	59.1	60.4
China, People's Rep. of	7.0	10.5	7.2	12.4	39.8	12.1	18.0	19.9	21.4	23.0	30.2	26.9
India	5.5	-4.7	-1.1	5.1	16.7	23.0	7.1	6.8	6.8	6.8	7.5	8.8
Bangladesh	8.9	-2.8	12.2	20.2	-4.8	38.2	4.4	4.3	4.9	5.6	5.0	6.0
Hong Kong, China	-16.9	-9.9	-9.8	-6.4	-13.0	195.5	4.1	3.7	3.3	3.0	2.4	4.0
Pakistan	6.8	4.5	3.6	9.6	-11.9	15.7	3.2	3.3	3.4	3.6	3.0	3.1
Indonesia ●	-2.0	-14.5	-11.8	-3.8	-10.1	● 37.3	3.7	3.2	2.8	2.6	2.2	● 2.4
Thailand ●	-5.8	-1.2	-5.6	4.2	-7.3	● 17.2	2.0	2.0	1.9	1.9	1.7	● 1.7
Viet Nam ●	0.6	-8.6	-21.0	19.4	6.4	● 70.6	1.3	1.2	0.9	1.1	1.1	● 1.4
Sri Lanka	-7.7	-3.7	-5.6	13.3	-1.1	30.1	1.3	1.2	1.2	1.3	1.2	1.3
Korea, Rep. of	-8.7	-9.8	-11.6	-7.7	-25.7	-1.5	2.8	2.5	2.2	1.9	1.4	1.2
Malaysia ●	-5.2	-0.3	-14.5	-4.6	-0.4	● 25.3	1.3	1.3	1.1	1.0	0.9	● 1.0
Taipei,China	-10.6	-10.7	-11.8	-16.4	-18.4	5.5	1.7	1.5	1.3	1.1	0.8	0.8
Cambodia ●	39.7	7.4	-0.7	22.5	-8.2	● 22.3	0.6	0.6	0.6	0.7	0.6	● 0.6
Philippines ●	-10.9	-0.1	-5.6	13.8	-32.2	● 23.6	0.5	0.5	0.5	0.5	0.3	● 0.4
Myanmar ●	30.3	-16.5	-7.7	23.0	-48.2	● 12.0	0.6	0.5	0.5	0.5	0.3	● 0.3
Lao People's Dem. Rep. ●	11.1	-4.1	-13.1	7.7	1.1	● 27.8	0.2	0.2	0.2	0.2	0.2	0.2
Nepal	-27.4	-29.9	-12.3	10.8	-5.9	3.3	0.2	0.1	0.1	0.1	0.1	● 0.1

Source: ADB OUTLOOK database

Source: ADB

2006 GROWTH FOR SOUTHEAST ASIA

- **2006 estimate for GDP growth went down to 5.4%**
  - **Thailand 4.2% - Political uncertainty, postponement of large infrastructure**
  - **Malaysia 5.2% - Improved investment, but slow domestic consumption**
  - **Philippines 5.4% - Progress with fiscal consolidation**
  - **Indonesia 5.4% - Improved domestic demand**
  - **Cambodia 6.3% - rebound in agriculture**
  - **Singapore 6.6% - Buoyant electronics & pharmaceuticals activity**
  - **Vietnam 7.8% - Significant FDI**
  - **Lao PDR 9% - Hydropower, mining investments**



Sources: Asian Development Outlook database; staff estimates.

ASEAN INTEGRATION (POLICIES)

ASEAN Free Trade Area (AFTA) - eliminate tariffs on all regional products (January 1993 - 2015)

- **Common Effective Preferential Tariff (CEPT)**
  - Tariff rates of products included reduced to 0-5%
  - Rates by 0-5% (90% of ASEAN tariff lines) in the Inclusion List by 2002
  - Tariff rate reduction timeline to reach 0-5%
    - original six ASEAN members by January 2003
    - Vietnam by 2006
    - Lao PDR and Myanmar by 2008
    - Cambodia by 2010
  - CEPT covers manufacture products with at least 40% ASEAN content

ASEAN Framework Agreement Trade in Services

ASEAN Investment Area Agreement

ASEAN's "Vision 2020"

- "ASEAN Economic Community" (AEC)
- end goal of economic integration in ASEAN by 2020, though could be realized by 2015

Source: bilaterals.org
everything that's not happening at the WTO

ASEAN INTEGRATION (POLICIES) for CLMV

- **Initiative for ASEAN Integration (IAI)**
  - IAI focuses on the following priority areas in the CLMV countries: infrastructure
    - development (transport and energy);
    - human resource development (capacity building, labor and employment, and higher education);
    - information and communications technology;
    - promoting regional economic integration (trade in goods and services, customs, standards and investments)

- **ASEAN Integration System of Preferences (AISP)**
  - Original members of ASEAN extend unilateral tariff preferences to the CLMV countries pending the latter's tariff liberalization

Source: Challenges and Opportunities for ASEAN

ASEAN TRADE AGREEMENTS

SIGNED

China ASEAN Free Trade Agreement (CAFTA)

Korea ASEAN Free Trade Agreement (KAFTA)

India ASEAN Free Trade Agreement (IAFTA)

PROPOSED

ASEAN-Japan Comprehensive Economic Partnership (AJCEP)

ASEAN Plus 3: Korea,Japan, China

ASEAN US

ASEAN EU

ASEAN with Australia and New Zealand

Source: bilaterals.org
everything that's not happening at the WTO

China ASEAN Free Trade Agreement (CAFTA)

China and ASEAN are each other's fourth largest trading partner

•2001 (Nov)	-	Began negotiations to set up a free trade area (FTA)
•2005 (July 01)	-	ASEAN gradually lower tariff on Chinese textile/apparel
•Ongoing	-	Negotiations on trade in services
•2010	-	Established free trade zone
	-	Zero tariff for textile and apparel, and other normal products for China and six original ASEAN members
•2015	-	Zero tariffs on most normal products for Cambodia, Laos, Myanmar and Vietnam

HIGLIGHTS OF CHINA ASEAN TRADE

- Jan-Sep 2006 two-way trade topped $116.3 billion
  - China and ASEAN are each other's fourth largest trading partner

January-November 2005 textile and apparel trade

- China's textile and apparel exports to ASEAN worth US$5.08 billion
- Exports grew 22.4% year on year; 4.8% of China's total textile export
- ASEAN textile and apparel exports to China worth US$ 620 million
- Exports grew by 5.8% year on year, 4% of China's total textile import

ROO COMPARATIVE INDICATORS

Source: bilaterals.org
everything that's not happening at the WTO

Comparative Indicators of ASEAN & China, 2003

Country	Populatio (million)	GNI Total (US$ billion)	GNI Per capita (US$)	GNI-PPP adjusted Total (US$ billion)	GNI-PPP adjusted Per capita (US$)	GDP (US$ billion)	GDP average annual growth* (%)	Merchandise trade Exports (US$ billion)	Merchandise trade Imports (US$ billion)	Merchandise trade Total (US$ billion)
Brunei	0.4	5	15 000	NA	NA	NA	NA	NA	NA	NA
Indonesia	214.5	173	810	689	3 210	208.3	3.5	60.7	32.4	93.0
Malaysia	24.8	94	3 780	222	8 940	103.2	5.9	100.7	81.1	181.8
Philippines	81.5	88	1 080	379	4 640	80.6	3.5	37.1	39.3	76.4
Singapore	4.3	90	21 230	103	24 180	91.3	6.3	144.1	127.9	272.0
Thailand	62.0	136	2 190	462	7 450	143.2	3.7	80.3	75.7	155.9
Cambodia	13.4	4	310	28	2 060	4.3	6.6	1.6	1.7	3.3
Laos	5.7	2	320	10	1 730	2.0	6.3	0.4	0.5	0.9
Myanmar	49.4	NA	NA	NA	NA	NA	NA	2.8	2.5	5.3
Vietnam	81.3	33	410	169	2 130	39.2	7.5	19.7	24.0	43.7
ASEAN-6	387.5	586	1 414	1 855		626.6		422.8	356.3	779.2
CLMV	149.8	38	385	207		45.5		24.5	28.8	53.2
ASEAN-10	537.3	624	1 094	2 062		672.0		447.3	385.1	832.4
China	1 288.4	1 417	1 100	6 435	4 990	1 409.9	9.5	438.4	412.8	851.2
Percentage of world										
ASEAN-10	8.6	1.8		4.0		1.8		6.0	5.1	5.5
China	20.5	4.1		12.5		3.9		5.9	5.4	5.6

Source: Chia (2005). *1990–2003. NA, not available.

China ASEAN Rule of Origin

Wholly obtained products from any of the member countries (all parties) in the trade agreement

Not Wholly Produced or Obtained

(a) For the purposes of Rule 2(b), a product shall be deemed to be originating if:

(i) Not less than 40% of its content originates from any Party; or

(ii) If the total value of the materials, part or produce originating from outside of the territory of a Party (i.e. non-ACFTA) does not exceed 60% of the FOB value of the product so produced or obtained provided that the final process of the manufacture is performed within the territory of the Party.

(b) For the purposes of this Annex, the originating criteria set out in Rule 4(a)(ii) shall be referred to as the "ACFTA content". The formula for the 40% ACFTA content is calculated as follows:

$$\frac{\text{Value of Non-ACFTA materials} + \text{Value of materials of Undetermined origin}}{\text{FOB Price}} \times 100\ \% < 60\%$$

Therefore, the ACFTA content: 100% - non-ACFTA material = at least 40%

Cumulative Rule of Origin where aggregate ACFTA content (i.e. full cumulation, applicable among all Parties) on the final product is not less than 40%

Product Specific Criteria where Products which have undergone sufficient transformation in a Party shall be treated as originating goods of that Party;

Source: http://app.fta.gov.sg,

Korea ASEAN FTA

May 2006 South Korea and ASEAN signed a <u>goods-only</u> free trade agreement which took effect July 2006

(Thailand did not sign, continues to negotiate on agriculture concerns)

Jan 2007 To hold negotiations in 2007 on liberalizing bilateral services trade and investment flows

<u>KOREAN INTERESTS</u>

ASEAN is 4th largest export partner

- **Enhance competitiveness of Korean products into ASEAN**
  - **lowered tariffs on key export goods such as electronics products, transportation machinery, wireless communication equipment, steel products and textiles**

<u>ASEAN INTERESTS</u>

- **Increase trade access to Korean market**

Source: Toward a Comprehensive Partnership ASEAN-Korea Economic Cooperation

ASEAN-Japan Comprehensive Economic Partnership (AJCEP)

Wants to increase ASEAN Japan trade and investments by more than one multiple to diversify their China risk due to cultural differences

- **Negotiations for the free-trade agreement (FTA) between Southeast Asian countries and Japan may fail**
  - **Japan is planning to request that over 500 products excluded from the deal**

2004 **Negotiations for the ASEAN-Japan FTA started**

2003 **ASEAN-Japan Commemorative Summit took place**
  - **Japan reaffirmed to give priority to ASEAN in its various policies**
  - **ASEAN leaders reiterated their perception of Japan as an important partner**

Source: bilaterals.org
everything that's not happening at the WTO

ASEAN + 3

- Provided an effective mechanism for greater cooperation and gradual regional economic integration in East Asia
- Continuous consultations with dialogue partners focused on the current status of negotiations on the Free Trade Agreements (FTAs) that Asean is currently negotiating with these countries
  - narrowing the differences in positions relating to issues such as services and investment liberalization and modalities for tariff reduction for trade in goods
  - Asean+3 Consultations have been devoted to identification and implementation of projects, mainly capacity building initiatives
  - Asean + 3 process is now giving greater emphasis for policy dialogues on key issues confronting member countries such as the spiralling oil price, energy efficiency and conservation measures, diversification of energy supply and use of alternative and renewable energy, effective and clean use of resources, oil stockpiling system development and energy-related statistics development

Source:BERNAMAhttp://webevents.bernama.com

ASEAN + 3

- Considering the recommendations of the Expert Group on the establishment of an East Asia Free Trade Area (EAFTA)
  - Initial findings shows that countries will benefit from EAFTA, as all parties can expect an increase in both GDP and welfare
  - Further thoughts need to be given on how EAFTA could be devised, taking into account all existing and ongoing East Asian FTAs including the Asean+1 FTA
- Each country expands its source of supply, and gets possible drawback for transhipments and making ambiguous the origin of goods (if 3rd country/dialogue partner is more organized and easier to deal with than an ASEAN partner/country, the major investments and trade benefits will flow in favor of dialogue partner)

Source: BERNAMAhttp://webevents.bernama.com

ASEAN US

2002 President Bush launched the Enterprise for ASEAN Initiative (EAI)

2003 Following achievements occurred under the EAI:

– conclusion of FTA negotiations with Singapore.

– concluded TIFAs w/ Thailand & Brunei,launched TIFA negotiations with Malaysia

– On Sept. 11, 2003, Cambodia was accepted for membership in the WTO

2004 Implementation of the U.S.-Singapore FTA

Started negotiations FTA Thailand and signed TIFA with Malaysia

2005 Continue implementation of the U.S.-Vietnam Bilateral Trade Agreement and continue progress towards Vietnam's WTO accession

2006 Signed TIFA with Cambodia; Pending negotiations of the U.S.-Thailand FTA, started negotiations on U.S.-Malaysia FTA; announced at APEC side meeting to fast-track U.S.-Philippines FTA

Currently negotiating a regional TIFA agreement with the 10-member Association of Southeast Asian Nations (ASEAN)

Source: Annual performance plan and annual performance report for the Office of the USTR

Effects of US Imposition of Safeguards on China

- Period Jan-July, textile exports decreased by 76% over same period last year (source TBC-WORLD.COM)
- Period Jan-June, Clothing exports volume down by almost 15%; value down by almost 11% (source: ADB OUTLOOK 2006)

TOP ASIAN SUPPLIERS TO U.S. (CLOTHING BY VALUE) JAN-JUNE 2006

- Indonesia, Vietnam had value gains
- Philippines, Thailand had volume gains
- Alternative Asian suppliers benefit until PRC restrictions are removed end 2008

(source: ADB OUTLOOK 2006)

Source: United States Department of Commerce, Office of Textiles and Apparel, available: http://www.otexa.ita.doc.

ASEAN EU FTA

1 EU is expected to make a decision on whether and how to negotiate such an agreement by the end of 2006

EU INTERESTS

- Address the trade policy gap with other parts of ASIA (less focus on China)
- Build and strengthen closer relations with ASEAN
- Improve protection of intellectual property rights to help attract investment
- Create fairer, level playing field for businesses
- Simplifying customs procedures and aligning EU regulatory approaches
- Review non-tariff barriers and standards & regulations

ASEAN INTERESTS

In 2005, EU is 2nd biggest export market; 3rd largest trading partner

- Increase trade access to EU (main exports: machinery, agricultural products, chemical and textiles and clothing)
- Expand EU investments to rest of ASEAN

EU Strategy Advantages

Source: The Future of EU-ASEAN trade relations – May 2006

Effects of EU Imposition of Safeguards on China

- **European apparel imports from China for Jan-July 2006 declined and unit prices increased**

EU IMPORTS FROM ASIA, TEXTILES & CLOTHING (Unit Price Change)

EU Textile and Clothing Imports						
Unit Price Change						
Percentage Change of Unit Prices in Euros						
	2001	2002	2003	2004	2005	2006
Southeast Asia	-15.0	-6.6	-10.0	4.8	-3.5	10.9
Cambodia	-18.4	18.2	-17.1	-1.8	-0.1	18.9
Indonesia	-17.4	-9.0	-4.4	4.5	-4.0	14.9
Laos	-6.6	-34.4	21.5	-5.1	-0.6	-7.8
Malaysia	-14.5	-9.4	-14.5	-4.5	1.7	8.4
Myanmar	-3.2	-13.4	-16.8	-19.6	13.0	-11.1
Philippines	-12.6	3.6	-6.3	-0.9	-0.1	2.1
Singapore	-66.2	208.5	-17.7	-11.1	-1.0	16.0
Thailand	-13.6	-7.7	-9.0	9.3	-4.0	19.6
Vietnam	-16.2	-7.0	-26.3	11.6	3.2	-12.6

Source: ADB OUTLOOK database

EU TRADE STRATEGY ON ASEAN

" Beyond Doha, we need to start thinking about how we can complement the WTO system through deeper bilateral trade relations"

- Propose an ASEAN-EU Free Trade Agreement that would match trade liberalization with investment in capacity building, particularly for those ASEAN countries that have LDC status

  - **eliminating tariffs for trade in agriculture and industrial products**
  - **liberalize services trade to strengthen banking, telecommunications and transport sectors**

Source: Peter Mandelson, EU Trade Commissioner on The Future of EU-ASEAN trade relations – May 2006

ASEAN EU Advantages

- **Asia's competitive advantage is low cost labour-intensive industries and manufacturing**
  - **Europe is a huge and growing market for the textiles and shoes and fisheries and electronics and light manufactures and semi-conductors, as well as flows of foreign direct investment from ASEAN**
- **EU's comparative advantage as the world's biggest exporter and investor, is its high quality, high value manufactured goods and services**
  - **ASEAN offers a huge market of more than 530 million people whose rising living standards & developing taste matches EU's quality and design goods**

Source: Peter Mandelson, EU Trade Commissioner on The Future of EU-ASEAN trade relations - May 2006

HIGHER VALUE ADDED

I. PRODUCT

- TYPES OF ACCESSORIES ARE EASILY AVAILABLE
- DESIGN IDEAS AND MATERIALS ARE EASILY AVAILABLE

II. LOGISTICS AND INFRASTRUCTUE

- SUPPLIES ARE CLOSE TO YOU
- DELIVERY AND COLLECTION PROCESS IS FAST
- ALLIED SERVICES

  E.G. DESIGN AND TECHNICIAN WIDELY AVAILABLE
- SHIPMENT MODES MULTIPLE AND FREQUENT

I. MARKET

- CREATING BRAND IMAGES FOR LARGER MARGINS FOR YOUR PRODUCT
- CREATE RETAIL NETWORK STORES

  EX. LEVIS/GUESS COULD SELL HIGH PRICE BECAUSE OF INTERNATIONAL ADVERTISEMENT

SUMMARY OF ASEAN/MEMBER TRADE AGREEMENTS

	PARTIES	YEAR	TYPE OF AGREEMENT
ASEAN	ASEAN (AFTA)	SIGNED	Regional Trade Agreement
	TRANS-PACIFIC SEP		
	CHINA	SIGNED	ASEAN plus Agreement
	CER	UNDER NEGO	
	INDIA	UNDER NEGO	
	JAPAN	UNDER NEGO	
	REP. OF KOREA	UNDER NEGO	
INDONESIA	INDIA	UNDER STUDY	Bilateral Trade Agreement
MALAYSIA	JAPAN	SIGNED	Bilateral Trade Agreement
	NEW ZEALAND	UNDER NEGO	
	PAKISTAN	UNDER NEGO	
	USA	UNDER NEGO	
	AUSTRALIA	UNDER STUDY	
PHILIPPINES	JAPAN	SIGNED	Bilateral Trade Agreement
	US	UNDER STUDY	

Source: informal compilation by Gibbs and Wagle (2005)

SUMMARY OF ASEAN/MEMBER TRADE AGREEMENTS

	PARTIES	YEAR	TYPE OF AGREEMENT
SINGAPORE	BAHRAIN, UAE, EGYPT	UNDER STUDY	Bilateral Trade Agreement
	CANADA	UNDER NEGO	
	KUWAIT		
	PERU		
	QUATAR		
	SRI LANKA		
	MEXICO		
	PAKISTAN		
	PANAMA		
	REP. OF KOREA	SIGNED 2005	
	INDIA	SIGNED 2005	
	JORDAN	SIGNED 2004	
	USA, AUSTRALIA, EFTA	SIGNED 2003	
	JAPAN	SIGNED 2002	
	NEW ZEALAND	SIGNED 2000	

Source: informal compilation by Gibbs and Wagle (2005)

SUMMARY OF ASEAN/MEMBER TRADE AGREEMENTS

	PARTIES	YEAR	TYPE OF AGREEMENT
THAILAND	USA	UNDER NEGO	Bilateral Trade Agreement
	PAKISTAN	UNDER STUDY	
	JAPAN	SIGNED 2006	
	NEW ZEALAND	SIGNED 2005	
	AUSTRALIA	SIGNED 2004	
	BAHRAIN	SIGNED 2002	
	BIMSTEC	SIGNED 2004	
	INDIA	SIGNED 2003	
	PERU	SIGNED 2003	

Source: informal compilation by Gibbs and Wagle (2005)

ASEAN ROADMAP FOR INTEGRATION OF TEXTILES AND APPAREL PRODUCTS SECTOR

- **Objectives**
  - **Strengthen regional integration on through liberalization and facilitation measures in the area of trade in goods, services and investments;**
  - **Promote private sector participation**
- **Measures**
  - **Combining the economic strengths of ASEAN member countries for regional advantage;**
  - **Facilitate and promote intra-ASEAN trade and investments;**
  - **Improve the condition to attract and retain manufacturing and other economic activities within the region;**
  - **Promote outsourcing programme within ASEAN; and**
  - **Promote the development of "Made in ASEAN" products and services**

Source: ASEAN

NO.	MEASURES	IMPLEMENTING BODY	TIMELINE
COMMON ISSUES			
I	**Tariff Elimination**		
1	Eliminate CEPT-AFTA tariffs on all identified products	Coordinating Committee on the Implementation of the CEPT Scheme for AFTA (CCCA)	ASEAN 6: 2007 CLMV: 2012
2	Establish the Database of ASEAN NTMs to ensure transparency[1]		30 June 2004
3	Establish clear criteria to identify measures that are classified as barriers to trade		30 June 2005
4	Establish a clear and definitive work programme for the removal of the barriers.		31 December 2005
5	Adopt the WTO Agreement on Import Licensing Procedures and develop implementation guidelines appropriate for ASEAN.		31 December 2004

Source: ASEAN

NO.	MEASURES	IMPLEMENTING BODY	TIMELINE
III	**Rules of Origin**		
6	Improve the CEPT Rules of Origin by:	Task Force on CEPT Rules of Origin (ROO-TF)	31 December 2004
	- making it more transparent, predictable and standardised taking into account the best practices of other Regional Trade Agreements including the rules of origin of WTO;		
	- adopting substantial transformation as alternative criteria for conferring origin status.		
IV	**Customs Procedures**		
7	Extend the application of the ASEAN Harmonised Tariff Nomenclature (AHTN) for extra-ASEAN trade.	Expert Committee on Customs Matters (ECCM)	on-going
8	Develop a simplified, improved and harmonised customs declaration form.		31 December 2005

NO.	MEASURES	IMPLEMENTING BODY	TIMELINE
IV	**Customs Procedures**		
9	Ensure full implementation of the Green Lane System for CEPT Products, or similar systems, at entry points of all Member States.	Expert Committee on Customs Matters (ECCM)	31 December 2004
10	Develop implementation guidelines, as appropriate, for Member States which are not members of the WTO to fulfill the obligations of the WTO Agreement on Customs Valuation		31 December 2004
11	Adopt service commitment (client charter) by ASEAN customs authorities.		31 December 2004
12	Develop the Single Window approach, including the electronic processing of trade documents at national and regional levels	Inter-Agency Task Force on Single Window	31 December 2005

NO.	MEASURES	IMPLEMENTING BODY	TIMELINE
V	**Standards and Conformance**		
13	Accelerate the implementation/ development of sectoral Mutual Recognition Arrangements (MRAs), as appropriate	ASEAN Consultative Committee on Standards and Quality (ACCSQ)	beginning 1 January 2005
14	Encourage domestic regulators to recognise test reports issued by testing laboratories which are already accredited by National Accreditation Bodies in ASEAN that are signatories to ILAC and		on-going
15	Set clear targets and schedules for harmonisation of standards, wherever required; where international standards are not available, and when requested by industry, align national		31 December 2005
16	Harmonise and/or develop, wherever appropriate, technical regulations for national application.		31 December 2010
17	Ensure compliance with the requirements, rights and obligations of WTO Agreements on Technical Barriers to Trade and the Application of Sanitary and Phyto-Sanitary Measures		on-going
18	Explore development of ASEAN policy on standards and conformance to further facilitate the realization of the ASEAN Economic Community.		beginning 2005

NO.	MEASURES	IMPLEMENTING BODY	TIMELINE
VI	**Logistics Services**		
19	Expedite the development of integrated transport logistics services within ASEAN through:	Senior Transport Officials Meeting (STOM)	beginning 2005
	- Promotion of efficient door-to-door cargo transport and cross-border transport facilitation through the expeditious implementation of the ASEAN Framework Agreement on the Facilitation of Goods in Transit, and the ASEAN Framework Agreement on Multimodal Transport;		
	- Improvement of land transport network infrastructures and services to achieve better inter-connectivity, inter-operability and inter-modality with the national, regional and international maritime and air transport gateways;		
	- Strengthening intra-ASEAN maritime and shipping transport services; and		
	- Establishment of enabling and conducive policy environment for increased private sector involvement and/or public-private partnerships in the development of transport infrastructure and the provision and operation of transport logistics facilities and services.		

NO.	MEASURES	IMPLEMENTING BODY	TIMELINE
VII	**Outsourcing and Industrial Complementation**		
20	Identify and develop specialisation of production processes, research and development (R&D), and testing facilities based on comparative advantages of individual Member States	Working Group on Industrial Cooperation (WGIC), with inputs from the private sector	on-going
21	Develop guidelines to promote outsourcing arrangements among Member States, as applicable.		
VIII	**ASEAN Integration System of Preferences**		
22	Endeavour to expand the coverage of the ASEAN Integration System of Preferences (AISP) Scheme by including products in the priority integration sectors	CCCA	on-going

NO.	MEASURES	IMPLEMENTING BODY	TIMELINE
IX	**Investments**		
23	Accelerate the opening up of sectors currently in the Sensitive List (SL) by transferring these sectors into the Temporary Exclusion List (TEL) under the Framework Agreement on the ASEAN Investment Area, using the ASEAN-X formula.	Coordinating Committee on Investment (CCI)	beginning 2004
24	Reduce restrictive investment measures in the SL		beginning 2004
25	Complete the progressive elimination of restrictive investment measures in the TEL		on-going[2]
26	Identify programmes and activities to promote investments in ASEAN		31 December 2005
27	Promote manufacturing processes across different ASEAN countries to take advantage of their comparative strengths through:		
	- the establishment of a network of ASEAN free trade zones to facilitate outsourcing activities		beginning 2005
	- undertaking more efficient joint ASEAN facilitation and promotion measures to promote FDI		on-going

NO.	MEASURES	IMPLEMENTING BODY	TIMELINE
IX	**Investments**		
28	Promote and facilitate joint/cross border investments in manufacturing activities through:	Coordinating Committee on Investment (CCI)	on-going
	- special incentives, where appropriate, to be given by CLMV for investments from ASEAN		
	- special measures, where appropriate to be given by ASEAN 6 to promote and facilitate relocation of investment to CLMV countries especially for labour intensive manufacturing activities		

NO.	MEASURES	IMPLEMENTING BODY	TIMELINE
X	**Trade and Investment Promotion**		
29	Intensify intra- and extra ASEAN joint promotion efforts regularly	CCI; ASEAN Chambers of Commerce and Industry (ASEAN-CCI); and relevant Industry Clubs/ Associations	on-going beginning 2005
30	Organise regular private sector initiatives to undertake:	CCI; ASEAN Business Advisory Council (ASEAN-BAC); and ASEAN-CCI	on-going beginning 2005
	- more efficient joint ASEAN facilitation and promotion measures to promote FDI ASEAN selling-buying missions; and		
	- promotional activities to assist CLMV countries		
31	Undertake more effective joint ASEAN facilitation in promotion measures and develop new sources of inward foreign direct investments, particularly from potential countries such as the People's Republic of China, India and the Republic of Korea		on-going

NO.	MEASURES	IMPLEMENTING BODY	TIMELINE
XI	**Intra-ASEAN Trade and Investment Statistics**		
32	Establish an effective system to monitor intra-ASEAN trade and investment through:	Working Group on Statistics; Working Group on Foreign Direct Investment Statistics; and CCCA	on-going
	- provision of updates to the ASEAN Secretariat of the latest trade (goods and services) and investment statistics		
	- preparation of consolidated industry profile, by the respective associations, which among other matters, cover information such as production capacity and product		
XII	**Intellectual Property Rights**		
33	Expand the scope of ASEAN intellectual property rights cooperation beyond trademarks and patents by including cooperation in copyrights information exchange and enforcement	ASEAN Working Group on Intellectual Property Cooperation (AWGIPC)	31 December

NO.	MEASURES	IMPLEMENTING BODY	TIMELINE
XIII	**Movement of Business Persons, Skilled Labour, Talents and Professionals**		
34	Develop an ASEAN Agreement to facilitate the movement of business persons, including the adoption of an ASEAN Travel Card, taking into account Member States' domestic laws and regulations.	Directors-General of Immigration Departments and Heads of Consular Affairs Division of the	31 December 2005
35	Develop an ASEAN Agreement to facilitate the movement of experts, professionals, skilled labor and talents, taking into account Member States' domestic laws and regulations	Coordinating Committee on Services (CCS)	31 December 2005
36	Accelerate completion of MRAs to facilitate free movement of experts, professionals, skilled labor and talents in ASEAN, taking into account Member States' domestic laws and regulations		31 December 2008
XIV	**Facilitation of Travel in ASEAN**		
37	Harmonise procedures for the issuance of visas to international travelers	DGICM	31 Dec2004
38	Provide visa exemption for intra-ASEAN travel by ASEAN nationals		2
XV	**Human Resource Development**		
39	Develop and upgrade skills and capacity building through joint trainings and workshops.	Senior Labour Officials Meeting (SLOM)	on-going

NO.	MEASURES	IMPLEMENTING BODY	TIMELINE
SPECIFIC ISSUES			
XVI	**ASEAN Cumulation**		
40	**Engage major importing countries to address issues of concern to ASEAN exporters, especially relating to ASEAN Cumulation for GSP Scheme**	SEOM with inputs from CCCA and **ASEAN Federation of Textile Industries**	on-going
XVII	**Coordination of Outsourcing Activities among ASEAN Companies**		
41	**Promote outsourcing among ASEAN companies.**	WGIC with inputs from **AFTEX**	Beginning 2005
XVIII	**Original Design Manufacturers (ODMs)**		
42	**Promote development of original designs and brands among ASEAN manufacturers.**	WGIC and **AFTEX**	Beginning 2005
XIX	**Cooperation of ASEAN Private Sector**		
43	**Develop and expand the ASEAN textile and apparel website.**	**AFTEX**	on-going
44	**Jointly organize textile and apparel trade fair and exhibition**.	**AFTEX**	on-going
XX	**Study on the Impact of Multi Fibre Agreement (MFA) Expiry on the ASEAN Textiles Industry**		
45	To undertake study on the impact of the expiry of the MFA to ASEAN textiles & apparel industries.	ASEAN Secretariat	January 2005

RECOMMENDATIONS ASEAN ROADMAP

SOURCE: ASEAN SECRETARIAT

MEASURE 40	RECOMMENDATION
ADOPT A COMMON ROO FOR THE TEXTILE AND APPAREL PRODUCTS IN NEGOTIATING WITH ASEAN DIALOGUE PARTNERS	CUMULATION TO BE ALLOWED FOR BILATERAL FTA AGREEMENTS SIGNED BY ANY ASEAN COUNTRIES WITH ANY FTA PARTNER; OR ASEAN MEMBER COUNTRY SHOULD TRY IN NEGOTIATION TO ESTABLISH ANY BILATERAL FTA WITH ANY PARTNER TO GET APPROVAL ON USING ASEAN CUMULATION FOR ITS EXPORT TO THAT FTA PARTNER MODIFY TIMELINE TO 1 JANUARY 2007

NEW MEASURE	COMMENTS	RECOMMENDATION
ADOPT A COMMON ROO FOR THE TEXTILE AND APPAREL PRODUCTS IN NEGOTIATING WITH ASEAN DIALOGUE PARTNERS	INTRODUCE NEW MEASURE ON ROO	TF-ROO WITH INPUTS FROM AFTEX ONGOING ACTIVITY

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RECOMMENDATIONS ASEAN ROADMAP

SOURCE: ASEAN SECRETARIAT

MEASURE 41	COMMENTS/ ISSUES	RECOMMENDATION
PROMOTE OUTSOURCING AMONG ASEAN COMPANIES	CHANGE IMPLEMETING BODY FROM WGIC TO CCC JOINTLY UNDERTAKEN WITH AFTEX	ADD; REVIEW POLICES THAT INHIBIT OUTSOURCING SIMPLIFY CUSTOMS PROCEDURE FOR OUTSOURCING EXPAND THE GREENLANE SYSTEM FOR OUTSOURCING OF TEXTILES AND APPAREL PRODUCTS

RECOMMENDATIONS ASEAN ROADMAP

MEASURE 42	COMMENTS/ ISSUES	RECOMMENDATION
PROMOTE DEVELOPMENT OF ORIGINAL DESIGNS AND BRANDS AMONG ASEAN MANUFACTURERS	THERE IS A NEED TO DETERMINE THE DEFINITION OF ASEAN BRAND	ADD; DETERMINE THE DEFINITON OF ASEAN BRAND MODIFY TIMELINE TO JUNE 2007

MEASURE 43	COMMENTS/ ISSUES	RECOMMENDATION
DEVELOP AND EXPAND THE ASEAN TEXTILE AND APPAREL WEBSITE	NEED FUNDING SUPPORT FOR THE WEB SITE	THE ASEAN SECRETARIAT TO CONSIDER SEEKING FUNDING TO UPGRADE THE WEBSITE TO BE INTERACTIVE

SOURCE: ASEAN SECRETARIAT

RECOMMENDATIONS ASEAN ROADMAP

MEASURE 44	COMMENTS/ ISSUES	RECOMMENDATION
JOINTLY ORGANIZE TEXTILE AND APPAREL TRADE FAIR AND EXHIBITION	NEED TO SPECIFY ACTIVITIES	ADD; GOVERNMENT AGENCIES FROM ASEAN COUNTRIES SHOULD PROVIDE GREATER SUPPORT TO THEIR PRIVATE SECTOR AGENCIES IN PARTICIPATING IN INTERNATIONAL FAIRS ASEAN BRAND TO BE PROMOTED THIS TRADE FAIR CONTINUE ASEAN EFFORTS TO JOINTLY OUTSOURCE FROM JAPAN AND OTHER DIALOGUE PARTNERS

SOURCE: ASEAN SECRETARIAT

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RECOMMENDATIONS ASEAN ROADMAP

NEW MEASURE	COMMENTS/ ISSUES	RECOMMENDATION
TO UNDERTAKE STUDY ON CHINA'S EXPORT OF TEXTILE AND APPAREL PRODUCTS IN ASIA AND ITS IMPACT TO ASEAN; OPPORTUNITIES AND THREATS	THERE IS A NEED TO STDY CHINA AS AN EXPORTER OF TEXTILE AND APPAREL PRODUCTS IN ASIA AND HOW IT AFFECTS ASEAN	TIMELINE IS JUNE 1, 2007 IMPLEMENTING BODY IS ASEAN SECRETARIAT

SOURCE: ASEAN SECRETARIAT

ASEAN INTEGRATION (Trade Barriers)

- **Investment barriers**
  - **3rd countries might have less investment barriers and more incentives & faster document processing than ASEAN members**
    - **not only attracting a large share of new FDI each year, but also that some multinational corporations are relocating from ASEAN to other countries**
- **Infrastructure and Logistics barriers**
  - **3rd country logistics infra and logistics supply chains might be more developed than between ASEAN countries**
  - **Some ASEAN Members still have ineffective or complicated checking procedures on imports as well as exports**

ASEAN INTEGRATION (Trade Barriers)

- **Legal Infrastructure barriers**
  - **Approvals might be easier and legal or practical systems easier to deal within 3rd countries than between ASEAN**
  - **Lack of transparency and accountability in the legal framework: As the CLMV has been in the process of setting up a legal system, they frequently change their laws and regulations**
- **Smuggling between ASEAN countries with 3rd countries distorting the incentives, logistics and trade systems**
- **Lack of transparency and bribing make business costs higher than estimated thus impeding the development of trade and investment**
- **High business costs: CLMV operational costs actually become higher though absolute costs are rather low**

Source: ADB OUTLOOK database

ASEAN INTEGRATION (Trade Barriers)

- **More complications and inconsistencies among individual country trade agreements**
  - Vary in degree of tariff reduction
  - Vary in coverage of goods and services
  - Inconsistent Rules of Origin
  - Implemented over different time periods
  - Complicate commercial activities across borders
- **ASEAN encompasses many points on the development spectrum: from Cambodia and Laos, to Malaysia and Singapore**

Source: ADB OUTLOOK database

ASEAN INTEGRATION (Recommendations)

- **Benchmarked policies and program on investment, infrastructure, logistics, and legal structure to compliment the effective measures and incentives of 3rd countries**
  - **This is the fastest way to integrate the region if players can expand instead of having to join up with someone else**
    - **One stop investment with papers and approval**
  - **High-tech FDI will enable ASEAN to rapidly scale the technology ladder and produce higher value-added products faster and with more depth**
    - **Introduce high-tech and state-of-the-art production the region, including the location of global production centers, research and development centers, and procurement and logistics centers**
- **Improve ASEAN competitiveness through industrial restructuring and faster and deeper integration into a regional production base and market**
- **Standardize the process between ASEAN countries**

ASEAN INTEGRATION (Recommendations)

- **Review existing regional/bilateral agreements, improving and expanding trade access**
  - **On Rules of Origin (ROO)**
    - **Implement compatible ROO**
    - **Avoid complex and contradictory rules of origin in its agreements with the larger East Asian and South Asian partners**
    - **Introduction of flexibility into rules of origin. In particular, regional content requirements might be adjusted to accommodate lower-income, smaller, LDCs**
    - **Mimic the Pan-European Cumulation System that allows inputs from all participating partners to count in regional content requirements of preferential tariffs**
    - **Development of a cumulation system within the region, based upon the ASEAN Plus agreements, would facilitate development of efficient production networks rather than disrupting them**
- **Any possible FTA needs to weigh and provide for the differences (in terms of development levels) among ASEAN members**

Source: ADB OUTLOOK database

ASEAN ROADMAP (Recommendations)

Second Consultative Meeting for the Priority Integration Sectors (COPS II)

12-13 June 2007, Jakarta

- **NEW MEASURES INTRODUCED INCLUDE**
  - **ASEAN MEMBER COUNTRIES SHOULD NEGOTIATE FOR ASEAN CUMULATION IN THEIR BILATERAL FTAS**
  - **ASEAN SHOULD ADOPT A COMMON ROO FOR TEXTILE AND APPAREL PRODUCTS IN THE FTAS WITH DIALOGUE PARTNERS**
  - **UNDERTAKE A STUDY ON CHINA'S EXPORT OF TEXTILE AND APPAREL PRODUCTS AND ITS IMPACT ON ASEA**
- **SOME MEASURES WERE MADE CLEARER AND RE-ASSIGNED**

Source: ASEAN

ASEAN COUNTRY INDUSTRY STRATEGY (COMPETITIVENESS BUILDING)

- Liberalize cross border investments and services
- Infrastructure and logistic process investments, Gov't. policies need to be integrated and implemented
- Development of industry clusters and support services
- Enhance supply chain management
- Brand development
- Move up the value chain by focusing on higher value-added goods, processes
- Improve designing skills
- Enhance domestic capabilities and facilitating the utilization of ICT and new technologies
- Expand to emerging markets, and gain more market niches.
- Combine into an integrated and larger market
- Improve labor productivity thru training
- Promote flexible and performance-based wage schemes
- Get unions support to industry restructuring plan

Source: Institute for Labor Studies

ASEAN COUNTRY INDUSTRY STRATEGY (COMPETITIVENESS BUILDING)

- Establish satellite complementary network operations in neighboring countries
- Shift operations to ASEAN neighbor(s) with relative advantages
- Negotiate and implement FTAs other trade agreement with leading trade partners, study ROO allow cumulation

Source: Institute for Labor Studies

ASEAN COUNTRY STRATEGY (Recommendations)

- **Maintain on-going development programs and strengthen ASEAN intra-linkages**

  - **Liberalize and harmonize intra-ASEAN investment**
  - **Expand sector/product coverage**
  - **Unilateral lowering of tariffs and other barriers**
  - **Invest on trade facilitation measures**
  - **Streamline and harmonize, greenlane customs procedure**
  - **Improve port structure and other logistics**
  - **Improve business environment to generate industry investments**

Source: ADB OUTLOOK database

THANK YOU

(MARAMING SALAMAT PO)

Hyperlink slides

Effects of Preferential Tariff Agreement

- Tariff discrimination is most pronounced

EFFECTIVE RATE OF IMPORT DUTY (%), US MARKET 2005

	Effective duty rate (%)
Clothing articles	
Nonpreferential suppliers	14.3
Preferential suppliers	2.5
Footwear products	
Nonpreferential suppliers	10.2
Preferential suppliers	0.3
Textile intermediate products	
Nonpreferential suppliers	10.1
Preferential suppliers	0.2

Note: Effective duty rate is actual duties paid as a percentage of the customs value of shipments. Source: James (2006)

Source: ADB OUTLOOK database

ASEAN Investment slides

ASEAN Investments

FDI inflows into ASEAN from ASEAN by source country, 1995-2004 (US$ M)

Source Countries	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2003
Brunei Darussalam	311.3	353.1	384.9	247.2	4.3	10.6	10.6	21.2	36.8	2.5	1,380.0
Cambodia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Indonesia	608.9	193.3	272.5	-38.4	-427.8	-232.6	-240.0	1,336.6	384.0	66.0	1,856.5
Lao PDR	6.5	102.6	64.4	28.3	31.4	13.7	3.1	7.9	3.0	2.1	260.8
Malaysia	1,676.5	1,475.8	2,261.5	469.9	536.0	258.1	80.0	0.0	251.1	345.8	7,009.0
Myanmar	96.7	228.6	323.3	153.9	41.2	74.0	67.4	25.1	28.6	0.0	1,038.7
Philippines	241.6	74.9	142.9	106.9	110.9	126.5	222.3	37.9	175.1	101.4	1,239.0
Singapore	1,165.1	1,206.7	941.6	794.6	632.1	353.0	356.9	704.7	420.0	0.0	6,574.6
Thailand	160.6	308.1	297.5	569.6	572.0	389.0	1,650.0	1,223.0	670.0	56.0	5,839.8
Viet Nam	387.3	328.7	547.2	398.7	289.3	202.4	241.5	200.4	100.4	0.0	2,695.8
ASEAN	**4,654.4**	**4,271.8**	**5,235.7**	**2,730.8**	**1,789.3**	**1,194.9**	**2,391.7**	**3,556.9**	**2,068.9**	**573.9**	**27,894.4**

Sources: ASEAN Secretariat: ASEAN FDI Database (Balance of Payments Basis). Compiled from the respective ASEAN Central Banks and National Statistical Offices.

ASEAN Investments

FDI FLOWS TO ASEAN

CROSS-TABULATION: FDI SOURCE COUNTRIES AND ASEAN HOST COUNTRIES

CUMULATIVE 1995 - 2003

(US$ million)

HOST COUNTRY / SOURCE COUNTRY	Brunei Darussalam	Cambodia	Indonesia	Lao PDR	Malaysia		Myanmar	Philippines	Singapore	Thailand	Viet Nam	Total Cumulative 1995-2003 ***)
					*	**						
JAPAN	**342.42**	-	**288.06**	**17.98**	**1,322.12**	**4,761.11**	**116.05**	**3,055.68**	**9,142.16**	**8,096.02**	**2,153.43**	**27,972.90**
NORTH AMERICA	**58.33**	-	**-1,611.02**	**7.43**	**5,347.54**	**10,547.71**	**497.17**	**2,880.65**	**20,241.59**	**3,710.63**	**575.53**	**36,908.01**
USA	58.02	-	-1,773.77	4.25	5,401.63	10,201.38	486.56	2,877.35	19,656.50	3,654.40	552.58	35,717.28
Canada	0.30	-	162.75	3.18	-54.08	346.33	10.61	3.30	585.09	56.23	22.95	1,190.73
EUROPE of which:	**6,342.97**	-	**3,205.51**	**22.92**	**2,876.23**	**8,724.70**	**1,672.56**	**1,493.70**	**46,452.07**	**3,799.94**	**3,002.75**	**74,717.12**
European Union :	6,341.84	-	2,577.07	21.68	2,732.93	8,232.63	1,670.63	1,401.86	36,760.51	3,261.30	2,277.07	62,544.60
Austria	0.04	-	-0.53	0.08	23.25	63.35	1.71	0.92	132.80	24.21	6.95	229.54
Belgium	-	-	-3.36	2.87	427.15	514.21	-	6.32	500.74	-91.41	16.95	946.32
Denmark	-	-	14.66	0.14	54.14	377.88	3.30	132.02	655.83	36.95	15.35	1,236.12
Finland	-	-	71.83	0.53	-21.51	-10.62	-	0.61	1,025.10	77.06	-	1,164.51
France	50.62	-	263.23	9.21	90.37	268.96	555.02	277.04	1,928.84	693.65	584.20	4,630.78
Germany	19.87	-	195.99	0.48	1,741.44	3,666.44	8.70	(331.15)	1,389.16	758.02	40.30	5,747.81
Greece	-	-	0.00	-	0.01	0.02	-	0.07	81.17	0.07	-	81.33
Ireland	-	-	0.11	-	40.70	63.73	-	0.86	430.49	109.16	-	604.34
Italy	-	-	-42.19	1.08	18.79	46.36	-	8.08	1,546.51	43.91	8.93	1,612.68
Luxembourg	-	-	0.00	-	-12.56	3.88	-	68.22	-102.74	-10.63	-	-41.28
Netherlands	2,636.50	-	1,180.78	0.06	-599.62	327.14	8.10	416.44	13,059.83	-26.84	908.34	18,510.36
Portugal	-	-	0.00	-	0.99	2.75	-	72.09	13.82	0.22	-	88.87
Spain	15.75	-	1.02	0.01	1.83	6.33	-	42.76	-130.71	8.02	0.06	-56.76
Sweden	0.52	-	-2.27	3.24	-129.80	-87.88	-	11.55	1,789.12	218.40	84.46	2,017.12
United Kingdom	3,618.54	-	897.79	3.99	1,097.76	2,990.07	1,093.80	696.03	14,440.56	1,420.53	611.54	25,772.86
Other Europe 1)	1.12	-	628.44	1.24	143.31	492.07	1.93	91.84	9,691.56	538.64	725.68	12,172.52
ASIA of which:	**9.07**	-	**-155.20**	**33.32**	**93.75**	**228.40**	**17.26**	**311.25**	**-310.08**	**121.58**	**108.16**	**363.77**
China	0.38	-	-36.78	32.57	59.69	120.72	13.99	304.07	43.20	50.16	103.06	631.37
India	8.33	-	-2.61	0.68	-20.97	-9.87	-	3.87	655.55	6.30	5.10	667.34
Pakistan	-	-	0.00	-	2.03	5.60	-	-	11.16	1.51	-	18.27
Other Asia 2)	0.37	-	-115.80	0.08	53.00	111.95	3.27	3.31	-1,019.99	63.60	-	-953.21
ANIEs	**44.88**	-	**252.20**	**118.03**	**328.61**	**1,972.63**	**121.52**	**928.03**	**3,554.80**	**3,702.21**	**4,468.22**	**15,162.52**
Republic of Korea	10.23	-	331.88	108.07	-47.29	98.51	52.82	238.13	53.36	235.58	1,427.53	2,556.10
Hong Kong	29.85	-	-53.07	1.80	168.35	1,263.43	68.70	484.35	1,639.89	2,437.47	1,202.43	7,074.85
Taiwan (ROC)	4.79	-	-26.61	8.17	207.55	610.70	-	205.56	1,861.55	1,029.16	1,838.26	5,531.58

ASEAN Investments

ADMINISTRATIVE FOREIGN INVESTMENT DATA

CROSS TABULATION BY INDUSTRY CLASSIFICATION AND REGIONAL BLOCS OF COUNTRIES

APPROVAL AND APPORTIONMENT BASIS[*)]

2003

IN ASEAN

(US$ millions)

Sectors / ISIC Code — Source Country	Japan	USA	European Union [1)]	Emerging Markets of East Asia [2)]					ASEAN	Others	Total
				ROK	Hong Kong	Taiwan	China	Total [2)]			
15 Food Products & Beverages	78.99	8.87	98.65	23.26	18.20	27.93	4.79	74.18	233.59	112.34	606.61
16 Tobacco Products	-	-	-	-	-	-	1.27	1.27	0.99	-	2.26
17 Textiles	4.19	3.00	14.73	101.84	4.51	265.61	4.69	376.63	0.23	47.17	445.95
18 Wearing Apparel; Dressing & Dyeing of Fur	4.79	0.85	15.27	112.71	45.90	86.81	22.70	268.11	23.47	45.76	358.26
19 Tanning & Dressing of Leather; Luggage, Handbags, Saddlery, Harness & Footwear	1.95	8.74	26.75	42.02	59.50	47.20	32.00	180.72	12.41	16.97	247.54

ASEAN Investments

APPROVED MANUFACTURING INVESTMENT PROJECTS WITH FOREIGN INTEREST IN EAST ASEAN GROWTH AREA (EAGA)
BY INDUSTRY CLASSIFICATION
1995 - 2003

(US$ millions)

ISIC CODE	BRUNEI DARUSSALAM	INDONESIA				MALAYSIA			PHILIPPINES		TOTAL
		Kalimantan	Sulawesi	Maluku	Papua	Labuan	Sabah	Sarawak	Mindanao	Palawan	
15 Food Products & Beverages	4.72	318.45	50.73	4.22	215.73	-	223.78	84.76	79.09	0.37	**981.84**
16 Tobacco Products	-	-	-	-	-	-	-	-	-	-	**-**
17 Textiles	-	-	-	-	-	-	-	-	-	-	**-**
18 Wearing Apparel; Dressing & Dyeing of Fur	20.19	-	-	-	-	-	-	-	-	-	**20.19**
19 Tanning & Dressing of Leather; Luggage, Handbags, Saddlery, Harness & Footwear	-	-	-	-	-	-	-	-	-	-	**-**
20 Wood & Wood Products & Cork, Except Furniture; Articles of Straw & Plaiting Materials	-	42.86	0.12	2.70	268.01	1.79	387.95	368.29	1.43	-	**1,073.17**
21 Paper & Paper Products	-	906.49	-	-	80.00	-	1,217.65	1,312.88	11.64	-	**3,528.65**
22 Publishing, Printing & Reproduction of Recorded Media	0.60	1,600.00	-	-	-	-	-	-	-	-	**1,600.60**
23 Coke, Refined Petroleum Products & Nuclear Fuel	-	2,178.70	-	-	2,000.00	-	-	-	-	-	**4,178.70**
24 Chemicals & Chemicals Products	0.76	610.78	1.21	-	8.00	-	42.71	202.66	217.43	-	**1,083.55**
25 Rubber & Plastics Products	22.30	248.22	0.29	1.26	-	-	3.98	5.80	2.47	-	**284.32**
26 Other Non-Metallic Mineral Products	6.68	164.78	131.39	-	-	3.55	33.62	28.83	0.17	-	**369.03**
27 Basic Metals	1.44	-	-	-	-	-	397.03	2,122.52	-	-	**2,520.99**
28 Fabricated Metal Products, Except Machinery & Equipment	32.50	2.20	-	-	1.08	-	-	2.65	300.81	-	**339.24**
29 Machinery & Equipment N.E.C.	-	2.30	-	-	-	-	2.44	0.13	1.16	-	**6.02**
30 Office, Accounting & Computing Machinery	-	4.90	-	-	-	-	-	-	-	-	**4.90**
31 Electrical Machinery & Apparatus N.E.C.	1.28	-	-	-	-	-	-	57.32	0.33	-	**58.94**
32 Radio, Television & Communication Equipment & Apparatus	7.11	-	-	-	-	-	-	730.57	-	-	**737.68**
33 Medical, Precision & Optical Instruments, Watches & Clocks	1.88	-	-	-	-	-	1.19	-	-	-	**3.07**
34 Motor Vehicles, Trailers & Semi-Trailers	-	-	-	-	-	-	9.43	-	3.12	-	**12.55**
35 Other Transport Equipment	-	15.10	-	-	-	-	20.39	13.16	-	-	**48.65**
36 Furniture; Manufacturing N.E.C.	8.82	-	0.10	-	-	-	10.64	6.21	91.03	1,530.26	**1,647.07**
37 Recycling	3.09	-	-	-	-	-	-	1,929.20	-	-	**1,932.29**
Others	-	-	-	-	-	-	-	-	-	-	**-**
TOTAL	**111.36**	**6,094.79**	**183.84**	**8.18**	**2,572.82**	**5.34**	**2,350.82**	**6,864.98**	**708.68**	**1,530.63**	**20,431.44**

Source: ASEAN Secretariat - ASEAN FDI Database, 2004.
Notes:
Data provided by the Department of Economic Planning and Development, Brunei Darussalam, Investment Coordinating Board (BKPM), Malaysian Industrial Development Authority (MIDA) and Philippine National Statistical Coordination Board (NSCB).
Source of Philippines' basic data: Board of Investments (BOI), Philippine Economic Zone Authority (PEZA), Subic Bay Metropolitan Authority (SBMA) and Clark Development Corporation (CDC).
Philippine's administrative Foreign Investment (FI) data for 1995 provided by Board of Investment (BOI).
Kalimantan covers West, East, Central and South Kalimantan; Sulawesi covers North, Central, South-East and South Sulawesi; Maluku include North Maluku.

Individual Country slides

PHILIPPINES TRADE STRATEGY

- Move up the value chain by focusing on branded products, developing Asian brands, expanding emerging markets, and gaining more market niches

- Improve labor productivity thru training and retraining

- Promote flexible and performance-based wage schemes

- Getting unions to participate in the implementation of adjustment measures that may be appropriate to the post-MFA regime and in the design and implementation of the industry restructuring plan

- Manage the social costs through enabling interventions toward a shift to other occupations or livelihood opportunities

Source: Institute for Labor Studies

INVESTMENTS ON PHILIPPINES

ADMINISTRATIVE FOREIGN INVESTMENT DATA

CROSS TABULATION BY INDUSTRY CLASSIFICATION AND REGIONAL BLOCS OF COUNTRIES

APPROVAL AND APPORTIONMENT BASIS*)

2003

IN PHILIPPINES

(US$ millions)

Sectors / ISIC Code — Source Country	Japan	USA	European Union 1)	Emerging Markets of East Asia 2)					ASEAN	Others	Total
				ROK	Hong Kong	Taiwan	China	Total 2)			
17 Textiles	-	-	-	0.18	-	0.22	-	0.40	-	-	0.40
18 Wearing Apparel; Dressing & Dyeing of Fur	2.36	0.004	1.39	2.94	-	3.43	3.87	10.24	-	0.19	14.18
19 Tanning & Dressing of Leather; Luggage, Handbags, Saddlery, Harness & Footwear	-	-			-	-	-	-	-	-	-

Source: ASEAN Secretariat - ASEAN FDI Database, 2004.
Notes:
Data provided by Cambodian Investment Board.
**) By immediate source / country of resident.*
1) European Union (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden and United Kingdom).
2) Emerging Markets of East Asia (Republic of Korea, Taiwan, Hong Kong-SAR and People's Republic of China).

INVESTMENTS ON PHILIPPINES

ADMINISTRATIVE FOREIGN INVESTMENT DATA

CROSS TABULATION BY INDUSTRY CLASSIFICATION AND REGIONAL BLOCS OF COUNTRIES

APPROVAL AND APPORTIONMENT BASIS*)

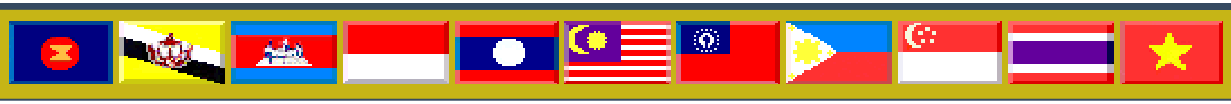
2003

IN PHILIPPINES

(US$ millions)

Sectors / ISIC Code — Source Country	Brunei Darussalam	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Viet Nam	Total
17 Textiles	.	.	.	.	.	.	.	.	.	.	.
18 Wearing Apparel; Dressing & Dyeing of Fur	.	.	.	.	.	.	.	.	.	.	.
19 Tanning & Dressing of Leather; Luggage, Handbags, Saddlery, Harness & Footwear	.	.	.	.	.	.	.	.	.	.	.

Source: ASEAN Secretariat - ASEAN FDI Database, 2004.
Notes:
Data provided by Philippines National Statistical Coordination Board (NSCB).
Source of Basic Data: Board of Investment (BOI), Philippine Economic Zone Authority (PEZA), Subic Bay Metropolitan Authority (SBMA).
**) By immediate source / country of resident.*



THAILAND TRADE STRATEGY

Textiles and garments remain Thailand's largest industry and second-largest source of exports (after electronics) Textiles and clothing make up Thailand's largest manufacturing industry, with more than 4,500 factories employing over one million people. The sector accounts for approximately 20 per cent of total employment in manufacturing and 17 per cent of total Thai GDP

Thai textile industry is pursuing a high quality, value-added strategy to succeed in the quota-free, competitive environment

Government-sponsored programs to advance the Thai textile and garment industry beyond OEM-based production to higher value-added design and brand development work

Thai government and THTI over the past five years to improve the competitiveness of the textile and garment industry implemented:

Bangkok Fashion City project launched in 2000 with a US$ 46 million budget for an international fashion school, textile and garment industry development programs and fashion roadshows;
Thai textile brand, a program to boost SME textile quality, and cluster development initiatives; in 2000, the Department of Export Promotion hired a team of Italian fashion consultants who specialize in weaving, designing, dyeing and finishing to advise major Thai textile and garment firms on manufacturing fashionable textiles and garments

THAILAND TRADE STRATEGY

The "Thai Textile Trend (T3) Style in Italy" brand aimed to help Thai firms produce stylish textiles under. So far, 15 firms have gone through the three year manufacturing training program

Thailand has exhibited the T3 textile brand at five international fabric fairs in Paris, Hong Kong, Shanghai and Bangkok.

"By producing the fabrics that the market demands, we help to raise Thailand's image among textile buyers. They realize that Thailand knows what's going on. They see that Thai manufacturers have the fabric they want in the color they want." **(Mr. Phongsak Assakul, AFTEX Chairman)**

THTI launched a project "Trendy Fabric Manufacturing by SME's"

- **to improve the competitiveness of smaller textile firms by helping them to upgrade their textile production quality**
- **project employs Asian textile industry consultants to educate SMEs about weaving, finishing, dyeing and printing**
- **Five SMEs completed the program last year**

THAILAND TRADE STRATEGY

<u>Expansion and development</u> due to significant private sector technology investments and government policies to improve textile production, garment designing skills and supply chain management

- **textile and garment industry has invested more than US$45 million in imported machinery over four years for fiber manufacturing, spinning, weaving, dyeing, printing and finishing**
- **major spinning company just invested US$20 million for equipment to produce high quality yarn**

<u>Shifted operations</u> to countries like Vietnam, Laos and Cambodia to utilize the cheap labor and resources of neighboring countries - reduce production cost and increase competitiveness

- **Thai GDP is 4 times that of Vietnam, 68 times that of Laos while per capita income is one fifth and one fourteenth that of Vietnam and Myanmar respectively.**
- **Thailand, Myanmar, Cambodia and Laos signed on November 12, 2003 an agreement formally named the ACMECS (Ayeyarwady-Chao Phraya-Mekong Economic Cooperation Strategy) after the name of the main rivers running in this region promoting manufacturing to places with relative advantages**

THAILAND TRADE STRATEGY

Industry cluster zones **Since 2004, a total 8 industrial clusters are being built over 3 years; 2 clusters in each 4 regions such as the North, the Northeast, the Central and the South –includes garments/textile sector**

- **Chaing Rai Border Economic Zone**
  - **Construct an industrial estate (Chien Saen), targets about 100 investors from China, cover six fields of industries including garments. The construction of this industrial estate investment from China to Thailand will be made along the North-South Economic Corridor. There is an observation that China has a clear strategy to make Chien Saen a place to link exports for ASEAN, Europe and the U.S.**

- **Mukdahan-Savannakhet Border Economic Zone (Thailand/Laos border)**
- **Trat- Koh Kong Border Economic Zone (Thailand-Cambodia border)**
- **Myanmar Border Economic Zone (Thailand-Myanmar border)**

Stronger inter-ASEAN Logistics Linkages

- **between Malaysia and Thailand, improving logistics for faster goods delivery (within 1 day)**

Advocacy Assistance to countries like Vietnam and Cambodia in trade agreement negotiations, structuring international framework of agreements

Investment Opportunities and Incentives in Thailand's Textile and Garment Industry

Although a number of quality enhancing initiatives have been implemented in the Thai textile and garment industry, there are several areas where specialized technology and expertise is required, offering prospects for foreign investors. The Thai Textile Institute has identified the following areas where foreign assistance is needed most:

- Advanced dyeing and finishing technology
- State-of-the-art printing technology
- R&D activities and technology to produce innovative and functional fibers and textiles such as breathable / waterproof fabric
- Supply chain management technology and software
- Commercial-scale fashion designers
- Expertise in fashion branding and marketing for international markets

The textile and garment industry is a priority sector, and the Thailand Board of Investment (BOI) offers investment privileges and incentives such as:

Integrated Textile Industrial Zone/Estate Developers: Production of upstream and downstream textile products
- 8 years corporate income tax holiday
- Duty-free machinery imports

Bleaching, Dyeing and Finishing Projects
- Locating in a Textile Industrial Estate: 8 years corporate income tax holiday and duty-free machinery imports
- Locating outside of a Textile Industrial Estate: Standard incentives according to zone

Any Other Textile-Related Enterprise (locating on a textile industrial estate)
- Duty-free machinery imports
- Corporate income tax exemptions of between 5 - 8 years depending on zone

Source: BOI: http://www.boi.go.th

INVESTMENTS ON THAILAND

ADMINISTRATIVE FOREIGN INVESTMENT DATA

CROSS TABULATION BY INDUSTRY CLASSIFICATION AND REGIONAL BLOCS OF COUNTRIES

APPROVAL AND APPORTIONMENT BASIS*)

2003

IN THAILAND

(US$ millions)

Sectors / ISIC Code / Source Country	Japan	USA	European Union 1)	Emerging Markets of East Asia 2)					ASEAN	Others	Total
				ROK	Hong Kong	Taiwan	China	Total 2)			
17 Textiles	0.31	-	8.27	-	-	1.55	-	1.55	-	42.99	53.12
18 Wearing Apparel; Dressing & Dyeing of Fur	-	-	-	-	6.92	1.82	-	8.74	-	-	8.74
19 Tanning & Dressing of Leather; Luggage, Handbags, Saddlery, Harness & Footwear	0.35	-	6.47	-	-	7.22	-	7.22	-	-	14.05

Source: ASEAN Secretariat - ASEAN FDI Database, 2004.

Notes:

Data provided by Office of the Board of Investment of Thailand.

**) By immediate source / country of resident.*

1) European Union (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden and United Kingdom).

2) Emerging Markets of East Asia (Republic of Korea, Taiwan, Hong Kong-SAR and People's Republic of China).

INVESTMENTS ON THAILAND

ADMINISTRATIVE FOREIGN INVESTMENT DATA

CROSS TABULATION BY INDUSTRY CLASSIFICATION AND REGIONAL BLOCS OF COUNTRIES

APPROVAL AND APPORTIONMENT BASIS*)

2003

IN THAILAND

(US$ millions)

Sectors / ISIC Code / Source Country	Brunei Darussalam	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Viet Nam	Total
17 Textiles	.	.	.	.	.	.	.	.	.	.	.
18 Wearing Apparel; Dressing & Dyeing of Fur	.	.	.	.	.	.	.	.	.	.	.
19 Tanning & Dressing of Leather; Luggage, Handbags, Saddlery, Harness & Footwear	.	.	.	.	.	.	.	.	.	.	.

Source: ASEAN Secretariat - ASEAN FDI Database, 2004.

Notes:

Data provided by Office of the Board of Investment of Thailand.

**) By immediate source / country of resident.*

MALAYSIA (INDUSTRY PROFILE)

Malaysia's manufacturing focus has resulted in the continued growth of the textile and apparel industry — the sixth-largest contributor to total earnings from manufactured exports in 2004

In 2005, the industry became the seventh-largest contributor of export earnings in the manufacturing sector, Malaysia's Ministry of International Trade and Industry (MITI)

Textile and apparel goods made up 2.5 percent of exported manufactured goods

- **apparel and clothing accessories industry, on the other hand, exported goods worth $1.3 billion in 2005 — a 2.1-percent increase over 2004 exports**
- **textile yarn exports had the greatest value at $666.5 million — a 19-percent increase over 2004 exports, followed by woven man-made-fiber fabrics at $249 million — a 6.1-percent decrease from 2004**

The Batu Pahat, Malaysia-based Malaysian Knitting Manufacturers Association (MKMA), citing Matrade, reports that from 2004 to 2005, the major exports of the textile industry were worth approximately $1.4 billion and accounted for 52.6 percent of total textile and apparel exports

For the first quarter of 2006, the industry's exports continued to grow, reaching $718.4 million, represents an 8-percent year-on-year increase

Source: http://www.textileworldasia.com

MALAYSIA TRADE STRATEGY

Textiles and apparel are expected to remain important export products; contribution of the industry to the national economy will remain significant, in terms of investments and export earnings

TARGETS

- **industry is expected to attract total investments of RM 13.7 B; investments are projected to increase in the textiles sub-sector, mainly for the manufacturer of synthetic and functional fabrics**
- **Exports are targeted to grow at 5.8% from RM 13.4B IN 2010 TO RM 24B in 2020; increase in exports will be contributed by textiles sub-sector, particularly yarns and woven fabrics**

	2006-2010	2011-2015	2016-2020	2006-2020	2006-2020
	(RM billion)				Ave. Annual Growth (%)
Investments	4.0	4.6	5.1	13.7	3.1
Investments per year	0.8	0.9	1.0	0.9	n.a.
Exports (end period)	13.4	18.2	24.0	24.0	5.8

Source: Malaysian Ministry of Trade and Investment

MALAYSIA TRADE STRATEGY

STRATEGIC THRUSTS

- **Intensifying the promotion of investments in higher value-added textiles and apparel, including key support services**
  - **present investment policies will be continued to attract investments in the industry, particularly in the synthetic-based textiles sub-sector.**
- **Sustaining the market share in textiles and apparel and promoting exports of the targeted growth areas;**
  - **promote the export of textiles and apparel, the industry will be encouraged to expand existing markets and explore new markets, such as Japan, the USA, Canada, the EU, West Asia, Africa, and Latin America**
- **Intensifying regional integration of the industry;**
  - **Malaysian textiles and apparel industry will be encouraged to undertake measures to enable it to benefit from ASEAN's efforts in integrating the industry regionally**
- **Enhancing domestic capabilities and facilitating the utilization of ICT and new technologies**
  - **Measures shall be undertaken to enhance domestic capabilities and facilitate the utilization of technologies**
- **Enhancing the skills of the workforce in designing, production and marketing;**
  - **Focus will be given to enhance the skills on designing, production and marketing**
- **Strengthening the institutional support for the further development of the industry**
  - **Among the measures, upgrading the existing textile and apparel production area into a specialized and integrated zone, in collaboration with the State Government**

Source: Malaysian Ministry of Trade and Investment

INVESTMENTS ON MALAYSIA

ADMINISTRATIVE FOREIGN INVESTMENT DATA

CROSS TABULATION BY INDUSTRY CLASSIFICATION AND REGIONAL BLOCS OF COUNTRIES

APPROVAL AND APPORTIONMENT BASIS*)

2003

IN MALAYSIA

(US$ millions)

Sectors / ISIC Code — Source Country	Japan	USA	European Union 1)	Emerging Markets of East Asia 2)					ASEAN	Others	Total
				ROK	Hong Kong	Taiwan	China	Total 2)			
17 Textiles	1.89	-	2.95	-	3.01	1.97	0.28	5.26	0.03	1.18	11.31
18 Wearing Apparel; Dressing & Dyeing of Fur	-	0.26	-	-	0.19	-	-	0.19	6.06	2.65	9.16
19 Tanning & Dressing of Leather; Luggage, Handbags, Saddlery, Harness & Footwear	-	-	-	-	-	-	-	-	1.46	-	1.46

Source: ASEAN Secretariat - ASEAN FDI Database, 2004.

Notes:

Data provided by Cambodian Investment Board.

**) By immediate source / country of resident.*

1) European Union (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden and United Kingdom).

2) Emerging Markets of East Asia (Republic of Korea, Taiwan, Hong Kong-SAR and People's Republic of China).

INVESTMENTS ON MALAYSIA

ADMINISTRATIVE FOREIGN INVESTMENT DATA

CROSS TABULATION BY INDUSTRY CLASSIFICATION AND REGIONAL BLOCS OF COUNTRIES

APPROVAL AND APPORTIONMENT BASIS*)

2003

IN MALAYSIA

(US$ millions)

Sectors / ISIC Code / Source Country	Brunei Darussalam	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Viet Nam	Total
17 Textiles	.	.	.	.	.	.	.	0.03	.	.	0.03
18 Wearing Apparel; Dressing & Dyeing of Fur	.	.	.	.	.	.	0.11	5.95	.	.	6.06
19 Tanning & Dressing of Leather; Luggage, Handbags, Saddlery, Harness & Footwear	.	.	.	.	.	.	.	1.46	.	.	1.46

Source: ASEAN Secretariat - ASEAN FDI Database, 2004.
Notes:
Data provided by the Ministry of Planning and Investment of Viet Nam.
**) By immediate source / country of resident.*

INDONESIA TRADE STRATEGY

- Indonesia is an important global source for textiles and clothing
- Ranked In 2004 10th among the world's leading exporters of textiles and 9th among clothing exporters (including Hong Kong)
- Among Asean - it is the number one exporter in both textiles and clothing
- Industry is the largest provider of employment and a major source of export earnings.
- The official employment estimate is 1.2 mn people, spread over 4,500 factories.
- Textile and clothing exports were worth US$8,671 mn in 2005, representing 10.1% of the country's total exports
- Textile and clothing exports in 2005 were 13.4% higher than in 2004
- Textile and clothing industry is vertically integrated
- Largest share of spindles and looms among Asean countries and its capacity ranks as the fourth highest in the world

STRATEGY

- Expand its share of international markets
- Implement an extensive modernization programme
  - After 2008, when temporary safeguard quotas against China will have come to an end, Indonesia can expect to feel the full force of unfettered Chinese competition

INVESTMENTS ON INDONESIA

ADMINISTRATIVE FOREIGN INVESTMENT DATA

CROSS TABULATION BY INDUSTRY CLASSIFICATION AND REGIONAL BLOCS OF COUNTRIES

APPROVAL AND APPORTIONMENT BASIS*)

2003

IN INDONESIA

(US$ millions)

Sectors / ISIC Code — Source Country	Japan	USA	European Union 1)	Emerging Markets of East Asia 2)					ASEAN	Others	Total
				ROK	Hong Kong	Taiwan	China	Total 2)			
17 Textiles	-	-	0.20	4.00	-	-	-	4.00	0.20	-	4.40
18 Wearing Apparel; Dressing & Dyeing of Fur	0.10	-	6.00	2.50	0.40	0.50	-	3.40	2.20	-	11.70
19 Tanning & Dressing of Leather; Luggage, Handbags, Saddlery, Harness & Footwear	-	-	-	2.80	-	0.20	-	3.00	0.40	0.20	3.60

Source: ASEAN Secretariat - ASEAN FDI Database, 2004.

Notes:

Data provided by Investment Coordinating Board (BKPM).

**) By immediate source / country of resident.*

1) European Union (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden and United Kingdom).

2) Emerging Markets of East Asia (Republic of Korea, Taiwan, Hong Kong-SAR and People's Republic of China).

INVESTMENTS ON INDONESIA

ADMINISTRATIVE FOREIGN INVESTMENT DATA

CROSS TABULATION BY INDUSTRY CLASSIFICATION AND REGIONAL BLOCS OF COUNTRIES

APPROVAL AND APPORTIONMENT BASIS*)

2003

IN INDONESIA

(US$ millions)

Sectors / ISIC Code — Source Country	Brunei Darussalam	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Viet Nam	Total
17 Textiles	.	.	.	.	.	0.20	.	.	.	.	0.20
18 Wearing Apparel; Dressing & Dyeing of Fur	.	.	.	.	.	.	0.10	2.10	.	.	2.20
19 Tanning & Dressing of Leather; Luggage, Handbags, Saddlery, Harness & Footwear	.	.	.	.	0.30	.	.	0.10	.	.	0.40
20 Wood & Wood Products & Cork, Except Furniture; Articles of Straw & Plaiting Materials	.	.	.	.	10.60	.	.	.	.	.	10.60

Source: ASEAN Secretariat - ASEAN FDI Database, 2004
Notes:
Data provided by Investment Coordinating Board (BKPM).
**) By immediate source / country of resident.*

CAMBODIA INDUSTRY PROFILE

- 2,073 garment factories, employs more than 270,000 people
- Earns more than $2 billion in exports annually
- Contributes about $400 million per year to the country's GDP.
- Cambodian economy is expected to grow 6 percent this year over 8.5 percent last year
- 2006 expected value of foreign direct investment to reach US $3.036 billion
  - Foreign investment has been concentrated in garment/textile sectors
    - Invited Thai companies to set up labour-intensive investments to produce garment
      - Economic dependency of the neighboring countries on Thailand is generally high
    - Encourage investments in nine economic zones, including Poipet, Koh Kong, Kampot, Stoeng Hav and Sihanoukville
      - Thai business people are reluctant to invest because of unbalanced political situation

INVESTMENTS ON CAMBODIA

ADMINISTRATIVE FOREIGN INVESTMENT DATA

CROSS TABULATION BY INDUSTRY CLASSIFICATION AND REGIONAL BLOCS OF COUNTRIES

APPROVAL AND APPORTIONMENT BASIS*)

2003

IN CAMBODIA

(US$ millions)

Sectors / ISIC Code / Source Country	Japan	USA	European Union 1)	Emerging Markets of East Asia 2)					ASEAN	Others	Total
				ROK	Hong Kong	Taiwan	China	Total 2)			
17 Textiles	-	-	-	-	-	-	-	-	-	-	-
18 Wearing Apparel; Dressing & Dyeing of Fur	-	-	0.17	3.24	15.30	28.65	10.71	57.90	11.14	-	69.21
19 Tanning & Dressing of Leather; Luggage, Handbags, Saddlery, Harness & Footwear	-	-	-	-	-	0.99	-	0.99	-	-	0.99

Source: ASEAN Secretariat - ASEAN FDI Database, 2004.
Notes:
Data provided by Cambodian Investment Board.
**) By immediate source / country of resident.*
1) European Union (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden and United Kingdom).
2) Emerging Markets of East Asia (Republic of Korea, Taiwan, Hong Kong-SAR and People's Republic of China).

INVESTMENTS ON CAMBODIA

ADMINISTRATIVE FOREIGN INVESTMENT DATA

CROSS TABULATION BY INDUSTRY CLASSIFICATION AND REGIONAL BLOCS OF COUNTRIES

APPROVAL AND APPORTIONMENT BASIS*)

2003

IN CAMBODIA

(US$ millions)

Sectors / ISIC Code / Source Country	Brunei Darussalam	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Viet Nam	Total
17 Textiles	.	.	.	.	.	.	.	.	.	.	.
18 Wearing Apparel; Dressing & Dyeing of Fur	.	.	.	.	8.22	.	.	2.92	.	.	11.14
19 Tanning & Dressing of Leather; Luggage, Handbags, Saddlery, Harness & Footwear	.	.	.	.	.	.	.	.	.	.	.

INVESTMENTS ON CAMBODIA

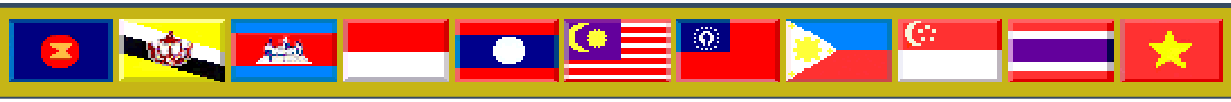
Foreign investment on manufacturing has been concentrated in garment/textile

Thai Direct Investment to Cambodia (August 1994-September 2004)

Category	No.	Ratio(%)	Registered capital	Ratio(%)	Fixed asset	Ratio(%)	Contents
			(US$1,000)		(US$1,000)		
Agro-industry	5	8.9%	16,666	11.3%	14,394	7.0%	animal feed 2 projects (CP 1), sugar refining, tapioca mill, tunning, 1project each
Mining	1	1.8%	1,980	1.3%	173	0.1%	sand taking
Manufacturing	31	55.4%	54,752	37.1%	50,085	24.4%	
Food processing	9	16.1%	7,448	5.1%	14,684	7.1%	dringking water, needle, liquar, icecream etc.
Wood working	3	5.4%	33,920	23.0%	22,131	10.8%	furniture making 3 projects
Textile・garment	6	10.7%	5,775	3.9%	7,555	3.7%	garment factory 6 projects
Transport Machine	1	1.8%	2,000	1.4%	1,150	0.6%	motorcycles assembry (Hond)
Chemicales	5	8.9%	2,294	1.6%	2,013	1.0%	plastic (2), battery, paint, detergent, one each
Oil・gass	3	5.4%	815	0.6%	733	0.4%	lubricating oil (1) LNG (2)
Construction materials	2	3.6%	1,250	0.8%	278	0.1%	cement (1), roof tile(1)
Others	2	3.6%	1,250	0.8%	1,541	0.7%	carton box (1), cigarette(1)
Hotel・tourism	12	21.4%	54,300	36.8%	99,537	48.4%	hotel construction・operation 9 projects
Hotel	9	16.1%	52,000	35.3%	95,262	46.4%	1996 approval (4), 2000 approval (2)
Tourism	3	5.4%	2,300	1.6%	4,275	2.1%	agro-tourism, museum, bowling alley
Transportation communication	6	10.7%	19,689	13.4%	40,053	19.5%	airport-control-system operation, telecommunication 3 projects(one is Sinawatra), TV broadcasting 2projects
Construction	1	1.8%	40	0.0%	1,273	0.6%	road construction
Total (Note)	99	176.8%	147,427	100.0%	205,515	100.0%	

(Notes) Number and amount are the acumulated figures from August 1994 to September 2004.Althouogh the total figure of the registered capital shown by the CIB is US$135,952,000 that is diffeent from the actual calculated figures (147,427,000) , here listed the later. The figure of fiexed asset shown by the CIB is 205,543,000 that is also different from the actual accumulated figure a little. Therefore, the fixed asset is used here.

(Source) Author's calcutation from Cambodian Investment Board, Council for the Development of Cambodia.



VIETNAM TRADE STRATEGY

- **Investment surged in the first half of the year**
  - **Ongoing improvements in the business environment**
  - **Vietnam's Dec 28 accession to the World Trade Organization (WTO)**

- **Exports of textiles and clothing rebounded by nearly 34.5% in the first half of 2006,**
  - **following modest growth of 11.3% in all of 2005**

STRATEGIES

- Enhance the dynamism and innovation of each enterprise
- Stronger commitments of the country in terms of tariff preferences, non-tariff measures, and intellectual property right.
- Establish enterprise specialized unit to review and build the roadmap for action plan
- Train employees and providing human capacity to enterprises, more specifically:
  Skilled workers in each section in the production line.
- Marketing staff with good skill in international business.
- Trained legal experts with sufficient qualification to provide consulting and assisting the director in international business and cooperation.

INVESTMENTS ON VIETNAM

ADMINISTRATIVE FOREIGN INVESTMENT DATA

CROSS TABULATION BY INDUSTRY CLASSIFICATION AND REGIONAL BLOCS OF COUNTRIES

APPROVAL AND APPORTIONMENT BASIS*)

2003

IN VIET NAM

(US$ millions)

Sectors / ISIC Code / Source Country	Japan	USA	European Union 1)	Emerging Markets of East Asia 2)					ASEAN	Others	Total
				ROK	Hong Kong	Taiwan	China	Total 2)			
17 Textiles	2.00	3.00	3.30	97.66	1.50	261.86	4.40	365.43	-	3.00	376.73
18 Wearing Apparel; Dressing & Dyeing of Fur	2.33	0.58	7.71	104.02	22.94	52.41	8.11	187.49	4.07	42.93	245.11
19 Tanning & Dressing of Leather; Luggage, Handbags, Saddlery, Harness & Footwear	1.60	8.74	20.28	39.22	59.50	38.79	32.00	169.50	10.55	16.77	227.44

Source: ASEAN Secretariat - ASEAN FDI Database, 2004.
Notes:
Data provided by the Ministry of Planning and Investment of Viet Nam.
**) By immediate source / country of resident.*
1) European Union (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden and United Kingdom).
2) Emerging Markets of East Asia (Republic of Korea, Taiwan, Hong Kong-SAR and People's Republic of China).

INVESTMENTS ON VIETNAM

ADMINISTRATIVE FOREIGN INVESTMENT DATA

CROSS TABULATION BY INDUSTRY CLASSIFICATION AND REGIONAL BLOCS OF COUNTRIES

APPROVAL AND APPORTIONMENT BASIS*)

2003

IN VIET NAM

(US$ millions)

Sectors / ISIC Code / Source Country	Brunei Darussalam	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Viet Nam	Total
17 Textiles	.	.	.	.	.	.	.	.	.	.	.
18 Wearing Apparel; Dressing & Dyeing of Fur	.	.	.	.	.	.	.	3.30	0.77	.	4.07

Source: ASEAN Secretariat - ASEAN FDI Database, 2004.
Notes:
Data provided by the Ministry of Planning and Investment of Viet Nam.
**) By immediate source / country of resident.*

INVESTMENTS ON VIETNAM

Thai Direct Investment to VIETNAM (1998 - 2004)

Category	No.	Ratio %	Total amount (US$1,000)	Thai investment (US$1,000)	Ratio %	Contents
Construction	5	3.7%	59,323	42,826	4.4%	Industrial estates (2 projects)
Mining・quarrying	1	0.7%	5,996	4,017	0.4%	linestone mining
Agriculture・fishery	9	6.7%	96,675	95,715	9.8%	feed production (7, inc. CP), fishery (1),, seeds (1)
Manufacturing	79	59.0%	738,985	530,911	54.4%	
Food processing	21	15.7%	8,491	67,475	6.9%	tapioca mill (5), drinking water (3), instant needle (1)
Textile・garment	5	3.7%	5,282	4,960	0.5%	inc.Japanese affiliate Yamaken
Metal・non metal	3	2.2%	17,575	17,575	1.8%	aluminum bars (1), gass pipes (1)
Electlic・electronics	4	3.0%	14,148	11,288	1.2%	electoronic speed metor (1), airconditionors (1)
Machine・transport machine	10	7.5%	284,729	163,161	16.7%	motorcycles parts (9 including Honda)
Chemicals	15	11.2%	185,274	139,355	14.3%	paints (4), plastics (6), cosmetics (2),chemicals (1),
Petro Products	5	3.7%	50,169	42,454	4.3%	lublication oil (1), gass related (4, inc. Mitsui related)
Others	16	11.9%	96,869	84,647	8.7%	jewry (4), construction materials (2), footwears (3), fishery net (1)
Tourism・services	22	16.4%	23,192	17,742	1.8%	
Tourism	4	3.0%	6,642	2,042	0.2%	tourism (3), eco-tourism (1)
Other services	18	13.4%	16,550	15,700	1.6%	softwears (5), consultancy (4), marketing (2)
Real estate	10	7.5%	158,319	91,473	9.4%	rent (2), hotel (2), golf courses (2)
Others	8	6.0%	223,768	193,910	19.9%	industrial estate generation (1, AMATA)
Total	134	100.0%	1,306,258	976,595	100.0%	

(Notes) Figures are accumulated investments approved from January 1988 to June 2004. Thai investment includes partners' foreign capitals.

(Source) License Projets, Ministry of Planning and Invesment, Vietnam

INVESTMENTS ON LAO PDR

- Thai investment in the textile-garment industry by early 2004 consisted of 38 projects in terms of the approval base
- Accounted for less than 2% of total Thai investments because the scale of each investment is small.
- This is especially true for investments in the garment industries, which aim to get the vested benefit of the GSP as well as cheap labor and employed more than 20,000 women workers

INVESTMENTS ON LAO PDR

Thai Direct Investment to LAOS (1998 - 2004)

Category	No.	Ratio(%)	Amount (US$1,000)	Ratio(%)	Investment by Laos (US$1000)	Investment by Thailand (US$1000)	Ratio(%)
Agriculture	29	10.0%	39,412	1.4%	2,011	37,401	1.5%
Textile・garment	38	13.1%	40,648	1.5%	2,177	38,471	1.6%
Manufacturing・craft	79	27.3%	80,378	2.9%	15,776	64,602	2.6%
Wood・wood works	17	5.9%	10,537	0.4%	637	9,900	0.4%
Mining	8	2.8%	15,684	0.6%	2,317	13,367	0.5%
Trade・commerce	42	14.5%	25,835	0.9%	1,531	24,304	1.0%
Hotel	12	4.2%	282,675	10.3%	83,438	199,237	8.1%
Banking	6	2.1%	50,800	1.8%	23,000	27,800	1.1%
Consultancy	2	0.7%	2,440	0.1%	736	1,704	0.1%
Services	28	9.7%	21,711	0.8%	4,147	17,564	0.7%
Construction	15	5.2%	20,585	0.7%	1,911	18,674	0.8%
Transportation・communication	8	2.8%	637,160	23.2%	167,072	470,088	19.2%
Electricity	5	1.7%	1,522,500	55.4%	0	1,522,500	62.3%
Total	289	100.0%	2,750,365	100.0%	304,753	2,445,612	100.0%

(Note) Numbers and amount of investment shows the accumulated ones from January 1988 to May 2004.

(Source) Thailand's Investment in Lao PDR',Department for Promotion and Domestic and foreign Investment,Committee for Planning and Cooperation Lao PDR.

INVESTMENTS ON BRUNEI

ADMINISTRATIVE FOREIGN INVESTMENT DATA

CROSS TABULATION BY INDUSTRY CLASSIFICATION AND REGIONAL BLOCS OF COUNTRIES

APPROVAL AND APPORTIONMENT BASIS*)

2003

IN BRUNEI DARUSSALAM

(US$ millions)

Sectors / ISIC Code / Source Country	Japan	USA	European Union 1)	Emerging Markets of East Asia 2)					ASEAN	Others	Total
				ROK	Hong Kong	Taiwan	China	Total 2)			
15 Food Products & Beverages	-	-	-	-	-	-	-	-	-	-	-
16 Tobacco Products	-	-	-	-	-	-	-	-	-	-	-
17 Textiles	-	-	-	-	-	-	-	-	-	-	-
18 Wearing Apparel; Dressing & Dyeing of Fur	-	-	-	-	0.15	-	-	0.15	-	-	0.15

Source: ASEAN Secretariat - ASEAN FDI Database, 2004.
Notes:
Data provided by the Department of Economic Planning and Development, Brunei Darussalam.
**) By immediate source / country of resident.*
1) European Union (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden and United Kingdom).
2) Emerging Markets of East Asia (Republic of Korea, Taiwan, Hong Kong-SAR and People's Republic of China).

DEVELOPMENT OF ASEAN FRAMEWORK FOR TRADE NEGOTIATIONS

ELECTRONICS INDUSTRY

ERNIE B. SANTIAGO
Executive Director
Semiconductor and Electronics Industries in the Philippines (SEIPI)

March 28, 2007

INTRODUCTION

The electronics industry today plays a vital and important role in the development of most nations as it has grown substantially and strongly over the past decades.

This industry moves closer to the center and drives of the rapid economic development of the world, staking its place in the heart of one country after another.

During the early years of the electronics industry, some of the world's top electronics companies, looking for ways to be more competitive, decided to set up their assembly plants in Asia, particularly in Association of Southeast East Asian Nations (ASEAN) countries where they found a large pool of highly skilled workers and where they could operate at a very competitive cost. Most of them were multinational companies based in North America, Europe and Japan.

The relocation proved to be good for these companies, so good that many of them now operate their largest assembly plants in ASEAN. Not only they maintained their operations in these countries, they have also expanded them as their markets grew.

With the entry of these large multinational companies, plus the set-up of homegrown companies in ASEAN, **the electronics industry in no time became the number one export industry of most ASEAN countries, particularly Singapore, Malaysia, Thailand and Philippines.** For so many years now, it has been these countries' top export products.

The ASEAN countries, through its initiative of ASEAN Free Trade Area, or AFTA, laid out a comprehensive program of regional tariff reduction, to be carried out in different phase years.

Over the course of the next several years, the program of tariff reductions was broadened and accelerated, and a host of "AFTA Plus" activities were initiated, including efforts to eliminate non-tariff barriers and quantitative restrictions, and harmonize customs nomenclature, valuation, and procedures, and develop common product certification standards.

In addition, ASEAN later signed framework agreements for the intra-regional liberalization of trade in services, and for regional Intellectual Property Rights (IPR) cooperation. An industrial complementation scheme designed to encourage intra-regional investment was approved, and discussions were held on creating a free investment area within the region. During the financial crisis of 1997-98, ASEAN reaffirmed its commitment to AFTA, and as part of a series of "bold measures," agreed that the original six AFTA signatories would accelerate many planned tariff cuts.

When the AFTA agreement was originally signed, ASEAN had six members (Brunei, Indonesia, Malaysia, Philippines, Singapore, and Thailand). Vietnam joined in 1995, Laos and Myanmar in 1997, and Cambodia in 1999. All four countries were required to sign on to the AFTA agreement in order to join ASEAN, but were given longer time frames in which to meet AFTA's tariff reduction obligations

As Regional Trade Agreements (RTA) now continue to proliferate as progress on the Doha Round has slowed, trade negotiations not only by ASEAN countries but also with three countries namely China, Japan and South Korea have allowed these countries to openly discuss trade barriers among neighbors and political allies, while retaining flexibility over which sectors to liberalize and which issues to negotiate.

This initiative reflects a trend of trade liberalization outside of traditional regional boundaries. The collapse of World Trade Organization (WTO) Conferences has underscored the difficulties inherent in that multilateral agreements and that many countries have focused on regional trade agreements as the primary means of opening up international trade.

This paper aims to focus on the ASEAN initiatives on the integration of the electronics industry in the region. It aims to provide information on the following:

1. Where We Have Been - **The global and Asian electronics industry including the ASEAN region and its competitiveness.**

2. Where We Are Now - **Implemented work programs including issues and concerns taken on the integration of the electronics industry in ASEAN and the private sector's cooperation.**

3. Where We Are Going **- Strategic framework and actions to be taken by the electronics industry and the respective ASEAN government to effectively achieve electronics industry's regional integration.**

I. THE ASEAN ELECTRONICS INDUSTRY

THE GLOBAL AND ASIAN ELECTRONICS INDUSTRY

In 2005, the global electronics industry 's production amounted to US$ 1.338 Trillion – the biggest among the entire world's manufacturing output.

As shown in Table 1, **Asia Pacific is the biggest among all regional electronics production centers**, accounting for 37% of the world's output. This followed by USA at 26%; Europe 21%; Japan 15%; and the rest of the world at 1%.

It also shows that global electronics industry has been growing at an average of 8.2% during the past 4 years. **Asia Pacific is also the fastest growing among all regions at 12.8%,** followed by Europe 9%; Japan 7.6%; and USA, at a slower growth rate of 2.5%.

Further, it can be noted that if we include Japan in the Asia Pacific's production output, it would total to US$ 698 Billion (52%) or more than half of the global electronics production output. It makes Asia Pacific now as the electronics production center of the world.

GLOBAL ELECTRONICS INDUSTRY

- **ASIA / PACIFIC ACCOUNTS FOR ALMOST 37% OF WORLD'S OUTPUT (> 50% IF INCLUDING JAPAN)**

Electronics Production

Region	2002 In US$ Billion	2003 In US$ Billion	2004 In US$ Billion	2005 In US$ Billion	CAGR
Europe	220.4	247.5	279.1	285.8	9.0%
Americas	317.6	314.1	334.3	341.9	2.5%
Japan	162.4	180.2	197.8	202.3	7.6%
Asia / Pacific	343.1	386.9	448.8	492.7	12.8%
Rest of World	13.2	14.3	15.7	16.2	7.2%
World	1,056.8	1,143.0	1,275.6	1,338.9	8.2%

Source: Reed Research, 11/2005

Table 1 – Global Production of Electronics Industry

The increasing share and high growth of electronics industry in the Asia Pacific is validated by the following Table, which shows that **the percentage of electronics production output has been moving gradually to low cost locations**.

More and more manufacturing companies located in high cost locations such as USA, Canada, Japan and Western has been migrating and setting up their production plants in Asia Pacific countries due to its lower cost of manufacturing advantage.

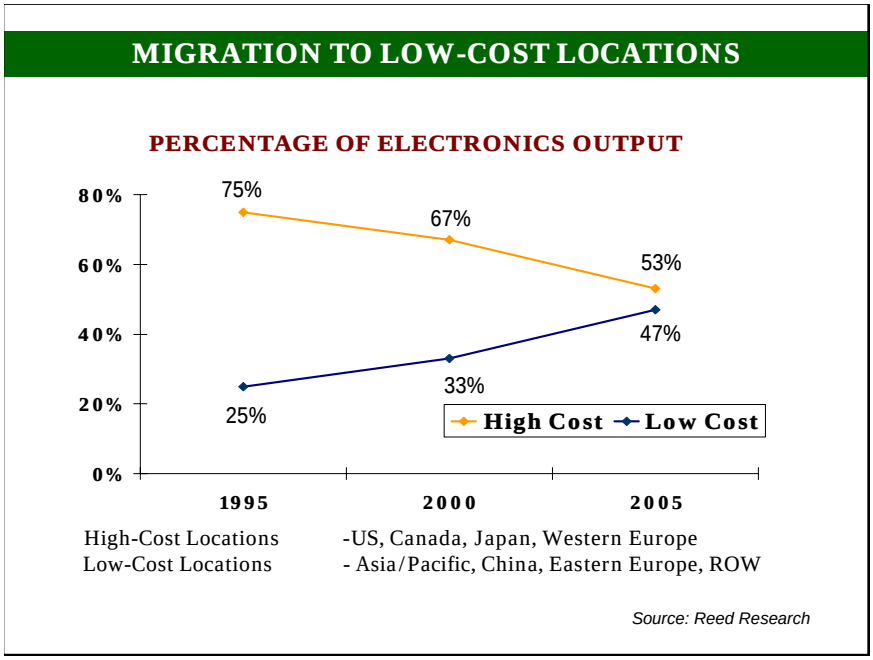


Table 2 – Migration of Production Centers to Low Cost Locations

Table 3 shows the major segments by product output. With the rapid technological advances, the rising trend on the usage of technology products and the phenomenal economic developments happening in Asia Pacific countries particularly in China, **networked communications comprise of communications, computer, and consumer electronics, now accounts for more than 2/3 of electronics products.**

The automotive electronics segment has likewise been increasing its share due to numerous electronics components and parts being incorporated as part of the vehicles. Industry reports say that electronics now accounts for around 30% of the cost of an automobile and will be more than half in future years. Electronics being used for military purposes has declined during the recent years.

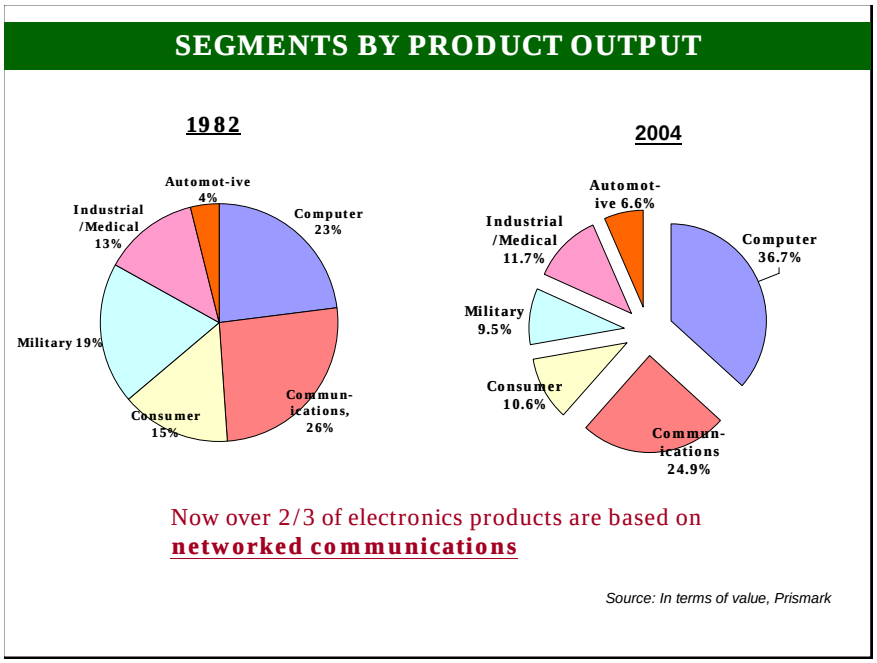


Table 3 – Industry Segments by Product Output

In terms of electronics components market size, Table 4 shows that major **Asian countries including Japan, now accounts for 62% of the total market.** Western countries accounts only for 38%.

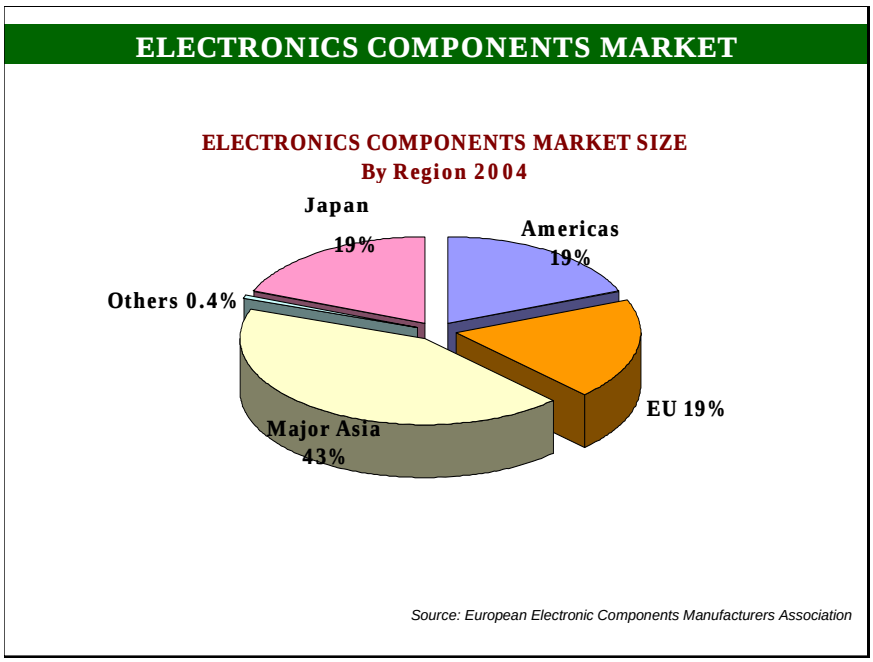


Table 4 – Electronics Components Market

During the recent years, **Asian countries have likewise penetrated the Electronics Manufacturing Services (EMS) business in the world** and is expected to reap 67% of the global EMS revenues in 2009.

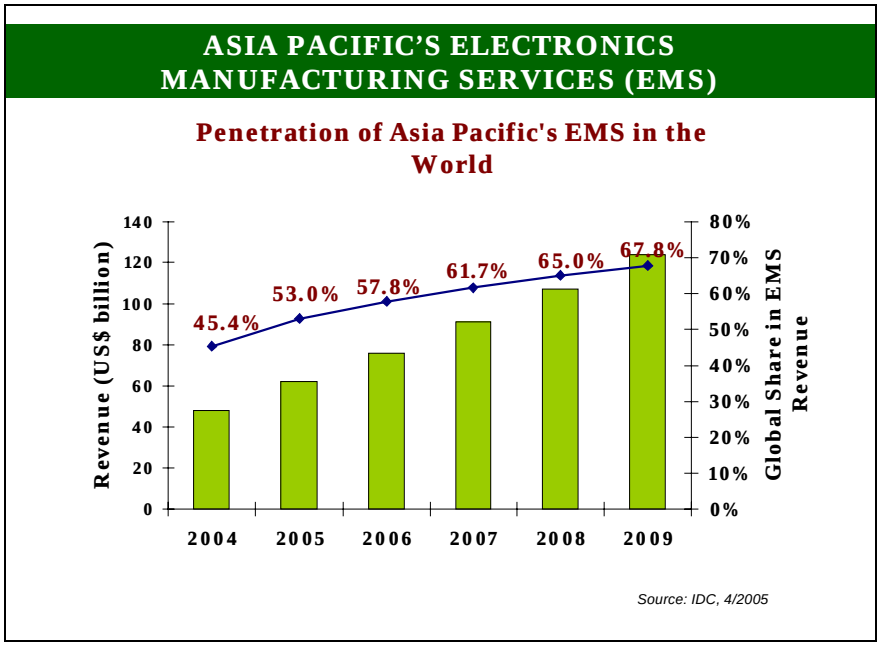


Table 5 – Asia-Pacific Electronics Manufacturing Services

Table 6 shows the application of semiconductors in different markets. Majority of the chips are used for computer applications at 42.6%, consumer electronics accounts for 18.5%; mobile communications at 16.3%; wired communications at 6.5%. Semiconductor use for automotive and military/industrial sectors accounts for 6.9% and 9.2%, respectively.

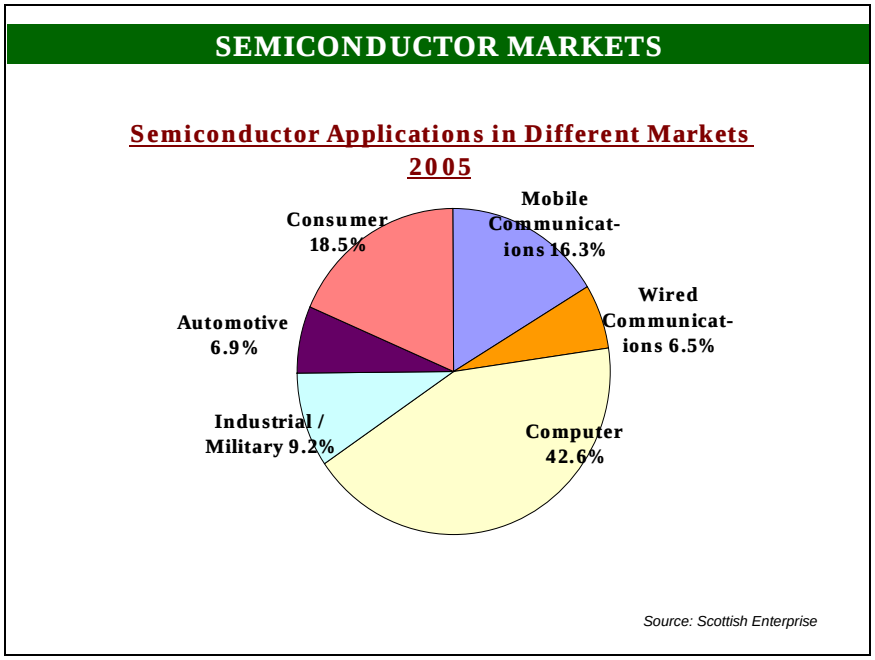


Table 6 – Semiconductor Applications in Different Markets

Asia's positions in semiconductor sales have likewise increased with Japan and China surpassing USA as major semiconductor market.

ASIA'S POSITION IN SEMICONDUCTOR SALES

- **Japan and China are surpassing Americas as major semiconductor markets**

Regional Semiconductor Sales (US$ billion)

Year	Americas	Japan	China
2001	31.9	26.7	9.9
2002	28.3	24.3	14.3
2003	29.0	29.6	20.0
2004	36.3	34.0	31.0
2005	33.0	33.1	34.3

Source: IC Insights, 3/2005

Table 7 – Asia's Position in Semiconductor Sales

The major growth drivers and trends in the electronics industry are:

1. Consumer Products - Flat panel TVs, High Definition TVs, iPods, digital cameras and set top boxes
2. Communication products - 3G handsets, TV reception on handsets, mobile services
3. Industrial electronics such as Radio Frequency Identification (RFID), green electronics, optical recognition
4. Electronics automotive products such as global positioning systems (GPS), hybrid car and electronics for safety purposes
5. Electronics use for casino gaming purposes will also be trendy.

Markets will be driven by automotive electronics (which is rising rapidly); computers and communications (which are still big), consumer and industrial (which is expected to rebound) and electronics products focused on high technology, multi-function, networking base, with high quality audio visual effects products and complex and high precision electronics.

There will likewise be an increase in spending brought by China and India markets, wireless services overtaking fixed line, offshore services, business process outsourcing, enterprise solution, security issue, commoditization of IT hardware, servers, Linux and digital home market and rising technologies.

The ASEAN Electronics Industry

With Asia's increasing share in the electronics production in the world, ASEAN's role has likewise increased.

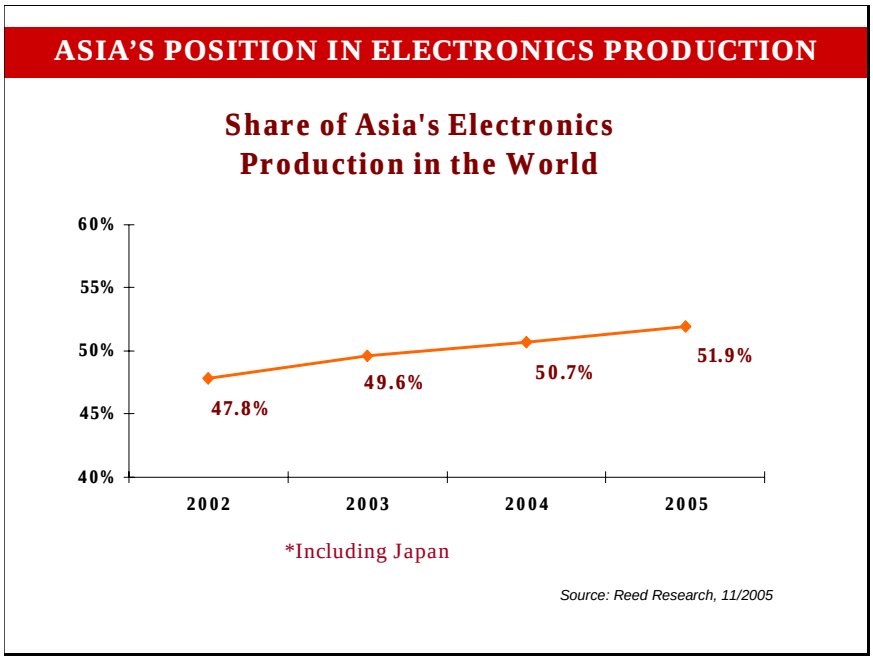
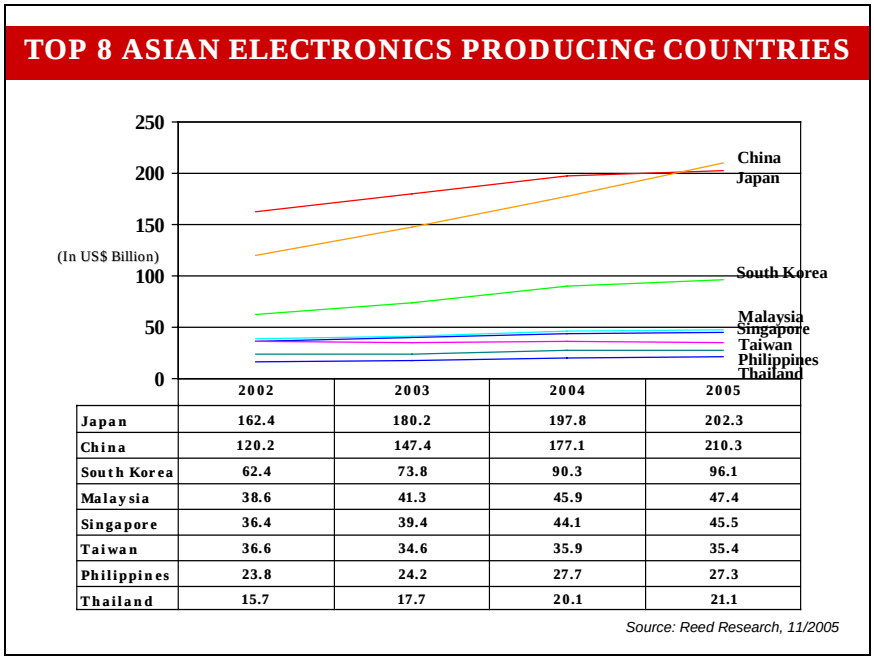


Table 7 – Asia's Position in Electronics Production

In 2005, the top 4 ASEAN countries have a production output of over US$ 140 Billion. Malaysia ranks first, followed by Singapore, then Philippines and Thailand. Indonesia and Vietnam are also into electronics production business.



	2002	2003	2004	2005
Japan	162.4	180.2	197.8	202.3
China	120.2	147.4	177.1	210.3
South Korea	62.4	73.8	90.3	96.1
Malaysia	38.6	41.3	45.9	47.4
Singapore	36.4	39.4	44.1	45.5
Taiwan	36.6	34.6	35.9	35.4
Philippines	23.8	24.2	27.7	27.3
Thailand	15.7	17.7	20.1	21.1

Table 8 – Top 8 Asian Electronics Producing Countries

The Philippine Electronics Industry

The Philippine electronics industry is the driver of the Philippine economy as it continues to be the number one export of the country for the past number of years.

In 2005, the electronics industry accounted for 2/3 or 66% of the total Philippine exports of merchandise goods. Revenue sales totaled US$27.3 Billion growing at an average of 17% for the past 10 years. Semiconductor Manufacturing Services or SMS accounted for 74% while Electronics Manufacturing Services or EMS accounted for 26%.

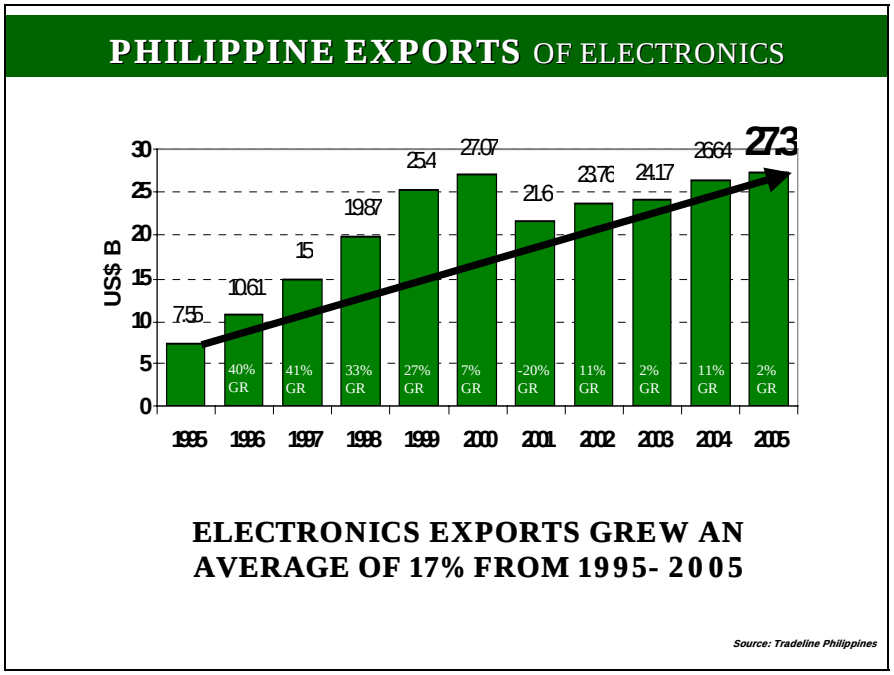


Table 9 – Historical Exports of Philippine Electronics Industry

Investments in the electronics industry have been growing for the past 2 years. In 2005, it increased by 75% - from US$ 443 Million in 2004 to US$776 Million.

In 2005, the industry directly employs over 400,000 engineers, technicians and operators and prides itself in enabling the transfer of the best global practices on high technology manufacturing to the Filipino worker. It likewise provides employment and livelihood indirectly to thousands more involved in the allied and support industries. As cited in the Economic Impact Study conducted by the UA&P/CRC, for every 1 direct job generated by the electronics industry, another 7 indirect jobs are created from allied and support industries.

INVESTMENTS IN THE ELECTRONICS INDUSTRY

YEAR	INVESTMENTS
1995	US$ 2.160 Billion
1996	1.080 Billion
1997	1.470 Billion
1998	670 Million
1999	790 Million
2000	1.240 Billion
2001	720 Million
2002	270 Million
2003	230 Million
2004	443 Million
2005	776 Million

Sources: Philippine Board of Investments (BOI) & Philippine Economic Zone Authority (PEZA)

Table 10 – Investments in Philippine Electronics Industry

Some notable developments in the industry, among others are the following:

1. As of 2005, there are a total of 883 companies who are into the electronics business, of which 72% are foreign owned.
2. Eight of the top chipmakers are operating in the Philippines namely TI, Intel, Philips, Fairchild, Analog Devices, Sanyo, On Semicon and Rohm
3. Four of the largest Hard Disk Drive producers are also in the Philippines
4. Cebu Mitsumi employs 17,000 people and is the biggest private sector employer.
5. Amkor employs 8,000 people for its IC packaging with 400 formats, from lead frame to BGA solutions.
6. Epson employs 5,000 and has the Philippines as one of the top 3 terminal printer production base of the global Epson Group, producing its 10 millionth printer recently.
7. Lexmark produces 40 million printheads per year
8. The industry also has homegrown SMS and EMS firms and a cluster of homegrown ODMs
9. Every year, the Philippine produces 72 million magnetic heads, 36 million DSPs, 30 Million HDDs, 11 Million LCDs and 8 million ODDS.
10. One Third (1/3) of its exports goes to the US and Europe and the other 2/3 to Japan, China and other parts of Asia
11. Likewise, there is a budding silicon design and development industry in the Philippines – from IC design to IC packaging, Module Design, Product Design and Firmware

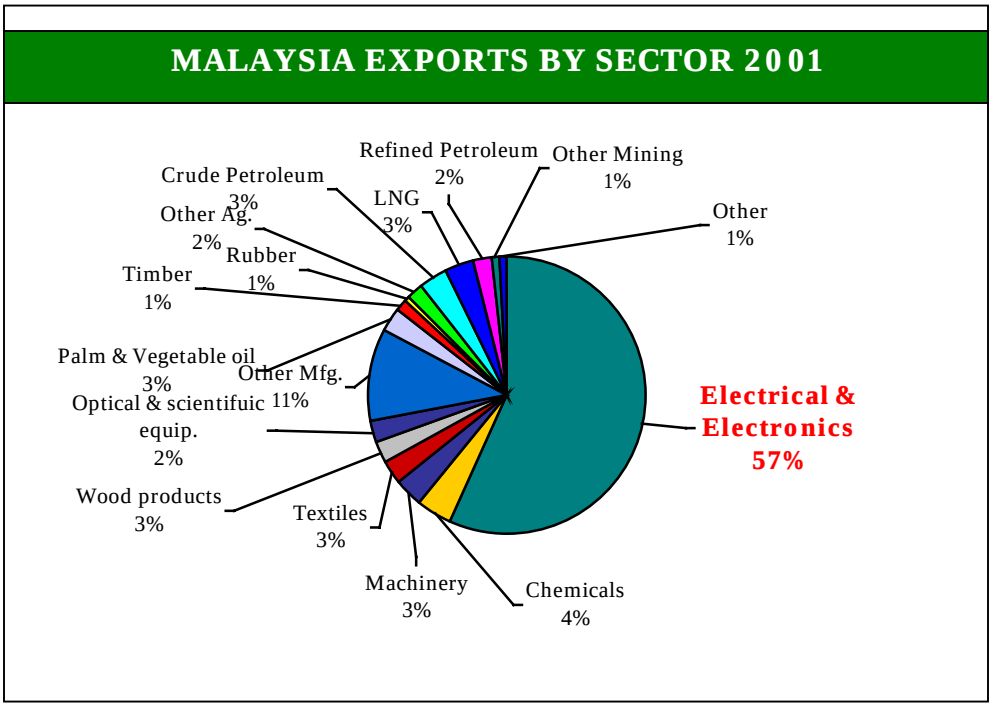
12. There is also a growing base of suppliers for Hard Disk Drives.... supplying the world with 2 ½ million Hard Disk Drives per month
13. And there is a strong assembly, test and packaging design for semiconductor manufacturing service... from microprocessors to DSPs, logic devices, flash memory, opto and power devices, memory chips and analog devices... capturing 10% of the SMS world supply.

The Semiconductor and Electronics Industries in the Philippines, Inc. or SEIPI is the leading and largest organization of foreign and Filipino electronics companies in the country today. Established in 1984, the organization has grown with the industry it represents.

The Malaysia Electronics Industry

Malaysia's economy is dependent on export growth. Manufactured electronics and electrical products represent the leading export sector, 57% of its total exports in 2001. Malaysia is the fourth largest semiconductor consumption market in the Asia-Pacific region. Emerging applications for computers, digital consumer video, and mobile communications are among the key growth opportunities.

Table 11 – Malaysia Exports By Sector



Birthed in the country in the early sixties, the sector today offers investors a ready pool of experienced managers, engineers and technicians who are capable of undertaking overall responsibilities and operating and maintaining equipment used in the manufacture and testing of products.

Investors can also take advantage of the available strong base of supporting industries that produce a wide range of electrical and electronic components and parts to back up the manufacture of end-products and equipment.

Besides components and parts, the industry has developed significant capacity and skills in the manufacture of a wide range of electrical appliances and electronic goods.

Today, Malaysia is a leading exporter of semiconductors and room air-conditioners, while the production of consumer and industrial electronics goods such as telecommunications equipment, computers and computer peripherals is expanding rapidly.

Malaysia has numerous back-end test and assembly operations, and large multinational companies' heavy investments have provided leverage into another high-tech industrial arena - wafer foundries. MIMOS Semiconductor, a government-owned fab, is the country's foremost provider of microelectronic products and services.

The recent explosive growth of wafer production will further enhance the country's expertise and provide it with clout as a global high-tech industrial player. MIMOS Semiconductor started designing chips immediately as it was set-up in 1984. But later realized that designing skills needed to be combined with manufacturing capabilities. MIMOS Semiconductor, currently, has two (2) foundries.

There are two (2) additional key advocates in the electronics industry in Malaysia - the Federation of Malaysian Manufacturer (FMM) and the Small and Medium Industries Development Corporation (SMIDEC).

The FMM is a federation of all sectors of manufacturers in Malaysia with over 1,800 members with the electronics sector having the largest representation with more than 400-members.

The Singapore Electronics Industry

The Singapore's semiconductor industry has grown from humble beginnings as an assembly- and test-subcontracting supplier to a fully integrated, cutting-edge technology wafer fabrication hub.

With about 13 state-of-the-art wafer fabs nationwide, the small island of Singapore is way ahead of its Southeast Asia neighbors in the development of the region's chip-making infrastructure. Semiconductors, as well as related production equipment and materials, are a key focus of the Singapore's Industry 21 initiative. An important advantage for investors is that the government is a significant shareholder in most of the island's wafer fabs.

With good physical infrastructure support, such as specialized power and water supplies, waste treatment and other ancillary services already in place, Singapore's Economic Development Board (EDB) is aggressively courting investments from both multinational corporations and local companies. It is offering incentives such as research and development funding and tax rebates.

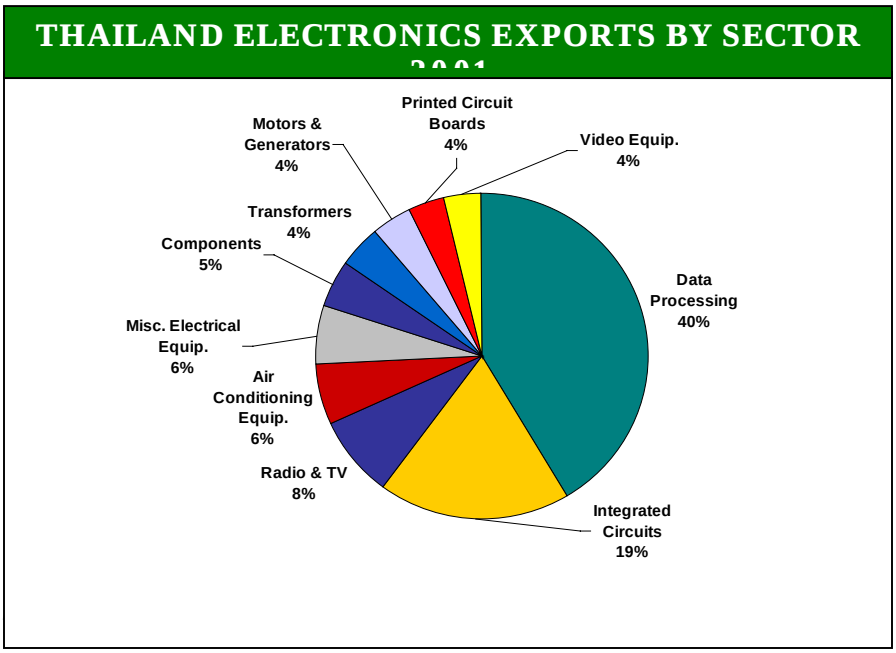
The key aspect of the "Silicon Valley concept" for Singapore is its ability to capture the entire value chain of semiconductor production. Industry-specific supporting facilities that have come on line include silicon wafer production, photo-masking and a high-purity hydrogen peroxide plant. The EDB reports that there are more than 40 semiconductor companies and 160 supporting organizations operating at all levels of the value chain. The Association of Electronics Industries of Singapore (AEIS) and the Singapore Manufacturers' Federation/EEAIIG are the two organizations working for the development of electronics industry in Singapore.

Most ASEAN countries are not in direct competition with Singapore, as Singapore has decided to target sectors with higher technologies, particularly wafer fab.

The Thailand Electronics Industry

Electronics is a growing but is small percent of Thailand's total export market. Electronic exports in 2001 were US$16Billion, ~24% of the 2001 export total. But increasing inward flow of investments, US$4.6 billion, in 2001, should increase the electronics export share substantially over the next few years. The major investors in Thailand are the Japanese and USA.

Data processing makes up ~40% of its electronics exports with IBM Storage, Seagate Technology and Fujitsu contributing ~12.5% of total electronics exports. The USA (~24%) is its number one export destination followed by Japan (~14%).



The Electrical and Electronics Institute is an independent organization that coordinates the activities of various agencies and institute to accelerate the development of electronics industry in Thailand. The government provides them an operating budget of ~US$150k a year.

Thailand's competitiveness in the electronics industry is improving, as the government is proactive involved in the implementation of the industries road map and has allocated funds for key developmental projects.

With the foreign direct investments of electronics industry in Thailand recently, it is expected that Thailand's export value will grow rapidly.

The Indonesian Electronics Industry

Indonesia represents less than 1% of global electronics output and a similar share of the market. Its export revenue in the electronics industry is over US$ 6 Billion.

In the past few decades and with huge number of population, consumer electronics dominates the industry in Indonesia. However, export orientation began in mid-1980s by some Japanese firms, but exports accelerated in the early 90s with more Japanese and Korean companies as dominant investors.

The Indonesian electronics now industry is primarily represented by the electronics components, accounting for the largest share of output, followed by consumer electronics and computing. In total the three segments accounted for 87% of output in 2002.

The Vietnam Electronics Industry

Vietnam is a latecomer in the electronics mainstream business of ASEAN. The electronics industry is still at the very infant stage of development with the government inviting as many foreign producers of parts and components as possible by introducing the combination of various tax incentives, improvement in business environment, and overseas promotion activities. The parts and components producers are in fact even more capital and technology-intensive than the assemblers

As it is young, the electronics industry is receiving high priority in the government's development strategy. The industry is the latest of Vietnam's successes in manufactured export development. With no exports until the mid 1990s, exports of electronics reached nearly US$ 1.5 billion in 2005, up 34% as compared with the previous year.

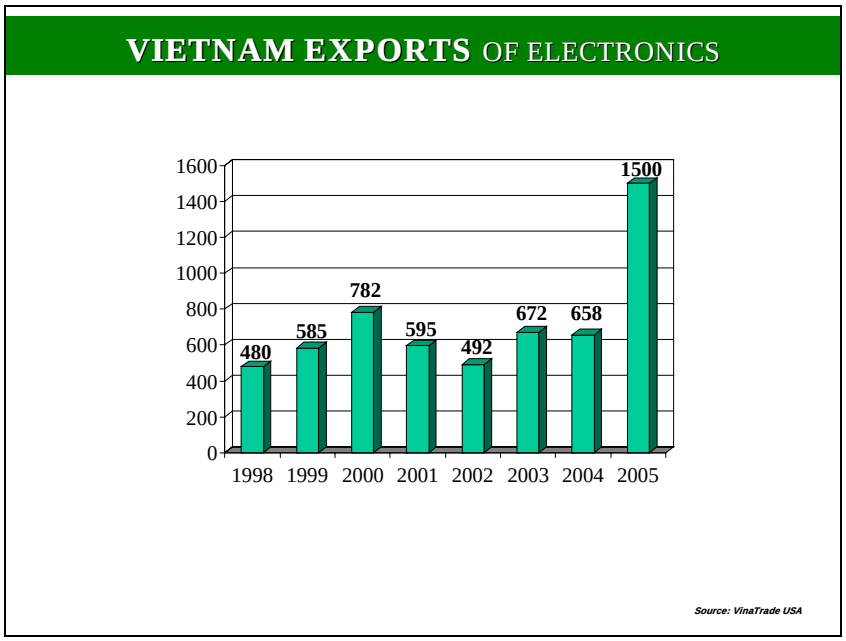


Table 13 – Vietnam Electronics Exports

The main products are transformers, printers, computer and mobile telephone parts, circuit boards, etc. The industry is dominated by foreign investments with some of the leading Japanese and Korean enterprises involved.

The Electronics Industry in Other ASEAN Countries

Brunei, Laos, Cambodia and Myanmar are not yet oriented towards generating more export revenue though electronics business activities as compared to the abovementioned six ASEAN countries. Hence, no sufficient industry data and information are available.

ASEAN's Electronics Capabilities

Production of electronics-based products has been growing in strength as a basis for industrial development in ASEAN. In fact, during the recent years, the electronics industry accounts for a big percentage share of most ASEAN countries' export revenues. **ASEAN accounts to a little over US$ 150 Billion of the US$ 1.3 Trillion global production output with intra-ASEAN electronics trade accounting for over US$40 Billion.**

In general, in its present state, ASEAN electronics business is still essentially engaged into assembly and test manufacturing; most of its produce are geared towards exports; it has a growing allied and support industry; it is a high quality, high productive industry; it is still primarily dominated by multinational companies with Japan and the United States providing the much needed technology for ASEAN's economic development in electronics businesses.

The impact of the multinationals presence creates an opportunity for the ASEAN manpower to enhance its installed capacities and capabilities, growing proportionately with the growth of technology and size of the industry.

With the present size and visibility of ASEAN as a major industry group in the global electronics business, it is taking major steps to make it as an investment location of choice and regional center for excellence for technology companies who wish to design, make and sell their products.

II. THE INTEGRATION OF ELECTRONICS INDUSTRY IN ASEAN

During the ASEAN Economic Ministers (AEM) meeting held in Jakarta, Indonesia last 12-13 July 2003, the Ministers had an extensive discussion on how ASEAN can further enhance economic integration. There was a shared concern that industries that are no longer competitive in ASEAN would relocate themselves outside of ASEAN.

The Meeting considered the proposal for ASEAN to adopt a regional economic integration program to promote industrial complementarities in the region and give priority to integrating certain selected sectors.

For each sector, a member country had been identified as coordinator and are as follows:

1. **Electronics – Philippines**
2. Wood-Based Products – Indonesia
3. Automotive – Indonesia
4. Rubber-Based Products – Malaysia
5. Textiles and Apparels – Malaysia
6. Agro-Based Products – Myanmar
7. Fisheries – Myanmar
8. e-ASEAN – Singapore
9. Health Care – Singapore
10. Air Travel – Thailand
11. Tourism - Thailand

With the Philippines as the lead convener for the electronics sector, the Philippines, thru then DTI Secretary Mar Roxas, has tap the Semiconductor and Electronics Industries in the Philippines Inc. (SEIPI) and the Board of Investments (BOI) to champion the ASEAN Task Force.

Each country coordinator is then expected to convene a series of industry coordination sessions with the industry players of ASEAN for the identified sector to discuss how best the integration of these sectors could be accelerated in the region.

SEIPI and BOI were requested to organize and convene an ASEAN Electronics Forum to be attended by major ASEAN electronics industry players in order to:

1. Identify the difficulties being encountered in trading goods (products and inputs) within the region.

2. Come up with an ASEAN paper that will specify the trade facilitation measures needed by the electronics sector.

3. Devise a regional action plan for the electronics industry with the objective of enhancing economic integration of ASEAN so that third party investors and traders will view the entire region as a truly integrated platform in which to do electronics business.

The following focuses on the initiatives and implementation of work programs undertaken led by the Philippines, together with other ASEAN countries, with the private sector cooperation.

THE FIRST ASEAN ELECTRONICS FORUM (1ST AEF)

The 1st AEF was held in 28 August 2003 at Makati Shangri-La Hotel in Makati City, Philippines. Representatives from Indonesia, Malaysia, Singapore, Philippines and Thailand attended the Forum.

The objectives of the ASEAN Electronics Forum (AEF) were as follows:

1. To convene the major ASEAN private sector players in the electronics industry in order to identify the difficulties being encountered in trading goods (products and inputs) within the region.

2. To come up with an ASEAN paper that will specify the trade facilitation measures needed by the electronics sector.

3. To devise a regional action plan for the electronics industry with the objective of enhancing economic integration of ASEAN so that third party investors and traders will view the entire region as a truly integrated platform in which to do business in electronics.

The Consultation Process

Prior to the AEF, a survey questionnaire developed for the exercise was distributed to key industry players in ASEAN. There were 15 Philippines and two (2) Malaysian companies that responded to the survey.

Results were then consolidated by the Philippine Board of Investments (BOI) and presented by SEIPI during the Forum.

It was recognized that there is a need to improve turn around time of the region, as this is one advantage we still enjoy over China. Some of the trade facilitation issues include:

1. **Simplification of customs procedures**
2. **Harmonization of nomenclatures**
3. **Standards and forms, and**
4. **Improvement of shipment modalities.**

During the Forum, representatives from ASEAN countries have been asked to present industry status and developments of their corresponding electronics industries. It was noted that the aggregate electronics exports of Indonesia, Malaysia, Philippines, Singapore and Thailand in 2002 reached more than US$ 140 billion. The ASEAN core competencies in the electronics value chain are spread out in different ASEAN member countries:

1. **Indonesia: consumer electronic products**
2. **Malaysia: consumer electronic products, semiconductors**
3. **Philippines: semiconductors, electronic data processing**
4. **Singapore: semiconductors, data storage, precision engineering**
5. **Thailand: office equipment, consumer electronic products**

Agreements

In the discussions that ensued, issues in ASEAN, specifically in trade facilitation and economic integration were identified. For each of the issues identified, the Forum participants came up with four (4) major issues and assignments. These are:

1. **Indonesia - Standards and Implementation of Mutual Recognition Agreement in ASEAN**
2. **Thailand and Singapore -Strategy on China**
3. **Malaysia - ASEAN Integration of Market and Production Base**
4. **Philippines -Trade Facilitation**

THE SECOND ASEAN ELECTRONICS FORUM (2ND AEF)

The 2nd AEF Second was held on 9 December 2003 at the Baguio Country Club, Baguio City, Philippines. Delegates attended it from Indonesia, Malaysia, Singapore and the Philippines. Myanmar likewise went on board in this Forum, deciding to work with Indonesia on the issue of MRA and Standards.

For this Forum, entitled "Crafting a Regional Action Plan for the Electronics Industry", the main objective was to come up with concrete, realistic and time-bound projects that can be pushed in order to move forward the electronics industry, which would be relevant to promoting trade, integrating the market and production base in electronics in and within ASEAN.

Among the agreements reached during this forum include:

1. **Submission of inputs by each country on their assignments by end of February 2004.**

2. **The body agreed that since the Regional Action Plan for Electronics Industry is still in the planning stage, participation of non-ASEAN entities to succeeding meetings shall not yet be allowed. Specific information on action plans shall neither be disseminated.**

3. **The body likewise agreed to hold two (2) meetings next year, the first one to be scheduled between the 1st and 2nd quarter of 2004, which will still be hosted by the Philippines, being the country coordinator for ASEAN Electronics Priority Integration Program (PIP).**

THE THIRD ASEAN ELECTRONICS FORUM (3RD AEF)

The 3rd AEF was held in 25-26 March 2004 at the InterContinental Manila Hotel, Makati City, Philippines. It was attended by delegates from Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Singapore, Vietnam and the Philippines.

For this Forum, the main objective was to finalize the Roadmap for the ASEAN Electronics Integration that will be presented by then DTI Secretary Cesar Purisima during the ASEAN Economic Ministers (AEM) Retreat in Singapore scheduled in the third week of April 2004.

Among the salient points of the discussions during the forum include:

1. **On the product coverage of the roadmap** - There was an emerging consensus except nuclear reactors, and mechanical appliances and machineries as product coverage.

2. **On tariff elimination** - Timeline for ASEAN 6 was initially set to be in 2007. The Philippine DTI Secretary, however, will negotiate a 2005 timeline in the AEM Retreat Agreement.

3. **On trade facilitation measures** - Four measures specific to electronics will be pushed to enhance customs procedures across ASEAN. These are the:

   3.1 institutionalization of Rosettanet compatibility in ASEAN for the exchange of trade documents

   3.2 implementation of an Industry-specific Bonded Warehouse or a similar scheme

   3.3 implementation of a 24x7 customs operations with no additional fees or charges

   3.4 implementation of a Green lane or a similar system for all CEPT electronics products

4. **On Investments** - The AEF will intensify regional investments promotion work by focusing on ASEAN's competitive advantage (one of which is the large manufacturing base in 5 countries and a long-established presence of MNCs) vis-à-vis other investment locations, negotiating for the elimination of the China VAT policy, and reduction of intra-ASEAN withholding taxes for incoming designs.

5. **On Market and Production Base Integration** – Outsourcing activities in and between ASEAN countries shall be strengthened by enhancing the AICO Scheme, establishing an intra-ASEAN linked Supplier Database system and holding of an annual Reverse Trade Fair.

6. **On Standards and Mutual Recognition Agreements** - AEF will endeavor a phased implementation of MRA to begin with 3 products, identification and adoption of relevant international standards as domestic national standards, and identification of accredited private testing laboratories and certification bodies in respective ASEAN member countries

7. **On capacity building** - AEF will endeavor to develop ASEAN R&D capabilities according to ASEAN taste by looking at possible ways to cooperate within ASEAN in terms of education, trainings on R&D and by looking at existing institutions/committees/working groups from which assistance on improving R&D capabilities. Collaborations on testing and accreditation shall likewise be explored.

8. **On ASEAN Branding** - AEF shall endeavor to develop an ASEAN product (one which will have all-ASEAN inputs) and undertake ASEAN branding for the region's products and activities.

The Roadmap for Electronics Integration, as with the other 10 sectors under the ASEAN Priority Integration Program (PIP) shall be transformed into legally binding commitments in the form of agreements, which will then be submitted for endorsement to the Leaders at the 10th ASEAN Summit in Vientiane, Lao PDR in November 2004.

The AEF likewise agreed to hold the 4th AEF in Yogyakarta, Indonesia either in the last week of September or first week of October 2004. While Indonesia will host the event, the Philippines remain to be the country coordinator and chair of the event. Secretariat support will likewise have to come from the Philippines.

THE FOURTH ASEAN ELECTRONICS FORUM (4TH AEF)

The 4th AEF was held on 12-13 October 2004 at Hotel Bumi Karsa, South Jakarta, Indonesia. It was attended by delegates from Cambodia, Indonesia, Myanmar, Singapore, Vietnam and the Philippines. Representative from the ASEAN Secretariat was also present during the forum.

The Forum's main objective was to discuss and make recommendations on the outstanding issues on the Roadmap arising from the last SEOM meeting held on 17-20 August 2004 at the ASEAN Secretariat, Jakarta, Indonesia.

Following are the recommendations made by the Forum. These will be strongly endorsed for consideration of SEOM in its upcoming meeting prior to the Leader's Summit in November 2004.

1. **On AEF after the Leader's Summit** - AEF shall continue to exist on a stocktaking capacity and shall meet at least once a year for stocktaking purposes. Moreover, AEF will make appropriate recommendations to SEOM regarding the implementation of the Roadmap.

In the event that the ASEAN Working Group will require inputs on certain issues, AEF, through the Country Coordinator, can be called upon to act as resource person/s with the Chairman designating who among the Member Country representatives can be called upon to handle the issue.

2. **On the deleted measures from the 3rd AEF Roadmap version.** The following measures will not be pursued as agreed in SEOM:

   2.1 Implementation of industry-specific bonded warehouses or similar schemes
   2.2 Work towards reduction of intra-ASEAN withholding taxes for incoming designs
   2.3 Develop ASEAN brand and ASEAN product

   The implementation of 24 x 7 Customs operation with no additional fees or charges which was also deleted by SEOM will be recommended for reconsideration of ECCM, specifically with respect to the 24 x 7 Customs operation. On the imposition of additional charges, however, the Member countries will have to decide individually on the matter.

3. **On Outstanding Measures Under the Roadmap -** The linking up of existing individual databases shall be undertaken by CCI. In collaboration with AEF, it will prepare template/format of database that shall be followed by Member countries in developing their databases.

   The holding of regular Reverse Trade/Parts Exhibition shall be handled by CCI. It will determine the frequency of holding the event and how these are to be done.

   The development and promotion of ASEAN Center of Excellence (COEs) in the areas of R&D, design & prototyping, and outsourcing from within ASEAN shall be handled by WGIC. By December 2005, the WGIC shall have identified Center of Excellence in ASEAN including areas of expertise and satellite COEs within the region. The AEF will assist WGIC in the preparation of the Terms of Reference (TOR) for the establishment of COEs upon consultation with Member countries and will provide information on virtual COE when warranted.

   WGIC will make appropriate recommendation on the development of skills training programs for countries with less-developed electronics industry. The CLMV countries will provide inputs and recommendations on the matter.

4. On Other Issues:

4.1 **ASEAN-Japan/ASEAN-China Next Steps** - Based on ASEAN-Japan CEP Workshop Seminar on FDI held in Tokyo on 28-30 September 2004, it was noted that the Japanese FDI will concentrate on electronics and automotive sectors and that the Japanese intends to integrate ASEAN electronics with China. In consideration of the foregoing, the AEF strongly recommends the following measures:

a. CCI to stock take the competitive advantage of ASEAN with respect to the various sectors within the value chain of electronics;

b. CCI to emphasize capacity building as a competitive measure under the ASEAN-Japan CEP;

c. CCI to take the cluster approach for the electronics sector similar to the model made for the automotive sector;

d. As an initial step, CCI thru ABAC, shall arrange meetings with MNCs with operations in ASEAN to determine the appropriate manufacturing/service structure in ASEAN in line with their global business strategies; CCI then to make appropriate recommendations to AIA Council

4.2 **FDIs from other ASEAN and Plus 3 Countries** - CCI will recommend measures on how to encourage more FDIs intra-ASEAN and to ASEAN from Plus 3 countries.

4.3 **Differing Levels of Exclusions for Tariff Elimination** - Member countries will be enjoined to have no exclusions for electronics. If this is not feasible, they will be requested to keep the exclusion lists to the barest minimum and as common as possible.

4.4 **Participation of Non-ASEAN Countries in AEF** - Non-ASEAN countries with interest in the electronics sector in ASEAN may be invited to participate in future AEF meetings as warranted.

4.5 **AICO Scheme** - It is recommended that more AICO arrangements for the sector be encouraged and the approval of all AICO applications be fast tracked.

The above recommendations have been forwarded to the Philippine SEOM Leader for consideration in SEOM's meeting on 21 October 2004.

THE FIFTH ASEAN ELECTRONICS FORUM (5TH AEF)

The 5th AEF was held on 04-05 August 2005 at Plantation Bay, Cebu, Philippines. It was attended by delegates from Indonesia, Lao PDR, Malaysia, Singapore, and the Philippines. Representatives from the Philippine SEOM, ASEAN Secretariat and ASEAN CCI were also present during the Forum.

The Forum's main objective was to discuss the overall plans and strategies to ensure that the Roadmap measures, both horizontal and specific, for the Electronics Integration will be acted upon accordingly. The Forum also tackled updates/status on ASEAN PIP, COPS meeting and developments on integration measures from each country representative.

During the Forum, each country representative was designated to work on the following Roadmap measures/outstanding issues to discuss possible recommendations/ actions steps that AEF could take to ensure proper implementation of said measures.

1. **Indonesia:** NTMs, Standards & Conformance, Standards & MRA
2. **Lao PDR:** ASEAN Integration System of Preferences
3. **Malaysia:** Outsourcing and Industrial Complementation, Market and Production Base Integration
4. **Philippines:** Tariff Elimination, Rules of Origin, Customs Procedure, Trade and Investment Promotion, Human Resource Development, Customs Procedure, Capacity Building, AEF Structure and Participation
5. **Singapore:** Investments (Horizontal), Intellectual Property Rights, Investments (Sector Specific)
6. **Thailand:** Logistics Services, Intra-ASEAN Trade and Investment Statistics
7. **Vietnam:** Movement of Business Persons, Skilled Labor, Talents and Professionals, Facilitation of Travel in ASEAN

It was likewise agreed that each country representative, designated to work on the action steps/outstanding issues of the Roadmap measures, will submit the required study / findings / recommendations to the AEF Secretariat by the end of September 2005 for consolidation.

Following are the outstanding issues and the respective action steps agreed upon to ensure proper monitoring and implementation of the electronics roadmap measures, both horizontal and specific. The recommended actions steps was forwarded to the Philippine SEOM Leader to strongly endorse the same to all other SEOM leaders in their meeting in August 2005.

HORIZONTAL MEASURES:

1. **On Tariff Elimination:**

   1.1 It was agreed, in principle, that the Temporary Exclusion List (TEL) and Sensitive List (SL) shall be eliminated by 2006/2007, respectively. For security reasons, however, those in the SL can be transferred to the general exception list.

   1.2 For the phased-in products, it was likewise agreed to have 0% tariff by 2010 and 0-5% tariff range from 2007-2009.

   1.3 Designated Country Representatives shall validate the commitment of their respective countries by end of September 2005

   1.4 AEF Secretariat to follow up commitments of all ASEAN member countries

2. **Non-tariff Measures (NTMs)**

   2.1 AEF to work on the removal of all NTMs for electronics sector by 2007

   2.2 Indonesia to do a study, with analysis and recommendation, on how to eliminate NTMs by end of September 2005

   2.3 ASEAN Secretariat/RP BITR to give Indonesia all the list of NTMs for electronics by mid August 2005

3. **Rules of Origin (ROO)**

   3.1 AEF is amenable to the adoption of 40% ASEAN content based on cumulation method to qualify for ROO and recommend its early implementation by all ASEAN member countries. This method has been adopted by the Ministers but is still subject to full implementation.

   3.2 AEF is considering using substantial transformation as another ROO option in view of the fact that other countries have difficulty meeting the 40% ASEAN content.

   3.3 RP to provide specific recommendations on the matter, including a proposal on the qualification for substantial transformation as an alternative ROO e.g. change in tariff classification, or adopt what is being used in WTO

4. **Customs Procedure**

   4.1 It was reported that integration measures under Customs Procedures are on track. However, not all ASEAN member countries are already in compliance with said implementation measures, i.e., only the ASEAN 5 have complied with measure #10, while Indonesia, Malaysia, Philippines and Singapore have already been implementing Green Lane (GL) for electronics, etc.

4.2 RP was tasked to 1) follow up status of GL on Thailand and CLMV, 2) write to Brunei to seek clarification why it has not yet complied with Agreement on Customs Valuation and 3) validate with CLMV countries, being non-WTO members, whether they have already adopted the same following the WTO agreement, and 4) follow up the status on the adoption of service commitment (service charter) by ASEAN customs authorities

4.3 Indonesia, Philippines, Malaysia and Singapore, in principle, agreed to fast track the implementation of ASEAN Single Window (ASW) and not wait for 2011. RP customs was tasked to study and recommend specific measures on the matter, especially on how to fast track implementation of ASW for electronics by end of September.

5. Standards and Conformance

5.1 AEF proposed all ASEAN countries to recognize test reports and certificates issued by the seven accredited testing laboratories and the lone certification body, provided that there is a bilateral MOU between the countries (exporting and importing countries)

5.2 Indonesia was tasked to provide recommendation on the subject matter by end of September

6. Logistics Services

6.1 AEF Secretariat or Philippine SEOM to inform Thailand counterpart that it was chosen to take on the responsibility to review the status of the measures on logistics services and for them to provide specific recommendations to fast track integration measures on this area by end of September. In case Thailand is not amenable to this, Singapore has been chosen as the alternate to work on this measure.

7. Outsourcing and Industrial Complementation

7.1 Malaysia to formulate a strategy on how to enhance outsourcing activities within ASEAN by end of September e.g. provision of incentives especially on R&D, promote investments in low-value electronics products to CLMV, provided that a conducive investment environment are present in these areas, etc.

8. ASEAN Integration System of Preference (AISP)

8.1 Lao PDR to consolidate CLMV wish list on electronics products to be granted the AISP privileges by end of September

9. Trade and Investment Promotion

9.1 Push for the holding of Regional Reverse Trade Fair involving industry associations of electronics products of various ASEAN member countries. The Philippines will be hosting the ASEAN Reverse Trade Fair 2006 in Manila

9.2 For ASEAN to push for joint investment promotion efforts among its member countries. Japan, US, Taiwan and Korea are among the identified significant country partners in electronics sector for possible sources of FDIs for the region

9.3 Tap the ASEAN Business Advisory Council (ABAC) for the ASEAN joint investment promotion efforts

10. Intra-ASEAN Trade and Investment Statistics

10.1 To request Thailand to get a direct link with CCCA, which is the ASEAN working group on statistics

11. Intellectual Property Rights (IPR)

11.1 Singapore to provide updates on the matter and recommend measures, taking into consideration the measures already undertaken by the ASEAN Working Group on IPR

12. Movement of Business Persons, Skilled Labor, Talents and Professionals

12.1 Vietnam to look into ASEAN countries' visa policy to ensure that there is free movement of natural persons within ASEAN, specifically Lao PDR's and Myanmar's Visa policy for traveling businessmen/government officials from ASEAN using regular passport

12.2 AEF was amenable to adapting the provision of visa exemption for experts from non-ASEAN countries. ASEAN member countries will have to work with their respective Ministry of Foreign Affairs regarding its implementation.

12.3 Vietnam to consolidate ASEAN country positions and provide updates to the AEF Secretariat by end of September 2005

13. Facilitation of Travel in ASEAN

13.1 In principle, AEF was amenable to harmonizing procedures for issuance of visas to international travelers.

13.2 Vietnam to provide updates by end of September 2005.

14. Human Resource Development

14.1 AEF to identify all training institutes in ASEAN focused on electronics trainings for engineers

14.2 AEF to work on an agreement among institutions in ASEAN for sharing information, programs/ coursewares and trainors

14.3 Philippines to provide more detailed information on the above recommendations

SECTOR-SPECIFIC MEASURES

15. Customs Procedure

15.1 Rosettanet Asia, with the support of Rosettanet Philippines, to promote the establishment of a Rosettanet consortium in other ASEAN countries

16. Market & Production Base Integration

16.1 AEF endorsed the holding of the ASEAN Reverse Trade Fair 2006 in Manila

16.2 AEF agreed to make use of AICO scheme more frequently especially for products that are still in the SL and TEL to avail of 0% preferential tariff

17. Capacity Building

17.1 On Centers of Excellence (COEs), AEF to identify where an existing activity has achieved critical mass, and as such may be considered as starting point. There is a need to draw up the criteria to evaluate country status on existing COEs and consider the COE direction of non-ASEAN countries. There is likewise a need to ensure access to COEs. COE staffing can benefit from cross posting/staffing of industry professionals and academic researchers from and among ASEAN nationals.

17.2 On capacity building, in terms of product testing and accreditation, AEF to fast track EEE MRA in order to start the laboratory building activity. Otherwise only skills development maybe undertaken

17.3 On skills training programs, AEF to have an overall policy announcement from ASEAN governments that this is being encouraged. Industry associations of member countries to also come up with an implementation framework.

Aside from the Roadmap measures, there was also a discussion on the structure and involvement of the private sectors in the AEF. Following were the agreements made regarding the subject matter:

1. Private sector is considered an internal member of the AEF. The ASEAN Secretariat, SEOM and AEF government representatives are enjoined to ensure and encourage involvement of the private sector in AEF to carry out the integration of the electronics sector in ASEAN.

2. The succeeding AEFs will involve a meeting of ASEAN government representatives back to back with a meeting with the private sector

/industry associations of different countries in ASEAN. The AEF Secretariat will design the program that will actively involve the participation of the private sector for consultation/dialogue and/or industry presentation to the plenary body.

3. The Secretariat will try to schedule the convening of the AEF in time with the holding of international events such as the ASEAN Reverse Trade Fair (RTF) to optimize the use of resources (money and time) of participating private sector representatives.

4. The AEF will be held twice a year, instead of once a year, to appropriately undertake the tasks assigned to the AEF by SEOM for the integration of electronics and to provide more timely updates on the progress of implementation of the measures.

During the forum, it was also agreed that the 6th AEF will be convened in January or February 2006 in Thailand or Myanmar, depending on which country will accept to host the Forum. Likewise, the 7th AEF was agreed to be convened in June 2006 in Manila in time for the ASEAN Reverse Trade Fair 2006.

The above recommendations and actions steps were forwarded to the Philippine SEOM Leader to strongly endorse the same to other ASEAN SEOM leaders in their meeting in August 2005.

THE SIXTH ASEAN ELECTRONICS FORUM (6TH AEF)

The 6th AEF was attended by delegates from Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Singapore, Thailand and Philippines. Representatives from the ASEAN Chamber of Commerce, ASEAN Secretariat, as well as the ASEAN expert on electronics were also present during the Forum.

For this Forum, work was focused on three specific Roadmap measures, namely: (1) joint investments promotion work; (2) ASEAN Reverse Trade Fair; and (3) ASEAN electronics & allied industry database. These measures are being prioritized, as these are deemed critical in the development and integration of the electronics industry in the region.

Being the country coordinator for the integration of electronics in the region, the Philippines prepared the discussion paper/project proposal for each of the aforementioned priority roadmap measure.

These papers/project proposals were presented to AEF delegates prior to the workshop / break-out session, wherein details of these projects were discussed and agreed upon. Agreements on a per project group level were presented to the body during the Plenary, followed by the “Adoption of Proposals”.

There was also a presentation from Intel Philippines on "Key Success Factors in Hosting an Electronics Manufacturing Firm in ASEAN Context" followed by an open forum as well as on the Proposed Seminar Series by EU under the Trans-Regional EU-ASEAN Trade Initiative (TREATI).

Following are the agreements reached during the Forum. These will be officially reported to ASEAN SEOM for endorsement to ASEAN Economic Ministers:

1. **Establishment of an ASEAN electronics and allied industries database following a harmonized template by March 2006**
2. **Holding of the ASEAN Electronics Business Opportunities Conference (AE-BOC) as the 1st ASEAN Reverse Trade Fair on June 27-29, 2006 in Manila**
3. **Coming up with an ASEAN Joint Investment Promo Collateral by June 2006**
4. **Convening of the CEO Forum of the top 5 MNCs and top 5 local ASEAN companies in time with the ASEAN Leaders' Summit in December 2006**
5. **Preparation of the draft Terms of Reference for the proposed ASEAN Joint Investment Forum/Seminar by February 2006, which shall be presented during the 7th AEF.**

The AEF likewise agreed to hold the 7th AEF in Manila in June 2006 in time for the holding of AE-BOC.

THE SEVENTH ASEAN ELECTRONICS FORUM (7TH AEF)

The 7th AEF was attended by delegates from Cambodia, Indonesia, Lao PDR, Myanmar, Singapore, Thailand and Philippines. A representative from the ASEAN Secretariat, which is the ASEAN expert on electronics, was also present during the Forum.

For this Forum, work was focused on three specific Roadmap measures, namely:

1. **Regional Investment Promotions**
2. **ASEAN Electronics Industry Database**
3. **Customs Matters**

These measures are being prioritized, as these are deemed critical in the development and integration of the electronics industry in the region.

To update the participants on matters related to the AEF, the AEF Chair, reported the status of Priority Roadmap Measures, the updates on COPS II, as well as the results of the Jakarta Roadshow as well as the proposals for Electronics Integration phase.

Two speakers were also invited to share their knowledge/expertise on certain issues affecting the development and growth of the electronics industry. Mr. Seiichi Fukami, the President and CEO of Panasonic Manufacturing Philippines Corporation (PMPC), talked about the "Localization Project Through Regional Clustering", while Mr. Hitoshi Ozaki, a consultant for the electronics sector from the ASEAN Secretariat, presented the "World Electronics Profile, ASEAN, and Direction Towards Integration".

The three aforementioned Roadmap measures which are being focused on in this Forum were discussed during the workshop / break-out session, wherein details of these projects were agreed upon. Agreements on a per project group level were presented to the body during the Plenary, followed by the "Adoption of Proposals".

Following are the agreements reached during the Forum:

1. Coming up with the design format and content of the ASEAN Joint Investment Promotion Collateral by end of July 2006
2. Linking of the databases of each country to each other's website and ASEAN Secretariat website by July 2006
3. Submission of the status on the implementation of 24x7 Customs Procedures and Super Green Lane in the next ASEAN Electronics Forum in 2007.

The next AEF meeting was proposed to be held in Myanmar (May 2007) or Vietnam (late 2007). The AEF likewise agreed that if the official AEF Representative cannot attend the Forum, they have to find a replacement from the host country.

III. RECOMMENDED STRATEGIC FRAMEWORK AND ACTIONS

Following the implemented work programs in the past seven (7) ASEAN Electronics Forum (AEF) held from 2003 to 2006 and in its efforts to bring in more active ASEAN electronics private sector companies into the loop, the Philippines conducted a Roadshow/Visit to electronics companies based in Indonesia, Singapore, Malaysia, Thailand and Vietnam.

The Philippines made an environmental scan and downloaded the snapshot of the ASEAN electronics industry including the ASEAN Government's common goal of one ASEAN in the next coming years to concerned sectors within ASEAN.

With a need to increase, integrate, and facilitate business together to attain the ASEAN objective, **the ASEAN Electronics Business Opportunities Exhibition and Conference (AE-BOEC) was presented as an initial and concrete integration action plan of the electronics sector**.

AE-BOEC is an information dissemination and business development activity on outsourcing programs of electronics companies based in ASEAN countries and a display of products or a "Reverse Trade Fair" of companies who intend to source to ASEAN companies.

The concept of a meeting of the top electronics business leaders was also presented during the trip. These leaders would comprise of the top 5 Multinational Corporations based in each ASEAN countries and the top 5 homegrown electronics companies in ASEAN countries.

THE ASEAN ELECTRONICS BUSINESS OPPORTUNITIES EXHIBITION AND CONFERENCE (AE-BOEC) MODEL

THE BUSINESS OUTSOURCING CONFERENCE

A concrete action steps to realize the planned integration, the AE-BOEC was held on 07 December 2006, in time with the ASEAN Leaders Summit at Cebu City in the Philippines.

Eight (8) procurement executives from top ASEAN electronics companies discussed their respective companies purchasing programs and shared information on how the suppliers can participate and be accredited in the companies supplier programs.

All the conference presenters shared the historical background of their company and gave detailed accounts of their company background, products and services they produce to satisfy domestic and global demand. Within this framework, each conference speaker stated the diverse procurement policies and programs they are applying for such demand of consumers for electronics to further develop and satisfy these consumers' needs.

THE REVERSE TRADE FAIR

The Reverse Trade fair is an information and business development activity on outsourcing programs of electronics companies based in ASEAN countries or a display of products companies intend to source to ASEAN companies. A total of 20 ASEAN electronics companies/exhibitors participated in this Exhibition and was attended by more than 150 potential supplier-companies.

Initial annual purchase value of transaction from the Reverse Trade Fair when realized is Php240M or USD 5.0 M The above amount is the total reported value of purchase value from three (3) exhibitor companies only as other exhibitors did not indicate any projected purchase value from suppliers. Instead, they indicated contacts made with new suppliers and that negotiations need further discussions and follow-up activities such as sending of samples for analysis and testing need to be undertaken.

DTI/BOI reported that there were a total of 185 meetings with the 20 exhibitors and 6 investment promotion agencies of ASEAN that transpired, with an estimated average of 6 business matching meetings per exhibitor happening during AEBOEC. The Buyer-Exhibitors were generally satisfied with the quantity and quality of suppliers met.

AE-BOEC: THE NEXT STEPS

The Business Exhibition and Conference was able to bring ASEAN electronics companies in sync in the sharing of procurement program for the vision of integration. Such information (maybe confidential in nature) was shared unresistingly having in mind, ASEAN as one region not just a mere group of nations. Most significant results from AE-BOEC are the following:

1. **Exchange of information between ASEAN buyers and sellers**
2. **Creation and increase of new business contacts and partners**

With the satisfactory and positive remarks from the AE-BOEC attendees, **it is strongly suggested that another AE-BOEC be held** but with a few propositions such as staging the next AE-BOC to another ASEAN member state provide and provide a more aggressive promotional efforts to ensure bigger audience / attendees for the Conference.

THE ASIA-EUROPE MEETING (ASEM) MODEL

Some years back in mid-1990s, the Asia Europe Meeting (ASEM) hosted by France invited the **top five (5) companies in Asia and Europe to a business meeting in Paris.**

The objective was if these two regional blocs, Asia and Europe, intend to increase business together, they should create a venue where leading private sectors/business players in Asia and Europe would be able to get to know each other and they could discuss business proposals that would enhance business among themselves.

This ASEM meeting was attended by the CEOs of Sony and Toyota of Japan; Samsung and Hyundai of Korea, Mercedes Benz of Germany; Alcatel of France, among others.

The ASEM meeting, other than being able to achieve a meeting where top CEOs in Asia and Europe was able to exchange cards, was considered a success as **business partnerships were attained after the said meeting** as it has resulted to the joint venture partnerships between major European and Asian companies such Sony of Japan and Ericsson, Mercedes Benz of Germany and Ssangyong of Korea, among others.

ASEAN could make use of this ASEM initiative as a benchmark business model to achieve its integration purpose.

THE ASEAN ELECTRONICS BUSINESS LEADERS MEETING

Following the lead from ASEM business model, ASEAN could organize a networking and advocacy meeting of top five (5) Multinational Companies (MNCs) and top five (5) homegrown electronics companies in ASEAN countries focusing on discussions of issues and concerns that affects their respective business in doing business among companies based in ASEAN.

There should be a cohesive effort to bring together in one venue the heads of semiconductor and electronics companies in ASEAN.

To name a few, these could be the heads of the following stakeholder-companies based and operating in ASEAN, which could be influential in the realization of the electronics integration:

1. Philippines

   MNCs

   1.1 TI
   1.2 Intel
   1.3 Analog Devices
   1.4 Fairchild Semiconductor
   1.5 Philips
   1.6 Amkor Technologies
   1.7 Hitachi
   1.8 Fujitsu
   1.9 First Sumiden
   1.10 On Semiconductor
   1.11 Temic Automotive
   1.12 Pricon

   Homegrown Companies

   1.13 IMI
   1.14 Ionics
   1.15 PSI Technologies
   1.16 Fastech
   1.17 Team Pacific

2. Singapore

   IC Design

   2.1 Infineon
   2.2 Broadcom
   2.3 NEC
   2.4 Marvell
   2.5 Media Tek
   2.6 ComSOC

Wafer Fab
2.7 Chartered
2.8 SSMC (Philips-TSMC-EDBI JV)
2.9 UMCi
2.10 STMicroelectronics

Assembly and Test
2.11 ASE
2.12 Amkor
2.13 STATS-ChipPAC
2.14 AMD
2.15 Linear Technology
2.16 Micron
2.17 UTAC
2.18 Panasonic Semiconductors
2.19 Agere

Storage and Peripherals
2.20 Seagate
2.21 Hitachi Global Storage
2.22 Maxtor
2.23 Hoya
2.24 Showa Denko
2.25 HP
2.26 Seiko Epson

EMS
2.27 Solectron
2.28 Flextronics
2.29 Sanmina-SCI
2.30 Celestica
2.31 Venture Manufacturing
2.32 Jurong High Tech

Electronics Modules and Components
2.33 PCB/PCBA – 3M, Hitachi Chemical, Gul Technologies
2.34 Passive Components – Matsushita (Panasonic), Murata, EPCOS, CTS
2.35 Advanced Display – AFPD (Toshiba Matsushita Devices)

Consumer Electronics
2.36 Panasonic
2.37 Philips
2.38 Creative Technology
2.39 Infocom Products – HP, GES, Motorola, Allied Telesyn

3. Malaysia

3.1 Sapura Electronics Industries Sdn Bhd
3.2 Seksun Electronics Sdn Bhd
3.3 Ajv Electronic Devices (M) Sdn Bhd
3.4 Lemtronics Sdn Bhd
3.5 Asahi Best Base Sdn Bhd
3.6 Bims Sdn Bhd
3.7 Precision Auto Manufacturers Sdn Bhd
3.8 Precico Electronics Sdn Bhd
3.9 Allied Hori Sdn Bhd
3.10 Essp Sdn Bhd
3.11 Lion Electronics
3.12 Goda (M) Sdn Bhd
3.13 Kesp Sdn. Bhd.
3.14 A . S. T Automation
3.15 Dallab Inc Sdn Bhd
3.16 Khind-Mistral Industries Sdn Bhd
3.17 Penchem Industries Sdn Bhd
3.18 Ismail Mohamed Electrical Contractors Sb
3.19 Misme (M) Sdn Bhd
3.20 K-One Technology Sdn Bhd
3.21 Imex Services
3.22 Mareca Resources Sdn Bhd
3.23 V.S. Industry Berhad
3.24 Powerela Sdn Bhd
3.25 Upeca Equipment Manufacturing Sdn Bhd
3.26 Reliable Technology Sdn Bhd
3.27 Malaysian Electrical And Electronic Industry Group (MEEIG)
3.28 Malaysian National Computer Federation Confederation (MNCC)
3.29 Malaysian American Electronics Industry Association (MAEIA)
3.30 Persatuan Industri Komputer Dan Multimedia Malaysia (PIKOM)
3.31 The Electrical & Electronics Associations Of Malaysia (TEEAM)

4. Thailand

4.1 Cal-Comp Electronics (Thailand) Co., Ltd.
4.2 Century Electronics And Systems Co., Ltd.
4.3 Circuit Industries Co., Ltd.
4.4 Circuit Electronic Industries Public Co., Ltd.
4.5 Abb Limited
4.6 Advance Micro Tech Co., Ltd.
4.7 Anoma Electric (Thailand) Co., Ltd.
4.8 Asian Stanley International Co., Ltd.

4.9 Alpha Source Manufacturing Solution Public Co., Ltd.
4.10 Amd (Thailand) Ltd.
4.11 Bangkok Industrial Laminate Co., Ltd.
4.12 Bangkok Teapo Electronic Corp., Ltd.
4.13 Capetronic International (Thailand) Co., Ltd. (Public)
4.14 Ddk (Thailand) Ltd
4.15 Delta Electronics (Thailand) Ltd.
4.16 Draco Pcb Public Co., Ltd.
4.17 Elec & Eltek (Thailand) Ltd.
4.18 Electronics Industry (USA) Co., Ltd.
4.19 Fujikura (Thailand) Ltd.
4.20 Hoei Matsuyama Co., Ltd.
4.21 Hana Microelectronics Public Co., Ltd
4.22 Hansol Electronics (Thailand) Co., Ltd.
4.23 H R Seal Wire Electronics (Thailand) Co., Ltd.
4.24 Hipro Electronics Public Co., Ltd.
4.25 K.C.E. International Co., Ltd.
4.26 KV Electronic Assembly Co., Ltd.
4.27 Katolec (Thailand) Co., Ltd.
4.28 KCE Electronics Public Co., Ltd.
4.29 KSS Electroics (Thailand) Co., Ltd
4.30 Leonics Co., Ltd.
4.31 Ltec Ltd.
4.32 Lumphun Shindengen Co., Ltd
4.33 Magnecomp (Thailand) Co., Ltd.
4.34 Matsushita Electronic Components (Thailand) Co., Ltd
4.35 Merry Electronics (Thailand) Co., Ltd
4.36 Minebea Electronics (Thailand) Co., Ltd
4.37 Mizuki Electronics (Thailand) Co., Ltd
4.38 Mmc Electronics Thailand) Ltd
4.39 Murata Electronics (Thailand) Ltd
4.40 Nidec Electronics (Thailand) Co., Ltd
4.41 Noble Electronics (Thailand) Co., Ltd
4.42 Oki (Thailand) Co., Ltd
4.43 P.C.B. Center (Thailand) Co., Ltd
4.44 Pan International Electronics (Thailand) Co., Ltd
4.45 PCTT Ltd.
4.46 Philips Electronics (Thailand) Ltd
4.47 Pronec (Thailand) Co., Ltd.
4.48 Samsung Electro-Mechanics (Thailand) Co., Ltd
4.49 S.C.I. Electric Manufacturer Co., Ltd.
4.50 Seagate Technology (Thailand) Co., Ltd
4.51 Siam Electronics Assembly Co., Ltd.
4.52 Silicon Power Supply Co., Ltd.
4.53 Semiconductor Ventures International Public Co., Ltd
4.54 Star Microelectronics (Thailand) Co., Ltd
4.55 Summit Electronic Components Co., Ltd
4.56 Team Precision Co., Ltd. (Public)

4.57 Thai CRT Co., Ltd
4.58 Tse Lup Technology (Thailand) Ltd.
4.59 Wearnes Precision (Thailand) Ltd.

5. Indonesia

5.1 Ketua APKOMINDO
5.2 Ketua ASPILUKI
5.3 Ketua APJII
5.4 Ketua AINAKI
5.5 Ketua AIETI
5.6 Ketua ANIMA
5.7 Ketua APNATEL
5.8 PT. Inti Pisma
5.9 PT. Honoris Industry
5.10 Bogor Cyber Park
5.11 PT. Len Industri (Persero)
5.12 Cimahi Techno Residential Park

6. Vietnam

6.1 Vietnam Electronics and Informatics Corporation (VEIC)
6.2 Hanoi Electronics Corporation (HANEL)
6.3 Viettronics Dong Da Company
6.4 Vietnam Informatics Company (VIF)
6.5 Industrial Electronics Company (CDC)
6.6 Advanced Medical Engineering Company (AMEC)
6.7 Giang Vo Electronics Company (GVECO)
6.8 Computer Manufacturing and Service Company (CMS)
6.9 Computer Communication Corporation (CMC)
6.10 Vietnam Electronics & Refrigeration Technology Corporation (Mitsustar)
6.11 Thuan Quoc Control Equipment and Computer Company Limited
6.12 Minh Viet Joint-Stock Company
6.13 Hanoi Information Development Company (IDC)
6.14 Morning Star Electronics Corporation (MSC)
6.15 ELECO Electronics Company
6.16 Post and Telecommunication Equipment Company (POSTEF)
6.17 Vinh Trinh Co., Ltd
6.18 Electronics and IT Equipment Company (ECOM)
6.19 Telephone Equipment Company
6.20 VASC Software Company
6.21 High Performance Technology JSC (HiPT)
6.22 Broadcasting Development Company (BDC)
6.23 MITEC Joint-Stock Company
6.24 DTH Electronics Enterprise

6.25 Telecommunication Equipment and Material Import-Export Company (EMICO)
6.26 Financing and Technology Promoting Corporation (FPT)
6.27 Trung Minh Co., Ltd
6.28 Sieu Viet Co., Ltd (SIVICO)
6.29 Marine Electric and Electronic Machinery Company
6.30 Chi Anh Co., Ltd.
6.31 Trade and Industrial Development Joint-Stock Company (ITCOM)
6.32 Trieu Binh Tien Co., Ltd
6.33 VeGiang Company Limited (VEGA)
6.34 Technology Development Co., Ltd. (TDC)
6.35 Mechatronics Instrument Company
6.36 Vietnam Maritime Communication and Electronics Company (VISHIPEL)
6.37 Maritime Informatic and Technology Joint -Stock Company (MITECO)
6.38 Hai Phong Electronics Joint-Stock Company (HAPELEC)
6.39 Nghe An Electronics & ICT Company (NALECO)
6.40 Shipping Technology Company (STC)
6.41 Misa Joint-Stock Company
6.42 NIKKO Vietnam Joint-Stock Company
6.43 Minh Thanh Electronic Enterprise
6.44 Thai Nguyen Industrial Electronics Joint-Stock Company (VTQ)
6.45 Center for Manpower Training (CEMAT)
6.46 Hue Electronics Company (Huetronics)
6.47 TQT Electronics Company
6.48 Danang Electronics & IT Joint-Stock Company (Viettronimex Danang)
6.49 VIP Electronics Company
6.50 Danang Invesment Consulting and Technology Improving J.S.C (ICTI)
6.51 Tuong Nghiem Co., Ltd.
6.52 Light Service and Trading Co., Ltd
6.53 Ho Kha Trading Co., Ltd.
6.54 Viet Tuan Co., Ltd
6.55 Le Van Private Enterprise
6.56 Le Quang Chau Trading and Service Co., Ltd
6.57 Tam Thanh Company Limited
6.58 Thu Thanh Private Enterprise
6.59 ViettronicsTan Binh Company (VTB)
6.60 Viettronics Binh Hoa Company (VBH)
6.61 Viettronics Bien Hoa Joint-Stock Company (BELCO)
6.62 Genpacific Information Technology Company
6.63 Viettronics Thu Duc Company (VTD)
6.64 Viettronics Service Company (VESCO II)
6.65 Phu Tho Hoa Mechatronics Join-Stock Company

6.66 Viettronics Import-Export Company (Viettronimex)
6.67 Tien Dat Electronics Corporation
6.68 Thuan Thao Co., Ltd.
6.69 FPT Elead Computer Company
6.70 Saigon Electronics and IT Company
6.71 Khai Tri Trading & Services Company
6.72 Electrical and Electronic Manufacturing-Import-Export of District 10 (TIE)
6.73 T&H Co., Ltd.
6.74 Green Mekong Joint-Stock Company
6.75 Vietnam Computer Joint-Stock Company (CMT)
6.76 Electronics and IT Association of Ho Chi Minh City
6.77 HAIHUY Electrical & Electronics Company
6.78 Orion - Hanel CRT Co., Ltd
6.79 Vina-Daesung Cable Joint-Venture Company
6.80 VKX Trunk Equipment Joint-Venture Company
6.81 Panasonic Home Applicances Vietnam Co.,Ltd (PHAV)
6.82 SONY Vietnam Joint-Venture Company
6.83 JVC Vietnam Joint-Venture Company
6.84 Panasonic AVC Vietnam Joint-Venture Company
6.85 Ekira Electrical and Electronics Company Limited
6.86 Toshiba Vietnam Consumer Products Joint-Venture Company
6.87 Cable & Accessories Manufacture Joint-Stock Company

7. Electronics companies in (if any) Brunei, Laos, Cambodia and Myanmar

SUMMARY

As a basic framework, the government should act as the Enabler and the industry as the Driver.

The ASEAN Governments should bring at least 5 Multinational Companies and 5 homegrown ASEAN companies in one table altogether to discuss matters that affect and that could enhance their business. Recommended approach would be as follows:

1. **Identify Issues Common to Companies**
2. **Identify Priorities to Companies**
3. **Identify Applicable to what ASEAN has been discussing**
4. **Consensus Gathering**
5. **Define Value to Companies**
6. **Conduct Meetings**

It is recommended to have an annual meeting of these industry leaders (the head of companies), for the next 3 years for networking purposes and focus group discussion on common

and priority issues and concerns that affects their business e.g. customs procedural issues, standards, travel/movement of people, etc., majority of which are all being discussed now in ASEAN Electronics Forum.

If the industry could present the outcome of these meetings to the heads of different ASEAN governments, preferably in time with future ASEAN Leaders Summit, the policy framework for the ASEAN integration and trade negotiations would be realized soon.

ASEAN Trade Negotiation Framework

Automotive Industry

By Erlinda M. Medalla*
January 2007

1. Introduction

With rapid technological advances and unwavering trend in regional trading arrangements, the world is progressively becoming integrated. As a result, firms and industries are facing new sets of parameters to work with. The need for innovation, skills and know-how, and new approaches has never been more urgent. This is particularly the case for the automotive industry, where the major players have developed global production networks to sustain, if not improve, their competitiveness and growth. Such developments have posed unique and new challenges to host countries to come up with appropriate strategies and measures that would allow them to share in the bounties of the new environment.

While it is the industry itself that is responsible for its own fate, it is the task of government to at least provide the enabling environment for this to happen, and in a most inclusive manner. The challenge for governments is how to facilitate the process that would benefit business in a way that would stimulate more inclusive growth.

This paper, in particular aims to focus on the ASEAN scheme, particularly the ASEAN plus 3 framework, for the automotive industry which has been envisioned as a means to achieve this. A lot has been said about the need to strengthen ASEAN, the primary regional cooperation institution in the region. A key element for this to materialize is the active support and participation of the business sector in the process. This paper aims to provide inputs toward facilitating this partnership which would yield significant benefits all around from what is negotiated under the ASEAN umbrella. As such, the paper has six main sections. It starts in the next section with the global setting to provide a broad picture and understanding about the industry. Then, it presents briefly the state of the ASEAN automotive industry in Section 3, followed by a discussion of country strategies in Section 4. Section 5 then focuses on the different ASEAN schemes to promote the industry. Section 6 then devotes a short portion on the status of the Philippine car manufacturing industry before the paper finally proceeds to the discussion of trade negotiation and trade facilitation issues and recommendations for the strategic framework and roadmap in Section 7.

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* This paper draws heavily from the report submitted by the author to JICA as part of the Study on the Philippine Automotive Industry which it commissioned to Lazaro, Bernardo, Tiu and Associates, Inc (LBT) in November 2004

2. The Global Setting

The automotive industry is comprised of intricate international systems of integrated production (ISIP) or global production networks (GPNs), built on the bases of large investments by the leading TNCs (Transnational Companies) driven by the need to continuously increase efficiency. (ECLAC 2004) Especially during the last two decades, establishing and expanding foreign production capabilities have been an important strategy for firms in the automotive industry. (Lynch 2000) Different stages of production (that may or may not involve equity ownership) are increasingly being spread across national borders (deverticalization). As such, as in the case of the electronics industry which is also based on an ISIP, the automotive industry is an important magnet for FDI in the region. On top of this, it provides necessary training for its human resources. (ECLAC 2004)

The Changing Assembly Strategy and Supplier Roles

The assemblers are progressively adopting a global perspective in their operations as well as reorganizing their vehicle portfolios around product platforms and car modules and systems. Increasingly, original equipment manufacturers (OEMs) are moving downstream, passing the role of developing, manufacturing and assembling to suppliers. As automakers move downstream, more engineering and production will shift to suppliers and service providers for engineering or assembly. Suppliers will then become the main engine of job and value growth in the industry.

The stratified relationship between producers and their largest suppliers has changed during the last decades. First-tier suppliers are focusing on modular integration; second-tier suppliers, on their production; and third-tier suppliers, on the manufacture of components and the provision of local content in emerging markets. At the same time, there is movement along the supply chain. How well and how fast this movement is, e. g. from component to sub-assembly manufacturing, would depend on what capabilities the firms have in several manufacturing processes needed to produce the component, the ability to manage its own supply chain, and an improved presence in regions where automakers are assembling the vehicle and where subassembly will be incorporated. (Veloso and Kumar 2002)

The established business designs of automakers and suppliers will not disappear overnight. But they are dissolving gradually and by 2015, will cover only 65% of value creation in the industry. To keep its valued position in the production network, automakers would be induced to turn into suppliers by offering modules and services to other automakers and suppliers, and suppliers would turn into “little automakers” by offering activities along the value chain, from vehicle engineering to assembly. (Dannenberg and Kleinhans 2004)

The Japanese Strategy

During much of the post-war era and up to the late 1970s, rationalization and diversification were the conventional business formula for executing an export-oriented strategy. Japanese companies have introduced a number of hit products over the years on the diversification side of the equation. However, what has distinctly set them apart from other foreign companies is their excellence in the QCD function—that is, high quality, low cost, and short delivery times—the rationalization side of the equation.

In the 1980s, with the rise of mega-competition in their traditional product markets and the diffusion of their total quality methods to other countries, Japanese companies began to lose their distinctive QCD function advantages, placing pressure on them to consider adding a geographical diversification strategy to their management systems. The absence of formal institutional mechanisms for regionalism create gaps in Japanese GPNs. As such, Japanese companies rely on the available physical and social infrastructure in East Asia. This includes at the first layer, their inter-firm network of expatriates, followed by their inter-personal network of ethnic Chinese, and then the world class infrastructure in the region. (Tachiki 2004)

By destination, the MOF (2002) statistics show that Japanese FDI has been skewed toward the developed countries. Now there is a broadening of the geographical dispersion of Japanese FDI. East Asia now accounts for the largest number of cases, indicating lead companies are drawing their affiliated small- and medium-sized enterprises (SME) into this region. This trend emerges first in Northeast Asia (South Korea and Taiwan) and Singapore, shifting toward Southeast Asia (Indonesia and Thailand), and more recently in China. (Tachiki 2004)

Possible explanation to this trend are the apparent Japanese firms' objectives which is to protect its comparative advantage; minimize costs by taking advantage of cheaper labor from outside as well as through the increased segmentation of production in both products and services; and achieve greater economic activity and widen market in the ASEAN region. The increased segmentation of products would enable Japanese firms to keep the development of high technology in Japan while shifting the production of products which have lower technology in developing countries. Japanese GPNs channel regional trade through a network of closely affiliated local suppliers and markets. As competitive pressures drive Japanese companies towards more open and decentralized GPNs, however, they should seek access to local technology and business capacities.

The organization of FDI into GPNs also affects the direction of regionalization. More opportunities for companies to expand their GPNs within the existing trade and investment corridors are expected with the implementation of bilateral and regional FTAs. The expansion would benefit both the FDI donor and recipient in terns of enhancing or maintaining competitiveness and efficiency. For the host country, the efficient local suppliers would become better integrated into the global network, not only in terms of markets, but in terms of technology transfer as well.

Some Key Developments in the Global Automotive Industry

From demand to prices to technology, the industry is abruptly facing challenges and opportunities in this new environment of the global automotive market.

First, there is an existing high level of competition due to vehicle production overcapacity in most market segments (Barnes 1999) coupled with the flat pattern of demand for new cars. In any of the Triad regions (Western Europe, Japan, and United States [US]) original equipment manufacturers (OEMs) have been facing a mature market for the past 10 years, with stagnant demand, product proliferation, and stiff price competition. (Veloso and Kumar 2002)

Second, there is the pattern of increased OEM and automotive component investment in certain geographical localities, (despite global overcapacity). (Barnes 1999) Cost-cutting pressures and the drive to gain greater access to emerging markets has led automakers increasingly to shift vehicle production overseas. Scores of countries, once never thought of as bases for vehicle manufacturing, are now competing for investment in their fledgling auto industries. (WMRC 2003) Along with the increasing global cost competition and growth opportunities in distant markets (market dynamics) comes the change in the suppliers manufacturing footprint which could be optimized with a global perspective in a hub and spoke network. (Berger 2004)

Third is the growing consolidation of both OEMs and the world's largest component manufacturers through mergers and acquisitions. The flurry of high profile mergers and acquisitions amongst both OEMs and automotive components firms highlights the fact that the global operating environment has changed and that many previously successful firms are struggling as a result. (Barnes 1999)

Fourth is the tiering of the automotive components industry due to lead source and modularisation tendencies. There is the strong competitiveness pressure amongst OEMs and component suppliers, as well as the transfer of design responsibilities to certain multinational automotive component firms.(Barnes 1999) The global automotive industry is evolving in ways that will result in suppliers, not the automakers themselves, conducting most of R&D and production by 2015. Automakers will restrict their production to those components that are crucial to the success of their brands. (Dannenberg and Kleinhans 2004) Simultaneously, the growth of outsourcing is moving towards higher sophistication in product development and scale of manufacturing.(UNESCAP 2002)

Fifth is the diminishing production life spans of vehicle models. New models now only have production life spans of approximately two to four years, which is in stark contrast to model life spans of up to eight years in the 1980s. (Barnes 1999)

Sixth, sales growth is now coming from developing regions, with South America, India, People's Republic of China (PRC), and Eastern Europe leading this trend. (Veloso and Kumar 2002) The steady growth of mega economies like China and India, and

growth of the ASEAN Free Trade Area (AFTA) trading bloc in South-East Asia ensure that automobile demand in Asia will experience the kind of S-Curve that the Republic of Korea experienced between 1988 and 1996.(UNESCAP 2002)

Seventh, there is continuing development of new technologies, engineering plastics, electronics, and electric cars. (UNESCAP 2002) The trend for new technology is for comfort, safety, communication, and entertainment, mainly based on electrical systems and electronics.(Dannenberg and Kleinhans 2004) These new technologies are not only creating new demands for industry players but are also altering the way the auto industry does business. Changes are also happening at the level of the supply chain with the entry of e-commerce initiatives. (Veloso and Kumar 2002)

Finally, there is the China factor (as well as the rising India). China has emerged as both a producer and a huge market for automotive products.

These factors are shaping the new landscape where the automotive industry operates. And in one way or another, local players would need to deal and cope with the attending challenges and opportunities.

3. Snapshot of the ASEAN Automotive Industry

There are currently five major markets in ASEAN: Thailand, Malaysia, Indonesia, the Philippines and Vietnam. Thailand is considered to be the most advanced, while Vietnam is the new comer, still very limited but had some significant investments flowing in starting 1995. Until the 1997 economic crisis in Asia, the ASEAN automobile industry was considered to be one of the most dynamic in the world, with sales and production growing strongly from 1992. (Sturgeon 1998) In general, however, the distortions of high tariffs, local content rules and attempts to protect the local industry have created a sector that is well behind the 21st century standard necessary for success. (UNESCAP 2002) The automotive sector is a scale-intensive industry and none of the ASEAN economies is large enough for an automotive company. The problem is that, due to the restrictive policies that all the members of the region have, very little was exported among ASEAN markets. The same held true for components, whose circulation among countries was limited by local content rules. Therefore, most of the assembly units have not been competitive on an international level. (Veloso and Kumar 2002)

Asia has recovered, faster than anticipated, and becoming again a very attractive investment area. Over the next decade, analysts predict that the Asian and Pacific region will be a key driver of worldwide industry growth. (Veloso and Kumar 2002) Like the rest of Asia, the ASEAN automotive sector appears to be bouncing back from the 1997 crisis. Sales in the ASEAN region recovered strongly in 1999. Thailand, Malaysia and Indonesia have regained pre-crisis level. However, the Philippines market growth remains limited. (Figure 1; Table 1)

Figure 1. Vehicle Sales in ASEAN: 1994-2003

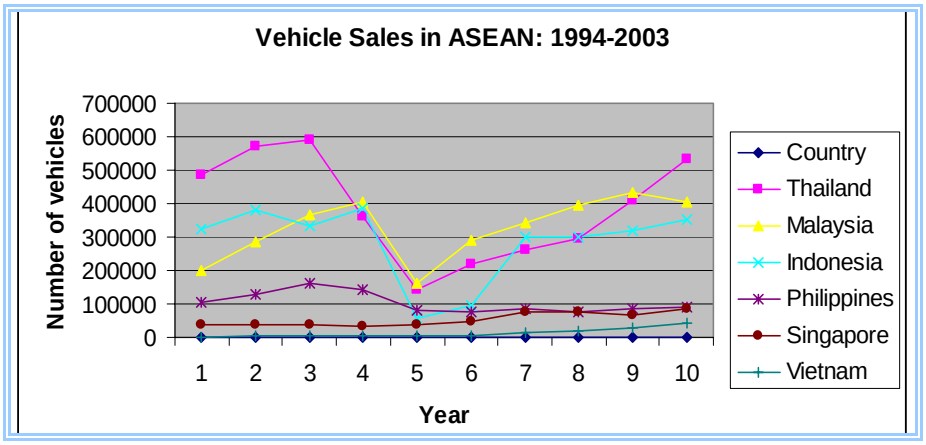


Table1. Vehicle Sales in ASEAN-4: 1996-2004

Country	1996	2000	2002	2004
Indonesia				
Passenger Car	43,914	46,891	26,689	312,865
Commercial Vehicles	288121	254,073	291,101	170,283
Total	332,035	300,964	317,790	483,148
Malaysia				
Passenger Car	275,693	296,557	375,358	392,139
Commercial Vehicles	89,096	46,616	59,596	95,466
Total	364,789	343,174	434,954	487,605
Philippines				
Passenger Car	88,977	26,076	21,798	33,277
Commercial Vehicles	73,118	48,443	63,859	54,798
Total	162,095	74,519	85,587	88,075
Thailand				
Passenger Car	172,730	83,106	126,353	209,042
Commercial Vehicles	416,396	179,083	283,009	416,936
Total	589,126	262,189	409,362	625,978

Source: JAMA 2006

The major markets have bounced back since the crisis. Recognizing the importance of increasing trade in the region, despite the crisis, most ASEAN governments continued to further liberalize the automotive industry. Thailand is the region's leader in output and export. Malaysia has a large domestic vehicle market, but also has a heavily protected industry with high import tariffs. Indonesia was hardest hit by the financial crisis and its production collapsed. The combination of low sales volume and political instability has been difficult to overcome, and Indonesian sales and production have grown at a slower rate than the other neighboring economies. With the removal of many restrictions, including the easing of the local content program,

automotive production has rebounded and there is apparent improvement in competitiveness in automotive parts after the crisis. (Atje 2006) The Philippine sales of domestically produced vehicles have recovered slightly after the crisis, but not enough to reach the pre-crisis level. It recently modified its automotive laws and opened itself up to greater opportunities for global competition and promotion of its domestic industry. Parts manufacturing has performed much better, with exports recovering since the crisis period. Vietnam has been slower to develop due to heavy government control of the industry.

ASEAN is a major investment region and a premier global production base. Member economies are working to enhance ASEAN's industrial edge and maintain its draw to investors by moving to unify it into one cohesive market. Confidence in the growing market is reflected in the amount of investment made in the region by major car makers. (ITA 2004)

The current ASEAN automotive industry is characterized by strong presence of Japanese OEMs, advantages of a low cost manufacturing base; significant unutilized capacity for vehicles, surplus manufacturing capacity exists in ASEAN, especially for multipurpose utility vehicles (MUVs) >1,600 cc cars, 1T Pick-Up (PU) trucks and components dominance of PU trucks and MUVs and focus on exports for capacity utilization.

In terms of the comparative advantage of individual ASEAN countries, Thailand appears to be the most successful in establishing its foothold in the industry. Thailand is now the world's third largest producer of small pick-up trucks. Its main exports consist of wire harnesses, engines, ignition systems, and tires and it has also managed to broaden its locally produced parts, including radiators and body parts. It claims to produce some type of engine, suspension, clutch and steering more cheaply than Japan. Assembly productivity, however, remains well below the international benchmark (Poapongsakorn 2006). Indonesia seems to be gaining competitiveness in some auto parts and components, especially motorcycle parts and gear boxes. (Atge 2006) In the Philippines, standing out are automotive electronics and wiring harnesses. In general, for ASEAN countries, the motorcycle component of the automotive sector has been performing well.

The next two tables show the relative size of East Asian automotive trade. Japan is the world's second largest exporter of products under Harmonized System (HS) 87 which cover automotive products (15 percent compared to share of top world exporter Germany at 18 percent for the period 2000-2003). It accounts for three fourths of all East Asian exports. Korea is the next largest exporter in East Asia with around 15 percent. ASEAN, as a whole, accounts for around 7 percent, while China accounts for around 3 percent. In ASEAN, Thailand gets the biggest chunk, accounting for more than one third of total ASEAN exports.

Table 2. East Asian Automotive Exports (in million US $)

Automotive Exports (HS 87 excl 8712, 8713, 871491 to 871494)				Average Share	
	2000	2001	2003	World	ASEAN+3
Indonesia	377	386	538	0.1%	0.4%
Malaysia	314	239	338	0.0%	0.2%
Philippines	614	667	1142	0.1%	0.7%
Singapore	675	646	1042	0.1%	0.6%
Thailand	2455	2690	4042	0.5%	2.5%
Japan	88811	81447	103675	15.3%	75.2%
China	2978	3211	5823	0.7%	3.3%
Korea	15225	15365	22984	3.0%	14.7%
Total ASEAN + 3 *	114167	107121	143036	20.4%	100.0%
Total World	547947	547334	693628	100.0%	

Source: PC-TAS (Personal Computer- Trade Analysis System)

* Total HS 87 for ASEAN countries

Table 3. East Asian Automotive Imports

Automotive Imports (HS 87 excl 8712, 8713, 871491 to 871494)				Average Share	
	2000	2001	2003	World	ASEAN+3
Indonesia	1891	1868	1890	0.3%	6.7%
Malaysia	1776	1627	1969	0.3%	6.3%
Philippines	1085	1055	1265	0.2%	4.0%
Singapore	2665	2321	2781	0.4%	9.2%
Thailand	2050	2069	3160	0.4%	8.2%
Japan	10351	9799	11730	1.8%	37.3%
China	3612	4532	11787	1.0%	20.8%
Korea	1631	1805	3175	0.4%	7.3%
Total ASEAN + 3 *	25060	25076	37920	4.8%	100%
Total World **	555110	554273	680856	100%	

Source: PC-TAS (Personal Computer- Trade Analysis System)

* Total HS 87

** Total World Exports HS 87 excl 8712, 8713, 871491 to 871494

While still relatively small compared to the big world players, the Tables above on automotive trade in East Asia highlight and confirm the notable performance of Thailand. Not surprising is the phenomenal growth of China, which is not unlike what is happening elsewhere in other sectors and industries. However, what is more noteworthy is the much higher growth in China's automotive imports compared to its exports. This is a strong indicator that while China is indeed potentially a major competitor and producer,

China is equally, if not even more so at this stage, a big market for automotive products. This is both for CBU (completely built up) vehicles, and for automotive parts and components. In the case of parts manufacturing, the potential growth in demand could be especially robust when China does start to become a major world producer.

The next section attempts to provide insights as to what type of policies and strategies have been employed by the different countries that have shaped their automotive sector.

4. Strategies in Selected Asian Countries

The National Car Model

For several decades, most Asian nations outside Japan have tried to launch car programs that would enable them to have a national flag vehicle. The Republic of Korea, Malaysia and Indonesia followed a different strategy from Thailand, which can be called the National Car Model, in which the state directed and encouraged either a single manufacturer or, in the case of the Republic of Korea, attempted to control the levels of competition between automotive manufacturers between 1973 and 1994. In this model the state puts very large resources directly or indirectly into a single automotive company. In each case a foreign minority partner is involved to provide the technology. While frowned upon by free trade enthusiasts, in both the Republic of Korea and Malaysia the system has produced viable companies. As the Korean experience shows, there is a tendency to produce companies that are only viable through extensive rationalization, and require that the government release the industry from controls when the infant industry has graduated. (UNESCAP 2002) In addition, it would be very difficult to replicate the success of Korea, especially considering the WTO context with strict rules on TRIMS and export subsidies.

Korea

One of South Korea's major growth and export industries starting in the 1980s was its automobile industry. Much of the industry's growth was the result of a surge in exports as well as domestic demand. Two-thirds of the cars manufactured were sold domestically. Most of the domestic demand came from first-time car buyers because of the double-digit increase each year since 1987 as well as due to a stable or slightly decreased new car prices because of cuts in special consumption taxes, reduced fuel taxes and growing economies of scale by manufacturers.

Although the industry was badly affected by the economic crisis in 1997-1998, domestic sales were up in 1999 due to gradual economic recovery and to various government measures to stimulate the automotive industry (i.e. lowering of automotive related taxes). Since 2000, major Korean export items include automobiles with increased share in the total value of Korea's exports. Because local players dominate the domestic OEM market, sourcing has mostly been done locally. Korean production accounts for

roughly 94 percent of the automotive parts and accessories market. However, the Korean automobile industry still depends largely on foreign suppliers for important components and parts, such as transmissions, engine parts, body parts, and brake parts. (Veloso and Kumar 2002)

The automotive industry, dominated by Chaebols, has undergone substantial rationalization. After declining in 2001, production growth rebounded by 5% in 2003 (8% in 2002). OEMs and local component suppliers have been working together to improve quality and productivity in the Korean autoparts industry. Over the past three years, Korea's auto industry has undergone restructuring. For instance, Hyundai Motor Company used to follow a strategy of virtual integration, but as its production grew, the company followed Japanese model and built a network of subcontractors.

There have also been a large number of mergers and acquisitions of vehicle assemblers and parts/components suppliers. At present, there are about five car assemblers as opposed to eight in 1998. The Daewoo Motor Company, after bankruptcy in 1999, was taken over by General Motors in October 2002 to form GM Daewoo.

Many assemblers are going global for many of their parts instead of purchasing components from Korean parts suppliers. Korean assemblers are introducing some elements of competitive bidding. Suppliers have to demonstrate their price and quality levels at each model (or platform) change. The assemblers are encouraging suppliers to become more self-sufficient by broadening their customer base. Unlike in the early years of the Korean auto industry, the Korean Government has allowed the market forces to shape the new automotive industry.

Many foreign-owned companies are buying or forming joint ventures with Korean companies in the areas of electrical systems, safety systems, and bearings which the assemblers are telling their traditional suppliers that they must become more competitive. Also, the assemblers are beginning to use more modularization (complete dashboards, assembled drive systems, etc.) systems. It is estimated that some of the top assemblers in other world markets are approaching a 30-40 percent rate for modularization, and the Korean assemblers want to "benchmark" this.

Vehicle manufacturers are also delegating more responsibilities to Korean parts suppliers. Before 1998, the Korean supplier base was flat, consisting primarily of only first tier suppliers, and not many second and third tier suppliers. Now the vehicle manufacturers are expecting fewer first tier suppliers and more second and third to supply the first tier suppliers. This is mandatory when the assemblers are requiring more modules. The efficient suppliers become first tier suppliers which supply more R & D and better quality control, while the less efficient/competitive become second and third tier suppliers. (Mc Elroy 2002)

Thailand, "Detroit of Asia"

Thailand's model has been considered as a successful case of cross-border cooperation and development Thailand's steady high growth rate, passing as a third generation tiger, and attracting the attention of the Japanese auto manufacturers and other multinationals. The 1997 Asian crisis place a damper on Thailand's growth, but it is still posed to continue where it has left off.

A major factor going for Thailand is that government policies were conducive to global integration. This included the removal of import bans and tariff protection for domestic manufactured products in 1991 for the first time in 20 years. For the period 1992-1997, policy measures adopted in Thailand were geared towards liberalization, deregulation, promotion of supporting industry, deepen industry linkage and promotion of regional cooperation mainly on trade aspects. This period was characterized by high economic growth. The relatively open foreign direct investment (FDI) environment also attracted these companies. In addition, what appears to be a significant factor is the foresight of Thai automakers in recognizing the importance of breaking down the barrier further by learning the Japanese language.

The Thailand automotive industry suffered the same difficulties as other sectors as a result of the 1997 Asian crisis but there has been sign of economic recovery starting in 1999. Domestic auto market has been visibly enlarging, partly due to the government's promotion-and-support policies on automotive industry. Incidentally, the drop in value of the baht has made Thailand an ideal center for manufacturing for export as well as the MNC regional center for the auto industry. Encouraged by these policies and by the commitment to reduce the 54 per cent local content rule under the trade-related investment measures (TRIMs) agreement, the three major US producers have decided to also build regional hubs in Thailand for the export of cars and parts. (UNESCAP 2002)

The Toyota system (followed by Honda) for South-East Asia goes further than this. Attempting to localize production as much as possible, engineers at both Toyota and Honda focused first on what parts local companies could produce cheaply, and then designed cars with those components in mind. In producing the Honda City and the Toyota Soluna, the Japanese companies built their cars around cheap components made in South-East Asia (principally Thailand). This became a model that has helped build the Thai auto industry.

In January 2000, the local- content-requirement policy has been abolished. At the same time the revised automotive-tariff structure along with the CKD definition, intended to supplement the abolishment of the local-content- requirement policy, has also been enforced. These factors along with introduction of more models and international branch (which likewise induced investment in supporting industry) contributed to the development of Thailand's production networks. These production networks were used to increase capacity utilization. At this time, Thailand has become one of the production base for CV while global sourcing and new trend in automotive industry carry on. The deepening of the production chain was made through (1) the increase in FDI and number

of parts and components industry in body parts, engine parts, electrical parts, suspension and brake, etc.; (2) increase in exports and trade in OEM among automakers. (Chiasakul 2004)

According to the Japan Automobile Manufacturers Association (JAMA), the quality of automotive parts in Thailand is rated as the best among ASEAN countries. This can be attributed to Thailand's standard compliance. So also, Thai production is well balanced between production for domestic demand and that for export.

All in all, the factors that determined the growth in the Thai automotive industry include economic conditions, market size, capacity utilization rate, and globally integrated strategy from the MNC's perspective and government's policies. (Chiasakul 2004)

Philippines

The Philippine automotive industry developed under heavy protectionism from the 70s to the early 90s through high tariffs and import bans as well as through the local content program which granted generous investment incentives to the firms that were allowed to participate in the industry. However, the complex package of assistance failed to promote an efficient industry capable of competing internationally. Its high cost structure made its performance pale in comparison with assemblers in other ASEAN countries.

Beginning in 1995, the government implemented a series of trade reforms that led to the reduction of tariffs and removal of import bans. Simultaneously, restrictions on the number of models were removed and entry into previously closed industry segments was opened up. Although the local content program was originally set to be abolished in 2000 under our WTO commitments, however, the government extended the program for another two and a half years and completely abandoned it only in July 2003.

The Philippine automotive industry is yet to achieve significant progress as firms are still in the process of restructuring and adjusting to the changes in trade policy and transforming themselves into efficient manufacturers that can compete in their chosen markets. To successfully compete with foreign automotive and automotive part manufacturers, they must make substantial improvements in efficiency, productivity and product quality.

Box 1 below provides a summary of policies adopted by Thailand, Malaysia, Indonesia and the Philippines over the years.

Box 1. Timeline of Major Developments in the Automotive Industry of Selected ASEAN Countries

Thailand

1960s Thai automotive industry commenced when the Thai Motor Industry Company was established; Office of the Board of Investment, established under the 1962 Investment Act, approved a support for motorcycle assembly, starting in 1964. In 1969, the Automotive Industry Development Committee was formed to implement policies and measures with the aim of establishing auto assembly.

1970s The Ministry announced its first motorcycle-industry policy as well as a car-assembly policy. Later, it also announced a standard matrix on percentage of local contents required for passenger-car assembly as well as bus and truck assembly.
This period started the set-up of assembly operations through joint venture and Japanese OEMs started to set up their base. The Auto parts industry was established in 1974

1980s The Industrial Restructuring Committee was formed, Ministry of Industry imposed the 45 per cent local content limitation on passenger-car assembly. In passenger-car assembly, only up to 42 series could be produced by the whole industry, and only 2 models were allowed for each series. Local content policy implementation was flexible.
Automotive production networks were created. Cooperative clubs between car assemblers and parts makers were formed.

1990s Liberalization and Deregulation. Abolition of passenger car-import restriction.

Post-Crisis

2000s Local-content-requirement policies that have been applied on automotive assembling was abolished. A new automotive-tariff structure to supplement the abolition of local-content-requirement policies was adopted.
Among the automotive policies that were implemented since 2002 are: 1. The limitation on the number of automotive firms was abolished. Consequently, new automotive companies enjoy free entry into the automotive industry. 2. The Thai Board of Investment (BoI) offers investors privileges including plant expansion rights in prime industrial areas, as well as tax exemptions on imported machines, raw materials and corporate income tax.

Indonesia

1960s The development of the automotive industry in Indonesia started in 1964 by assembled parts and components of automobile imported in SKD bases. In 1969, the policy, particularly those for sedan and commercial cars, was changed in which the importation of parts and components should be in a completely-knocked down (CKD) condition.

1970s In 1976 the Government issued a regulation that marked the start of the components manufacturing in Indonesia, through a mandatory deletion program.

1990s In 1993 the Government of Indonesia launched a policy which implemented an incentive system, which grants reduction in import duty and luxury tax for those reaching a certain percentage of local content utilization in their production activity. In 1996, the government launched the National Car Program which granted import duty and tax exemption to the national car company attaining a targeted level of local content at particular years of operation.

Government Regulation No. 20/1994 and Presidential Decree No. 31/95 opened the automotive sector to foreign direct investment, allowing 100 % foreign equity. The minimum capital requirement for foreign investment was eliminated

Post Crisis

1999 -- Indonesia signed a Letter of Intent with the IMF signed on 15 January 1999, abolishing its subsidy programs for automotive industry. On June 1999, the Government launched a new policy of automotive development where import duty is not linked to the achievement of local content.

The government introduced deregulation reforms consisting of: relaxing the Bonded Zone Company regulation, Bonded Warehouse regulations; restructuring import duty and luxury tax tariffs and eliminating import barriers, and reducing the import duty on raw materials for component industry.

The government abolished restrictions on all CBU imports to enhance competition.

2000s The Decree of the Ministry of Industry and Trade No. 172/200 prohibited the importation of used cars except truck with minimum gross vehicle weight (GVW) of 24 tons. Automotive Importation of CKD cars by car assemblers is not subject to Luxury Tax.

Malaysia

1960s The automotive industry in Malaysia started. The policy of encouraging assembly for automobiles and the manufacturing of component parts was announced in May 1964. Assembly plants were set up thereafter.
The policies include local content requirement, import restrictions and very high tariffs on CBU imports.

Until the early ***1980s***, there were about 15 assemblers that produce vehicles for European and Japanese manufacturers. There were too many makes and models, causing the demand for a particulars component to be low, leading to the difficulty for the manufacturers to achieve the economies of scale.

1980s The National Car Project, Perusahaan Automobil Nasional (PROTON), a joint program with Japan's Mitsubishi Motors Corporation was launched in 1984.

1990s After the success of the first national car, Perusahaan Otomobil Kedua Sdn. Bhd. (PERODUA) was established in October 1992.

The Malaysian auto market is dominated by Malaysia's national cars. PROTON and PERODUA jointly accounted for 90 per cent of the vehicles sold annually.

Post Crisis

1998-- Government intervention relaxed financing requirement, such as increasing the duration of payment period and increasing the percentage of car financing.

Philippines

1970s The country started its development of the motor vehicle industry in 1972 through the Progressive Vehicle Manufacturing Program (PVMP) that is now known as the Motor Vehicle Development Program (MVDP).

1980s Car Development Program (CDP) was aimed to develop a viable automotive parts manufacturing industry.

1990s Major liberalization initiatives started only in 1990 with the creation of new categories in the Program to encourage entry of new participants. Import restrictions on a number of auto parts were also lifted, and eventually, importation of brand-new CBUs units were allowed in October 1995.

Tariff adjustments in CBUs from 40 per cent to 20 per cent and CKD packs from 10 per cent to 3 per cent were made in July 1995, making the new duty rates the lowest in the ASEAN region.

Car and Commercial Vehicle Development Program in 1996 open up the closed vehicle categories to new participants and removed restrictions on the number of models and variants and abolish foreign exchange and local content requirements (CDP and CVDP) in 2000.

Post Crisis

2000-- The Philippines in November 2001 concluded an amicable settlement of the dispute earlier initiated by the United States against the country on TRIMS maintained in its motor vehicle sector in accordance with the timetable specified by WTO Council for Trade in Goods in its decision of 31 July 2001 in the context of the "2 years plus maximum 2 years" solution.*

New Motor Vehicle Development Program (EO 156) in 2002 ban the importation of all types of used motor vehicles and parts and components, except those that may be allowed under certain conditions. (Loophole found thru importation in Subic and other free port areas of "transformed" used vehicles)

There is a continuous modification of the tariff rates on motor vehicle parts and components as well as CBU exports.

Source: Report Submitted by the Author to JICA, March 2004

Possibly all ASEAN countries, at the start, wanted to emulate Korea, if not Japan, and develop a national car. For sure this was the strategy followed strongly by Malaysia, Indonesia and the Philippines. To a lesser extent, even Thailand early on implemented a local content program that aimed to progressively reach this goal. However, for the ASEAN countries, the national car model strategy drew little or no success. The protectionist strategy could not compensate for the small market size of individual countries. Instead, the distortions created by restrictive policies of high tariffs, local content rules have cultivated a sector that is well behind the 21st century standard, without the driving force of competition. (UNESCAP 2002) In addition, due to the restrictive policies that all the members of the region have, very little was exported among ASEAN markets. Parts and components appear to have fared better, but circulation among ASEAN countries was limited by local content rules. Therefore, most of the assembly units have not been competitive on an international level. (Veloso and Kumar 2002)

Much of the success of Thailand was based on the recognition of the limitation of such a strategy. As such, the government's liberalization policy was a rational response aimed to shift its orientation toward a globally integrated strategy that would feed into a competitive global production network. Nonetheless, it tries to maintain some balance in its platform by creating a national specialization which made Thailand a hub for pick-up trucks. Indeed, as earlier noted, it has become the world's third largest producer of small pick-up trucks.

5. Status of the Philippine Car Manufacturing Industry

Automotive Assembly

The Philippine motor vehicle assembly sector is basically domestic oriented with very minimal export of CBUs. The auto parts sector is also largely oriented towards the domestic industry serving both the OEM and replacement markets.

The Philippine automotive industry consists of 14 car assemblers with a combined annual capacity of 221,450 units and 21 commercial vehicle assemblers with a total capacity of 145,950 units. The industry is dominated by five Japanese manufacturers namely: Toyota Motor, Honda Cars, Mitsubishi Motors, Isuzu Motors, and Nissan Motors. Together, these firms have a total investment amounting to about P13.8 billion and employment of 5,228 workers. Other major motor vehicle manufacturers include Ford Motors, Columbian Autocar, and Pilipinas Hino.

Table 4 shows that light commercial vehicles have been the source of industry growth after the 1997 Asian financial crisis. The passenger car segment has not grown between 1997 and 2002, except in 2001. The light commercial vehicle segment has performed better in terms of sales as it consistently posted positive growth rates from 1999 to 2002 and reached an almost 28 percent growth rate in 2000. With depressed demand and the increasing availability of both brand new and second-hand imported motor vehicles, competition in the market has been tight and local firms have been operating only at 40 percent of their capacity.

Table 4: Sales of Domestically Produced Motor Vehicles, Philippines 1995-2002

Year	Passenger Cars	Growth Rate in %	Light Commercial Vehicles	Growth Rate in %	Total	Growth Rate in %
1995	65,808		53,392		119,200	
1996	79,673	19.1	58,815	9.7	138,488	15.0
1997	69,070	-14.3	51,418	-13.4	120,488	-13.9
1998	32,134	-76.5	35,769	-36.3	67,903	-57.3
1999	25,130	-24.6	39,505	9.9	64,635	-4.9
2000	22,000	-13.3	52,000	27.5	74,000	13.5
2001	23,684	7.4	52,968	1.8	76,652	3.5
2002	21,728	-8.6	63,858	18.7	85,586	11.0

Source of basic data: Chamber of Automotive Manufacturers in the Philippines Inc.

The country's motor vehicle exports are negligible. The top markets for our motor vehicle exports are Japan, Thailand, Singapore, Vietnam, Republic of South Africa and Taiwan (ROC).

Automotive Parts and Components Manufacturing

The parts and components segment of the automotive industry is composed of 256 companies producing different parts and components made of metals, plastic, rubber and

composite materials for both the OEM and replacement markets. In contrast, Thailand has 700 parts manufacturers while Malaysia and Thailand each have 500 firms. Japan has about 1,000 automotive parts suppliers.

The major players in the automotive components manufacturing sector are Yazaki-Torres Manufacturing Corp. (wiring harness), United Technologies Automotive Phils. (wiring harness), Temic Automotive (Phils.) Inc. (anti-brake lock system), Honda Engine Manufacturing Phils., Inc. (engines), Asian Transmission Corp. (automotive transmissions), Toyota Autoparts Phils. (automotive transmission), Fujitsu Ten Corp. of the Phils. (car stereos) and Aichi Forging Co., Inc. (forged parts). In 1999, the parts industry had total investments of about P27 billion and employment of 45,000 workers.

Of the 256 automotive parts manufacturers, 124 are considered first-tier manufacturers who are directly supplying the needs of domestic automotive assemblers. The remaining 132 are mostly small and medium enterprises. They are sub-contractors serving as second- and third tiers who are supplying the needs of the first-tier manufacturers. Note that the automotive components and parts sector is characterized by a dichotomy. There exist a few firms that have access to the best practice technology and state of the art equipment like Yazaki-Torres and foreign-affiliated companies and a large number of parts manufacturers consisting mostly of SMEs that have low technology levels, are undercapitalized, and handicapped by lack of skills. While the foreign-affiliated automotive parts manufacturers have prepared their future plans in anticipation of the AFTA implementation, most of the automotive sector's SMEs are still groping and without government assistance (protection), they are pessimistic about their survival.

Table 5: Philippine Exports of Automotive Parts, 1996-2002

Year	Exports in '000 US$	Growth Rate in %
1996	830821.5	
1997	759693	-9.0
1998	375387.6	-70.5
1999	515863.5	31.8
2000	1012144	67.4
2001	954686.4	-5.8
2002	1166591	20.0

Source of basic data: Department of Trade and Industry-Bureau of Export Trade Promotion

In 1997, the growth of exports of automotive parts and components dropped by nine percent and by another 71 percent in 1998. Strong recovery was felt in from 1999 to 2000. Export growth was disrupted in 2001, then continued strongly in 2002. Japan remains the biggest market for automotive parts and components, followed by the US and Germany. (See Table 5 above)

6. ASEAN Cooperative Approaches

This section looks at the evolution of strategies which have been employed by ASEAN. No assessment is made with respect to the effectivity of these schemes, but simply a brief look at what have been done so far.

AFTA

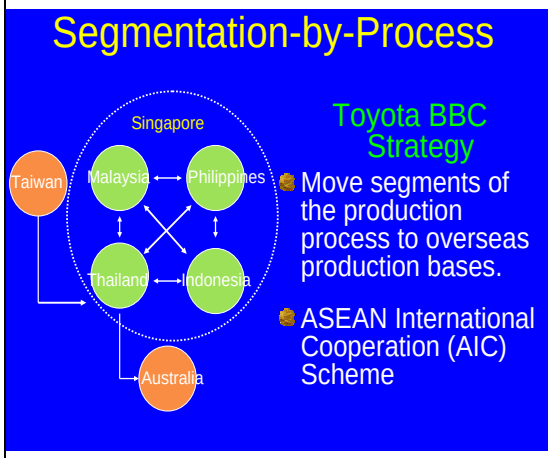
In 1992, the ASEAN countries agreed to create the ASEAN Free Trade Area (AFTA), under which all internal ASEAN tariffs were lowered to 0-5 percent as applied by the Common Effective Preferential Tariff (CEPT). Under CEPT, the import tariff rate on automotive products with no less than 40 percent ASEAN content is 0-5 percent. (Thailand will lower tariff rates to 0-5% no later than 2010.) The goal is to create one market, where rationalization of production and distribution processes would lead to economies of scale.

All ASEAN-6 automotive products are in Inclusion List (IL) (except for 218 items). Of the issues in the current CEPT negotiations are Malaysia's deferment of CBUs and CKDs as well as Vietnam's deferment of transfer of certain motorcycle parts & components and auto CBUs from Temporary Exclusion List (TEL) to IL. Automotive is one of the priority integration sector in AFTA. Auto sector unification is overseen by the ASEAN Automotive Industry Integration plan.

The AIJV, BBC and AICO Schemes

There is a long history of formal "complementarity" schemes in ASEAN, including the ASEAN Industrial Joint Venture (AIJV) begun in 1983, the Brand-to-Brand Complementarity (BBC) scheme begun in 1988, and the ASEAN Industrial Cooperation (AICO) scheme begun in 1996. All of these programs have been based on resource-pooling and market-sharing among ASEAN member states as a way to generate and exploit firm- and industry-level economies of scale. See Box 2 for illustration of impact.

Box 2. Segmentation encouraged by BBC Scheme: An Illustration



•MNCs move between hierarchy and market-whether to perform business functions in-house or outsource—to achieve operational efficiency
•Under the BBC Scheme, Mitsubishi Motor, in local partnership with Proton Motor, began to procure vehicle parts and components from different Southeast Asian countries, import them to Malaysia at preferential tariff rates, and use them to meet the local content rules for final assembly
•Subsequently, Nissan and Hino in heavy trucks, Toyota in passenger cars and pick-up trucks, and Honda in multipurpose vehicles pursue similar subregional strategy

Source: Tachiki 2004

AICO is different from previous arrangements mainly in that it allows complementarity schemes to be set up between separate firms. A minimum of two companies in two different ASEAN countries are required for participation. Parts approved under AICO have tariff rates dropped to 0-5% well ahead of AFTA implementation in 2003. The AICO, abolishes the localization schemes in each country, as well as the import tariff exemptions and local capital requirements. Participating companies must also provide evidence of cooperative activities such as technology transfer, inter-firm training, or consolidated purchasing in order to gain project approval.

ASEAN Auto Integration

The automotive industry has been singled out as one of ASEAN's priority areas for integration. The vision is a single market, with integrated production and distribution channels, starting with these priority areas. Especially for the automotive industry which is characterized by global production networks, this is envisioned to create an ASEAN automotive sector, in partnership with the major Asian automotive producers, which would bring about mutual benefits in terms of enhanced efficiencies and competitiveness arising from economies of scale.

The measures of integration would revolve around the following main areas: intra-ASEAN tariffs, a common external tariff, harmonization in automitive standards, automotive taxes, customs valuation investment rules and rules of origin.

7. ASEAN Trade Negotiation Issues and Recommendations for the Strategic Negotiation Framework

We now turn to the main objective of this paper. What then are the main implications for the industry players in terms of deriving positive results all around from what is negotiated under the ASEAN umbrella? There are three major elements that need to be taken into account. In the first place, what is the ASEAN vision for the industry, embodied in the ASEAN (Plus) direction and framework? Second, what is governments' role? And third, what are the areas for negotiation?

The Vision of ASEAN is to become one community. In particular, in the more immediate future, the goal for the priority sectors ASEAN is to build a single production base. For the automotive industry, this is consistent with and supportive of its global production networking structure. It is important that the regional, as well as national strategy would be aligned with if not patterned after regional and international trail, specifically the trends in the global production network and the impact of the global trading arrangements on this structure.

In general, the key implication here is that the strategy for the ASEAN automotive industry is to build around the basis of ASEAN being an integral part of Japanese competitiveness.

Japan would strive to maintain its leadership in the region. While the new age economic partnership Japan aims to foster is based on cooperation, underneath, there is inherent competition between Japan and China. Japan is still the world leader in automotive technology but it needs to continually guard its competitiveness, especially against the threat of China as a major potential competitor. Hence, it is essential for Japan to widen its production base to include ASEAN. This means that Japan's competitiveness is entwined with ASEAN competitiveness. Japan's competitiveness relies on ASEAN's competitiveness, and ASEAN's competitiveness could draw on Japan's competitiveness.

Of course there are prerequisites for this to happen. In the first place, each individual ASEAN country should create the proper environment. In broad strokes, this includes strengthening the foundation in

- Improving QCD and meeting international standards
- Human resource development
- Engineering capacities – value engineering
- Global supply networking infrastructure
- Good ICT infrastructure

Basically, the vision is not just for ASEAN to become one production base, but one closely linked with Japan. This means each ASEAN country should identify parts and components where it has comparative advantage within which to specialize. This would supply the production network not just in the ASEAN-Japan, but , along with

Japan's export drive, the rest of East Asia and the rest of the world. Various suppliers may combine resources to complete a sub-assembly auto component. However, at the same time, each country could still specialize on a particular model, especially where there a strong domestic base could be established, but with view to exporting not just within ASEAN but the rest of the world. This would enable each country to take respective advantage of economies of scale, while at the same time drawing on and supporting Japan's competitiveness. It goes without saying that there would be needed technology transfer and foreign direct investments.

Local industries should work for more division of labor between ASEAN and Japan. Forward looking strategies should be sought, where countries try to create new niches, based on natural (and unique) endowments and comparative advantage. One possible area in looking ahead would be establishing new grounds in the environment-related areas of the automotive industry.

In the ASEAN trade negotiation framework, what are the implications of this vision and strategy with regards to the areas for negotiation? *Collaborative approaches* among parts manufacturers are needed. In this regard, regional agreements, particularly the ASEAN plus framework, could be designed to suit the collaborative approach.

A necessary condition to building one ASEAN production base is free movement of labor and capital. This means, reducing barriers to trade and investments. This has direct implication on:

- Market access:
  - Tariffs
  - Non-tariff barriers- standards and technical barriers
  - Rules of origin
  - Negative list
- Ability to attract FDI.

The direct impact is increased inter-industry trade in the region and greater movement of people. The objective of the negotiation process is to facilitate these flows by reducing the barriers to market access and flow of investments.

There are of course adjustments involved in opening up and becoming exposed to increased competition. But there is need as well for longer-term view. Hence in the negotiation process, negotiations should cover the flexibilities needed to manage the transition. But this concern should not lose sight of the long-term view of moving forward—that is, toward a ASEAN-Japan automotive production base. This means that a progressive mindset, should, at the outset be created.

On market access

a. *Rules of Origin.* Key role for industry to be involved in designing suitable Rules of Origin. In general, ROO should be characterized by simplicity, transparency but industry should be knowledgeable about what is practical.
b. *Negative List*. How can the negative list be improved?

Table 6. Number of Tariff Lines in the Negative List

Sector	Brunei Darussalam	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Thailand	Vietnam	Singapore
Automotive	128	94	516	21	485	345	443	173	235	0
Electronics	322	293	52	0	45	82	2	236	42	0
Textile & Apparel	0	127	11	8	3	1	129	24	206	0
Agro-based Products	0	19	16	0	8	3	10	20	0	0
Rubber-based Prods	80	67	58	0	68	76	21	83	11	0
Wood-based Prods	33	30	0	0	12	0	25	52	0	0
Fisheries	0	11	7	0	36	23	14	26	0	0
Health care	21	29	5	16	13	58	9	90	41	0

c. *On TBTs and standards*— more affordable testing and certification facilities could often spell the difference; training and capability building. What kind of MRA agreement is feasible?

On investment measures – what are needed to facilitate investments? This is an area where the business sector should strongly recommend measures that would facilitate investment, in terms of both pre- and post-establishment measures. While many governments are still apprehensive about relaxing national treatment restrictions, this is largely due to uncertainty of what it means to industry players. An open support and concrete recommendations would facilitate needed reforms in this area.

Other areas for negotiation

- Thru trade facilitation, e. g. in Customs paperless trading
- Capacity building for MRA
- Creation of conformity assessment body for the automotive industry
- Capability building/ technical assistance for ISO standard testing and certification
- SME cooperation

- Providing and strengthening the networking infrastructure- ASEAN +3
- Implementing supportive HRD policies

Again, open support and concrete recommendations from industry would provide the need boost to move the reforms.

In sum, the regional cooperation (ASEAN + 3) framework would cover

- Reducing barriers to trade, investments, and movement of people
- Building the networking infrastructure for:
  - Fostering closer linkages with markets
  - For identifying impediments and strategic actions to deal with the related problems
  - For greater interaction between parent and local company
  - Reducing language barrier
  - For information sharing. particularly on management and technology
- Strengthening cooperation and links:
  - Between private and public management
  - Between academe, business and government.

Toward this end, there is a need for industry and academe to have close coordination with respective governments. The goal is to come up with concrete development initiatives in support of capability building in the various areas of cooperation.

February 2007

Development of an ASEAN Framework for Trade Negotiations: The Fisheries Sector

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Executive Summary

Fish exports are very important to the economies of developing countries in Southeast Asia with top world fish exporters coming from the region. International trade in fish and fishery products grew substantially in the past two decades, with values greater than net exports of other agricultural commodities such as coffee, bananas, rice and tea. The sector represents one of the dominant sources of income for poor households in Southeast Asia. However, tariff escalation in the major world fish markets, namely, the European Union, North America, and Japanese markets results in high effective protection rates and discourages diversification into processing activities.

Non-tariff barriers, often linked to technical standards or procedures, are hindering the industry's further development. Nevertheless, there is an opportunity for improvements in market access conditions through clearer and more streamlined applications of technical standards such as those pertaining to food quality and safety; promotion of trade in fish and fishery products in line with social and environmental sustainability; disciplines on fisheries' subsidies; further clarification and simplification of rules of origin procedures, and; in the case of some developed markets, a broadening of the coverage of eco-labelling and certification schemes. The key challenge areas would be in developing and harmonizing standards and other trade rules in view of the member countries' differences in priorities and capacities.

An avenue to pursue enhanced market access is through the ASEAN Free Trade Area processes and other regional arrangements such as the ASEAN+3. The current implementation schedule has resulted in modest reductions in barriers in the more advanced ASEAN members, albeit at a slow pace.

Following the lead of the ASEAN Roadmap for Fisheries Integration, which identified specific activities that would be undertaken to facilitate and optimize trade potential for the sector, several recommendations in addressing some of the market access barriers for the ASEAN+3 free trade initiative have been developed. This includes the reduction of tariff and non-tariff barriers as well as the promotion of fisheries trade in accordance with socio-economic and environmental sustainability. Fish trade negotiations are relevant for fisheries management because several fish species have now become the subject of agreements such as the CITES. There is also a need to provide technical assistance and capacity building programs to enable countries to adjust to new rules and implement existing trade obligations. The type of result that emerges from the negotiations, however, is conditional on effective participation in the negotiations by developing countries. Specific recommendations to further advance the growth of the sector are:

- Support the harmonization of standards for health and safety regulations in fish trade such as Sanitary and Phytosanitary (SPS) measures and procedures for administering them in line with international standards while recognizing the problems that developing countries face in complying with such standards;

- Implement coastal resources development and management strategies and guidelines that adhere to the principles of sustainable use of coastal and marine resources and responsible fisheries;

- Harmonize customs procedures and simplify rules of origin;

- Develop regional policy and guidelines for fisheries subsidies, cognizant of the region's specific requirements;

- Develop and promote fish and fishery product brands that support responsible fisheries and food safety practices; and

- Implement programs to increase the capacity of developing countries in technical, institutional and legal areas affecting fisheries management;

Experience shows that the integration process could be slow and tedious, but if the ASEAN+3 is to foster deeper economic integration in the region, it would be necessary not just to focus on the item-by-item tariff lines and exclusions but more importantly on ways to increase competition and efficiency, which in turn will bring real economic benefits.

Standards are increasingly becoming a major barrier, with East Asian exporters facing difficulties in meeting health and safety standards. Inevitably, improved harmonization of SPS and Technical Barriers to Trade (TBT) requirements and standards would be important in both regional and international levels but there is apprehension that incremental benefits from trade liberalization would be nullified by protectionist use of the said measures. Nonetheless, it would be necessary to developing country players to adapt to the global changes to avoid compromising the export prospects. To comply with international safety and quality standards, the governments should be proactive in assisting the private sector to find solutions. Cooperation between donors, international agencies, national agencies and private entrepreneurs is desirable to make optimal use of resources allocated to food safety-related activities.

Effective fisheries management should also be viewed as the foundation for sustainable fisheries trade and be a part of fish trade related initiatives. Moreover, fisheries policy should not focus on increasing production and income from fishing alone as efforts to promote new technologies have placed increased pressure on the resource. What is needed is to build upon the diverse ecosystem characteristics of the coastal zone and promote alternatives to fishing as a source of livelihood.

The ASEAN initiatives in economic integration can stimulate trade and market access for its members, if they are fully implemented. As noted, the weak integration in the fisheries sector is attributed to the current production and technology entailing simple transformation of raw materials that are not suited to division across economies. A liberal regional trading landscape can encourage further processing and specialization in a regional context and could enhance opportunities for joint ventures among exporters.

However, individual countries should continually strengthen their own comparative and competitive advantages through specialization and product innovation.

Development of an ASEAN Framework for Trade Negotiations: The Fisheries Sector*

1.0 Introduction

On the surface, the ASEAN Free Trade Area (AFTA) is going from strength to strength. However, experts say that the picture is not quite what it is cracked up to be. As Pangestu and Gooptu (2003) observed, the strong expressions of political commitment and proposals to widen ASEAN cooperation have not always been followed up with concrete and broad-ranging implementation. The idea of a comprehensive and integrated framework to cover investment, services, trade and investment facilitation measures, competition policy and antidumping has been proposed; however, this has not progressed very far. To be fair about it, there have been efforts to address these problems. There have been pledges to streamline customs procedures and adopt shared product standards. To make the task more manageable, ASEAN has decided to press ahead in 11 priority sectors – from fisheries to aviation.

World fisheries production has grown rapidly in response to increasing demand, and as a result of advances in fishing technology, growth in aquaculture, and expansion in areas and species fished. Moreover, fisheries and aquaculture production is a clear contributor to national economies across the Asia. This study is intended to review the current situation and summarize present understanding of the dynamics, problems and opportunities in the fisheries sector in Southeast Asia and develop a framework that can be used for fisheries trade negotiations between ASEAN member countries (Brunei, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam), Japan, China and the Republic of Korea; henceforth, ASEAN+3.

Section two provides a summary of the major trends and potential for fisheries and aquaculture including ornamental fish trade in the ASEAN+3 countries. Sections three and four discuss existing demand and supply side constraints faced by developing countries in international fish trade. The demand-side considerations include market constraints related to trade, such as tariff and non-tariff barriers, while the supply-side constraints encompass the domestic challenges in developing countries. Section five explores the relevant ASEAN initiatives intended to facilitate fisheries trade while section six provides suggestions regarding the flexibilities that the industry would require in order to cope with the regional integration and liberalization processes. In section seven, specific recommendations and options for the way forward for the ASEAN+3 trade negotiations for the sector, are presented. The last section draws some conclusions and final thoughts on the work at hand.

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2.0 Trends in Fish Production, Utilization and Trade in Southeast Asia

Capture fisheries and aquaculture provide food security, trade and employment opportunities in Southeast Asia. Culturally, aquatic resources mean more than a source of income or food supply; traditional fishery products such as fish sauce and fish-based condiments are important ingredients of people's daily diet, which are not easily substituted (Sugiyama, Staples and Funge-Smith, 2004). While the production value of the fisheries sector as a percentage of the gross domestic product of individual countries is relatively small (see Table 2.1), exports of fisheries products from developing countries now form a major portion of agricultural and food processing exports. Aside from those directly involved in the primary production sector as shown in Table 2.2, there are also a number of people who are engaged in the supporting industries of fisheries and aquaculture such as boat building, ice making, feed manufacturing, processing, marketing and distribution of fisheries and aquaculture products.

Table 2.1: Contribution of Fisheries to GDP

Capture Fisheries		Aquaculture	
Country	**Production Value as Percent of GDP**	**Country**	**Production Value as Percent of GDP**
Cambodia	10.030	Cambodia	0.893
Indonesia	2.350	Indonesia	1.662
Lao PDR	1.432	Lao PDR	5.775
Malaysia	1.128	Malaysia	0.366
Philippines	2.184	Myanmar	0.167
Thailand	2.044	Philippines	2.688
Vietnam	3.702	Thailand	2.071
China	1.132	Vietnam	3.497
		China	2.618
		RO Korea	0.145
		Japan	0.108

Source: Sugiyama, Staples and Funge-Smith (2004)
Note: These are 2001 figures except for Vietnam, which is from 2000

Table 2.2: People Employed in Fishing and Aquaculture

Country	2000	1990	1980	1970
Brunei Darussalam	1,355	1,900	722	1,130
Cambodia	73,425	37,695	13,100	10,000
Indonesia	5,118,571	3,617,586	2,231,515	841,627
Lao PDR	15,000	15,000	11,800	10,000
Malaysia	100,666	88,494	119,642	81,729
Myanmar	610,000	580,962	361,051	344,000
Philippines	990,872	898,000	781,500	1,047,441
Singapore	364	836	2,025	1,919
Thailand	354,495	207,019	86,188	74,086
Viet Nam	1,000,000	800,000	330,000	317,440
Total ASEAN	**8,264,748**	**6,247,492**	**3,937,543**	**2,729,372**
China	12,233,128	9,092,926	2,950,344	2,300,000

Japan	260,200	303,400	376,880	437,900
RO Korea	176,928	211,753	298,122	367,645
Hong Kong	24,655	31,283	35,700	50,000
Asia (excluding Middle East)	**28,890,352**	**23,092,966**	**13,158,174**	**8,832,925**

Source of basic data: Earthtrends and FAO FishStat

2.1 Production

Asia is the world's largest producer of fish, from both aquaculture and capture fishery sectors, but there is considerable variation in general trends among the countries. Most of the growth in both aquaculture and capture fisheries occurred in China, Thailand, Indonesia and India. Japan and RO Korea have shown a steady reduction in the supply of capture fish and continue to rely on aquaculture production (Tables 2.3 and 2.4).

Production growth in Southeast Asia has been very strong for the past four decades with capture fisheries production increasing linearly. The total capture production level of over 15 million metric tons in 2004 for the countries in the region was second only to China. Ninety percent of capture production is attributed to those caught in marine waters. However, given the rich freshwater resources in the area and the fact that the catch of many small-scale operators is not properly recorded, the proportion of inland capture production might be underestimated.

Table 2.3: Total Capture Fisheries Production (in metric tons)

Country	2004	2003	2002	2001	2000
Brunei Darussalam	2,428	2,226	2,058	1,597	2,487
Cambodia	305,817	364,357	406,182	428,200	284,368
Indonesia	4,811,325	4,627,154	4,323,770	4,243,274	4,084,079
Lao PDR	29,800	29,800	33,440	31,000	29,250
Malaysia	1,339,844	1,291,164	1,279,635	1,238,813	1,293,325
Myanmar	1,586,660	1,343,860	1,284,340	1,187,880	1,093,200
Philippines	2,214,336	2,168,737	2,033,095	1,951,517	1,899,042
Singapore	2,173	2,085	2,769	3,342	5,371
Thailand	2,845,088	2,849,697	2,842,508	2,833,911	2,997,394
Vietnam	1,879,488	1,856,105	1,802,598	1,724,758	1,623,312
Total ASEAN	**15,016,959**	**14,535,185**	**14,010,395**	**13,644,292**	**13,311,828**
China	16,892,793	16,755,653	16,553,144	16,529,389	16,987,325
Japan	4,403,415	4,672,286	4,362,697	4,705,059	4,987,704
RO Korea	1,575,337	1,642,905	1,671,420	1,990,722	1,824,995
Hong Kong	167,544	157,444	169,790	173,972	157,012
Asia (excluding Middle East)	**45,065,729**	**45,040,927**	**44,000,781**	**44,179,584**	**44,358,126**

Source of basic data: Earthtrends and FAO FishStat

Table 2.4: Total Aquaculture Production (in metric tons)

Country	2004	2003	2002	2001	2000
Brunei Darussalam	708	160	157	99	113
Cambodia	20,835	18,500	14,600	14,000	14,430
Indonesia	1,058,042	996,659	914,071	864,276	788,500
Lao PDR	64,900	64,900	59,716	50,000	42,066
Malaysia	171,270	167,160	165,119	158,158	151,773
Myanmar	400,360	252,010	190,120	121,266	98,912
Philippines	512,220	459,615	443,537	434,661	393,863
Singapore	5,406	5,024	5,027	4,443	5,112
Thailand	1,172,866	1,064,378	954,567	814,121	738,155
Vietnam	1,198,617	937,502	703,041	588,098	498,517
Total ASEAN	**4,605,224**	**3,965,908**	**3,449,955**	**3,049,122**	**2,731,441**
China	30,614,998	28,886,229	27,767,251	26,050,101	24,580,671
Japan	776,421	823,873	826,715	799,946	762,824
RO Korea	405,748	387,791	296,783	294,484	293,420
Hong Kong	4,615	4,857	4,302	5,627	4,988
Asia (excluding Middle East)	**40,216,780**	**37,692,570**	**35,750,973**	**33,435,774**	**31,322,958**

Source of basic data: Earthtrends and FAO FishStat

Although capture fisheries continue to account for the larger share in the region's fish production, most of the recent expansion emanated from the faster-growing aquaculture sector. Aquaculture production in Southeast Asia is very diverse, comprising of freshwater fish, aquatic plants, crustaceans, marine/diadromous fishes and molluscs (Sugiyama, Staples and Funge-Smith, 2004). Crustaceans are a major culture species because even if its level of production is not as high as that of freshwater finfish and aquatic plants, it has the highest production value.

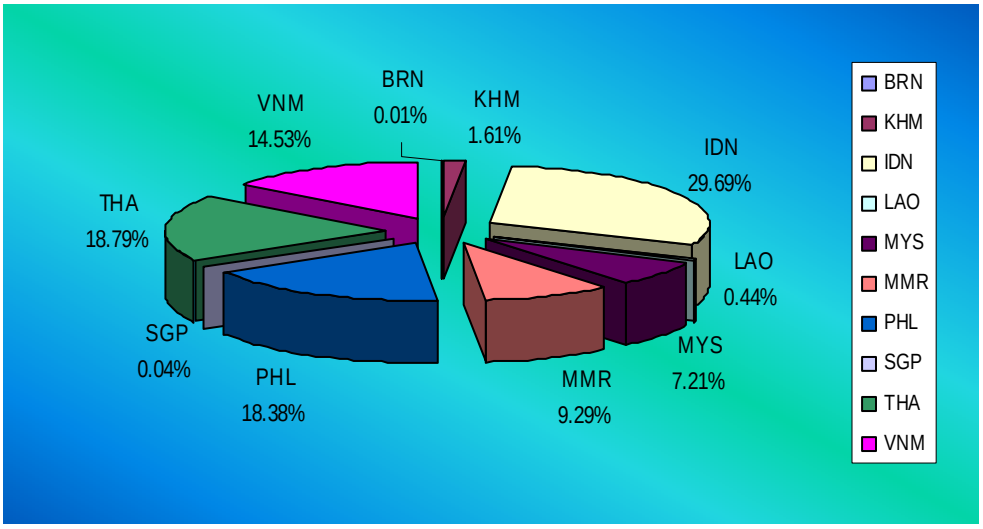
Aquaculture grew annually at an average rate of 8% from 1970 to 2004, while capture production grew at a slower pace of a little over 3% for the same period. Ahmed and Lorica (2002) attributed this to technical innovations, private sector growth and increased market demand, which are the major drivers in the expansion of aquaculture in developing countries, particularly in Asia. Moreover, the forward (e.g., harvesting, post-harvest handling, processing and marketing) and the backward (e.g., hatcheries, nurseries and seed, feed and other input deliveries) linkages in aquaculture can generate substantial labor demand. Then again, trade-induced aquaculture has been associated with environmental problems such as clearance of mangrove forests and disease outbreaks. There is likewise the danger that with increasing demand for fishmeal, species used as fish feeds like herring and sardines might be over-fished. The issue of genetic modification has also cropped up and likely to be important in the future (Ahmed, 2006).

Among ASEAN member countries, Indonesia and Thailand are consistently among the world's top ten fish-producing countries with the Philippines and Vietnam following their lead. In 2004, Indonesia contributed 30% of the total ASEAN fish production while Thailand, Philippines and Vietnam accounted for 19%, 18% and 14%,

respectively (See Figure 2.1). Brief profiles of the fisheries sector in individual ASEAN member countries as well as Japan, China and RO Korea are presented in Annex 1.

The sector remains polarized with the presence of large-scale, industrial, or commercial fishery (i.e., fishery that employs relatively capital-intensive fishing technologies, with equipment owned by commercial entrepreneurs and operated by salaried crews) and small-scale or artisanal fishery. The latter refers to traditional fishery involving fishing households, mostly labor intensive, using a small craft with traditional fishing gear such as hand lines, small nets, traps, spears, and hand collection methods. The fish processing industry is similarly characterized by the existence of small-scale family establishments relying on customary and long-established processing methods side-by-side with modern processing plants equipped with state-of-the-art machinery.

Figure 2.1: Share of ASEAN Countries in Fish Production (in percent)



2.2 Utilization

The biggest share of fish produced goes to direct human consumption as fish is a major source of animal protein in Asia, particularly for rural populations. While before some were entirely dependent upon capture fisheries for food, aquaculture fish has become increasingly a practical substitute or alternative. In 2002, about 76% or 100.7 million tons of estimated world fish production was directly consumed by people while the remaining 24% (32 million tons) was destined for non-food products, in particular the manufacture of fishmeal and fish oil (FAO, 2004). Almost all the fish products used for non-food purposes came from natural stocks of small pelagics.

As a highly perishable commodity, fish has significant processing requirements. Freezing represents the main method for processing fish for human consumption, followed by canning and curing. In the past, developing countries were involved

primarily in exports of raw materials for the processing industries of developed countries but in recent years, they have been increasingly involved in adding value to their produce prior to exporting.

The form of fish consumed indicates regional and national differences. For example, the consumption of cured fish and live or fresh forms is higher in Africa and Asia compared with other places. On the other hand, more than two-thirds of fish used for human consumption in Europe and North America were either frozen or canned. The many options for processing fish allow for a wide range of tastes and presentations, making fish one of the most versatile food commodities but fresh fish is still the most widely accepted product on the market (FAO, 2004). During the 1990s, the proportion of fish marketed in live/fresh form worldwide increased compared with other products. The sale of live fish to consumers and restaurants is especially strong in Southeast Asia and the Far East.

2.3 Trade

As demand grows faster than supply, the price of fish is increasing worldwide and fish is becoming a "cash crop". Fish and fishery products are highly traded commodities bringing valuable foreign exchange earnings to exporting countries.

For the past 20 years, many developing countries in Southeast Asia have become net exporters of fish products. The more marketable fish species are being sold to provide income that is used to purchase other commodities, including more affordable food items. Trade continues to flow primarily from developing to developed nations, largely involving high-value species such as shrimp, prawns, lobster and tuna. On the other hand, in many developed countries like Japan, the trend has been reversed with these countries becoming net importers, rather than net exporters. The latest export and import values by the ASEAN + 3 are shown in Table 2.5. When combined, the export value of ASEAN member countries account for 43% of fish exports from Asia in 2004.

Owing to the growth in its aquaculture production, Vietnam has significantly increased its exports of fish and fishery products within a span of ten years (from US$4.8 million in 1994 to US$2.4 billion in 2004). The bulk of the country's exports consisted of shrimps (mainly in frozen form). The main target markets for Vietnamese exports were China, Japan and the United States.

Thailand continues to lead the ASEAN member countries as the world's top exporter of fish and fishery products since 1993. Nonetheless, despite its performance, the title was wrestled away by China in 2002. China has experienced remarkable increases in its fishery exports since the early 1990s. These increases are linked to growing production, as well as to the development of China's fish-processing industry taking advantage of its competitive labor and production costs. In addition to exports from domestic fisheries production, China also exports reprocessed imported raw material, creating a strong value-addition in the process. At the same time, its imports of

fish and fishery products have increased significantly over the last decade, rising from US$0.7 billion in 1992 to US$3.1 billion in 2004. With its accession to the World Trade Organization (WTO) in 2001, China had to commit itself to lowering its import duties, which decreased from an average import tariff of as high as 15.3% in 2001 to 11% in 2003 and 10.4% in 2004. The quantity of imported fishery products (2.9 million metric tons) in PR China exceeded that of exported products (2.3 million metric tons) in 2004. Nonetheless, it has achieved a remarkable trade surplus of US$3.5 billion from fishery products, indicative of the strong value adding that occurred in the process.

Table 2.5: Trade in Fish and Fishery Products (in thousand US$)

	2004			2003			2002		
Country	Exports	Imports	Net Exports	Exports	Imports	Net Exports	Exports	Imports	Net Exports
Brunei Darussalam	683	12,996	-12,313	704	11,684	-10,980	459	12,917	-12,458
Cambodia	39,578	3,146	36,432	34,477	3,004	31,473	31,962	559	31,403
Indonesia	1,654,112	139,789	1,514,323	1,550,953	74,089	1,476,864	1,490,854	77,148	1,413,706
Lao PDR	25	3,331	-3,306	12	2,318	-2,306	12	1,713	-1,701
Malaysia	569,206	527,869	41,337	252,703	365,826	-113,123	377,584	387,049	-9,465
Myanmar	318,514	1,267	317,247	317,382	1,713	315,669	251,534	397	251,137
Philippines	413,716	68,248	345,468	427,789	81,405	346,384	415,465	89,878	325,587
Singapore	393,075	623,496	-230,421	315,012	528,601	-213,589	311,327	498,370	-187,043
Thailand	4,034,003	1,230,989	2,803,014	3,906,384	1,074,916	2,831,468	3,676,427	1,042,103	2,634,324
Viet Nam	2,402,781	172,715	2,230,066	2,201,878	156,753	2,045,125	2,030,320	92,272	1,938,048
Total ASEAN	9,825,693	2,783,846	7,041,847	9,007,294	2,300,309	6,706,985	8,585,944	2,202,406	6,383,538
China	6,636,839	3,125,631	3,511,208	5,243,459	2,388,590	2,854,869	4,485,274	2,197,793	2,287,481
Japan	1,077,287	14,559,508	-13,482,221	922,980	12,395,943	-11,472,963	788,953	13,646,071	-12,857,118
RO Korea	1,139,399	2,233,243	-1,093,844	1,003,354	1,934,998	-931,644	1,045,672	1,861,093	-815,421
Hong Kong	46,536	1,907,984	-1,861,448	47,355	1,752,420	-1,705,065	50,165	1,766,128	-1,715,963
Asia (excluding Middle East)	22,957,953	25,310,903	-2,352,950	19,751,735	21,455,531	-1,703,796	18,811,313	22,345,735	-3,534,422

Source of basic data: Earthtrends and FAO FishStat

Exports from developed to developing nations in Southeast Asia consist mainly of low-value small pelagic species, but these are vital for food security. In 2003, despite consuming around one-third of all fish products, imports by developing countries account for only 15% of the total value of fish-traded (FAO, 2004). On the other hand, trade among developing countries, which are mostly in the form of fishmeal for use as fish oil in aquaculture, remained modest at US$5 billion but it is high in terms of volume involving large quantities of low-value species.

In contrast, flows from developing (including ASEAN member countries) to developed countries are largely composed of high-value species such as shrimps, prawns, lobster and tuna with the European Union, Japan and the US as major importers. Delgado et al., (2003a) noted that positive net exports from developing to the developed countries are expected to continue at least until 2020, but at a lower level than at present due to increasing South-South trade and growing consumption in developing countries.

Findings in FAO (2005a) support this observation and projects that total demand for fish in developing countries will increase from the 30.5 million tons registered in 1979-81 to nearly 140 million tons in 2015. Asia accounted for 68% of the total fish demand during the same period and this is expected to increase further to 86% between 2010 and 2015. Annual per capita demand for finfishes in developing countries is estimated to go up from 10.7 kg in 1999-2001 to 13.5 kg in 2015, and in developed countries, from 16.3 kg to 17.3 kg during the same period FAO (2005a). Delgado et al. (2003a) projected that annual per capita consumption of fish by 2020 will rise significantly to 39.5 kg and 25.8 kg for China and in Southeast Asia, respectively. The increasing demand for high-value food fish in developing countries will also affect the current flows of trade of high-value products, which has been concentrated so far in a few major markets in the developed world. This suggests a slowing and even a reversal of net export growth by developing countries as shown in Table 2.6.

Table 2.6: Net Exports of Food Fish (Actual and Projected)

Country/Region	Total Net Exports ('000 metric tons)			Net Change ('000 metric tons)	
	Actual		Projected	Actual	Projected
	1985	1997	2020	1985-1997	1997-2020
China	311	462	21	151	-441
Southeast Asia	315	696	594	381	-102
India	32	41	-286	9	-327
Other South Asia	37	118	6	81	-112
Latin America	489	1,962	2,645	1,473	683
West Asia and North Africa	79	184	183	105	-1
Sub-Saharan Africa	-146	186	75	332	-111
United States	-565	-901	-1,235	-336	-334
Japan	-1,037	2,073	-1,903	-1,036	170
European Union 15	-1,231	2,521	-2,081	-1,290	440
Eastern Europe and former Soviet Union	-704	614	-923	90	-309
Other developed countries	2,160	2,232	2,801	72	569
Developing world	1,377	3,877	3,341	2,500	-536
Developing world excluding China	1,067	3,415	3,320	2,348	95
Developed world	-1,377	-3,877	-3,341	-2,500	536

Source: Delgado, et al. (2003a)
Notes: Actual data are three-year averages centered on 1985 and 1997; Negative values indicate net imports

Despite Asia as a whole experiencing negative net exports, majority of the members of ASEAN continue to enjoy positive figures. This indicates that there are still areas for further intra-regional trade opportunities. Intra-regional fish trade in Asia alone came to about US$11.7 billion during 2000-02 (FAO, 2005a).

Changing income patterns are expected to affect consumption, particularly in developing countries, notably as incomes rise. The market within the region is heterogeneous as characterized by its income level. Each fish exporting country can thus find a market niche to exploit. IFPRI (2002) foresees the continued rise in per capita income consumption of meats, dairy and fish products in developing countries until the year 2030. The observed global trend suggests that those who are at the low income level

continue to demand unbranded and basic packaged products. On the other hand, the more affluent economies in Asia are increasingly importing high value commodities for domestic consumption. At higher income levels, fresh and healthy products as well as food processed for convenience are favored. Following the study of the International Trade Strategies Pty Ltd., and Center for Food and Agribusiness (2004), food markets in ASEAN can be disaggregated into: (i) Group A (sophisticated, processed and fresh, health products): to which Singapore, Brunei Darussalam belong; (ii) Group B (basic packaged food and frozen products): Thailand, Malaysia; (iii) Group C (unbranded products, and basic packaged products with some frozen products): Indonesia, The Philippines, Vietnam; and (iv) Group D (unbranded products, and some basic packaged foods): Cambodia, Laos, Myanmar.

FAO (2005a) estimated that there are currently over 800 fish species being traded internationally in a variety of forms and preparations. More than half of the fish products intended for human consumption is marketed as fresh fish (Kura et al., 2004). This growth in the share of fresh fish, as well as those sold as live or chilled, is likely to continue as consumers become increasingly health conscious and as new technological systems supporting handling, transportation, storage and distribution facilities develop.

Besides product diversification, value-addition to fish exports leads to greater export earnings. Fish trade in developing countries is gradually evolving from the export of fish as raw material to the export of processed fish products. The fish processing industry is becoming more globalized as processing is increasingly taking place in locations other than the country of origin of the fish. Hence, there is substantial exporting and re-exporting taking place such as in the case of Thailand and Singapore. The flow of resources can be facilitated by having a well-functioning supply chain for fisheries products, which includes all the links from the point of production to the end-user. There is also evidence of rising developed country investment in processing facilities in developing countries where labor costs are lower.

Regional trade agreements such as the ASEAN's Free Trade Agreement (AFTA) is an attempt to facilitate the expansion of South-South trade that focuses on eliminating protective tariffs and harmonizing trade policies within a region. Among AFTA's targets is for 0-5% tariffs for intra-ASEAN trade. In the first few years following its implementation, average tariffs on fish commodities declined to as low as 5% to 3%. As such, the increased fish supply and demand, combined with significant progress in the implementation of national, bilateral and multilateral free trade agreements in developing countries, is expected to bring about revitalized South-South fish trade.

Unfortunately, this growing dependence on fish exports by developing countries has exposed them to market shocks and price volatility and forced them to comply with new sets of health and food safety-related rules such as Sanitary and Phytosanitary (SPS) standards and Hazard Analysis Critical Control Point (HACCP) regulations (Ahmed, 2006).

2.4 Aquarium and Marine Ornamental Fish Trade

The growing aquarium industry and trade in marine ornamental species gained considerable attention in recent years. Unlike food fish and aquaculture production, there is less information available in the industry. It deals with relatively low volumes, but of high value species. Extrapolation from partial estimates indicates that the total value of the aquarium trade alone exceeds US$1 billion per year (Sugiyama, Staples and Funge-Smith, 2004). A total of 1,471 species of marine fish are traded worldwide but the ten most traded species account for about 36% of all fish traded for the years 1997 to 2002. Southeast Asia is the hub of this trade, supplying up to 86% of all organisms traded globally. Countries in the region, notably the Philippines and Indonesia, are major exporters of aquarium fish, invertebrates and live corals. It exports 85% of all the aquarium fish and 75% of the invertebrates other than corals. Its contribution to the coral trade is even more dramatic – 99% of all live coral traded, mostly from Indonesia (Green, 2002).

Many fish products for food purposes go to Asian markets while reef animals and products primarily go to the United States, Canada and the European Union. North America accounts for over half of the global imports (Table 2.7). Meanwhile, most of the imports to East Asia are intended for Japan, Hong Kong and Taiwan (Table 2.8).

Table 2.7: Regional Trade Links, Expressed as Percentage of the Total Number of All Species in the Global Aquarium Trade

Exporters	Importers									
	North America	East Asia	European Union	Unknown	Wider Europe	Middle East	Australasia	South America	Africa	Total
East Asia	52.7	14.0	13.0	4.9	0.6	0.2	0.1	0.1	<0.1	85.7
Caribbean	5.8	-	<0.1	-	-	-	-	-	-	5.8
North America	4.3	-	0.2	-	-	-	-	-	-	4.6
European Union	1.4	-	0.1	-	-	-	-	-	-	1.5
Red Sea	0.7	-	<0.1	-	-	-	-	-	-	0.7
Australasia	0.4	-	<0.1	0.5	-	-	-	-	-	1.0
Africa	0.2	-	-	-	-	-	-	-	-	0.2
East Pacific	0.1	-	-	-	-	-	-	-	-	0.1
South America	<0.1	-	0.2	-	-	-	-	-	-	0.2
Indian Ocean	<0.1	-	<0.1	-	-	-	-	-	-	<0.1
Middle East	-	-	<0.1	0.3	-	-	-	-	-	0.3
TOTAL	65.7	14.0	13.5	5.7	0.6	0.2	0.1	0.1	<0.1	100

Source: Green, 2002

Table 2.8: Trade within East Asia Expressed as a Percentage of the Trade in 1.5 million Organisms from 1999 to 2001

Exporters	Importers								
	China	Hong Kong	Japan	DPR Korea	RO Korea	Malaysia	Singapore	Taiwan	Thailand
Indonesia	0.01	3.33	27.48	0.64	0.37	0.23	0.69	1.34	0.02
Philippines	-	13.00	8.69	0.29	-	-	0.69	43.23	-

Source: Green, 2002

Critics of the trade point to the damaging techniques that are sometimes employed in collecting fish and invertebrates, introduction of alien species, overexploitation and the threat of extinction of target species. Despite being collected in an environmentally sound manner, aquarium organisms may suffer from poor husbandry and transport practices resulting in stress, reduced health and increased mortality. Thus, it created added pressure on the reef ecosystem as more organisms have to be collected to make up for those that die. Unsustainable and destructive practices are endangering coral reefs, altering the ecosystem functions of reefs and diminishing the long-term economic value and ecosystem benefits to local communities (Best, 2002).

Nowhere is the threat to corals and reef animals from domestic and international demand more evident than in Southeast Asia, home to 34% of the world's coral reefs and the center of marine biodiversity, where 88% of reefs in the region are threatened by human activities (Burke, Selig and Spalding, 2002). Needless to say, declining reef health threatens food security, jobs and livelihoods for the region's teeming population. Despite the fact that majority of the countries in the region have acceded to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), an international agreement that protects wildlife by ensuring that international trade is based on sustainable use and does not threaten the survival of a species in the wild, trade in reef animals remains largely unregulated and in many instances, illegal and unreported.

Supporters of the aquarium industry, on the other hand, contend that a responsible marine aquarium trade provides incentives for sustainable reef management and conservation. The industry could support jobs in predominantly rural, low-income coastal communities and subsequently provide strong economic incentives for coral reef conservation in regions that have limited resources and other options for generating revenue are limited. In the Philippines, there are approximately 7,000 aquarium fish collectors who are dependent on the industry (Holthus and Spalding, 2002). Considering the important socio-economic benefits that it brings, the fishers and their families have an incentive to ensure the reef environments in good condition, properly managed for sustainable use and will continue to produce fish stocks.

The application of international certification schemes may provide an important tool for achieving this. Although still in its infancy, the Marine Aquarium Council (MAC) certification process intended to support a responsible and sustainable marine aquarium trade by eliminating its negative aspects and accentuating the positive aspects

to coastal communities, fishers, local and national economies. The MAC^{SM} Standards outline the requirements for a third-party certification of quality and sustainability in the marine aquarium industry. Its certification system launched in 2001 was first implemented in the Philippines in June 2002 (Holthus and Spalding, 2002). As more certified organisms become available, it is expected that aquarium hobbyists will be in a position to make purchases in the knowledge that the organisms they are buying have been collected and transported according to a set of agreed and monitored standards.

The significance of species preservation in attaining sustainable development indicates that rare and endangered species should be given ample protection they deserve, while at the same time enabling rational trade to continue. Wabnitz, Taylor, Green and Razar (2003) outlined some management initiatives, which need to be considered if the aquarium trade is to flourish:

- Collection of information on the population dynamics and life history characteristics of organisms targeted by the ornamental trade as well as accurate trade data in order to make more informed decisions regarding the sustainable collection of marine ornamentals;
- Development of certification schemes and associated operational standards for the industry and more widely applied to make certain that fish are collected, handled and transported in a manner that minimizes stress to the animals right through the process from 'reef to retail';
- Implementation of measures such as quotas and size limits, and restricted access to the ornamental fishery, where appropriate, though proper consultation is essential; and,
- Development and promotion of mariculture protocols for raising commonly traded species in source countries, to take pressure off wild stocks and to avoid removing livelihoods from local communities.

Whereas it is the responsibility of individual countries to take necessary action in regulating aquarium fish trade within their territories, including live-reef food fish trade, the above initiatives can benefit from a regional approach particularly in distilling experiences and lessons learned. A set of activities from a regional group or committee composed of all stakeholders can be the basis for future involvement of international assistance agencies and donors, rather than assisting individual countries.

3.0 Barriers to Fisheries Trade

The future of the fisheries sector in developing countries is largely dependent on international trade. For this reason, having continued access to a secure and stable export market is essential in order to expand their participation. Trade liberalization calls for the gradual removal of trade barriers and the implementation of a free market economy following the spirit of the WTO agreement. Reductions in traditional barriers to trade such as tariffs and quantitative restrictions on fish and fishery products particularly in developed economies marked the recent years. Compared to developed countries, the progress in developing countries to implement free trade is slow due to structural rigidities and perhaps even more importantly, fear of losing competitiveness for their products both in the domestic and international markets. Tariff rates remain high in most developing countries hindering further South-South trade. In addition, tariff escalation and tariff peaks continue to persist. Tariff escalation refers to higher tariffs on processed products compared to raw materials. The presence of tariff escalation implies that developing countries do not capture the increased profits from processing their fish products. Tariff peaks, on the other hand, refer to particularly high tariffs on selected and often sensitive products.

While efforts resulting in the reduction or elimination of tariffs contribute in furthering market access, developing countries are concerned about regulatory barriers such as food safety regulations, quality and composition standards, and labeling requirements. The Technical Barriers to Trade (TBT), and SPS measures might affect exports of fish and other food products of the developing countries (Unnevehr, 2000 and Jaffe, 1999). The future of fish exports from the developing countries is being seriously threatened by these regulations, which are being progressively imposed by the major fish importing countries. Many consider these policies of the major fish importing countries as protectionist measures, which can be more difficult to overcome than tariff barriers. These are likely to set back developing countries as they will not be able to immediately comply and maintain international standards for their exports given the necessary financial outlay, technical requirement and inadequate skilled work force. For example, the traditional methods of preservation, marketing and distribution practiced in many developing countries are challenged by the requirements of applying modern quality assurance programs for fish and fishery products.

3.1 Tariffs

FAO-Globefish (2000) noted that the presence of tariff peaks and tariff escalation applied to processed or value added fish products continue to deter the growth of fish processing industries in many developing countries. Meanwhile, major importing countries like Japan, the US and the EU have exercised varied approaches in dealing with fish products imported from developing countries ranging from preferential rates and duty-free access for some countries to the near-total removal of tariffs for certain types of products, such as raw fish and fresh chilled and frozen fish (Table 3.1).

Table 3.1: Average Tariff in Industrialized Countries, by Type of Seafood (in %)

Type of Seafood	EU	Japan	US	RO Korea	Canada
Raw Fish	10.3	4.3	0.6	15.3	0.6
Intermediate Seafood Products	4.0	2.0	1.0	33.0	3.0
Processed Seafood	16.3	9.0	3.3	20.0	2.6

Source: Roheim (2003)

The profiles of tariff structures vary widely among industrialized countries in terms of the tariff levels applied, the transparency of the structure, and the presence of tariff escalation. In her study, Roheim (2003) showed that RO Korea and the EU have the highest duties and the highest occurrence of tariff peaks, with 69% and 41% of tariffs exceeding 15%, respectively. The EU also applies tariffs greater than 15% to around 5% of imports from developing countries while the US only has 4% of tariffs over 15%. In contrast, Japan and Canada have no tariff peaks. However, the EU and RO Korea have highly transparent structures as tariffs are applied as ad valorem duties compared with the US and Japan which have more complex tariff structures.

Tariff policies of the major fish importing countries such as Japan are of special interest to the developing countries as they import a significant percentage of their fish requirements from the developing countries. Japan has two lists of countries, one is for most favored nation (MFN) and the other is for countries under the Generalized System of Preferences (GSP). However, there is no significant difference between the benefits accorded to the two groups, although the MFN countries pay 25% higher tariff for certain products such as canned tuna, skipjack, sardine, scallops and shrimp than the GSP countries.

Average tariffs for developing countries are 19.4% for raw fish, 22% for intermediate products and 23.8% for processed food. It is also interesting to note that the average tariffs for industrialized countries are lower than those of developing countries by approximately 6.2% for raw fish foods, 8.6% for intermediate seafood products and 10.2% for processed seafood (Roheim, 2003). Tariffs on fish are not only higher in developing countries but the tariff structures also vary amongst them. This heterogeneity further complicates trade among developing countries.

There have been efforts to reduce tariffs but many developing countries remain wary that liberalization could lead to a loss of domestic market share because of displacement from imports and of global market share due to the erosion of the tariff margins of preferential market access. In the case of China, as part of its accession to the WTO, it lowered its import tariffs on fish and fishery products from as high as 15.3% in 2001 to 10.4% in 2004. After 2004, only minor reductions remain to be implemented.

Developing countries also rationalize higher tariffs on imported items such as fish on the grounds of significant loss of domestic market share by local producers who are usually small-scale operators compared to their competitors in the developed countries who tend to operate on commercial scale with significant advantages of technological efficiency and economies of scale. Table 3.2 shows the position of some countries

regarding the reduction of fisheries tariffs. While these were submitted for WTO negotiation purposes, these are reflective of the respective country's sentiments and are relevant to the current study.

Table 3.2: Positions and Proposals on Fisheries Tariffs (as of March 2006)

Country(ies) (Date/Document Symbol)	Highlight of Proposal	Overall Position on Liberalization		Major Concern(s)
		Yes	No	
Singapore 10 September 2002 TN/MA/W/8	"…propose that nuisance tariffs be eliminated, and tariff peaks be substantially reduced, if not eliminated. The negotiations would also need to define what constitute nuisance tariffs and tariff peaks."	/		WTO members should try to ensure a comprehensive and balanced tariff package for all countries
Canada 15 October 2002 TN/MA/W/9	"… supports the negotiation of new "zero-for-zero" (duty-free) sectoral agreements to include sectors of interest to both developed and developing countries. …support new agreements for sectors such as fish products, … "	/		Canada favors eliminating nuisance tariffs and maximizing the use of ad valorem rates.
USA 2 December 2002 TN/MA/W/18	"As soon as possible but no later than 2010, elimination of tariffs in the following additional sectors and others, as agreed by Members: …, fish and fishery products, scientific equipment, and environmental goods."	/		The US is keen on increasing market access through the reduction and elimination of barriers to trade, including the elimination of duties on non-agricultural products by 2015.
Japan 6 January 2003 TN/MA/W/15/ Add.1	"… the civil society is also concerned about the potential negative influence of a free trade regime on forest and fishery resources. It is indispensable for the WTO to promote trade liberalization, while … taking into consideration the global environmental issues and ensuring sustainable use of exhaustible natural resources."		/	A zero-for-zero approach in the fishery sector should not be pursued since it will abolish all tariffs regardless of the level of fishery resources, management status, and importance of fisheries and fishing communities in each country.
RO Korea 16 June 2003 TN/MA/W/6/Add.2	"… firmly believe that fish and fish products are not applicable for sectoral tariff elimination … and should not be included as a possible sector for negotiation."		/	Korea has concerns about the legitimacy of "environmental concerns" of members with commercial interests in reducing subsidies.
RO Korea	"… tariff elimination for fish and fish products would bring about undesirable results for both fish exporting and		/	

15 July 2003 TN/MA/W/6/Add.3	importing countries in terms of resource depletion."			
Canada, Iceland, New Zealand, Norway, Singapore and Thailand 18 Oct 2005 TN/MA/W/63	"A sectoral agreement on fish and fish products resulting in the elimination or substantial reduction of tariffs would be an important contribution in facilitating further economic development … "	/		
Canada, Iceland, New Zealand, Norway, Panama, Singapore and Thailand 22 May 2006 TN/MA/W/63/ Add.1	With a view to moving towards the objective of comprehensive elimination of all tariffs and unjustified non-tariff barriers affecting fish and fish products, modalities could include the reduction of tariffs to zero by developed countries and less than zero for developing countries, along with longer implementation periods for developing countries.	/		

Source: Available on http://www.trade-environment.org/page/theme/tewto/para16.htm

3.2 Non-Tariff Barriers

Increasing outbreaks of food-borne illnesses alongside consumer concerns over inter-regional disease transmission have driven the development of more stringent laws and regulatory frameworks. Key importing countries are tightening their food safety legislation and demanding the adoption by exporting countries of agreed inspection, examination and certification procedures. They, notably the EU, have set stringent standards and regulations to cover trade in endangered species, labeling of product origin, traceability, chain of custody, and zero tolerance for certain veterinary drug residues (Ahmed, 2006). These various measures can be viewed as non-tariff barriers (NTBs) to trade. Based on the incidences of import detentions and rejections, the main exporting region affected by these EU requirements has consistently been Asia (e.g., Thailand, Vietnam and India), followed by Africa and South America.

NTBs can hinder access to export markets, making it hard for export dependent economies to take full advantage of trade opportunities. On the other hand, developed countries would want to ensure smooth trade transactions as they are increasingly reliant on imports. Hence, it is to the interest of both parties to have transparent rules that facilitate trade and bridge the capacity gaps that exist. In general, the absence of agreed standards, transparency and predictability in the implementation and verification of standards is a bigger constraint than the willingness and ability of countries and respective exporters to comply with the said standards.

The Standards and Trade Development Facility (STDF) was set up as a global program in capacity building and technical assistance to assist developing countries in trade and SPS measures established by Food and Agriculture Organization of the United

Nations (FAO), the World Organization for Animal Health (OIE), the World Bank (WB), World Health Organization (WHO) and WTO. The objective of the STDF is to assist developing countries in enhancing their expertise and capacity to analyze and implement international SPS standards, improve their human, animal and plant health situation, and thus gain and maintain market access (STDF, 2006).

Aside from easing trade relations, complying with standards and technical regulations will enhance the fish industry in exporting countries through improving the quality of fish and fish products available in the local market, better fish quality management and boosting export potential. Ahmed (2006) opines that in the medium to long term, the sector appears to recover well after the implementation of standards and regulations, often with a smaller but better equipped processing segment, improved marketing strategy and strengthened institutions. However, he cautions that increased polarization, particularly related to the poor and vulnerable, may occur in the longer term.

3.2.1 Sanitary and Phytosanitary Measures

The SPS measures include all measures whose purpose is to protect human or animal health from food-borne risks, animal or plant borne diseases, and pests or diseases, and involve inspection, examination and certification procedures (Khan, 2002, and Musonda and Mbowe, 2002). The application and measurement criteria for SPS standards vary across major importing countries and regions (See Box 1 for a related note).

Box 1: On Japanese Quality Control Regulations

While new regulations with regard to quality control, such as Hazard Analysis Critical Control Points (HACCP), have been adopted by all major importing countries and made compulsory for their fish processing industries, one notable exception is Japan. Although some firms in Japan have implemented HACCP systems, there is no mandatory requirement either for domestic processors, or external suppliers. Standards for imports of fish and fishery products into Japan are governed by the legislation set out in the Food Sanitation Law and the Quarantine Law. The laws prohibit *inter alia* the imports of unsanitary foods, foods not conforming to prescribed specifications of composition, standards of manufacture and storage. The consignments may be checked for signs of decomposition, presence of foreign matter and contaminants (e.g. antibiotic residues, mercury and pesticides). The law requires prior notification of imports and sanitary inspectors can undertake spot checks and laboratory tests. Following an initial check, subsequent imports from the same manufacturer can be exempted from repeated inspections, and all that is usually required upon importation is the examination of documentation. If a cargo has been inspected by an official laboratory in the exporting country for certain conditions and the inspection results are attached to the import notification, the cargo may be exempt from further inspection.

Source: Bostock, Greenhalgh and Kleiuh (2004)

SPS issues associated with capture fisheries or wild-caught fish usually revolve around contamination prior to catch, storage and processing. These standards are also a crucial issue in aquaculture (e.g., in problems like traces of chemicals such as antibiotics and fungicides that remain in the fish, and disease outbreaks among farmed animals). At present, the EU has the most stringent SPS restrictions. In 2001, the EU decided to examine all shrimp products imported from China, Indonesia, Thailand, Vietnam and

others because residual antibiotics were discovered in some products (Ahmed, 2006). A 'zero tolerance' towards various residual antibiotics in food products was implemented. However, the EU delegates authority for the implementation and enforcement of its food safety legislation to exporting country authorities. These include measures prior to processing, which cover small-scale and non-industrialized sections of the market. The said requirements pose a major challenge to small local industries in developing countries and corresponding country authorities, which may not have the capacity to control and monitor SPS concerns.

In response to the growing concern on the quality of food, including fish, importing countries, the Codex Alimentarius Commission (CAC) recommended the adoption of a food safety management system such as HACCP in 1993. The CAC recommendations have been endorsed and made virtually mandatory due the WTO agreements on SPS and TBT during the Uruguay Round (See Box 2). These agreements are intended to ensure that requirements such as quality, labeling and methods of analysis applied to internationally traded goods are not misleading to the consumer, and discriminate in favor of domestic producers or goods of different origin.

Box 2: The Codex Alimentarius

The Codex Alimentarius, or the food code, has become the seminal global reference point for consumers, food producers and processors, national food control agencies and the international food trade. The code has had an enormous impact on the thinking of food producers and processors as well as on the awareness of the end users - the consumers. The system presents a unique opportunity for all countries to join the international community in formulating and harmonizing food standards and ensuring their global implementation. Moreover, it allows them a role in the development of codes governing hygienic processing practices and recommendations relating to compliance with those standards.

The significance of the food code for consumer health protection was underscored in 1985 by the United Nations Resolution 39/248, whereby guidelines were adopted for use in the elaboration and reinforcement of consumer protection policies. The guidelines advise that "Governments should take into account the need of all consumers for food security and should support and, as far as possible, adopt standards from the ... Codex Alimentarius of FAO and the World Health Organization".

The Codex Alimentarius is relevant to the international food trade. With respect to the ever-increasing global market, in particular, the advantages of having universally uniform food standards for the protection of consumers are self-evident. It is not surprising that the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS) and the Agreement on Technical Barriers to Trade (TBT) both encourage the international harmonization of food standards. A product of the Uruguay Round of multinational trade negotiations, the SPS Agreement cites Codex standards, guidelines and recommendations as the preferred international measures for facilitating international trade in food. As such, Codex standards have become the benchmarks against which national food measures and regulations are evaluated within the legal parameters of the Uruguay Round Agreements.

Source: FAO (2005b)

The SPS agreement provides for harmonization of health measures of WTO member countries with international standards. The CAC also has a clear and strategic interest in promoting maximum use of these standards both for domestic and international standards. At the national level, the trading countries and the organizations/institutions dealing with standardization activities are encouraged to follow international standards, guidelines and recommendations for both domestic and global trade. An important element of international standard guidelines is the compliance with HACCP for the

management of food safety. The HACCP system is recommended as a way of reducing hazards stemming from processing of fish and fishery products (FAO, 2002). Implementation of the HACCP system in fish processing is mandatory and all exporting countries have to comply with this requirement for international trade. In many countries, since the HACCP is mandated within the fish-processing sector, there are difficulties in implementing control measures on antibiotics use in aquaculture. Hence, FAO (2002) has suggested that further procedures and monitoring should be performed in addition to the HACCP plan such as prerequisites (e.g., plant location, water supply and effluent control) and good hygiene practices at the pond/breeding area be implemented.

Under the SPS Agreement, when international standards do not exist or harmonization is not appropriate, countries can resort to the alternative equivalence principle whereby the importing country accepts that SPS measures in the exporting country achieve an appropriate level of health protection, even though they differ from the measures used in the importing country (Lem, 2004).

The SPS Agreement was set up to avoid sanitary standards being used as an unjustified barrier to trade by importing countries. There are several key principles including the sovereign right of a country to put protective measures in place, but these measures should not be more restrictive than necessary to achieve the appropriate level of protection. The Agreement also stresses that SPS measures should be scientifically based, including the application of risk assessment, in determining the appropriate levels of SPS measures (Bostock, Greenhalgh and Kleiuh, 2004). It is imperative that there be transparency in the development and implementation of measures and the adoption of international standards.

3.2.2 Technical Barriers to Trade

The TBT covers all technical regulations, quality and composition standards, labeling, and source and origin information requirements, with the exception of SPS measures.

The WTO TBT Agreement tries to balance the trade facilitating aspects of standards against their trade-distorting potential by obligating countries to ensure that technical regulations and standards, including packaging, marking and labeling requirements as well as the procedures for assessment of conformity with technical regulations and standards, do not create unnecessary obstacles to international trade or discriminate in favor of domestic producers or goods of different origins. It does this by encouraging ‘standard equivalence’ between countries, promoting the use of international standards, and mandating that countries notify each other of changes in their standards via enquiry points.

- ***Certification and Labeling***

There is a wide range of certification schemes and initiatives related to standards. Some deal with social issues while others concentrate more on resource sustainability and

the environment. There are also those that seek to provide accreditation (and allow the use of labels), whereas some just seek out to establish recommendations about best practices or codes of practice. For example, the goal of fisheries eco-labeling programs is to create market-based incentives for better management of fisheries by creating consumer demand for seafood products from well-managed stocks or from sustainable aquaculture.

The best-known example of an independent organization certifying capture fisheries based on standards for sustainable management is the Marine Stewardship Council (MSC). Despite eco-labelling initiatives like those of the MSC and the Marine Aquarium Council (MAC) certification processes being viewed as actions primarily driven by self-interest that allows paybacks on long-term investment for operators in the business, it can have a sustainable impact on fisheries. Nevertheless, only a small portion of the world's fisheries has been certified so far. The extent to which certification and labeling can be used as a barrier to trade will ultimately depend on the demand for certified/branded product in different markets. Whereas there seems to be a consensus that the most promising markets will be those in Europe and North America, where consumers are relatively affluent, sensitized to environmental/social issues and used to this form of product differentiation, there is actually no clear evidence on how big the environmental and social markets are likely to become (Deere, 1999).

At present, certification is voluntary and higher prices for certified fish products are possible but at significant costs. Roheim (2003) says that this can be problematic for producers from developing country who not may afford the certification expenses and may result in a two-tiered market -- one for developed large-scale fisheries and the other for uncertified developing country products.

While certification and labeling schemes has the potential to offer the opportunity of higher prices for fisheries products and access to niche markets, there are concerns over the possible negative impacts on developing country producers. These are grouped in a study by Gardiner and Viswanathan (2004) as follows: (i) legitimacy and credibility concerns since the schemes were principally designed by and for developed country large-scale fisheries and not for small-scale tropical fisheries; (ii) feasibility and equity of certification in developing country situations (e.g. accessing credit and monitoring capabilities); and (iii) potential distortions to existing practices and livelihoods caused by price changes (e.g. gender role distortions and displacements).

There is currently a lack of internationally agreed guidelines on product labeling and certification, choice of information and transparency of process, the role of government in voluntary labeling and certification, and special requirements of developing countries in adopting eco-labeling of fishery products. Hence, the relationship between WTO rules and voluntary labeling schemes has to be clarified.

Last March 2005, the FAO issued guidelines for the eco-labeling of fish and fishery products (FAO, 2005c). These outline the general principles that should govern eco-labeling schemes, which include the need for reliable, independent auditing,

transparency of standard setting and accountability and the need for standards to be grounded on science. They also lay down minimum requirements and criteria for assessing whether a fishery should be certified and an eco-label awarded based on FAO's Code of Conduct for Responsible Fisheries (CCRF).

- ***Traceability***

Traceability refers the ability to trace, follow and uniquely identify a product unit or batch through all stages of production, processing and distribution. It shows the path followed by a unit or batch through all the intermediate steps of the product flow and the supply chain (Roheim and Sutinen, 2006). It can be utilized in the food chain with safety (i.e., risk management), quality, bio-security or business management objectives (FAO-GlobeFish, 2004). An integrated program for developing infrastructure is required in order to understand and address the requirements of the 'farm-to-fork' principle.

Traceability is a demanding practice intended to determine in detail how the product is grown (including the feeds and chemicals used), processed, packaged, handled and shipped to country destinations. Among the requirements are that the residue level of substances such chemicals, toxins, and antibiotics on the final products conform to standards. The traceability requirements of retailers may also include environmental and social information on their suppliers. Similar to the case of certification and labeling, stringent requirements can impose a huge cost burden that small producers may not afford. Yet if more affluent and environmentally conscious consumers are willing to pay higher prices for organic, eco-labeled or country of origin labeled seafood products, it would make investment in traceability regulations more worthwhile.

3.2.3 Anti-Dumping Measures

As tariff barriers in the seafood sector have dropped, developed countries have increasingly turned to use of countervailing and antidumping petitions as a means to erect trade barriers to seafood imports from both developed and developing countries. The WTO Anti-Dumping Agreement defines dumping as "the exporting of produce at less than production cost to the material detriment of competitor industries in the importing country." The aggrieved importing country may impose import bans and/or compensating duties (duty orders) on the so-called "rogue products" in legitimate protection of their own industry. Theoretically, this is a technical issue that should be subject to economic logic and legal argument. In practice, however, it can be highly political, arbitrary and is raised at the behest of an industry finding itself unable to compete for harsh but fair economic reasons. Where countries are members of the WTO, an official WTO Anti-Dumping Agreement regulates the measures taken after an investigation is carried out. Non-WTO members are at a disadvantage and this is where the existence of bilateral agreements would come in useful.

In the WTO, the Anti-Dumping Agreement regulates how countries can react to dumping but it does not per se determine if exporters of a given country are dumping or not. The WTO regulates only how an importing country can react to alleged dumping,

how the investigation should be undertaken, what is the minimum threshold for price difference and the market share of imports necessary in order to allow for the introduction of anti-dumping duties.

Dumping of fish products tends to be blamed on developing countries by developed countries primarily because the main trade flows in the fisheries sector are from the developing world to the developed world. Whereas in the past, fish processing in developing countries, such as tuna canning, was the focus of attention of fisheries-related anti-dumping investigations, aquaculture is now dominating the scene (Bostock, Greenhalgh and Kleiuh, 2004). The US has a track record of countervailing and anti-dumping suits in seafood products, including several against developing countries. This is very much evident in the anti-dumping cases filed regarding catfish against Vietnam and the shrimp case versus Southeast Asia, South Asia, and South America.

3.2.4 Subsidies

FAO (2004) define subsidies "as narrowly as government financial transfers to the industry and as broadly as any government action that modifies the potential profits earned by the firm in the short, medium or long term". The Agreement on Subsidies and Countervailing Measures (SCM) of 1994 constitutes the existing international legal regime governing subsidies in the fishery sector. The WTO's definition of subsidies in the SCM Agreement covers:

- specific financial transfers from state to the industry;
- the state foregoing normally collectable revenue (e.g. tax free fuel);
- provision of services or investments to industry;
- state purchases of industry outputs other than on commercial terms; and
- all forms of state income or price support

Regardless of the definition used, subsidies can alter the actions of firms/producers in ways that interfere with international trade and affect fishing effort and, ultimately, the sustainability of the fish stock. Under the SCM, subsidies are categorized in relation to the rights of members to make complaints and take countervailing measures:

- *prohibited*: export enhancing subsidies or subsidies giving preference to domestic producers or grants tied to the use of domestically produced goods
- *actionable*: a subsidy that may be challenged on the basis of causing 'adverse effects' to the interests of other WTO members

Those that violate the conditions of the international SCM Agreement are clearly actionable under current WTO rules. However, not all subsidies fall into this class. The problems of non-actionable subsidies arise when the context in which they were implemented changes to the extent that they become a threat to stock sustainability. This concurs with the observation of Bostock, Greenhalgh and Kleiuh (2004) that the

definition of subsidies in the context of the SCM is not broad enough, as it does not take into account issues related to public goods and the management of open access resources.

Discussions on subsidies tend to focus on the fisheries sectors of developed countries primarily because of their scale (and likely greater impact) as well as the ease of access to data. However, there are also some fishing subsidies in developing countries, such as:

- port facilities owned and managed by the public sector;
- subsidies lending and credit provision (e.g., to adopt new technology in aquaculture);
- sales tax exemptions for inputs used by the fishing industry; and
- subsidized fishing inputs in the form of import tax exemptions

The primary concern is not on the subsidies per se but their effect on production, consumption and international trade. At the same time, do the subsidies encourage firms and fishers to take actions that are detrimental to the stocks of fish that they catch? While there are certainly other factors that trigger declines in fish stock, the extent to which subsidies actually affect over fishing is at the center of discussions at the WTO.

As early as June 1999, five nations made representation to the WTO's Committee on Trade and the Environment urging governments to pursue work with the WTO to achieve the gradual elimination of environment-damaging and trade-distorting fishery subsidies. It is argued that fishing subsidies have trade effects greater than other sectors. The open access nature of many fishing grounds and the migration of fish between areas are highlighted and are argued to have implications beyond limitations on competitiveness. Among the issues arising are:

- Countries that do not subsidize and restrain total catch to maintain the resource lose the extra catch to countries that subsidize and do not restrain total catch;
- Competition from subsidized distant water fleets can make it economically unviable for developing countries to develop their own fisheries and, therefore, to realize the benefits of their own 200-mile zone of fishery jurisdiction; and
- Subsidies can contribute to stock depletion, with negative economic, trade and environmental effects for other countries that have an interest in the stock.

The first submission to the WTO was followed by a second phase submission by eight members[1] in April 2002. They made a submission noting that commercial fisheries are often exploited or potentially exploited by more than one nation. Consequently, fishery subsidies have implications for trade far beyond the distortion of competitive relationships. In most industries, subsidies that encourage production impinge on trade only at the market level. That is, they have no effect on the trading partners' ability to produce the goods. With shared fishery resources, a trading partner's ability to produce fish products may be hindered if one country subsidizes the fishery to the extent that the

[1] Australia, Chile, Ecuador, Iceland, New Zealand, Peru, the Philippines and the United States

resource is diminished. As such, the eight countries supported the Doha Declaration's appeal for strengthening the WTO's disciplines with regard to fisheries.

Meanwhile, WTO members (particularly Japan) opposed to the submissions on fisheries subsidies argue that the issue is better dealt with through improved fisheries management rather than simple elimination of subsidies, the jurisdiction of which is under the United Nations Convention on the Law of the Sea rather than WTO. There were also suggestions to give time to the new UN Fish Stocks Agreement to see if it will prove effective as the Agreement was intended to solve the problems that the eight nations raised. Hence, from October 2002 to July 2003 there was a second flurry of correspondence addressed to the WTO's Negotiating Group on Rules. The United States proposed a "traffic light" system whereby a certain category of subsidies would face a red light (i.e. they would be forbidden) and a second category of subsidies would face an amber light where the subsidy would be considered as presumptively harmful. The EU presented an alternative proposal, which stressed a simple dichotomy of subsidies into "prohibited" and "permitted" classes. In addition, a group of "small vulnerable coastal states" has sought differential treatment on such matters as access fees, development assistance, fiscal incentives to domestication and fisheries development, and artisanal fisheries. A summary of the submissions regarding subsidies is shown in Annex 2.

4.0 Domestic Constraints

Countervailing duties and non-tariff barriers often constitute demand-side constraints, which limit market access. Supply side constraints act similarly. Domestic infrastructure, production processes, supply chains, national priorities, economic and trade policies, and institutional arrangements are just some of the supply-side challenges that would impinge on a country's capacity to reap the benefits of liberalization as well as mitigate its detrimental effects. Some suffer from the absence of basic infrastructure and services while others have limited ability to respond proactively to new developments.

4.1 Infrastructure Requirements

Production and consumption patterns of fish and fishery products have been influenced by improvements in handling, transportation, storage and distribution facilities, marketing systems, and food science and technology. This resulted in increased efficiency, cost reduction, greater variety of products and quality assurance. The said improvements in relevant supply chain technologies have had a positive effect on the fisheries industry in developed countries. Unfortunately, many developing countries still suffer from poor road conditions and other storage, handling and transport infrastructure problems (e.g., lack of high quality water and ice, irregular electricity supply, poor pre-processing phase infrastructure and transport facilities).

Being major fish producers, one cannot over-emphasize the value of adequate fishery infrastructure such as fish landing centers, post-harvest and processing facilities, roads network, reliable electricity, potable water supply, housing, as well as sanitary and environmental engineering works, to developing countries. As fish is highly perishable, the faster it is frozen or processed, the lesser the post-harvest losses. A road network and dependable transport system would enable the fisher folks especially the artisanal fishers to get fair market returns and the consumers to available of good quality fish at reasonable prices.

In countries with a large domestic market for fish, it makes no sense to perpetuate a dichotomy between the quality and effectiveness of domestic marketing versus export marketing (Ahmed, 2006). A sound and viable trade infrastructure for the domestic market lays the groundwork for enhancing the capacity of a country to trade internationally. Hence, the narrower the gap between the two, the greater strides a country can make in international trade.

4.2 Compliance with International Standards

At the national level, the trading countries and the organizations/institutions dealing with standardization activities are encouraged to follow international standards, guidelines and recommendations for both domestic and global trade. Whereas complying with international and export market standards would yield benefits, it implies significant

costs, which arise at different points along the supply chain. Production costs can increase considerably at landing and aquaculture sites, while substantial processing costs can result from upgrading of buildings, monitoring, purchasing new equipment, and training and employing qualified staff. The industry is also likely to incur costs due to the need for increased inspection, certification capacity and quality of services. In fact, the entire supply chain would experience costs for updated quality systems, support for their chain partners, risks of product bans, rejection of products and re-packaging.

On the other hand, poor safety standards, including non-compliance to international standards can bring forth loses. One would be in the form of fish spoilage, product rejection, detention and recalls, and decreased capacity due to temporary or long-term factory closures. This can in turn result in adverse publicity for the industry and even the cessation of exports. Another would be fish-borne illnesses, which can cost billions of dollars because of high adverse health effects, loss of productivity and accompanying medical expenses. As such, safety and quality control is in the interest of governments, public health authorities, producers, processors and exporters. Increased market access due to compliance with one country's standards may imply higher prices and more value-added production. Improved image as a trusted supplier reduces risks, lowers price competition and encourages joint interest in the supply chain. This was the case of the Indian processors which invested US$13.5 million or 1.7% of the value of their exports over three years in order to comply with EU hygiene standards and did not suffer the restrictions that their Thai and Chinese competitors did in 2002 and 2003 (Dey, et al., 2005).

Regrettably, perception of benefits often pale in comparison with the costs, which are more apparent and measurable. The costs vary widely on a case-by-case basis between countries and among products and facilities due to differences in historical factors and strategies of compliance. Furthermore, these costs must often be met in the short run while benefits tend to accrue in the long run, may be intangible or even accrue outside the industry.

4.2.1 Implementation of Health Safety and TBT Regulations in Developing Countries

An important element of international standard guidelines is the compliance with HACCP, a management system for food safety, which major exporting countries around the world have adopted. Some developing countries have made progress towards implementing the HACCP measures in spite of heavy investment requirements to install and make operational the related equipment.

Based on results of an FAO survey (as cited in Dey et al., 2002), countries can be categorized based on their compliance status of HACCP procedures. Among the developing countries Uruguay, Brazil, Chile, Ecuador, Thailand, India, Malaysia, Philippines, Indonesia, Argentina, Peru, Cuba, Morocco, Sri Lanka, Vietnam and Bangladesh have introduced HACCP procedures. In the second group of countries, the private sector is taking the lead voluntarily in trying to introduce HACCP processes for

fish and seafood export. These include Madagascar, Venezuela, Honduras, Tunisia, Myanmar and Portugal. The third group consists of countries including Russia and China, where governments have agreed to follow HACCP requirements, but have not yet defined the process. Remaining countries where the status of seafood HACCP is unclear include Pakistan, Iran, Colombia, Panama, and most African states.

Needless to say, progress has been made in HACCP implementation but problems still remain in terms of inadequate capacity and proper management of the inspection system. Problems remain in most of the developing countries where more than one ministry or department is involved in fish inspection and quality control activities. For example, in Thailand, two government institutions and private laboratories are responsible for the HACCP implementation. Depending on the diversity of fishery resources and the nature of HACCP application, different government agencies and organizations with various degrees of legal and administrative authority are closely associated with the HACCP application. In many cases, this resulted in the overlap of administrative authorities and brought forth administrative conflicts among regulatory agencies. This situation is further complicated by the narrow sectoral focus of many agencies, the legal loopholes as well as a low degree of law enforcement (Dey et al., 2002).

4.2.2 Costs of Compliance with Health Safety Standards

Complying with the food safety and quality assurance processes necessitates significant investment to implement the HACCP process. Table 4.1 shows some estimates. This indicates a wide variation in the costs, with installation of HACCP plants in Malaysia being the most expensive. An average HACCP compliant plant is estimated to need US$34,875 to US$71,429 per year for maintenance purposes. It is also noted that the higher installation cost does not mean higher average cost per kg of fish processing or testing. This was evident in Thailand where cost of processing fish and fishery products appeared lowest per kg, which shows its efficiency in utilizing the HACCP process. In a study on Bangladesh, Cato and Santos (1998) showed that to install a HACCP plant, a developing country like Bangladesh needed 9.4% of its export revenue from fish and 1.26% of the same to maintain the HACCP plant each year. Note, however, that the figures are only ballpark estimates and in practice, costs would tend to vary among products, facilities and compliance methodologies.

Table 4.1: Cost Estimates of Implementing HACCP in Selected Countries (in US$)

	Thailand	India	Bangladesh	Malaysia
Cost per year of a plant	47,619 – 71,429	41,237	34,875	
Total investment of a plant	380,952 – 404,762	309,278	277,155	3,000,000
Cost per kg. of fish processed	0.010 – 0.014	0.21 – 0.28	0.0327 – 0.0899	

Source: Dey, et. Al (2002)

Cato and Santos (1998), Calzadilla-Sarmiento (2002) and UNIDO (2002) identified several constraints on the developing countries in complying with SPS and TBT agreements, including:

- insufficient technical expertise, absence of adequately trained work force and lack of financial resources to bankroll the required facilities;
- deficient organizational fish inspection framework. In particular, lack of a clear line of command and accountability due to the involvement of two or more authorities, which causes conflicts and hampers the quality of work;
- outdated regulations, which are unable to meet the demand of international and domestic market requirements. Not only are regulations weak, they are not fully enforced; and
- poor capacity of fish inspectors to perform their duty due to the lack of training in HACCP

Bostock, Greenhalgh and Kleiuh (2004) point out that stricter enforcement of SPS and TBT regulations, particularly at the early stages of the supply chain, may result in the marginalization of small producers from export markets. This seems to corroborate with the findings of Manarungsan et al. (2004) regarding some evidence that two-tiered markets may emerge because of the SPS and TBT regulations. That is, larger industries that are able to comply with the regulations will tend to supply higher end markets, while smaller companies and suppliers with insufficient capital investment to implement appropriate management systems will tend to supply local markets and countries with less stringent requirements. This indicates that fish suppliers would have to look into the net benefits of catering in the different market segments and that the differential application of standards may even support the expansion of the South-South trade. As such, SPS and other requirements should be addressed in the broader context of competitiveness, as progress in certain aspects such as quality control and logistics management may be adequate to satisfy SPS requirements (Ahmed, 2006).

Economies of scale and costs in meeting safety standards vary across countries and among individual producers/ exporters within each country, with higher unit cost of compliance expected for small-scale producers. The increasing exposure of small producers and processors to the costly food safety requirements undoubtedly implies their need for support to be able to compete effectively. Issues of scale can be addressed by appropriate government policies, which link together small-scale producers and provide technical assistance, investment opportunities and appropriate institutional arrangements. Technical assistance is needed for capacity building through strengthening the regulatory framework, and installation and upgrading of the testing facilities to meet international standards. Concurrently, coordination and linkage among the regulatory and enforcement institutions would enable smooth implementation of the health safety program.

4.3 Domestic Government Policies

With rapid developments in international trade rules and changes in technology, domestic trade policies in developing countries tend to fall behind. There are also instances where several government policies would work at cross-purposes. Hence, the trading environment suffers from structural rigidities. In the case of the Philippines, for example, export restrictions on milkfish fry designed to protect overexploitation of wild-

captured milkfish fry resources continue to restrict local milkfish hatchery operators from producing milkfish fingerling for export as bait in tuna fisheries in the Pacific Ocean. This restriction was circumvented by recruiting the experts and manpower involved in the production of milkfish fry. The market is now captured by countries such as Indonesia and Taiwan and, ironically, these countries took advantage of economies of scale in the hatchery production, enabling them to export hatchery bred milkfish fry to aquaculture producers in the Philippines.

Ahmed (2006) observed that many developing fishery nations also fail to promote national policies that uphold certain minimum standards of living for fish producers and workers and ensure their basic health and safety through measures such as minimum wages, infrastructure and facilities. Government infrastructure support and incentives usually go to the processing industry or exporters instead of the primary producers or fish workers.

Corruption and poor governance are likewise areas of concern that need to be addressed. Demands for illegal payments for fishing licenses, permits, or access rights by politicians and public servants, are probably the most pervasive form of alleged corruption in the fisheries sector (ADB, 2006). Poor governance is seen as one of the main causes of the present poor condition of fisheries. As such, new approaches to governance emphasize partnerships with a range of organizations to improve fisheries management and stakeholder participation and empowerment.

4.4 Resource Management

It is often mentioned that the growth of developing countries spurred by trade demand may lead to over-exploitation and environmental damage. Questions are being raised as to whether they are mining their resource stocks in pursuit for immediate gains from the high demand for fish and fishery products in developed countries. Obviously, the management system in place would affect resource sustainability. If an open access system exists, harvesting and exporting efforts are likely to rise, resulting in the decline of fish stocks in the short term and perhaps loss from trade in the long run.

The most important international initiative contributing to the transition of the fisheries sector worldwide was the adoption in 1982 of the United Nations Convention on the Law of the Sea (UNCLOS) granting coastal states the legal rights to regulate and manage fish resources up to 200 nautical miles from the coast. Even though this law came formally into effect only in November 1994, its earlier adoption by many countries has had a number of effects. One, the extension of jurisdiction redistributed fisheries resources away from distant industrialized fishing countries to the coastal countries, enabling them to obtain benefits from developed nations through license fees and joint ventures. It also encouraged the development of the coastal countries' own industrial fishing fleets, thus increasing the contribution to the country's economic and social objectives. Second, it allowed them to exercise greater management control over their fishery resources. Due to the extension of jurisdiction, structural changes in the industry

have occurred. It resulted in the transfer of boat titles, investments in new boats, and proliferation of joint ventures between countries with fisheries resources but limited capacity to exploit these resources, and other countries with fishing fleets. However, a major difficulty that many developing countries have in realizing benefits from these developments involves the monitoring and controlling the activities of the foreign or local fleets to ensure compliance with agreements and country regulations. Most countries have not developed sufficient capacity and knowledge to manage their fishery resources sustainably. In addition, illegal fishing and poaching from foreign fleets continue to be a problem for countries like the Philippines.

Management approaches to fisheries have moved from a narrow, predator-prey relationship to one based on accounting for effects on other parts of the ecosystem in which a fishery is embedded, and accounting largely for institutional, economic, political, and social objectives. Some of these approaches include integrated coastal resource management, which seeks the elimination of conflicts in the utilization of coastal resources and space among different sectors and controlling the impact of human activities on the coastal environment; rights-based and community-based systems that provide exclusive or preferential access to aquatic resources by individuals or groups; and co-management, in which government and resource users share responsibility for managing the resources.

The Code of Conduct for Responsible Fisheries (CCRF) would complement and contribute in the implementation of the precautionary and ecosystem based approaches to fisheries. It is acknowledged that the sustainable use of the world's aquatic resources can only be achieved if both the impacts of the ecosystem on the living resources and the impacts of the fishery on the ecosystem are identified and as far as possible, understood. The growing emphasis on ecosystem-based approaches recognizes that inter-species relationships must be taken into account together with the environmental factors affecting species and habitats. Hence, an effective monitoring system will be required to ensure that the state of the ecosystem can be followed through time and can be compared with reference points, allowing for corrective action when necessary.

Despite several international and regional programs helping lay the foundation for coastal resources management, the capacity to implement such approaches remains insufficient throughout the region due to lack of financial resources, capacity and expertise to continue when the external support is discontinued as well as competition with other economic and social priorities and issues. What is even more disturbing is that in spite of the development of resource management policies in different countries, the decline in fish stocks continue to occur because of lack of implementing regulations and effective enforcement.

Similarly, as marine fisheries appear to have reached the maximum sustainable levels of production, a much greater contribution is now expected from aquaculture. However, despite its revenue potential, aquaculture (particularly coastal aquaculture or mariculture) can exacerbate environmental degradation specifically in the conversion of mangrove areas into ponds and as a pollution source. It can also be a party to

intersectoral water-use conflicts. The December 2004 tsunami, which devastated coastal communities in countries like Indonesia, Thailand, India and Sri Lanka, brought forth the trade-off between increasing aquaculture areas and compromising the resilience of coastal communities against natural calamities. Along with increased vulnerability of coastal and surrounding rural communities, marine biodiversity is in serious decline, and there is an escalating dispossession of the small-scale and artisanal fishing sector (GRAIN, 2006). There is likewise a concern that as more areas get devoted to aquaculture, more fisher folk become displaced from their livelihoods. Modernization efforts and policies that favor commercial operators with large capital would tend to drive off small-scale fisher folk from their fishing areas or end up as aquaculture farm workers. As such, special consideration should be given to the vulnerability of small-scale fisheries.

5.0 Progress and Outlook for Fisheries Issues in ASEAN

The ASEAN has long recognized the significance of fisheries and aquaculture in the economic development in the region and has taken steps towards fostering cooperation among its member countries for over three decades now. At present, the fisheries sector is an important pillar for the ASEAN Cooperation in Food, Agriculture and Forestry with specific guidelines set forth under the *Resolution on Sustainable Fisheries for Food Security for the ASEAN Region* and the *Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region*, both issued during the Millennium Summit in 2001.

In strengthening its fisheries cooperation program, ASEAN has also established partnership with the Southeast Asian Fisheries Development Center (SEAFDEC) since 1994 to promote sustainable management and utilization of fisheries resources in the region. The close collaboration enabled ASEAN and SEAFDEC member countries to address issues of common interest collectively, including food security and trade related issues in fisheries, both regionally and internationally. In the ASEAN mechanism, the cooperation programs and activities concerning fisheries are under the purview of the ASEAN Sectoral Working Group on Fisheries (ASWGFi), which is a subsidiary body under the ASEAN Ministers on Agriculture and Forestry (AMAF).

The areas for cooperation in the fisheries sector have been designed towards facilitating the realization of free trade through the elimination of tariffs and non-tariff barriers in support of the AFTA, which was intended to increase the region's competitive advantage as a production base for the world market. A roadmap for the integration of the fisheries sector through the adoption of liberalization and facilitation measures in the area of trade in goods, services and investment and the promotion of private sector participation was subsequently prepared (See Annex 3). It tackles both general issues that cut across sectors and those that are specific to fisheries. The initiatives can be broadly categorized into: (i) Effective implementation of CEPT scheme with a view of tariff elimination; (ii) Elimination of non-tariff barriers; (iii) Improvement of rules of origin and customs cooperation; (iv) Development of standards and conformances; and (v) Encouragement of investments and logistical improvements. While specific action programs have been subsequently identified, the resulting outputs and outcomes require scrutiny.

5.1 Tariffs in the ASEAN Member Countries

Existing levels of tariff protection for fisheries products vary across ASEAN countries. Under the AFTA, tariff rates are lower. There are virtually no tariffs on key agriculture and food products, including fisheries, in markets where agriculture is of less importance, namely Singapore and Brunei Darussalam. However, this does not automatically reflect greater liberalization as not all traded products are listed and thus, not subject to commitments. Where listed they tend to be products for which trade is low. The fish products in the negative list are in Annex 4. Furthermore, some

commitments are yet to be fully realized, particularly for the CLMV countries (i.e., Cambodia, Lao PDR, Myanmar and Vietnam). The WTO Most Favored Nation (MFN) and Common Effective Preferential Tariff (CEPT) rates for the ASEAN member countries are shown in Table 5.1.

It would be useful to know the progress of the implementation of the tariff cuts that have already been agreed upon and what the proportion of trade within ASEAN is that actually takes advantage of the CEPT. However, as cited in the July 29, 2004 issue of *The Economist*, Denis Hew of the Institute of Southeast Asian Studies in Singapore said that many business executives are reluctant to complete the arduous paperwork involved or simply do not realize that concessionary tariffs exist. For countries with low tariffs in general, such as Singapore, the difference between the CEPT and the ordinary rate may not be substantial while in countries with high tariffs like Myanmar, the authorities are reluctant to cut into their own revenue by promoting the CEPT.

The CEPT is the mechanism by which tariffs on goods traded within the ASEAN region, which meet a 40% ASEAN content requirement, will be reduced to 0-5%. The fisheries products constitute a substantial proportion of the tariff lines that are in the CEPT Scheme. As of April 2003, the total tariff lines for fisheries products are 995, composed of 897 tariff lines in Inclusion List (IL), 93 tariff lines in Temporary Exclusion List (TEL), and 5 tariff lines in Sensitive List (SL). There is no tariff line in the General Exception List (GEL) for fisheries products.

In an effort to improve and strengthen the rules governing the implementation of the CEPT Scheme, to make the scheme more attractive to regional businessmen and prospective investors, the CEPT Rules of Origin and its Operational Certification Procedures have been revised and implemented since January 1, 2004. Among the features of the revised version are: (i) a standardized method of calculating local/ASEAN content; (ii) a set of principles for determining the cost of ASEAN origin and the guidelines for costing methodologies; (iii) treatment of locally-procured materials; and (iv) improved verification process, including on-site verification. In order to promote greater utilization of the CEPT-AFTA Scheme, substantial transformation has also been adopted as an alternative rule in determining origin for CEPT products. Still, it would be constructive to document the experiences of the business sector under the revised scheme.

In principle, the free trade area would also eliminate the quantitative restrictions and other non-tariff barriers for manufactured and agricultural products. Nonetheless, non-tariff barriers remain in almost all ASEAN economies and for some products, they appear more important than tariff barriers.

Table 5.1: MFN and CEPT Rates of ASEAN Member Countries (in %)

		Brunei			Cambodia			Indonesia		
AHTN	Description	MFN Rates	CEPT Rates		MFN Rates	CEPT Rates		MFN Rates	CEPT Rates	
			2005	2006		2005	2006		2005	2006
0301	Live fish	0	0	0	0 to 15	nc to 7	nc to 7	0 to 15	0	
0302	Fish, fresh or chilled, excluding fish fillets and other fish meat of heading 03.04.	0	0	0	15	7 to 15	7 to11	5	0	
0303	Fish, frozen, excluding fish fillets and other fish meat of heading 03.04.	0	0	0	15	nc to15	nc to 11	5	0	
0304	Fish fillets and other fish meat (whether or not minced), fresh, chilled or frozen.	0	0	0	35	20	20	5	0	
0305	Fish, dried, salted or in brine; smoked fish, whether or not cooked before or during the smoking process; flours, meals and pellets of fish, fit for human consumption.	0	0	0	35	20	20	0 to 5	0	
0306	Crustaceans, whether in shell or not, live, fresh, chilled, frozen, dried, salted or in brine; crustaceans, in shell, cooked by steaming or by boiling in water, whether or not chilled, frozen, dried, salted or in brine; flours, meals and pellets of crustaceans, fit for human consumption.	0	0	0	0 to 15	0 to 15	1 to 15	5	0	
0307	Molluscs, whether in shell or not, live, fresh, chilled, frozen, dried, salted or in brine; aquatic invertebrates other than crustaceans and molluscs, live, fresh, chilled, frozen, dried, salted or in brine; flours, meals and pellets of aquatic invertebrates other than crustaceans, fit for human consumption.	0	0	0	15	15	11 to 15	5	0	
1504	Fats and oils and their fractions, of fish or marine mammals, whether or not refined but not chemically modified.	0	0	0	7	7	7	5	0 to 5	
1603	Extracts and juices of meat, fish or crustaceans, molluscs or other aquatic invertebrates.	0	0	0	35	20	20	5	5	
1604	Prepared or preserved fish; caviar and caviar substitutes prepared from fish eggs preserved.	0	0	0	7 to 35	nc to 20	nc to 20	5	0 to 5	
1605	Crustaceans, molluscs and other aquatic invertebrates, prepared or preserved	0	0	0	35	20	20	5	0 to 5	
2104	Soups and broths and preparations therefor; homogenized composite food preparations.	0	0	0	35	nc to 20	nc to 20	5	0	

		Laos			Malaysia			Myanmar		
AHTN	Description	MFN Rates	CEPT Rates		MFN Rates	CEPT Rates		MFN Rates	CEPT Rates	
			2005	2006		2005	2006		2005	2006
0301	Live fish	5 to 20	nc to 5	nc to 3	0	0		0	0	0
0302	Fish, fresh or chilled, excluding fish fillets and other fish meat of heading 03.04.	10	5	3	0	0		10	5	5
0303	Fish, frozen, excluding fish fillets and other fish meat of heading 03.04.	10 to 20	5	3	0	0		10	5	5
0304	Fish fillets and other fish meat (whether or not minced), fresh, chilled or frozen.	10	5	3	0	0		10	5	5
0305	Fish, dried, salted or in brine; smoked fish, whether or not cooked before or during the smoking process; flours, meals and pellets of fish, fit for human consumption.	10	7	6	0 to 8	0 to 5		1 to 10	1 to 5	1 to 5
0306	Crustaceans, whether in shell or not, live, fresh, chilled, frozen, dried, salted or in brine; crustaceans, in shell, cooked by steaming or by boiling in water, whether or not chilled, frozen, dried, salted or in brine; flours, meals and pellets of crustaceans, fit for human consumption.	10	3	2	0 to 8	0 to 5		0 to 10	0 to 5	0 to 5
0307	Molluscs, whether in shell or not, live, fresh, chilled, frozen, dried, salted or in brine; aquatic invertebrates other than crustaceans and molluscs, live, fresh, chilled, frozen, dried, salted or in brine; flours, meals and pellets of aquatic invertebrates other than crustaceans, fit for human consumption.	10	3	2	0 to 20	0		0 to 10	0 to 5	0 to 5
1504	Fats and oils and their fractions, of fish or marine mammals, whether or not refined but not chemically modified.	5	3	2	5 to 15	0 to 5		1 to 1.5	1 to 1.5	1 to 1.5
1603	Extracts and juices of meat, fish or crustaceans, molluscs or other aquatic invertebrates.	10	5	3	20	5		15	10	10
1604	Prepared or preserved fish; caviar and caviar substitutes prepared from fish eggs preserved.	30	5	3	0 to 20	0 to 5		7.5 to 10	5	5
1605	Crustaceans, molluscs and other aquatic invertebrates, prepared or preserved	30	5	3	0 to 8	0 to 5		10	5	5
2104	Soups and broths and preparations therefor; homogenized composite food preparations.	10	6	5	0 to 20	0 to 5		15	15	10

		Philippines			Singapore		
AHTN	Description	MFN Rates	CEPT Rates		MFN Rates	CEPT Rates	
			2005	2006		2005	2006
0301	Live fish	1 to 7	0 to 3		0	0	
0302	Fish, fresh or chilled, excluding fish fillets and other fish meat of heading 03.04.	5 to 10	0 to 5		0	0	
0303	Fish, frozen, excluding fish fillets and other fish meat of heading 03.04.	5 to 10	0 to 5		0	0	
0304	Fish fillets and other fish meat (whether or not minced), fresh, chilled or frozen.	7	5		0	0	
0305	Fish, dried, salted or in brine; smoked fish, whether or not cooked before or during the smoking process; flours, meals and pellets of fish, fit for human consumption.	10 to 15	5		0	0	
0306	Crustaceans, whether in shell or not, live, fresh, chilled, frozen, dried, salted or in brine; crustaceans, in shell, cooked by steaming or by boiling in water, whether or not chilled, frozen, dried, salted or in brine; flours, meals and pellets of crustaceans, fit for human consumption.	5 to 15	0 to 5		0	0	
0307	Molluscs, whether in shell or not, live, fresh, chilled, frozen, dried, salted or in brine; aquatic invertebrates other than crustaceans and molluscs, live, fresh, chilled, frozen, dried, salted or in brine; flours, meals and pellets of aquatic invertebrates other than crustaceans, fit for human consumption.	3 to 10	0 to 5		0	0	
1504	Fats and oils and their fractions, of fish or marine mammals, whether or not refined but not chemically modified.	3	0		0	0	
1603	Extracts and juices of meat, fish or crustaceans, molluscs or other aquatic invertebrates.	3	0		0	0	
1604	Prepared or preserved fish; caviar and caviar substitutes prepared from fish eggs preserved.	10 to 15	5		0	0	
1605	Crustaceans, molluscs and other aquatic invertebrates, prepared or preserved	10 to 15	5		0	0	
2104	Soups and broths and preparations therefor; homogenized composite food preparations.	7 to 15	0 to 5		0	0	

		Thailand			Vietnam		
AHTN	Description	MFN Rates	CEPT Rates		MFN Rates	CEPT Rates	
			2005	2006		2005	2006
0301	Live fish	30	5		0 to 30	0 to 10	0 to 5
0302	Fish, fresh or chilled, excluding fish fillets and other fish meat of heading 03.04.	5 to 30	5		30	5	5
0303	Fish, frozen, excluding fish fillets and other fish meat of heading 03.04.	5 to 30	0 to 5		30	5	5
0304	Fish fillets and other fish meat (whether or not minced), fresh, chilled or frozen.	5	5		30	5	5
0305	Fish, dried, salted or in brine; smoked fish, whether or not cooked before or during the smoking process; flours, meals and pellets of fish, fit for human consumption.	5 to 30	5		30	5	5
0306	Crustaceans, whether in shell or not, live, fresh, chilled, frozen, dried, salted or in brine; crustaceans, in shell, cooked by steaming or by boiling in water, whether or not chilled, frozen, dried, salted or in brine; flours, meals and pellets of crustaceans, fit for human consumption.	5	5		0 to 30	0 to 5	0 to 5
0307	Molluscs, whether in shell or not, live, fresh, chilled, frozen, dried, salted or in brine; aquatic invertebrates other than crustaceans and molluscs, live, fresh, chilled, frozen, dried, salted or in brine; flours, meals and pellets of aquatic invertebrates other than crustaceans, fit for human consumption.	5 to 30	5		30	5	5
1504	Fats and oils and their fractions, of fish or marine mammals, whether or not refined but not chemically modified.	10	0 to 5		10	5	5
1603	Extracts and juices of meat, fish or crustaceans, molluscs or other aquatic invertebrates.	30	5		50	5	5
1604	Prepared or preserved fish; caviar and caviar substitutes prepared from fish eggs preserved.	10 to 30	5		50	10	5
1605	Crustaceans, molluscs and other aquatic invertebrates, prepared or preserved	20	0 to 5		50	10	5
2104	Soups and broths and preparations therefor; homogenized composite food preparations.	20 to 30	5		40	5	5

Source: ASEAN Secretariat website
nc= no commitments

5.2 Initiatives for Addressing Non-tariff Measures

Through working with SEAFDEC, three major guidelines governing fisheries and aquaculture in the regional setting were prepared, namely: (i) Regional Guidelines for Responsible Fisheries in Southeast Asia: Fisheries Management (2003); (ii) Regional Guidelines for Responsible Aquaculture in Southeast Asia (2001); and, (iii) Regional Guidelines for Responsible Fisheries Operations in Southeast Asia (1999). These have been intended to cover and facilitate actions for the implementation of the CCRF in Southeast Asia. The CCRF was adopted at the FAO Conference on 31 October 1995 and provides necessary framework for national and international efforts to ensure sustainable exploitation of aquatic living resource in harmony with the environment.

In addition to the aforementioned, the other areas of collaboration between ASEAN and SEAFDEC for sustainable management of fisheries resources in this region are:

- Upgrading of Traditional Fish Processing Industry in Southeast Asian Countries;
- Conservation and Management of Sea Turtles in Southeast Asian Countries;
- Promotion of Mangrove-friendly Aquaculture in Southeast Asian Countries;
- Development of Fish Diseases Diagnostical Inspection Methodologies for Artificially-bred Seeds;
- Development of the Monitoring System of the Aquatic Environment for Substances Contained in Fish Bodies; and
- Improvement of Fisheries Statistics in the Region

Similarly, formal cooperation with the Network of Aquaculture Centre in Asia and the Pacific (NACA) was forged in order to promote the application of appropriate technologies for sustainable aquaculture development and aquatic resources management. An ASEAN fishery reference laboratory is also being set-up in Myanmar to assist in the improvement and promotion of the region's fishery production by addressing some of the trade barrier issues affecting the AFTA. The laboratory, expected to be completed in 2007, was proposed in the 2003 ASEAN Summit.

5.2.1 Fisheries Subsidies

The presence of subsidies in fisheries is one of the significant trade-related issues being addressed by the ASEAN Sectoral Working Group on Fisheries and has been discussed as a regular agenda item in the program on "Fish Trade and Environment" under the ASEAN-SEAFDEC Fisheries Consultative Group (FCG) meetings. The issue of subsidies in fisheries is one of the priorities to be addressed under the *Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region.* ASEAN and SEAFDEC have been tasked to assess the impact of government subsidies on fisheries, particularly on the needs of small-scale fisheries in the ASEAN region and sustainable fisheries in collaboration with international technical organizations such as the FAO and WTO.

Earlier discussions regarding subsidies during the Regional Technical Consultation (RTC) on Fish Trade in ASEAN Region and the Technical Session of the "Millennium Conference" both held in Bangkok, Thailand in 2001 yielded these recommendations, which also served as basis for policy consideration on fish trade by the ASEAN-SEAFDEC countries:

- Remove subsidies which are shown to contribute to unsustainable fisheries practices, especially those encouraging expansion of fishing capacity for fully exploited resources;
- Review, in collaboration with international technical organizations such as FAO, the empirical effect of fishery subsidies on essential social and developmental issues, particularly in support of the poor and disadvantaged of the ASEAN region, and effective fisheries management;
- Develop a regional policy on fisheries subsidies, considering the regional specific requirements, and produce regional guidelines for fisheries subsidies;
- On the basis of the regional guidelines, promote a harmonized regional position on fisheries subsidies, at both national and international fora;
- Carry-out in-depth empirical studies of the effect of fisheries subsidies on resource sustainability and trade in fish and fishery products, whenever information on these effects is missing or doubtful, and before deciding on removal of fisheries subsidies;
- Assemble and review available experience on how to phase out subsidies, including an evaluation of any lessons that can be learned from the experience obtained in removing agricultural subsidies;
- Conduct a census of fishery subsidies throughout all sub-sectors of the fishery sector at suitable intervals; and,
- Develop an ASEAN consensus on what would constitute a suitable categorization of fisheries subsidies to be used in forthcoming WTO negotiations on fishery subsidies

In the recent ASEAN-SEAFDEC RTC on International Fish Trade Related Issues held on February 20-22, 2006, the status of the fisheries subsidies negotiations at the WTO was discussed. Japan stressed that a general-ban (or top-down approach) on fisheries subsidies may cause serious limitation of providing fisheries subsidies not only for developed countries but also for developing countries in the future even if they consider it necessary (Refer to Annex 2 for the various views and proposals regarding fishery subsidies). Japan proposes a bottom-up approach wherein only subsidies that have direct negative impacts on fisheries resources are prohibited as this would be more amenable to the needs of each country. It was argued that this approach is more logical as fisheries subsidies negotiation started with an aim to supplement the global effort to achieve sustainable fisheries. As the issue would have substantial impacts on the fisheries sector particularly for small-scale fisheries, it was recommended that careful follow-up of the progress of negotiation and further representation of fisheries managers in the process of policy coordination for WTO negotiations would be desirable and encouraged.

On a related note, it was announced during the 38th SEAFDEC Council Meeting that the legal text on fishery subsidies under the WTO is still under going preparation and would likely be finalized by the end of 2006. Apparently, in the proposed set-up, subsidies relevant to small-scale fisheries would be exempt due to its contribution to poverty alleviation and people's livelihood. Hence, member countries should identify common characteristics of small-scale fisheries in the region and develop some criteria for prohibited fisheries subsidies.

In the ASEAN member countries, most fisheries activities are on small-scale and non-industrial levels. As such, ASEAN governments hold the view that public sector support is a vital incentive to change unsustainable fishing practices, does not promote over-fishing and is not considered to cause significant trade distortions. Moreover, the level of subsidies in ASEAN is low compared to other regions/countries primarily because of inadequate funds. Nevertheless, further study on the extent and impact of subsidies is required. A large proportion of government transfers to the fisheries sector in ASEAN Member Countries are necessary for basic infrastructure development, to keep pace with emerging global product standards, to promote change toward sustainable practices, for poverty alleviation, or for other social reasons. A harmonized ASEAN position on fisheries subsidies will be of value in the on-going international debate.

5.2.2 Environment and Resource Management

The growing concern regarding decline in fish stocks and general deterioration of the coastal and marine environment of the East Asian seas led to increases in multilateral environmental agreements wherein many ASEAN member countries joined in. Another added pressure is the inevitable expansion of aquaculture especially since its predictable supply is ideally suited for supermarket chains, which are expected to provide an increasingly large portion of world food demand in the future (Ahmed, 2006). Marine fish and shrimp culture pose the danger of encroaching into valuable mangroves, polluting the coastal waters with loads of organic matter, increasing pressure on wild stocks through the capture of gravid females and seeds, as well as the harvest of fish used for feeding the cultured organisms.

- ***Commercial Aquatic Species***

The draft MOU between CITES and FAO intended to strengthen collaboration on commercially exploited aquatic species is hampered by the view that some of the CITES listed species have potentially serious negative impact on normal fishing activities and the economies of coastal communities. To accommodate both parties' interests, a "compromise text" was subsequently drafted and is under review. In addition, to avoid inclusion of commercial aquatic species without adequate scientific basis in the list, it was recommended that ASEAN and SEAFDEC member countries look into the revised draft MOU prepared by CITES and develop a national, if possibly a regional, coordinated position. Data gathering and conduct of studies are encouraged to serve as inputs in sustainable resource management and utilization covering relevant aquatic species

identified under CITES such as sharks, sea cucumbers and sea turtles as well as those proposed for inclusion in the CITES listing.

- ***Marine Protected Areas (MPAs)***

Although the discussions at the Convention of Biodiversity (CBD) on the establishment of MPAs on the high seas remain unresolved, the ASEAN-SEAFDEC consultation viewed the establishment of MPAs as a fisheries management tool, which regional fisheries management organizations (RFMOs) can adopt for the high seas in their areas of responsibility. There are concerns, however, that the concept is being promoted to deter the activities of fishing fleets in the high seas. Member countries, therefore, are encouraged to monitor the progress and determine the potential impacts and necessary intervention on the issue.

- ***Moratorium on the High Seas Bottom Trawling***

The moratorium on trawling in the high seas has been demanded by some environmental NGOs and countries at meetings of the United Nations General Assembly (UNGA) since 2004 given its supposed adverse impacts on vulnerable marine ecosystems. However, there are oppositions on the grounds that if the moratorium on trawling in the high seas pushes through, the countries might also lose their rationale for protecting their Exclusive Economic Zone (EEZ) bottom trawling, which in turn will have adverse effect on food security and the development of local communities. Similar to the stance regarding MPAs, the consultation yielded the view that the issues on bottom high sea trawling operations should come under the jurisdiction of RFMOs, which have expertise in fisheries management. FAO already started a study on deep-sea fisheries management, including an assessment of the effects of fishing on deepwater fish populations and their ecosystems, in accordance with the agreement by the FAO Committee on Fisheries in 2005 to see if there is sufficient scientific evidence to back the proposal. At the 38th SEAFDEC Council Meeting, Japan expressed its opposition of the prohibition of high seas bottom trawling and requested other SEAFDEC member countries to coordinate with their respective Ministry of Foreign Affairs to support the position of Japan during the UN Informal Consultative Process on the Law of the Sea in June 2006.

5.2.3 Quality and Safety of Fish and Fishery Products

Concerns on compliance with the increasingly stringent quality and safety standards boils down into two main issues: first, that they will weaken the competitive advantage already gained by many developing countries; and second, that they will lead to insurmountable barriers to trade for new entrants, especially since regulations often shift the burden of responsibility to the exporting processor or trader.

To date, efforts have also been directed towards the harmonization and standardization of measures and regulations such as the harmonization of SPS measures on fish and fishery products and Protocol 8 on SPS Measures to Implement the ASEAN

Framework Agreement on Facilitation of Goods in Transit. Protocol 8 provides for the harmonization and simplification of customs procedures, the establishment of a customs transit system, establishment of SPS measures to facilitate the movement of goods and ensure their compliance with relevant laws and regulations. ASEAN also adopted the "Asia Regional Technical Guidelines on Health Management for the Responsible Movement of Live Aquatic Animals" and the "Beijing Consensus and Implementation Strategy" as tools to reduce the risk of disease due to transboundary movement of live aquatic animals. These guidelines are intended to provide a platform for greater cooperation and implementation of aquatic animal health management measures within the region and extend support sustainable aquaculture. There are also continuing work on harmonization and testing and quarantine procedures for groupers in the area of aquaculture development.

To further promote aquaculture, some member countries have translated into their respective languages the "ASEAN Manual on Good Shrimp Farm Management Practices" for use by their shrimp farmers. This was complemented by the issuance of the "Manual on the Harmonization of Hatchery Production of *Penaeus Monodon* (tiger prawn)" and "Practical Guidelines for the Development of High Health *Penaeus Monodon Broodstock"*.

The issue of Fish Meal and Bovine Spongiform Encephalopathy (BSE-Mad Cow Disease) brought forth concerns particularly on its effect on international fish trade and consumer perception of fish safety quality. The presentation during the 26th Session of FAO Committee on Fisheries indicated that there are no epidemiological evidence of Bovine Spongiform Encephalophaty (BSE – Mad Cow Disease) being transmitted to ruminants or other animals by fishmeal and likewise to humans, but FAO had been requested by its members to continue monitoring the relationship between fishmeal and BSE.

A major concern raised lies in the antibiotic contamination in fish and fishery products as this hampers exports to European and US markets, which require lower levels of antibiotic residues in fishery products. Similar problems were noted with the detection of formalin in other products. The contamination is in violation with national regulations and needs to be resolved at the national level. The consultation noted that there were two projects currently implemented under Japanese Trust Fund by SEAFDEC MFRD that could further assist in the matter, namely: (1) the training of member countries staff in laboratory detection of antibiotics and chemical contaminants, and (2) a regional survey to determine antibiotic residues in fish and fishery products.

Another issue that might require greater attention is the contamination issue of malachite green in fishery products. It was noted that malachite green could be detected by high performance liquid chromatography (HPLC) and liquid chromatography-mass spectrometer-mass spectrometer (LC-MS-MS). In response to this concern, it was suggested that more information on linkage between probiotics and heavy metals released during the decomposition of organic matter be gathered.

Whereas the above issues related to the safety of fish and fishery products should be primarily addressed by concerned countries by strengthening the enforcement of existing regulations, these could also be tackled through the implementation of relevant measures under the ASEAN Roadmap for Fisheries Integration as well as the ASEAN Food Safety Network and SEAFDEC Fish and Fishery Products Safety Network. Moreover, the growing awareness of the importance of HACCP based system applied in many countries highlights the need for an integrated, multidisciplinary approach to safety and quality involving the entire food chain.

5.2.4 Eco-labelling of Fish and Fishery Products

A regional study on eco-labelling for aquatic products was undertaken by SEAFDEC with technical and financial support from the Swedish Board of Fisheries and the Swedish International Development Cooperation Agency (Sida). This was intended to survey the current status of sustainable development of fisheries and aquaculture production in the ASEAN countries, and to identify opportunities to apply eco-labelling in the context of the region. The results indicate that there is recognition that eco-labelling is in accordance with the principles of environmental sustainability. In addition, products originating from community-based fisheries or purse seine fisheries as well as those from extensive, poly-culture or low-input aquaculture production systems can qualify for eco-labelling. However, there are apprehensions on its practical implementation given the nature of fisheries and aquaculture activities in the region and the costs associated with the certification system.

The outcomes and recommendations of the study were presented at the ASEAN-SEAFDEC RTC on International Fish Trade and Related Issues 2006, and the following clarifications and suggestions were made:

- Contributions to eco-labelling work in the region must be used as a tool to promote sustainable fisheries practices;
- There has to be clear understanding and definition of eco-labelling in the regional context, development of appropriate criteria and standards, setting up/identification of accrediting and certifying bodies, and roles of stakeholders especially the government and industry as well as dialogues among all concerned stakeholders in the process. This would include capacity and awareness building and implementation of pilot studies to provide basis for future in-depth discussion;
- Member countries and SEAFDEC to conduct a study on potential difficulties and impacts of the FAO international guidelines for eco-labelling for fish and fishery products from marine capture fisheries and prepare necessary inputs for future development by FAO;
- Market studies should be carried-out to determine market opportunities in relation to eco-labelled products; and,
- Discussion among relevant international/regional organizations working in the region (e.g. FAO RAP, NACA, MRC, etc.) and the ASEAN Secretariat should be promoted when developing regional eco-labelling schemes.

At the same time, as per the suggestion put forth in the 8th ASEAN-SEAFDEC Fisheries Consultative Group, a regional strategy on eco-labelling need to be developed taking into account the following:

- the role of government in addressing issues of eco-labelling both in terms of being a market driven incentive and a tool to promote sustainable practices;
- active participation in future amendments/development of initiatives related to eco-labelling at relevant international fora;
- specificity and uniqueness of fisheries in the ASEAN and SEAFDEC Member countries; and
- practicality of any labeling scheme and readiness of fisheries sub-sectors or fishery products

It should be noted that while the CCRF provides a basis for sustainable fisheries practices, eco-labelling – when worked out in consultation with the industry, fisher folks and fish farmers – has the potential to contribute to better fisheries practices while considering ecosystem and social dimensions of fisheries in a tropical region, build awareness among consumers and create new market opportunities for a small segment of the fisheries sector. At the same, given the diversity of fish species being produced and marketed in the region, the practicality and realism of establishing an eco-labelling system needs to be studied.

5.2.5 Traceability

The traceability requirement in key markets for fish products is viewed with some apprehension and some developing countries require extra time in meeting these requirements. At the same time, the lack of a unified definition of traceability at the Codex Alimentarius level can potentially create some confusion and it was suggested that FAO needs to coordinate further with the CAC.

Thailand launched a pilot project on computerized traceability focusing on the products from aquaculture shrimp farms. By sharing the outcome of such a pilot project, it could serve as a basis to develop similar work in other countries.

5.3 Implementation of Fisheries Policies and Programs

Based on the foregoing, it is apparent that there has been substantial discussion and efforts expended already in order to forge cooperation and integration in the fisheries sector within ASEAN. Nonetheless, there are certain constraints encountered in the formulation of policy recommendations and common/coordinated positions on fisheries issues. For example, the ASEAN-SEAFDEC Secretariat identified insufficient in-country coordination on the formulated policy and positions, conflicts of policy interests among concerned national agencies, limited participation of the member countries in international fora and information gap between national representatives who participated in ASEAN and SEAFDEC related meetings, as bottlenecks. Hence, it becomes important

to work on coordinated/common positions among the member countries while at the same time supporting individual country's interests in fisheries.

While noting that SEAFDEC cannot, on its own, to develop a fisheries policy as well as speak on behalf of any member country at international fora, it is recognized that the institution has the capacity to assist the member countries particularly on the conduct of comprehensive review of priority issues and areas for consideration, develop information package to promote awareness on the issues, and provide technical support to the member countries.

An assessment of the work program based on the ASEAN Roadmap for Fisheries Integration (Annex 3), particularly the outputs and outcomes from the various activities would facilitate not only tracking the progress towards attaining the objectives of enhancing fisheries trade but also identify and address potential problems and risks that may arise in the implementation of the said activities. That is, for each of the activities identified, what are the verifiable outputs and what have been the outcomes. For example, there have been several outputs such as the guidelines and manuals and it would be useful to find out how they have been disseminated and put into use. Moreover, given the series of discussions on the various concerns, putting the recommendations into concrete actions within the timeframe would be paramount. The point is to have a clear understanding of the remaining issues that need to be addressed, what is available on the ground to resolve the problems and then determine the best way to fill existing gaps.

6.0 Strengthening Linkages in ASEAN Fisheries

Liberalization of international fish trade offers many opportunities as well as new safety and quality challenges. Risk-based scientific tools need to be applied so that the fish safety standards reflect the most effective scientific methods available to protect public health. Furthermore, information and awareness programs can improve transparency and consumer education. Progress in this area would require enhanced international cooperation in promoting scientific collaboration, harmonization, equivalency schemes and standard-setting mechanisms that are based on scientific principles.

Given that one of the reasons cited for the opposition against tariff reduction or its elimination is to protect the fisheries resources, tariff reduction and harmonization of tariff structure amongst countries need to be pursued with the necessary provisions to safeguard resources from overexploitation. The removal of tariff escalation and tariff peaks, on the other hand, will provide developing countries the incentive to innovate and increase production of value-added or processed products. At the same time, binding tariffs to the extent possible will bring about a predictable business environment and contribute to boosting investors' confidence. In the process, they will be able to take advantage of the comparatively lower operational costs and add value to exports. More transparent and predictable tariff regimes also help stimulate investment in processing, implementation of standards and create a policy environment and awareness for better resource management. There are also changes taking place in the global marketing of fish and fishery products that producers in developing countries need to consider and adapt.

To comply with international safety and quality standards, the governments should be proactive in assisting the private sector to find solutions. To ensure that the poor fisher folks and small producers will also enjoy the gains from trade liberalization, pro-poor interventions such as better technology extension service and access to credit and markets, are essential. This should also include risk and exposure assessment and building national capacity to implement risk assessment as part of the regulatory decision-making process before the formulation of regulations. Risk assessment is a systematic process, which provides a basis for environmental management by determining specific impacts of human activity on the ecosystems and the human health. On the other hand, risk management involves selecting the appropriate management options to minimize the identified risks. The results can be used in decisions and actions affecting the marine and coastal environment.

The International Trade Strategies Pty Ltd., and Center for Food and Agribusiness, (2004) indicated that some private sector representatives felt that ASEAN rules and regulations were not considered transparent and they are often unaware of what ASEAN standards were and whether national governments have implemented them. Hence, there is a general sentiment that ASEAN has to improve communicating its policies and agreements. At the same time, there are those who believe that the benefits of AFTA had been undermined by local barriers to trade and protectionist policies of member states.

In order to optimize the impact of the aforementioned initiatives, the affected stakeholders, notably the private sector, need to be more actively involved in the consultations and decision-making.

6.1 Subsidies

Fisheries subsidies are acknowledged to have both positive and negative impacts, which are very site and context specific. While there seems to be a view that subsidies lead to overexploitation of fish stocks, which in turn have negative social and economic implications, this may not necessarily be the case. It is recognized that the removal of subsidies alone cannot resolve the problem of overexploited fisheries. A crucial factor in this regard is the existence of an effective fisheries management system. Fisheries access agreements are often associated with a range of subsidized elements such as payment of the access fee. These may create distortions in the market, which can negatively impact on national efforts to increase economic benefits derived from trade. At present, the work of the WTO negotiating group on rules for fishing subsidies has reached a critical new phase and it is possible that the new fishing subsidies rules will be based on the 'traffic light' approach of the Agreement on Subsidies and Countervailing Measures (SCM). This development will inevitably affect ASEAN trade initiatives. As shown in Annex 1, several countries have their respective set of subsidies and they need to be reviewed in terms of how they will fit into the new order of things.

As mere reliance on the assumption that well-managed fisheries can counteract the impact of subsidies may be misleading, the lowering of artificially high capacity that subsidies have brought about in the past should be considered. Exceptions may only be considered for non-distortionary subsidies intended to assist developing country investment in fisheries and if a capacity enhancing subsidy is targeted at artisanal fishery operating within the confines of an under-exploited and well-managed fishery. Special and differential treatment for developing countries is needed in the subsidies agreements given the high levels of poverty and poor infrastructure in these areas and the limited capacity of producers to invest in systems upgrading.

6.2 Food Safety and Quality Measures

Access to safe, contamination-and radiation-free food is a legitimate claim and naturally sought by consumers. Producers, particularly those in developing countries, need to accept that they would have to act and comply with the safety requirements of importing countries lest they risk rejection of their products and lose market share. Maintaining high quality food and fish can be viewed as a competitive strategy to stay ahead of competitors. By not addressing health, safety, quality and environmental issues, a company's position in the market place and subsequently, its profitability can be threatened by such risks as: (i) challenges to its operating license; (ii) disruption to its supply chain; (iii) damage to its name; (iv) loss of market due consumer boycotts; (v)

fines and claims for damages; (vii) lower ratings in the financial markets; and, (vi) poor staff morale.

Improved harmonization of SPS and TBT requirements and standards is necessary at the international level. To the extent possible, the Codex Alimentarius should be used as the baseline for harmonized standard, taking note of the necessary adjustments for the region's peculiarities. Unfortunately, numerous small fishers and producers may find it difficult to access HACCP processing plants. Cooperation between donors, international agencies, national agencies and private entrepreneurs is desirable to make optimal use of resources allocated to HACCP-related activities.

As indicated in the brief profiles in Annex 1, several countries have made progress in the implementation of fish safety and quality programs. However, not all have the capacity to do. There is a view that given the high cost of investments associated with SPS and TBT regulations, companies would have to choose which market segments to cater to and with it, bear the associated cost of complying with the standards set forth in them (Manarungsan et al., 2004 and Ahmed, 2006). That is, countries that have less stringent standards or longer implementation periods can even be targeted for export. In addition, the differential application of standards may even contribute in expanding South-South trade. SPS and other requirements need to be viewed in the broader context of competitiveness as progress in certain aspects such as quality control and logistics management may be adequate to satisfy SPS requirements. The observation set forth in World Bank (2005) is that this will likely continue as a result of an emerging tendency, particularly in the private sector, to package together safety, quality, and environmental and social standards.

Zugarramurdi (2003) noted that the cost of applying HACCP based system in the seafood processing plants depend on a number of variables such as the type of product, market requirements, current and future legislation, existing facilities, plant size, initial operating conditions, present and future level of qualities. Hence, it is difficult to estimate the costs due to the diversity of the systems and that there is no single HACCP plan for all fish processors. The costs previously cited in Section 5 show the range of values others have spent for their HACCP initiatives. Industries that apply a HACCP program should consider adopting an integrated approach with quality or environmental management systems such as ISO9000, ISO14000 and ISO22000. These systems are required to bring the benefits of ensuring food safety and improving the business itself. Integrating these systems can strengthen the focus on customer and food safety requirements, while at the same time reduce administration and increase overall profitability.

As food safety standards develop rapidly, it is essential to have improved information flows among stakeholders in the food supply chain – producers, traders, exporters, government agencies, policy-makers and donors. These include better access to scientific and technical information to foster coherence in the standard setting process. For example, there is substantial information obtained in the various research projects and the consultations but is it able to reach all the relevant parties and stakeholders and to

what extent is the information able to influence their decisions and actions? The result of the harmonization of SPS measures on fish and fishery products and Protocol 8 on SPS Measures to Implement the ASEAN Framework Agreement on Facilitation of Goods in Transit need to be well understood by the affected parties. Increased transparency will encourage industry to invest in health and safety measures, which may also help to gain certification for food safety and eco-labeling schemes.

Technical assistance would likewise be needed to build capacity and strengthen the regulatory framework together with the installation and upgrading of testing and monitoring facilities and other necessary infrastructure to meet international standards. Establishing a coordinating mechanism and forging linkages would enable better understanding among relevant institutions, including the private sector, improve decision-making and greater awareness of operational priorities.

6.3 Trash Fish

"Trash fish" or "low value fish" are broadly used terms referring to fish species that by virtue of their small size or low consumer preference have little or no commercial value (Sugiyama, Staples, Funge-Smith, 2004). A major issue for ASEAN member countries is the increasing demand for low value fish for processing into fishmeal or oil for aquaculture and other animal feeds. With the expansion of aquaculture not just for domestic food security needs but for earning foreign currency as well, there is added stress on the already overexploited fish stock. Fish farming has tended to become more intensive. This trend also involves a shift from the culture of herbivorous and filter-feeding fish to the culture of carnivorous species.

There is concern that the sustainability of fish meant for fishmeal may be under stress. The globalized nature of the market for industrial fish products will lead to ascension of prices, particularly if fishmeal remains a large component of feed in aquaculture operations producing, for example, shrimp and salmon. The higher prices will then have a negative impact on the food security of some nations as the price of feed for terrestrial livestock rises.

SEAFDEC estimates that about seven kilogram of low value fish is needed to produce just one kilogram of marketable carnivorous fish. Sourcing the required volume of fish would be a contentious issue. Over the last decade, the price of low value fish has risen and it is predicted to increase even further over the next years due to the increased demand for fishmeal and oil. Considering current conditions, even though average fish prices are on an upswing, the growth rate of fishmeal prices can easily outstrip it.

Sometimes trash fish are landed by large industrial vessels at a single port and usually in a poor state of preservation, so its utilization becomes very limited. With better post-harvest handling and processing, a better return for this limited resource may ensue. Moreover, if they were given a chance to grow to a larger size, some trash fish

(i.e., those that are juvenile of commercially important fish species) would provide much more benefits in production and value. As such, there is considerable pressure on aquaculture to reduce its reliance on feeds containing fishmeal and to increase the efficiency of the current usage of this resource. Instead of looking at capture fisheries and aquaculture as separate sectors, policymakers must pay serious attention to a balanced development between capture fisheries and aquaculture.

6.4 Marketing and Value Addition

While developing countries are often hampered by technical and financing possibilities, customer relations and marketing, they have a comparative advantage with regard to natural resources and cost of production. Still, to be competitive in the future, they need to take an active role in meeting stricter requirements on hygiene, quality and safety. They also need to improve their value adding production and marketing. The focus of the value adding should be on the entire value chain, particularly on vertical integration through cooperation with other developing countries. Similarly, existing marketing channels through the large marketing companies could be used to help smaller producers market their products. For example, established ASEAN companies who have penetrated big markets such as those of the EU should be encouraged to cooperate with new and upcoming companies. These markets have high purchasing power but are highly quality conscious with excessive food safety and traceability standards, which newcomers may not have a chance to enter on their own. The big companies can also undertake contract growing with other fish farmers for high value products in order to take advantage of "time windows of opportunities" that may occasionally arise. This, however, can be challenging in terms of ensuring economies of scale, quality of product, reliability of delivery and maintaining costs. Given this concern, it becomes important to pay attention to the technical requirements in production as well as in the harvesting, handling, storage and distribution needs of specific fish and fish products.

Sub-regional initiatives under Brunei-Indonesia-Malaysia-the Philippines East ASEAN Growth Area (BIMP-EAGA) can be used as examples for making use of opportunities at hand. Under BIMP-EAGA, seaweed development can be further enhanced in the sub-region, particularly for Sulu and Tawi-Tawi (Philippines), North Sulawesi (Indonesia) and Sabah (Malaysia). The area is estimated to account for 80% of the total supply of *euchema cottonii* seaweeds. The supply chain in the Philippine side is well established with Zamboanga and Cebu City as processing centers. Another EAGA initiative is the fishing access agreement between Indonesia and the Philippines, wherein boats from the Philippines are allowed to fish for tuna in Indonesian waters. The joint logistics among tuna canners in Bitung, Indonesia and in General Santos, Philippines is another example. Tuna canners in North Sulawesi and Mindanao benefit from cheaper shipping rates by consolidating their shipments for onward shipment to overseas markets in General Santos City. Other logistical routes are Zamboanga (Philippines) - Sandakan (East Malaysia); and Davao (Philippines) – Manado (Indonesia). A major concern is how to sustain the amount of cargo and passengers in these routes in order to make them viable. In the area of customs, immigration, quarantine and security (CIQS), the

challenges are the need for in-country understanding of procedures given "too many actors at every port" as well as lack of information exchange among countries of individual country CIQS rules (International Trade Strategies Pty Ltd., and Center for Food and Agribusiness, 2004). This is where the simplification of customs procedures and rules of origin becomes significant.

Furthermore, because of squeezed food processing margins, there is increased consolidation and concentration taking place. One consequence is that processors develop their own distribution systems and with these, there are also "market entry" barriers that they have to go through. Partnerships also are developing along the distribution chain. This would require studying the impact of vertical concentration in marketing channels with specific attention to supermarkets and its impact on the levels of production, processing and wholesaling.

Food production systems in Southeast Asia have to work within changing demands from both local and international consumers. At the same time, facilities and systems to enable efficient production, handling processing and distribution and distribution will have to evolve to keep up with demand for higher value-added and processed products from the increasingly affluent population, which also value convenience and food safety.

Reviews can be conducted for regulatory interventions in supply chains, including marketing controls on a comparative basis between different countries producing the same product with the aim of identifying opportunities for improving efficiency. A key component of this should be to identify means of improving the capacity of fishers to develop supply chain initiatives. This can be through improved vertical coordination, group marketing and supply initiatives, cooperative associations and other complementary activities.

Austria (2004) noted that the weak integration in the ASEAN agri-sector, including fisheries, could be explained by the fact that current production and technology entails simple transformation of raw materials that are not suited to division across economies in the region. Deeper integration can be achieved if member economies will increase the value-added of these sectors through further industrial processing. Each economy can specialize in the production of a particular manufacturing product for exports to the rest of the region. Specialization can lead to economies of scale in production and hence, lower cost.

The above suggestion concurs with the observation in Zugarramurdi (2003b) that the fishery sector's profitability can be increased if an effective evaluation is conducted on which type of value-added products is more convenient for each country. Factors such as available technology, labor productivity, availability of resources, quality assurance level, financing, level of development of clusters and association through the value chain should be analyzed since their combination would define the advantages and weaknesses of each case. She, however, cautions that there are examples showing that further processing does not always give a higher value-added. The test is whether the

added value is sufficient to cover the added costs and if there is a willingness to pay for it.

In a study of four products exported to the EU and US, which represented a variety of product forms, processing methods and market segment, it was observed that more processing in order to have higher value-added products do not necessarily result in higher profits for seafood processors (Gudmundsson, 2003). Given the fact that seafood products are increasingly exported as fresh products directly to the US or EU markets, it fishers and primary processors might get better income if they focused instead on efficient marketing channels, high quality and improved handling, and shorter marketing channels in order to obtain higher share of the retail value in the future.

The issue of catch certification and food quality assurance are also creating incentives that alter harvesting, production and marketing strategies. There are a limited number of eco-labelled fish products available at present. The Philippine blue crab fishery is an example of how the market can influence fishers to adopt certain resource management practices. In this case, a fishers association was able to supply the processing company with raw materials according to the specifications of the buying company. The company refuses to buy small crabs or gravid females. While recognizing that this may be a unique example and not necessarily easily acceptable to other sites or countries, this is nonetheless a step forward. On the other hand, even if there is a market in more affluent economies, there is an information gap on whether there is a demand for such products in ASEAN and empirical studies on their actual impact on developing countries trade flows are encouraged. Hence, certification and labeling for the region's fisheries may take a while before it takes sail.

6.5 Halal Certification

Halal is an Arabic term meaning lawful or permissible. While the term is used to describe anything permissible under Islamic Law including behavior, speech, manner of dressing, and conduct, it is most frequently applied to food or the Islamic dietary laws. Muslims, around the world, as part of their religious belief, are extremely concerned that the food they eat and the products they use are *halal*. They reject anything containing or contaminated with alcohol or pork as *haram* (not permissible). Towards this end, they often carefully examine the ingredient list of products before buying them. If there is any suspicion of *haram* ingredients, most Muslims will avoid the purchase of such items. Besides the ingredients, it is also the process of manufacture that makes a particular item *haram* for Muslims. To help Muslims determine whether a product is *halal* or otherwise, there are several Islamic organizations across the world that certify such products.

There is a growing global market for *halal* food, which is estimated to be US$150 billion per annum.[2] At the same time, there are non-Muslims who prefer foodstuff bearing *halal* certification for health reasons. Victoria Foods Corporation,

[2] http://www.aseansources.com/jsp/malaysia_food_products.jsp

one of the leading producers of canned fish products in the Philippines, reported that an increasing number of health-conscious individuals are looking for *halal* products they believe are not only safe but also healthy for consumption.[3] Hence, *halal* certification would enhance the market potential for food products from ASEAN member countries.

Halal certification is not as simple as just determining whether a product can be taken by a Muslim. It involves trust and responsibility on the part of the certifying body. The CAC, responsible for introducing the Joint FAO/WHO Food Standards Programme, cited Malaysia as a global example where *halal* food is concerned. Malaysia has developed a *halal* certification, a total quality health, and sanitary system that involves adopting procedures for slaughtering, processing, and other related operations as prescribed by Islamic rules under the Department of Islamic Development (JAKIM), which is based on the MS 1500:2004 "*Halal* Food-Production, Preparation, Handling and Storage-General Guidelines (First Revision)". It certifies raw materials, ingredients, and products based on quality, sanitary and safety considerations. Malaysia's knowledge and capability in this area should be tapped by other countries that have similar special requirements in order to take advantage of the growing demand.

6.6 Public-Private Partnerships

Public-private partnership (PPP) mechanisms have become an option for governments worldwide to improve service delivery, attract investment, reduce costs, and increase accountability. It is also linked to the policy-making process and can facilitate efforts to enhance trade. The mechanism engages the energy and financial power of the private sector, whilst approaching development with the social responsibility of the public sector. Appropriate institutional structures and participatory mechanisms will be required to enable such partnerships to function effectively. Public and private views should be integrated proactively to address such issues as trade-related infrastructure and compliance with international standards. Closer cooperation between the public and private sectors may be tapped in several activities such as:

- assessing existing patterns within the supply chain – from production, harvesting, post-harvest handling and processing – and technical capacity to comply with health and sanitary standards;
- evaluating the costs and benefits of food safety standards and other regulatory measures to the stakeholders in developing countries; and,
- enhancing the capacity of developing country institutions to assess fisheries trade policies and linking them to fish supply chains, related institutions and stakeholders, and processing industries to establish a comprehensive institutional network to manage fish and seafood quality at a lower cost

[3] http://www.islamicawakening.com/viewnews.php?newsID=5765&

Encouraging investments in the fisheries sectors, like any other successful investment, requires predictability. While there is a willingness to assume a certain degree of risk, caution drives the landscape. Investors recognize the limitations of the governments; however, they would be more likely to invest if governments worked to create more predictable and consistent business environments. There is a need to promote transparency so investors are not bogged down by rules, regulations and corruption. There should be consistency in regulatory and legal/judicial frameworks.

PPP closely linked to policy would facilitate efforts to accommodate trade measures. Appropriate institutional structures and participatory mechanisms are needed to enable such partnerships to function effectively. There is a need to design appropriate administrative procedures, standards and rules, which increase transparency. Aside from the private sector and government, NGOs and multilateral donor agencies could be involved in PPP.

More coordination and cooperation including monitoring at the national level would help to find internal solutions to institutional problems and new challenges on the global seafood market. It may also facilitate participation, thus contributing to increased ownership and more responsibility taken over by individuals. As a result, representatives can better express their views thus, leading to effective participation. Relevant international organizations should also work in tandem with the private sector and developing countries to transfer know how on production, management and marketing and facilitate joint ventures between companies in developed and developing countries.

6.7 Information, Education and Participation

The ASEAN initiatives have been supportive in stimulating trade and market access for its members. However, there are weaknesses including those in communication, awareness building and in-country capacity to respond to emerging global requirements and sustainable resource management. As a result, governments become reactive to trade measures instead of becoming proactive.

In terms of communication and participation, effort should be made to enable developing country stakeholders to readily access the complex language of trade negotiations and to better understand the implication of the trade agreements. There should be more venues for consultations especially on issues that directly affect the stakeholders.

Developing countries also need to address wide-ranging capacity building needs including building skills in negotiation processes, technical areas related to compliance, identifying trade opportunities, information on institutional approaches and procedures as well as legal matters. Training and awareness building initiatives should be practical and comprehensible (e.g. seminars, workshops, guidelines and manuals that avoid too much jargon). Rigorous consultation with primary stakeholders is necessary in order that capacity building and information needs are responsive and accessible.

7.0 Recommendations for Advancing ASEAN+ 3 Fisheries Trade Negotiations

Since its inception in 1997, the ASEAN+3 has undertaken several measures to expand and deepen cooperation among the involved East Asian countries. Concrete steps toward achieving the goals of closer integration and overcoming commonly held challenges are taking place. It is expected that the growing interaction among the ASEAN+3 countries will contribute in promoting greater dialogue and collective efforts to harness opportunities and meet emerging challenges. Among the medium term measures that have been deemed useful in realizing the East Asian vision of peace, prosperity and progress is the formation of an East Asian Free Trade Area (EAFTA). To move forward, ASEAN countries, China, Japan, and Republic of Korea should explore ways to address the trade-related issues concretely.

To date, trade liberalization efforts within ASEAN are expected to produce some gains in itself. As most of the ASEAN economies are more competitive in the fisheries sector than some of the world's biggest economies, entering into liberalized trade agreements with them has the potential to deliver substantial gains in economic welfare. Nonetheless, as observed by the International Trade Strategies Pty Ltd., and Center for Food and Agribusiness (2004) the extent and value of integration of the ASEAN market through the AFTA is also dependent on the level of global competitiveness of agricultural production inside ASEAN. That observation applies to the fisheries sector as well. Hence, if the removal of intra-ASEAN barriers to trade in fish and fish products will not lead into a level of competitiveness that matches the best in world markets, even if it integrates markets and increases investments, the outcome could even be economically negative for ASEAN countries.

The ASEAN+3 Bilateral Swap Arrangement of the Chiang Mai Initiative may be viewed as a precursor to expanded trade arrangements and greater financial and macroeconomic cooperation and coordination among the ASEAN+3. Successive meetings led to the establishment of the East Asia Vision Group (EAVG) and the East Asia Study Group (EASG). Among the recommendations arising from the work of the EAVG and EASG was the establishment of an EAFTA and liberalization of trade. Free trade areas are increasingly recognized as a means to expand trade and investment opportunities, promote economic growth and sustainable development, and catalyze other forms of cooperation among countries of the region. Other recommendations arising from the EAVG and EASG that are likewise relevant to the fisheries sector are: (i) the implementation of the Framework Agreement on the ASEAN Investment Area (AIA); (ii) joint endeavors to ensure more effective management of water resources and fisheries; and (iii) closer regional marine environmental cooperation.

The envisaged scope of the EAFTA is quite comprehensive. In terms of trade in goods, it goes beyond the removal of tariffs and non-tariff barriers to include trade facilitation measures such as conformity of standards and procedures, and it also covers trade in services.

The AIA initially extended national treatment and opened up almost all industries for foreign direct investments (FDIs), with the exception of those in the Temporary Exclusion List and the Sensitive List. The AIA also expanded its coverage by including services incidental to the manufacturing, agriculture, forestry, fishery, and mining sectors. That is, ASEAN countries are committed to opening up the aforementioned sectors and to granting national treatment to ASEAN investors by 2010 and to all investors by 2020, with each country having some exceptions. In order to attract larger volumes of FDIs, full realization of the AIA would be advanced from 2020 to 2010 for the first six member countries of ASEAN and to 2015 for the newer member countries.

East Asian countries should also encourage investment among them and dismantle trade barriers because trade and investment are virtually inseparable elements, crucial in the process of deepening and broadening regional economic cooperation. In this regard, the EASG recommended that the formation of an EAFTA go hand in hand with the establishment of an East Asian Investment Area by expanding the AIA.

Another area of concern that affects the fisheries sector is the promotion of regional marine environmental cooperation. Given its vast coastline and major shipping sea-lanes, the East Asian region's rich marine resources have long been central to its development because the resources provide food, employment, and income. In many parts of the region, rapid economic development have taken place in coastal areas at the expense of the environment, from upstream pollution, domestic and industrial effluent, more areas of landfill, increased dredging, and the erosion of coastlines and coastal habitats. Over-fishing, excessive exploitation of the coral reef, sea grass and mangroves and expansion of aquaculture farms have further damaged the marine environment and coastal resources in the region. Moreover, oil spills have become serious along major shipping routes in recent years.

The previous sections have discussed the actions taken by ASEAN member countries towards the integration process in the fisheries sector and what are the remaining gaps that need to be addressed. The recommendations would be building on the on-going work on the fisheries sector of ASEAN and extend it to cover for fisheries trade negotiations with China, Japan and RO Korea.

Specific recommendations for inclusion in the trade negotiations are presented in concert with the goal of enhancing fisheries trade through supporting the commonly cited objectives such as:

- Support regional collaboration through the harmonization of trade policies, including tariffs and non-tariff measures such as product quality, safety and sanitary measures with international standards, and establishment of harmonized guidelines for fish inspection and quality control systems;
- Promote and ensure the socio-economic and environmental sustainability of the region's coastal and marine resources;
- Address certification and eco-labeling concerns in trading fish and fishery products;

- Assess the impacts of subsidies on sustainable fisheries; and
- Increase the capacity of developing countries in technical, institutional and legal areas affecting fisheries management

Recommendation 1: Harmonize SPS measures and procedures with international standards

One of the most serious difficulties facing exporters is the different quality and safety standards and policies imposed by importers. These disparities concern regulations, standards and procedures, including border controls where seafood products can be rejected, destroyed or detained. In order to promote harmonization and equivalence among seafood-trading nations, such differences need to be reduced, and ultimately removed, and replaced by international control systems and standards based on scientific techniques such as risk assessment. A good starting point would be to review the cases of detentions and rejections of fish exports wherein the insights that would be obtained can be used to focus work on the issues for international harmonization and promotion of equivalence among trading partners. This can also be beneficial in efforts to reduce seafood wastages and fish borne illnesses.

Most of the ASEAN+3 countries have their own systems governing quality and fish safety; but promoting fish safety and quality programs as well as the development of harmonized systems and standards at par with international standards is essential to improve trade competitiveness and maintain market shares. That is, food standards need to be harmonized with global standards to facilitate trade and protect consumer health. Recognizing that developing countries face problems in complying with standards for health and safety regulations in fish trade such as SPS measures and procedures for administering, there is a need to support their establishment and implementation.

Whereas strengthening fish inspection and implementing HACCP-based safety and quality systems has helped many developing countries secure and expand market shares for their seafood export, much remains to be done to generalize HACCP systems and promote a harmonized approach to fish control in international trade. One of the difficulties encountered is that HACCP is often mandated within the fish-processing sector making it difficult to implement control measures in the production phase. Hence, activities in the fish breeding side must also be linked to HACCP initiatives. In addition, the conduct of risk and exposure assessment is desirable before the formulation of regulations. Building national capacity to implement risk analysis as part of the regulatory decision making process is recommended. A major concern usually leveled against the development of standards is the lack of transparency and opportunities for participation, including those relating to sustainability issues. To avoid this, the progress pertaining to the standards would be communicated with the relevant institutions in each country for their review and concurrence. The experience of Malaysia in establishing its National Food Safety Framework would be useful in strengthening the ASEAN's risk assessment capacity in support of food safety measures.

Specific action programs recommended include the following:

- establishment of SPS measures that reflect standards agreed in relevant international institutions such as the Codex Alimentarius;
- identification of the requirements to implement a fish and fisheries products safety program encompassing the HACCP and COCF to determine the training, the information and networking needs;
- provision of special and differential treatment for lesser developed countries, to be matched by appropriate technical assistance (e.g. from STDF, FAO, WHO, WB and WTO in enhancing expertise and capacity to analyze and prepare regional SPS standards);
- establishment of a pool of experts who will spearhead the preparation of common fish safety and quality standards and monitoring system suitable to the region's needs;
- promotion and support seafood trade risk assessment; and
- strengthening of the implementation of ASEAN's "Protocol 8 on SPS Measures to Implement the ASEAN Framework Agreement on Facilitation of Goods in Transit"

Recommendation 2: Implement coastal resources development and management strategies and guidelines

Coastal and marine ecosystems perform a variety of ecological, economic and social functions. They serve as sinks for wastes from land-based sources, provide sustenance and livelihood, maintain water cycles, regulate climatic conditions and maintain the complex ecological balance of coastal and marine ecosystems.

ASEAN Vision 2020 is reflective of the desire of ASEAN to pursue a more sustainable path to development. However, there is a fundamental concern that protecting the environment could be easily used for trade protectionist purposes. Hence, providing ample guidelines and assistance to fisheries sector to enhance their contribution to the region's current food security and livelihood requirements, without impinging on the next generation, is challenging. The issuance of the CCRF by the FAO provides necessary framework for national and international efforts to ensure sustainable exploitation of aquatic living resource in harmony with the environment. This includes the promotion of trade in fish and fishery products that would contribute to social and environmental sustainability.

Three major guidelines governing fisheries and aquaculture in the regional setting were prepared earlier, namely: (i) Regional Guidelines for Responsible Fisheries in Southeast Asia: Fisheries Management (2003); (ii) Regional Guidelines for Responsible Aquaculture in Southeast Asia (2001); and, (iii) Regional Guidelines for Responsible Fisheries Operations in Southeast Asia (1999). The next step is to operationalize these guidelines and strengthen their implementation. In addition, the implementation of the provisions of the CITES has to be improved as a means to stop trade in endangered and

rare aquatic species, on top of the need to regulate the growing marine aquarium fish trade. This would involve communication and participation as well as capacity building programs for all the stakeholders.

Access agreements under the EEZs should work towards resource conservation and maximization of the economic benefits under effective management systems. This should not only enable coastal developing states to benefit economically from sustainable and efficient exploitation, but would also permit local fisheries better access to resources and improve supply to the local population. Rents from fisheries agreements accruing to governments should be deployed in providing essential services in support of fisheries management (e.g. responsive research, capacity building) and pro-poor measures.

Integrated coastal resources management should be incorporated into local, national and regional policies, legislation and agreements. This includes establishing acceptable rights-based systems and managing fisheries capacity with strong partnership between the management authorities and fishing communities. Through building capacity in the sustainable development and management of marine and coastal resources, especially at the local government level, local stakeholders from different sectors of society can work in partnership to address issues of mutual concern. To this end, the implementation of coastal resources development and management approaches that adhere to the principles of sustainable use of coastal and marine resources and responsible fisheries is essential.

Recommended action programs include:

- implementation of national and regional arrangements such as the:
    - *Regional Guidelines for Responsible Fisheries in Southeast Asia: Fisheries Management* (2003); *Regional Guidelines for Responsible Aquaculture in Southeast Asia* (2001); and, *Regional Guidelines for Responsible Fisheries Operations in Southeast Asia* (1999)
    - *Sustainable Development Strategy for the Seas of East Asia: Regional Implementation of the World Summit on Sustainable Development Requirements on Sustainable Development Requirements for the Coasts and Oceans (2003)*

- application of ecosystem management approach, inclusive of fisheries management, to planning and development of coastal and marine areas at the local level

Recommendation 3: Harmonize customs procedures and simplify rules of origin

ASEAN has developed and implemented a revised CEPT Rules of Origin and Operational Certification Procedures since January 2004. However, Pangestu and Gooptu (2003) mentioned that a survey of business people revealed problems that ASEAN and other investors have encountered in doing business in China, which includes

insufficient trade facilitation measures and complex import procedures. Hence, in order to harmonize ASEAN procedures with those prevailing in Japan, China and RO Korea, a review on the implementation of the revised scheme needs to be conducted and set of rules including standardized documentation requirements and procedures be devised with a view that unclear regulations lead to more unpredictability and uncertainty at the point of entry. More uncertainty leads to higher risks and costs for importers and for consumers.

Recommendation 4: Develop regional policy and guidelines for fisheries subsidies

Most developing countries lack the resources to subsidize their fleets so whether these subsidies can seriously affect trade patterns would be difficult to determine. What seems to be worrisome are subsidies provided to fishing fleets of developed countries operating in the high seas or in other nation's EEZ as this can impede the ability of many developing countries to develop their fishing industry and match the prices given the scale of the subsidized operations of bigger foreign fleets. Such subsidies may create distortions in the market, which can have negative impact on national efforts to increase economic benefits derived from fisheries trade.

In the international front, negotiations on the rules for fishing subsidies are underway. There is a strong argument for the reduction and eventual elimination for capacity and effort enhancing subsidies with exceptions for artisanal fisheries. Japan put forward a restricted list of prohibited subsidies that contribute to overcapacity of shipping fleets, in contrast to the "blanket ban" (with limited exceptions) on all subsidies proposed by the "Friends of Fish" that includes the US and New Zealand. The outcome of the negotiations would bear into ASEAN+3 decision regarding subsidies.

An assessment of the impacts of subsidies on sustainable fisheries with a view of reducing and eventually eliminating all capacity and effort-enhancing subsidies that promote overexploitation of the fisheries resources would be useful. Exceptions may only be considered if a capacity-enhancing subsidy is targeted at artisanal or small-scale fisheries operating within the confines of an under-exploited and well-managed fishery. In addition to these, discussions on subsidies must take into account its bearing on the livelihood of the various stakeholders. Allowance for developing countries to use subsidies may be considered; for example, in the form of easy credit for investment in new equipment and processed systems to enhance their fisheries sector post-harvest capacities so that they can meet international trade requirements and standards.

Recommended action programs should:

- assess the effect of fisheries subsidies on resource sustainability and trade in fish and fishery products;
- remove capacity and effort-enhancing subsidies that contribute and promote overexploitation of the fisheries resources and unsustainable fisheries practices (e.g., support given to construction and operation of distant water fishing fleets) but exceptions may be considered for assistance extended to artisanal or small-

scale fisheries operating within the confines of an under-exploited and well-managed fishery; and,

- allow subsidies/incentives which promote sustainable utilization of fisheries and support the poor and disadvantaged communities (e.g., fisheries resource management initiatives; re-training of fisher folks; infrastructure and facilities for fish processing)

Recommendation 5: Develop and promote fish and fishery product brands that support responsible fisheries and food safety practices

Putting up market-based incentives can support better management of fisheries and improved safety practices by creating demand for fish and fishery products harvested from well-managed stocks and processed in sanitary conditions. This is akin to self-interest driven eco-labelling practices that enable paybacks on long-term investment for operators in the business with the added feature of having a potential sustainable impact on fisheries. For example, Thailand's Ministry of Agriculture and Cooperatives (MOAC) launched a quality label called "Q-mark" for certifying agricultural commodities, including fishery products, which meet prescribed standards. The Q-mark logo represents high quality agricultural commodities and ensures safety in consumption. This national logo is awarded on a voluntary basis. Both production systems and agricultural products can apply for the label provided they are in compliance with the standards established by MOAC. The Q-mark is now being promoted internationally to signal consumers of premium quality agricultural products produced and exported from Thailand.

The growing market for *halal* certified fish products must not be ignored. Based on experiences of companies producing and marketing *halal* certified products, having the *halal* logo on their products did not only attract Muslim consumers but non-Muslims as well due to its signaling effect on quality and health assurance. As such, promoting *halal* certification must be considered in certification and labeling initiatives.

Regional cooperation leading to the harmonization and development of fish and fishery brands (or super brands) that would signal quality products must ensure that these would be relevant to local conditions. However, as the compliance costs such as in establishing HACCP plants can be prohibitive and would result in the exclusion of small-scale producers/processors, ways to bring down the associated costs and possible extension of credit to those who lack or have no access to financial resources need to be explored. When appropriate, support measures such as the extension of technical support and subsidies may be designed to encourage participation. Similar to SPS, food safety certification and eco-labelling measures require the presence of an adequate monitoring unit to ensure that companies would adhere to the standards of responsible fishing and food safety. While this is usually within the sphere of influence of government agencies, the support of the private sector and international agencies may be tapped.

One of the recurrent issues regarding certification and eco-labelling is the dearth of studies that estimate market demand for certified fisheries products. Hence, results

from such initiatives would contribute in identifying what would be the actual impacts on the fisheries sector in a developing country and provide directions for policy recommendations.

While keeping in mind the problems associated with certification, there are fish producers who have taken initiatives to comply with environmental standards in order to be competitive in the international market. As certification and labelling can provide incentives for better long-term stewardship and availability of natural resources as well as help countries to fulfill commitments made under international agreements on important environmental imperatives, there has been a growing interest amongst fishing nations. It could also provide new opportunities for attracting capital investments and joint ventures in developing countries. Specific programs for consideration in ASEAN+3 negotiations are:

- provide incentives to firms that support sustainable fisheries management as well as food safety and quality programs involving the entire supply chain – from production, harvesting, post-harvest handling and processing;
- create a platform for greater cooperation by linking small-scale producers with big producers;
- investigate ways of bringing down the costs of certification and compliance, and support to cover certification/compliance costs in particular fisheries, or at least to provide credit to small-scale producers who may otherwise have insufficient access to capital;
- support 'halal' certification for a total quality, health, sanitary and safety system involving procedures prescribed by Islamic rules; and
- establish appropriate regulatory and enforcement measures

Recommendation 6: Implement programs to increase the capacity of developing countries in technical, institutional and legal areas affecting fisheries management

The ASEAN-SEAFDEC collaborative efforts and other joint activities with international organizations and donors have undoubtedly yielded valuable technical inputs. These partnerships must be strengthened and work towards enhancing trade-related capacities such as implementing food quality and safety requirements as well as fisheries management tools and services. There should also be programs geared towards improving aquaculture and post-harvest handling processing and marketing. It should be recognized that to make such specific programs effective, it is vital to improve institutional capacity in support of training, research and cooperation program management.

Effective capacity building also incorporates exchange of information on commodity policies, production, marketing, phytosanitary and quarantine regulations and food quality standards. Consultation with stakeholders, including fisher folks and fish farmers, NGOs and industry is necessary to ensure that capacity building and policy formulation is responsive and inclusive.

Recommended activities include:

- provide training in SPS to enhance capacity to analyze and implement international SPS standards;
- support the establishment of a network of laboratories/institutions handling SPS and certification programs; and,
- more aggressive information dissemination on commodity policies, production, marketing, and food quality standards

8.0 Conclusions

Improved market access for agricultural products, including fisheries products, is undeniably linked to movements in tariffs and non-tariff barriers. While there has been a wave of reductions in tariffs, part of the efforts to improve market access is to work towards the elimination of unnecessary and unjustifiable non-tariff measures. Regional agricultural markets are particularly large in East Asia, so substantial gains would flow from reducing barriers further. For ASEAN+3, these barriers partly are being addressed within the context of regional free trade arrangements.

Experience shows that progress tends to be slow; however, if the ASEAN+3 is to foster deeper economic integration in the region, it would be necessary not just to focus on the item-by-item tariff lines and exclusions but more importantly on ways to increase competition and efficiency, which in turn will bring real economic benefits. Increasingly stringent trade requirements are a major barrier, with East Asian exporters facing difficulties in meeting health and safety standards. The key issues for the fisheries sector are health and safety regulations, notably chemical residue levels; difficulties with understanding and administering technical standards or procedures; and, lack of technical capacity and limited financial resources to comply with increasingly stringent rules imposed by major importing countries. As such, trade facilitation measures including the harmonization of standards and simplification of customs procedures would be crucial.

On the face of it, SPS and TBT measures provide countries and consumers an opportunity to safeguard their interests in crucial areas such as health and hygiene. The respective WTO agreements encourage governments to establish national food safety measures consistent with international standards, guidelines and recommendations. Inevitably, improved harmonization of SPS and TBT requirements and standards would be important in both regional and international levels but there is apprehension that incremental benefits from trade liberalization would be nullified by protectionist use of the said measures. Nonetheless, it would be necessary to developing country players to adapt to the global changes to avoid compromising the export prospects in the main markets. There is some evidence supporting the notion of two-tiered markets emerging because of the SPS and TBT regulations wherein large exporters who can afford the costs of compliance to the strict regulations will supply the higher end markets. On the other hand, small exporters with modest means and cannot afford to implement required systems will tend to supply local markets and countries with less strict requirements. This denotes the need to look into the net benefits of catering in the various market segments.

To comply with international safety and quality standards, the governments should be proactive in assisting the private sector to find solutions. As food safety standards develop rapidly, information flows among stakeholders in the food supply chain requires improvement. These include better access to scientific and technical information to foster coherence in the standard setting process. Cooperation between donors, international agencies, national agencies and private entrepreneurs is desirable to make optimal use of resources allocated to food safety-related activities.

Effective fisheries management should be viewed as a pillar of support for sustainable fisheries trade. Institutional reforms are often cited as requirements for more effective sector governance and while there is no single structure that would fit all countries, there has to be good linkages between central and local government units, especially in cases where the responsibility for fisheries management has been assigned to communities or local government. Hence, they should also be made part of fisheries trade related initiatives.

The present limited capacity of most countries to implement fisheries management effectively would seem to suggest that aquaculture, rather than fishery, should be the focus of attention in some countries, subject to the necessary ecological and economic controls. Nevertheless, it should noted that while aquaculture production is seen as a means of filling-in the gap due to declining marine production, it poses the danger of encroaching into valuable mangroves, polluting the coastal waters, increasing pressure on wild stocks through the capture of gravid females and seeds, as well as the harvest of low value fish used for feeding the cultured organisms. Instead of looking at capture fisheries and aquaculture as separate sectors, policymakers must pay serious attention to a balanced development between capture fisheries and aquaculture.

Lastly, fisheries policy should not focus on increasing production and income from fishing alone. Efforts to promote new technologies have placed increased pressure on the resource. What is needed is to build on the diverse ecosystem characteristics of the coastal zone and promote alternatives to fishing per se as the source of income for coastal residents.

The results of the analysis in this study suggest that reducing trade barriers to fisheries products important to Southeast Asia should be a key trade policy objective. Hence, it is suggested that further trade negotiations cover the following:

- Re-examination of health, food-safety and quality regulation and procedures with a view of harmonizing them with international standards;
- Implementation of coastal resources development and management strategies and guidelines to support sustainable fisheries trade;
- Harmonization of customs procedures and simplification of rules of origin;
- Development of regional policy and guidelines for fisheries subsidies recognizing the needs of the stakeholders;
- Development and promotion of fish and fishery product brands that support responsible fisheries and food safety practices; and
- Implementation of programs to increase the capacity of developing countries in technical, institutional and legal areas affecting fisheries management

The ASEAN initiatives in economic integration have the capacity to help in stimulating trade and market access for its members. As enunciated earlier, weak integration in the fisheries sector is due to the current production and technology, which

entails simple transformation of raw materials that are not suited to division across economies. A more liberal regional trading landscape will encourage further processing and specialization in a regional context, which in turn, could enhance opportunities for exporters. Nonetheless, if the removal of intra-ASEAN barriers to trade in fish and fish products will not lead into a level of competitiveness that matches the best in world markets, even if it integrates markets and increases investment, the outcome could even be economically negative for ASEAN countries. Individual countries should continually strengthen their own comparative and competitive advantages through specialization, value-addition and product innovation taking advantage of support mechanism at hand.

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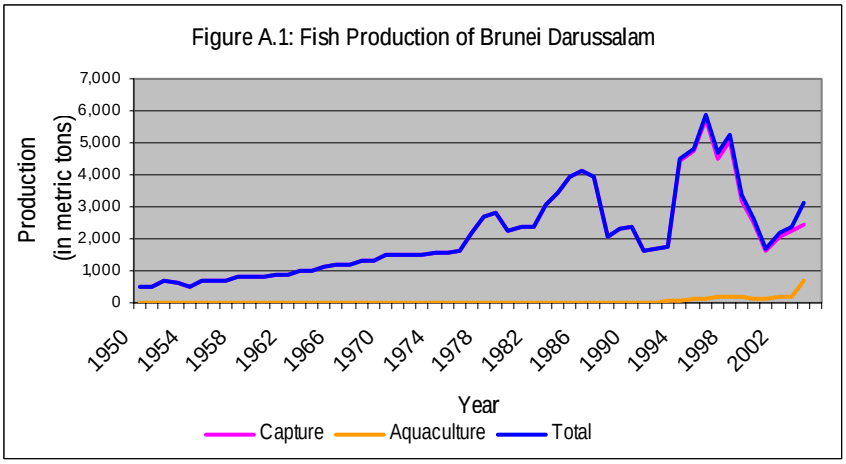
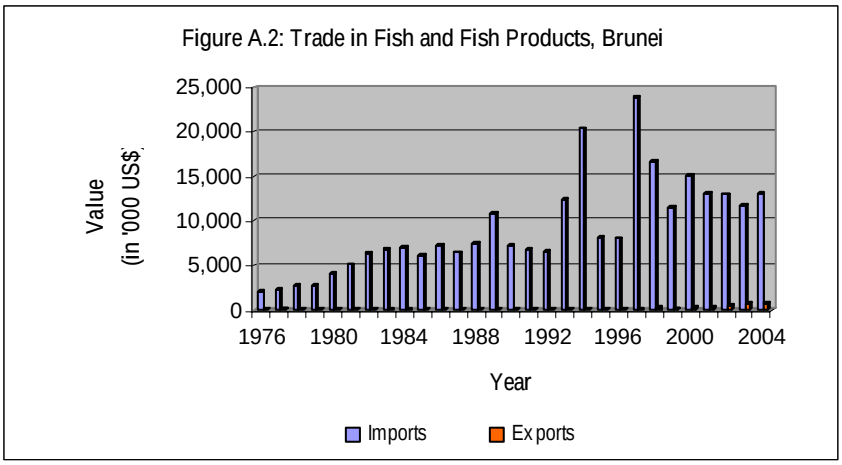
Brunei Darussalam

The country's agriculture, forestry and fisheries sector is small, accounting for only 3% of GDP in 2000. Nevertheless, Brunei has endeavored to increase self-sufficiency in the production of agricultural products, especially rice, mainly through extensive subsidization of infrastructure and inputs.

The fisheries production figures in 2004 for fish capture (2,428 metric tons) and aquaculture production (708 metric tons) are said to be insufficient to supply the growing domestic needs. Hence, there is heavy reliance on importation, which reached over US$15 million in 2000 and nearly US$13 million in 2004 (Figures A.1 and A.2).



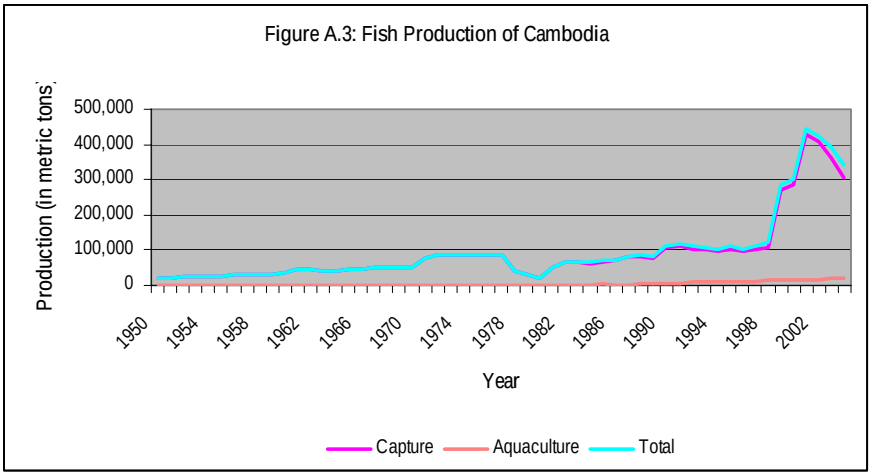


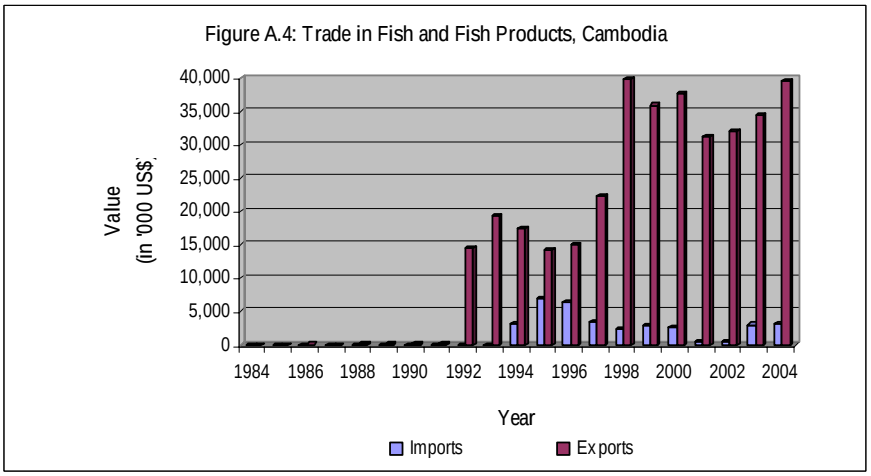
Under the ASEAN CEPT scheme, which is the main instrument of the ASEAN Free-Trade Area, Brunei has been reducing its preferential tariff rates on products included under CEPT; tariff reductions within the 0-5% range on these products was scheduled to be completed in 2002.

Brunei, along with other partners in the region, also participates in other regional agreements such as the Brunei Darussalam, Indonesia, Malaysia, Philippines–East ASEAN Economic Growth Area (BIMP–EAGA), which aims to pool complementary resources in the region to develop priority sectors, including air and maritime linkages, construction, fisheries, and tourism.

Cambodia

The fisheries sector contributed US$442 million or 12% of Cambodia's GDP in 2003. Inland fisheries produce an estimated 295,000-420,000 metric tons of fish each year with an estimated value at landing of between US$150-200 million and a retail value of up to US$500 million (Figure A.3). Until recently, trade in fish commodities was virtually non-existent and insignificant (Figure A.4). At present, domestic consumption of marine fisheries products is low relative to the quantity and value exported. In 2004, the value of fisheries imports and exports were US$ 3.1 million and US$ 39.6 million, respectively. Cambodia's main export markets include Thailand, Singapore, Malaysia, China, Hong Kong, Taiwan, Japan, USA and Australia.





Export of both inland and marine fish is controlled by the Department of Fisheries through the state monopoly company, KAMFIMEX (Kampuchea Fishery Import and Export). The KAMFIMEX Company is a government-mandated monopoly for fish exports. Fish traders can export only under license by the state company and provincial licensees are empowered to collect a 4% fee on the value of all fish exported. Techically, all fish exports must legally go through KAMFIMEX at the export gates. However, because there are unofficial 'export gates' at remote locations, smuggling of fish and fish products, estimated to be about 30% of total exports, exists.

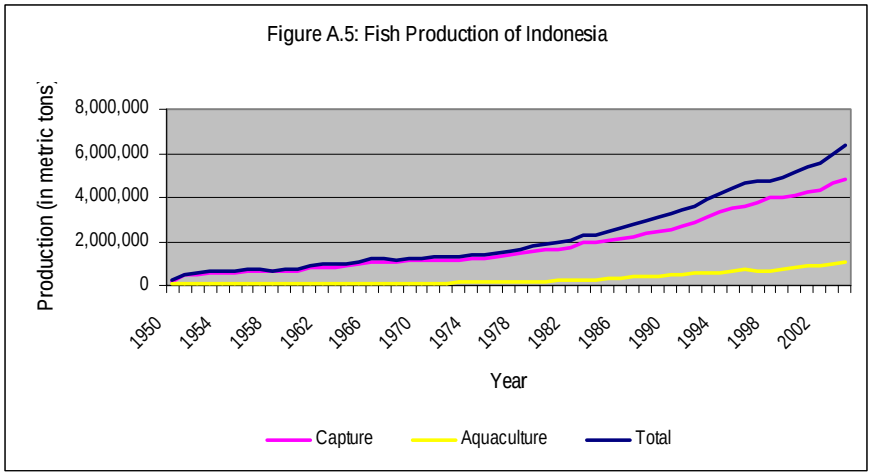
In the past, aquaculture, compared with inland fishery, was of minor significance to the fisheries production of Cambodia. Wild capture fishery has been productive that there was little incentive for the development of aquaculture. Moreover, poor infrastructure limited the distribution of fish feed, fingerlings and other inputs in the industry coupled with lack of funding and qualified personnel for research and development.

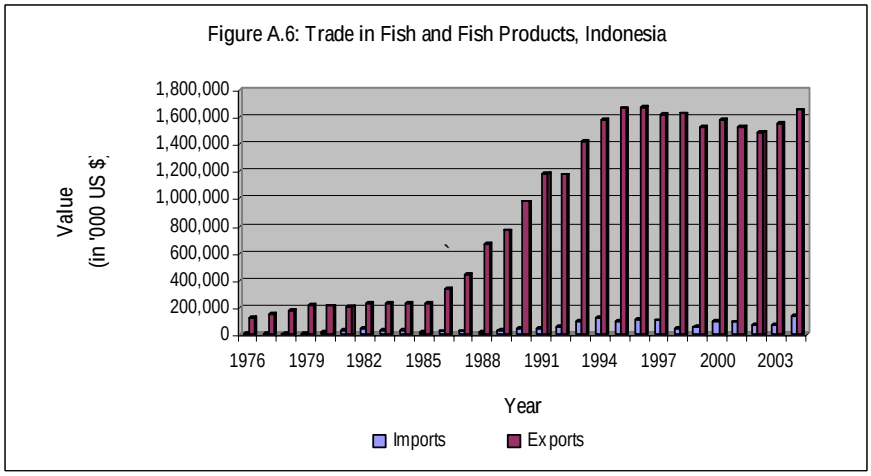
While the catch of small-scale and rice field fishers is commercially insignificant, it is of high-importance to the fishing families who directly consume it with only the surplus or the high quality fish sold in the market. Income generated from fishing activities gradually decreased over the last five years due to market constraints, poor freshness preservation technology, habitat destruction, resource depletion and overfishing. Most coastal fishers experienced financial loss and many had to give up their jobs, or change to small-scale gillnetting. In addition, it resulted in the increase of motorized push netters, which is a prohibited gear (Touch and Todd, 2003).

Cambodia's Department of Fisheries is revising the existing Fisheries Law to better suit the present social and economic situation. The revised Fisheries Law will reflect the needs for community participation in fisheries management and emphasize the need of environmental protection and preservation. Complementing the law is the Master Plan for Fisheries 2001-2011, which has three main objectives: 1) Ensure that Cambodia's living aquatic resources are harvested within their sustainable limit and resources use rights and obligations are allocated and enforced within basic principles of democracy and good governance; 2) Make certain that the supply of fish and fishery products keep pace with increasing demands; 3) Reduce the incidence of poverty among vulnerable groups of society, including women, in fisheries communities.

Indonesia

Indonesia is among the world's top producers for both capture fisheries and aquaculture generating a total of over four million metric tons annually since 1995 (Figure A.5). The fishing industry makes a very important contribution to the national diet, providing nearly two-third of the supply of animal protein. Over 5 million people are directly involved in fishing and fish farming. Together with their families, they make up at least 4% of the total population. The fishing industry accounts for about 5% of the agricultural sector and around 2% of the total economy. Exports of fishery products have increased considerable since the 1960s. In 2004, the value of fishery exports was US$1,654.1 million, which is 13 times the value of its fish imports. This is also 4.4% higher than the 2000 figure (Figure A.6).





Small-scale operations produce about 94% of total marine fisheries production. Industrial fisheries, however, contribute considerably more in value terms, since they are focused on high-commercial-value shrimp and tuna stocks. About 46% of fish production is consumed fresh. Deficiencies in the number of ice plants and in refrigerated storage and transport facilities, however, hamper the production of high quality products and the distribution of fish to the major markets in the highly populated areas. Given these limitations, most of the balance of the catch is processed and consumed as dried and salted (about 30%) and smoked, boiled or fermented. There are about 8,000 small fish processing operations, generally using traditional methods. Less than one percent of the catch is canned. The canneries utilize pelagics, mostly oil sardines and skipjack. About 4% of total production is frozen for export, mostly shrimp and tuna.

Indonesian fisheries is complex and diverse, reflecting the country's extraordinarily diverse geographic characteristics and great variations in species and population densities. The fisheries of western part of the country, in general,differ from those of the eastern part. In the west, the fisheries take place in the relatively shallow and fertile waters of the Sunda Shelf, in a region where large populations create a high demand. Overfishing occurs simply because there are too many fishermen concentrating on limited resources in inshore areas. Resource management issues have become increasingly important and gave rise to the trawl ban decree of 1980. The ban of trawling in the western part of the country has alleviated pressure on stocks of demersal species, and has provided opportunities for increased catches of shrimp through the use of small-scale fishing gear, such as trammel-nets. In recognition of the imbalance in development between the western and eastern parts of Indonesia, development priorities are directed to the eastern part and the EEZ. To facilitate this development, several fishing ports and landing places have been constructed and developed. The establishment of these ports was intended to attract the private sector and foreign vessels and encourage them to use the ports as their base of operations.

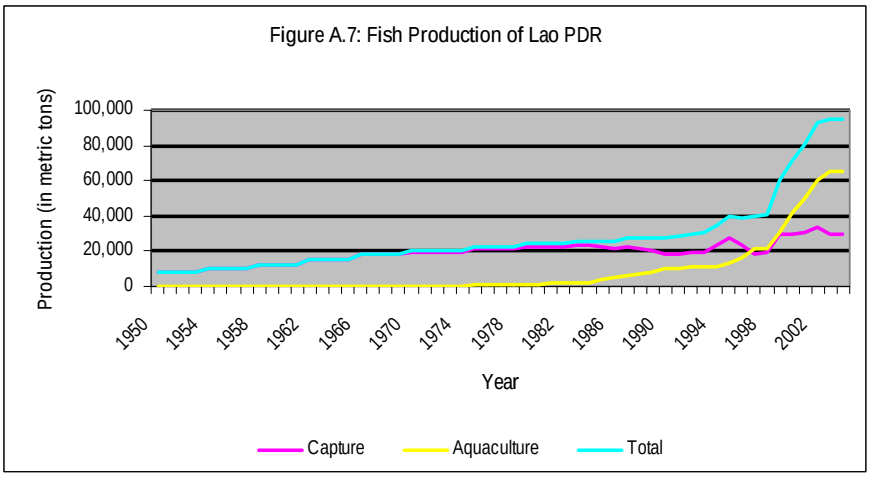
The main objective of the Directorate General of Aquaculture is to increase fishing communities' welfare by optimizing the utilization of fisheries resources through the development of integrated aquaculture zones for both freshwater and brackish water fisheries. This zoning strategy is intended to intensify aquaculture though the development of fisheries entrepreneurship. In general, the strategic aquaculture development program seeks to increase quality fish seed supply through the development of private hatcheries, creating distribution and marketing channels of seeds, providing training to the fish seed farmers, and creating a network of seed information systems. It also seeks to develop a fish farming system that will provide aquaculture technology, process certification of aquaculture products, and provide necessary capital for the industry. Although availability of ample capital is important in encouraging aquaculture activities, the high risks of aquaculture due to crop failure and, in some instances, misuse of credit, discourages banks from offering credit.

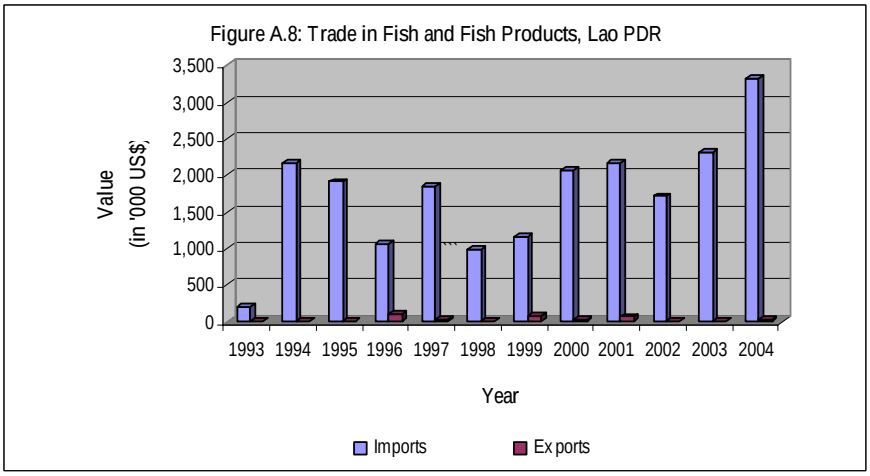
Past policies of the country promoted fisheries development to support national economic growth by encouraging domestic consumption and exports of fisheries products as well as promoting private and foreign investment in the fisheries sector. Joint ventures are directed to integrate fishing industries, which are beyond the reach of small-scale fisheries, particularly in the EEZ. Presidential Decree No. 23 of 1982 provides high priority to small-scale farmers and cooperatives to develop mariculture, and allows both foreign and domestic private investment to encourage modern technology adoption, although in some instances (e.g. shrimp hatcheries) foreign investment is restricted. To avoid unfair competition between large-scale and small-scale operators, the government applies the Nucleus Estate and Smallholder (NES) approach which encourages cooperation between private companies or state-owned fisheries enterprises, and fishermen and fish farmers. This approach is intended to create a relationship of interdependency between small-scale and large-scale operators, which should help to achieve economic objectives on a mutually beneficial basis.

Lao People's Democratic Republic

Lao PDR is a landlocked country bordering China, Myanmar, Thailand, Cambodia and Vietnam. The Mekong River and its tributaries are the main source of capture fisheries. Catch in these areas represent over 60% of all landings but there are speculations that a proportion of the catch is landed in Thailand due to higher market prices. It is difficult to estimate to what extent fish landings become part of commercial trade and to what extent they remain part of subsistence consumption as fish markets exist in urban areas only.

Until recently, trade data show little import and export with imports consisting of catfish and mackerel from Thailand and to a lesser extent, Vietnam (Figures A.7 and A.8). There is a dearth of fisheries statistics but according to old estimates, it is assumed that commercial fisheries contribute 4% to GDP, and subsistence fisheries contribute another 2%.





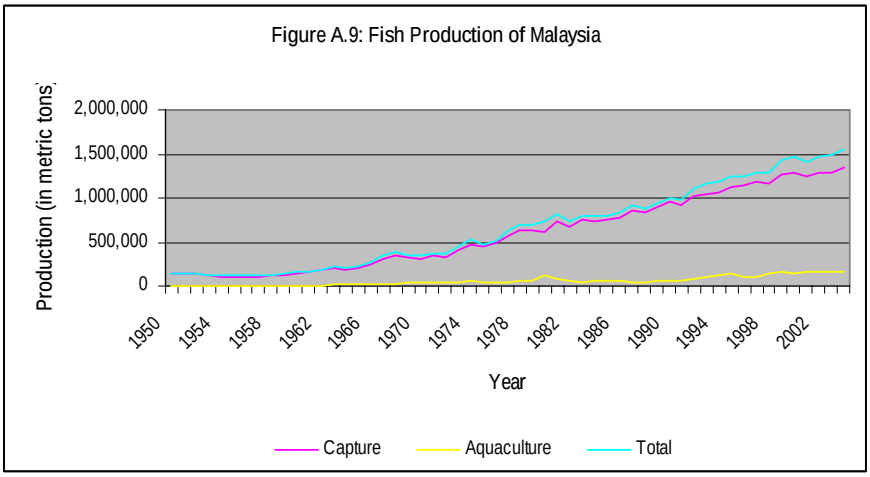
Aquaculture has little tradition in Lao although some ethnic groups practice rice-fish culture. A number of initiatives, mostly during the 1980s, have improved farming techniques, but the country's production is still limited. Aquaculture has a good potential for both rural and peri-urban development, but requires the following in order to flourish:

- Development of small, farmer-based fish fry and fingerling production operations;
- Improved use of on-farm resources for feed and fertilization ;
- Farmer confidence to make low level investment in basic inputs such as fingerlings and lime; and
- Access to credit and formulated fish feed in peri-urban areas.

Malaysia

Similar to its neighbors, the three main contributions of fisheries to Malaysia's economy are as a source of food supply, generator of employment opportunities and income, and as foreign exchange earner, particularly for the rural population. Fish is generally acceptable to all the ethnic groups in the country and plays a key role as a source of protein in the diet of many people. Nationally, it accounts for about 22% of the total protein intake and 50% of the animal protein supply. It is estimated that in 2000, the fishing industry (capture fisheries and aquaculture) provided direct employment to some 100,666 fishers, and to numerous others in the secondary and tertiary sectors. The majority of the fisher folks are in Peninsular Malaysia, Sabah and Sarawak.

Malaysian fisheries production increased steadily throughout the 1970s, from 310,000 tons in 1971 to 649,000 tons in 1981 but growth gradually tapered off in the subsequent years (See Figure A.9).



Although the catch statistics showed a significant increase from the 504,849 tons registered in 1986, the proportion of commercial fish landings to the total marine landing declined from 80% to 72% between 1985 and 1997. Moreover, the sharp increase in fish landings in 1987 was attributed to the launching of the deep-sea fishing program, whereby entrepreneurs were encouraged to venture into the deeper waters of the EEZ to fish. In 2004, production from fish capture was estimated at 1,340 million metric tons while aquaculture production contributed 171,270 metric tons.

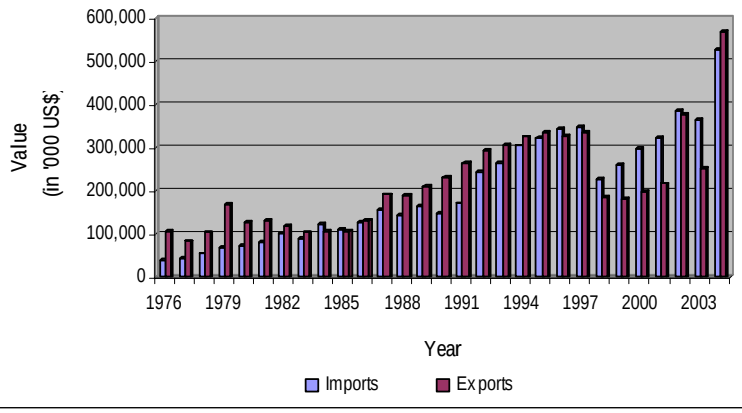
About 70% of the fish landed in Malaysia is used for direct human consumption, mostly as fresh and chilled fish. The other 30% is processed and converted into fertilizer and fishmeal. From being a net exporter since the 1970s, Malaysia became a net importer of fish beginning in 1996 (Figure A.10). Hence, the fisheries trade surplus of US$41.3 million in 2004 was a pleasant surprise. Main imports are fresh, frozen marine fish and fish fry of freshwater and marine fish from neighboring countries, in particular Thailand, and canned fish (mackerel, sardine and horse mackerel) from Chile and Japan. The demand for fish and fisheries products is expected to continue to increase substantially owing to high population growth and increasing per income.

The fish processing industry is largely export-oriented and encompasses the processing of prawns, canning of fish, and the production of surimi products. Most

aquaculture farms in Malaysia are currently undertaking prawn farming and processing to cater to the large overseas demand. Some companies have moved into the production of higher value-added products including breaded and battered products, as well as food supplements.

Recognized as a modern Islamic country, Malaysia has the added advantage of becoming an important base for the production of *halal* food (food suitable for Muslim consumption). There is a growing global market for *halal* food, which is estimated to be RM 560 billion (USD 150 billion) per annum. The *halal* certification in Malaysia under the Department of Islamic Development (JAKIM) is currently based on the MS 1500:2004 "Halal Food-Production, Preparation, Handling and Storage-General Guidelines (First Revision)", which incorporated the GMP, food manufacturing and hygienic sanitary requirements. This *halal* certification would enhance the market potential for food products from Malaysia.

Figure A.10: Trade in Fish and Fish Products, Malaysia



The Malaysian fishing industry is dominated by the small-scale sector, scattered along its coast. This settlement pattern is influenced by shelter and easy access to the sea. Marine fisheries from the inshore waters off the coast of Malaysia is still the most important sub-sector, as it contributes 80% of total fish production and supports 80% of the fisheries labor force. In 1981, Malaysia introduced a Fisheries Comprehensive Licensing Policy (FCLP), which aims at ensuring a more equitable allocation of resources, reducing conflict between traditional and commercial fishermen, preventing the overexploitation of the inshore fisheries resources, restructuring of the ownership pattern of the fishing units in accordance with the New Economic Policy, and promoting deep-sea and distant-water fishing.

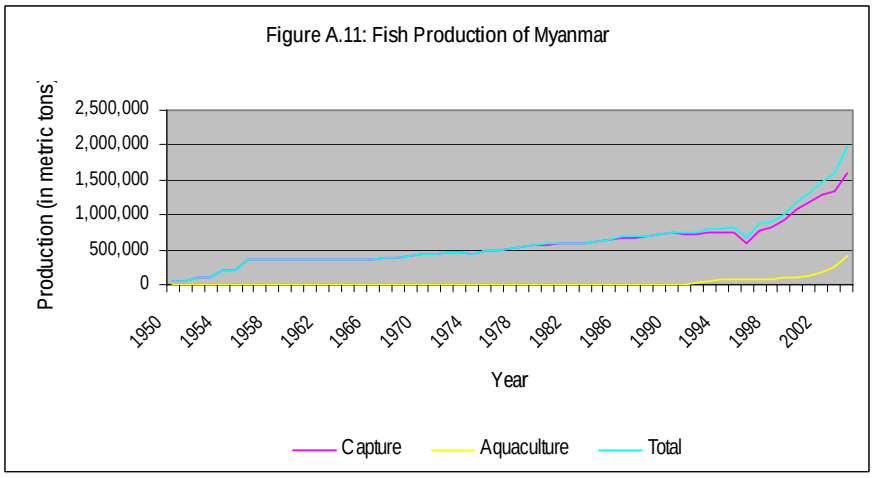
Under the Malaysian Fisheries Act 1985, it is mandatory that owners of fishing vessels obtain permission from the Department of Fisheries if they wish to increase vessel tonnage or engine power. Any increase in the size of fishing vessels or engine power will result in additional fishing effort. As such, there is a moratorium on the issuance of new licenses in the inshore fishing zone between 0 to 30 nautical miles from the shore. The exploitation of the offshore fishing zone beyond 30 nautical miles from the shore by vessels of 70 GRT and above is promoted. The policy to encourage deep-sea fishing in the Malaysian EEZ was initiated after Malaysia declared her EEZ in 1980 and after the passage of the Exclusive Economic Zone Act in 1984.

The fisheries sector has been identified as a priority sector under Malaysia's Third National Agricultural Policy III (NAP III) for the period 1999-2010. It seeks to advance the fisheries sector to an efficient commercial industry with emphasis on deep-sea fishing and aquaculture. The utilization of the fisheries resources in the offshore areas will be increased to the optimum sustainable level while aquaculture will be aggressively developed to supplement production from capture fisheries. The NAP IIII seeks to promote intensive aquaculture technology through private sector participation and to follow a zoning strategy supplemented with the necessary infrastructure and other support services. Under the NAP III, research and development will be intensified to develop new culture systems, genetically improved fish species, and fish feed and fry production. Some 50,000 hectares of land have been identified as potential areas for an Aquaculture Industrial Zone.

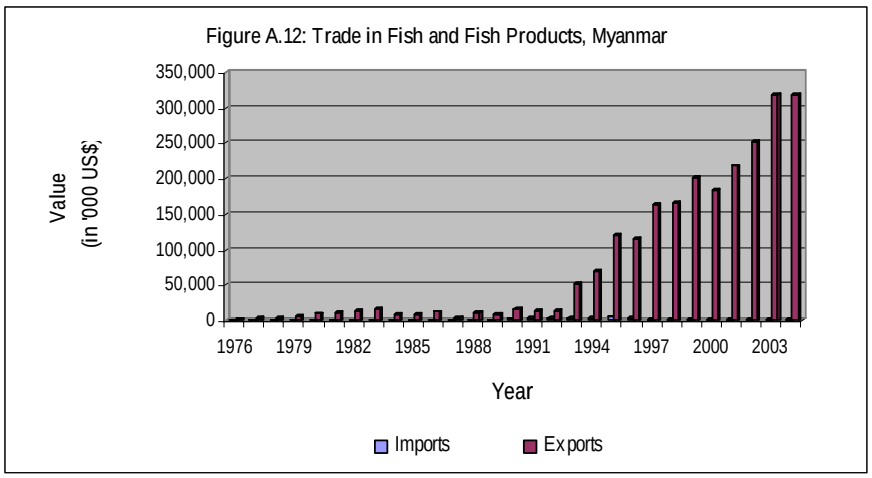
Suitable finance policy and investment incentives exist for fisheries development in Malaysia. For example, fish farmers and fishermen are eligible to get credit from all the financial institutions through the Agricultural Credit Financing Scheme and the Fund for Food Scheme. At the same time, under the Promotion of Investment Act 1986 and the Income Tax Act 1967, the government allows tax and other investment incentives for certain fisheries products and activities, including spawning, breeding and culturing of aquatic products, offshore fishing, harvesting and processing of aquatic products, and processing of aquaculture feeds.

Myanmar

In 2003–2004, the livestock and fisheries sector contributed 8.94% to Myanmar's GDP. The sector provides employment for more than 7.98 million fulltime and 2.6 million part-time workers, including almost 30,000 fish and shrimp farmers. Most of the fishing communities are located along the coast and includes significant number of poor households dependent on fisheries activities and aquatic products for income and food. Evidently, the growth in fish production remains dependent on capture fisheries (See Figure A.11). About 80% of the fish landed in Myanmar are used for direct human consumption, and around 10% is processed into fishmeal.



In 2004, the value of Myanmar's imports and exports were registered at US$1.27 million and US$318.51 million, respectively. Exports grew rapidly during the past 20 years (Figure A.12). Total shrimp exports continue to rise with Japan taking about 2% of the country's shrimp production in recent years. Among ASEAN countries, around 20% goes to Indonesia while Thailand has taken about 8%. These markets provide opportunities for expansion. Similarly, the removal of import tax on shrimp exported to China at the beginning of 2004 will help promote trade between Myanmar and China.



National fish production is expected to develop at a medium pace for the next few years. The increase in marine fish production can be achieved by better exploitation of the potential resources in the EEZ, and the increase in fish landing is expected primarily

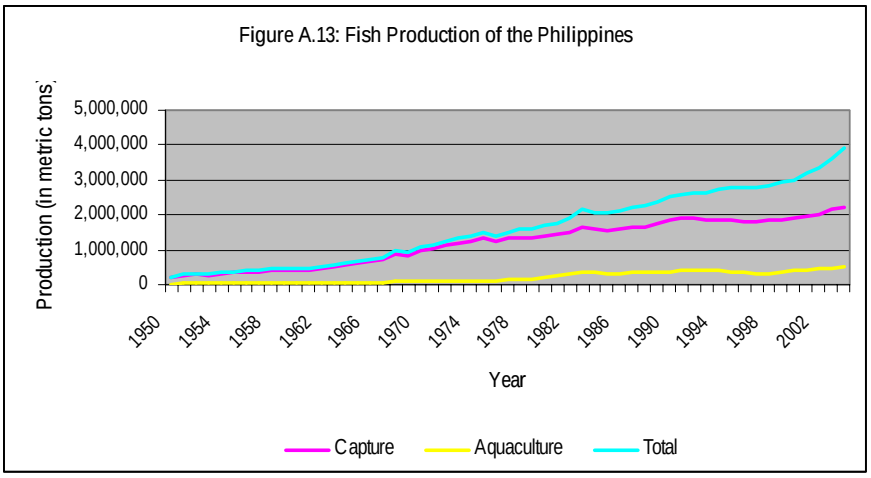
to derive from deep-sea fishing. Production from aquaculture is likewise a major source of increased fish production.

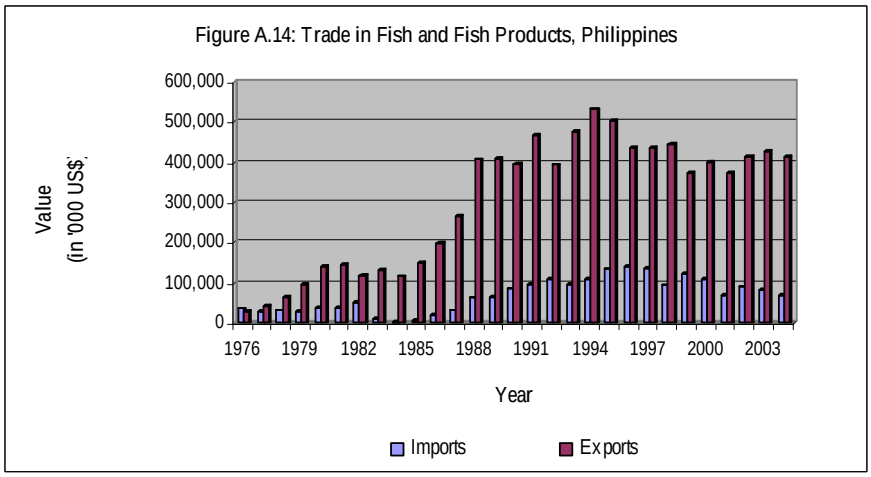
The Fisheries Law of 1905 was the only legislation regulating fishery management and the fishing industry of Myanmar until it was amended in 1954, and was finally repealed through the passage of the "Law Relating to the Fishing Rights of Foreign Fishing Vessels" in 1989. After that, the government promulgated three other fisheries laws, namely the "Aquaculture Fisheries Law" in 1989, "Myanmar Marine Fisheries Law" in 1990, and "Freshwater Fisheries Law" in 1991.

The challenge for the country is to manage its fisheries in such a way as to ensure optimum and sustainable use of aquatic resources. Major constraints and areas for development identified include lack of awareness concerning status of fisheries resources; insufficient fisheries infrastructure; poor fisheries data reporting system; and lack of adequately trained personnel to support the industry.

Philippines

The Philippines ranked eleventh among the top fish producing countries in the world in 2003, with production of 2.63 million tons of fish, crustaceans, molluscs and aquatic plants (including seaweed), accounting for 2.2% of global production. This was valued at US$1,832 million and represented 2.2% of the country's GDP. However, globally in the last 20 years, the Philippines' ranking in world aquaculture production steadily slid from 4th place in 1985 to 12th at present. From 5% of global farmed fish supply, the Philippines now contributes only a little over 1% of world production. Nonetheless, both capture fisheries and aquaculture production continue to grow (Figure A.13).





In 2003, total exports of fish and fishery products amounted to 143,324 tons, which was valued at over US$ 413.7 million (Figure A.14). When combined, the earnings of the top three fishery exports (tuna, shrimp and seaweed) contributed around 70% of total fishery products exports. The Philippines is the world's largest producer of *carageenophyte* seaweed. The top export destinations are Japan, United States, Spain, China, France, Republic of Korea and Denmark. For the past several years, aside from its own production, the Philippines has been importing large quantities of pelagic species such as tuna (mainly from Indonesia). Large quantities of fishmeal are also imported (mostly from Peru and the United States) for feed preparations.

A live reef food fish trade (LRFFT) in the Philippines developed in response to a demand for live food fish, initially from Hong Kong and Taiwan (Province of China), and

later on, from mainland PR China. Live food fish is conventionally caught using hook-and-line fishing gear. However, LRFFT has been closely associated with the problem of cyanide fishing, which was first detected in the aquarium trade.

Significant changes in international trade policy, quality and safety criteria have put pressure on the fish processing industry to improve the products that are being manufactured. Like many countries, the Philippines have adopted the HACCP system for food safety management. Despite this, it continues to face challenges regarding access of its fishery products in international markets.

Espejo-Hermes (2004) provided an overview of the trends and status of fish processing technology in the Philippines. In general, there is a growing demand for mechanization in the fish processing industry brought about by the need to reduce cost and to manufacture products of consistent quality. The use of modern freezing and canning equipment in processing plants is rising and that majority of the canneries in the country meet international standards in terms of product quality, styles of pack and packaging. In addition, value-added products in the form of fillets, comminuted and surimi-based products and ready-to-heat main fish dishes are growing in demand. However, there is still room for upgrading in the value-added-product industry in terms of technology and quality standards, including in-plant hygiene and sanitation. Traditional processing of traditional products, such as salted, dried, smoked and fermented fish, is still widely practiced. The processors are generally small-scale, family establishments that have limited capital and do not receive assistance from government agencies and financing institutions. The processing methods they employ vary considerably, resulting in inconsistent quality and limited shelf-life of finished products. There are very few local processing plants that make use of modern technology (mechanized smokehouses and dryers) and have made progress in improving quality standards. Only those that export their products have improved processing practices, equipment, hygiene and sanitation in the plants. Hence, the fish processing industry is hampered by poor quality of raw material, inconsistent quality of products, lack of appropriate safety standards for traditional products (e.g. inappropriate use of additives), and insufficient capital to improve the enterprise. Post-harvest support facilities (i.e. access to salt, ice and cold storage) are lacking in strategic locations in many areas. There is a need for more private-sector participation in providing such facilities.

To support the Philippine fisheries industry, a Comprehensive National Fisheries Industry Development Plan (CNFIDP) is being prepared. Among the issues that need to be addressed include the inadequate programs for research and development, extension work and lack of commercial impact. This situation results in: (i) poor adoption of new technologies by the industry; (ii) loss of competitiveness with other animal farming industries and in the export market; and (iii) wastage of valuable Research and Development (R&D) and Extension resources. The proposed solution includes: (i) focusing government programs of R&D and Extension towards immediate needs of the aquaculture sector; and (ii) increasing R&D and Extension investments from the private sector.

Under the Agricultural and Fisheries Modernization Act (AFMA) of 1997, the government pledges provisions for credit to help farmers and fishers who are engaged in production, processing and trading. The Philippine Fisheries Code of 1998 provides at least 10% of the credit and guarantee funds for post harvest and marketing projects to enhance fish farmers' competitiveness. There are provisions for subsidized credit for the fishers and farmers who engage in food and non-food production, processing and trading. The commercial fishers are eligible for subsidized long-term loans and tax and duty exemption to acquire or improve fishing vessels and related equipment. The duty and tax rebates are also applicable to fuel consumption for commercial fisheries. The loan amount varies by individual and cooperative borrowers and the interest subsidy is 15% for individual borrowers and 32% for cooperative borrowers.

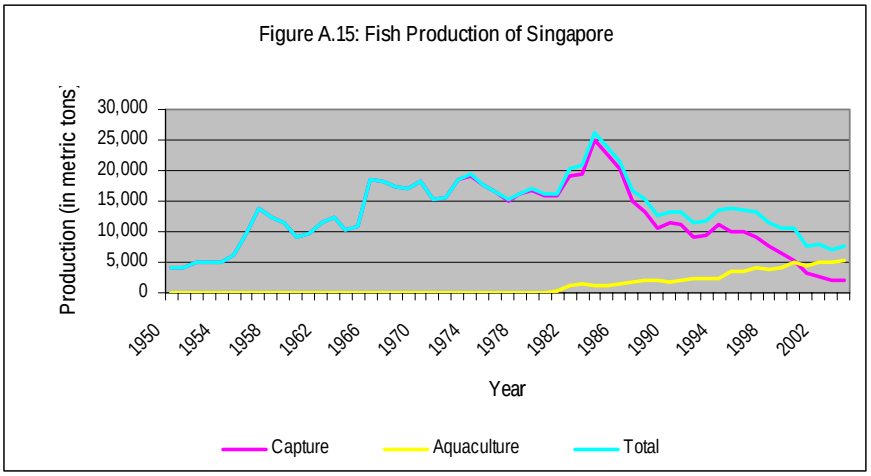
At present, the *Ginintuang Masaganang Ani-Countrywide Assistance for Rural Employment and Services* (GMA-CARES) Program for Fisheries is being implemented. The credit components of the program include: i) Income Augmentation and Livelihood for self-reliant farmers/fishers, ii) Seaweed and Fish Culture Program, iii) Agri-Fishery Mechanization Credit and Guarantee Program. These program components provide credit access to agri-based small fishers, producers, manufacturers, and traders of fish and seaweed; and for the acquisition of machines and equipment. The loan amount varies, depending on the acquisition cost of the fishery equipment with 12% interest rate.

As an archipelagic state with over 2.2 million km^2 of highly productive seas, the Philippines is fortunate to have vast fishery resources at its disposal. However, all of the country's main fish species and marine organisms are showing signs of overfishing. In some areas, not only has the volume of catch been reduced but quality has also deteriorated. The principal stocks exploited in the Philippines are small pelagics, tuna and other large pelagic fishes, demersal fishes and invertebrates. The small pelagic fisheries comprise an important segment of the country's fisheries industry. Small pelagics are considered the main source of inexpensive animal protein for lower-income groups in the Philippines. Fish contributes around 22.4% of the total protein intake of the average Filipino. In addition to being a source of foreign exchange and daily subsistence, there were 2,009,300 fishing and aquafarm operators operating in the country the 2002 Census of Fisheries (NSO, 2005).

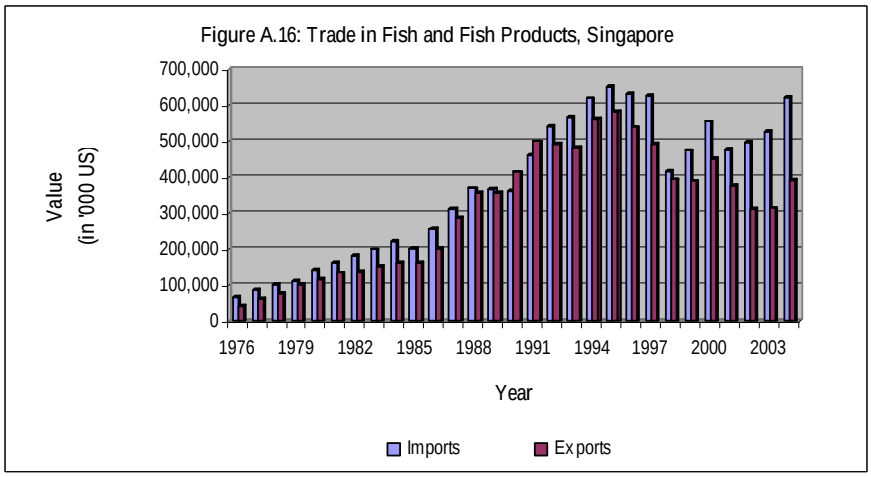
The Philippine Fisheries Code (Republic Act 8550), which consolidates all laws pertaining to the country's fisheries sector was signed into law in February 1998. The Code declares as a state policy that achieving food security is the main consideration in the development, management, and conservation of fisheries and aquatic resources. Its provisions reflect a strong adherence to long-term sustainability, fully recognizing its multiple dimensions and complex elements in the fisheries context through several prohibitive and regulatory measures seeking to balance protection with reasonable and responsible use (Ingles, 2004). The most significant policy shift in the past decade has been the introduction of joint management mechanisms of the fisheries sector, involving both the central government and the municipalities, and the government and the local fishers.

Singapore

With limited agricultural and water resources, there is limited scope for the development of Singapore's fisheries, although fish is an important component of the Singaporean diet. The country relies mainly on imports for domestic consumption. In 2000, Singapore's fisheries sector from fish capture and aquaculture production reached 2,173 and 5,406 metric tons, respectively. While aquaculture continues to show modest growth, capture fisheries had been declining since 1985 (Figure A.15).

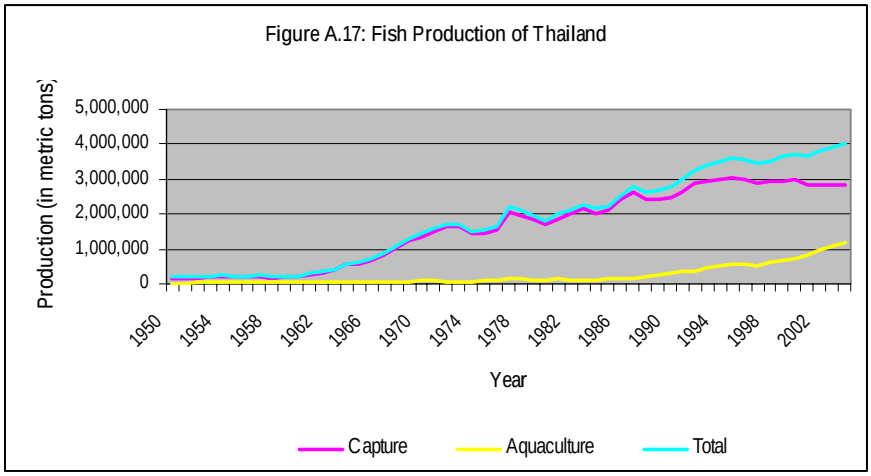


Singapore, due to its strategic location in Southeast Asia, adequate transportation facilities, overall economic growth and significant increases in disposable income of the population, has become an important seafood business centre and main distribution hub in the region. It supports a substantial market for a variety of live, fresh, frozen and cured fish and fishery products. At the same time, it serves as an export market for fish and fishery products from Southeast Asian countries as well as a transshipment base for fishery products from around the world. Data indicate that about US$623 million worth of seafood was imported by Singapore in 2004 while exported fish products were valued at US$393 million (Figure A.16). Re-exports of seafood from Singapore are increasing and in 1999, total re-export figure was estimated at 75,000 metric tones. Its main markets are Japan, Hong Kong, the Netherlands, Malaysia, Taiwan and China. Re-exports from Singapore to other ASEAN countries are mainly valued-added or high-value fishery products.



Thailand

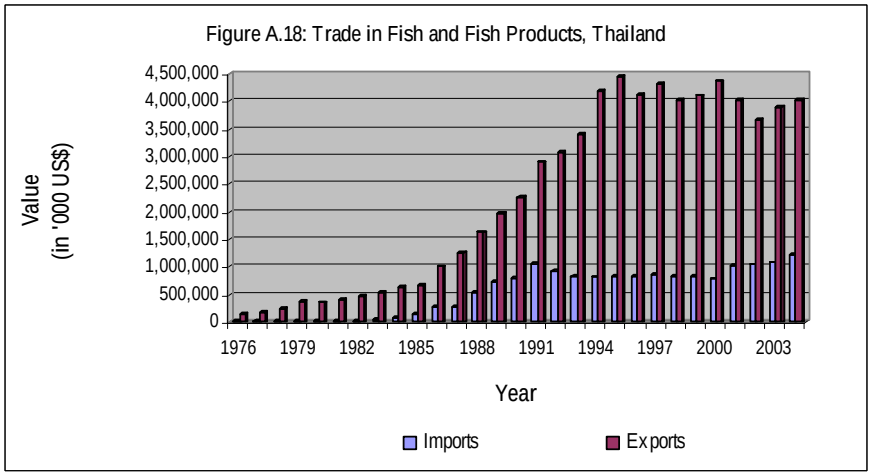
The current state of Thailand's fishery industry is the result of rapid fisheries and aquaculture development coupled with the advancement in fish processing technologies. Marine fisheries play a significant economic role in Thailand, with capture fisheries contributing 2.8 million tons (71%) to total fisheries production in 2004. Since the early 1990s, the marine fisheries production growth rate has been steady, but reached a plateau in recent times (See Figure A.17).



Historically, aquaculture contributes a relatively small portion of total fisheries production. At present, it has a long-term potential for increasing fisheries production for both local and international markets as evidenced in its growing share in fisheries production.

Apart from the over 354,495 individuals directly engaged in fisheries and aquaculture in 2000, there are also a substantial number involved in other fisheries related industries. The rapid expansion of aquaculture, particularly shrimp culture, has generated many other aquaculture-related industries and services, including feeds and feedstuffs, chemicals, fertilizers, accessories, construction and consultation services.

Domestic demand for fish is still increasing as fish gains more popularity as a healthier alternative to livestock or poultry. On the international market, seafood is one of the top industries that generate income for Thailand, making it the world's main



fish exporter from 1993 to 2002 (Figure A.18). The main export items are frozen shrimp and canned tuna with major importers including Japan, United Stated and the European Union. In 2004, it exported nearly 1.4 million metric tons of seafood valued at US$4,034 million.

Since 2000, the Department of Fisheries (DOF) has focused on quality-production of aquaculture rather than on quantity production concerns. The DOF together with the Thai aquaculture industry has developed and implemented two kinds of standard, namely the Code of Conduct (CoC) and Good Aquaculture Practice (GAP). CoC standard is to focus on the environmentally friendly production, standard production, and quality and safety--free of antibiotic residues production. The GAP standard, meanwhile, is focused on quality and safety as well as farm sanitation. The two standards are applied to marine shrimp production. The number of CoC and GAP shrimp farm certified are as high as 28,000 farms out of 30,000 farms. In 2004, when the national food safety program was implemented, quality and safety production program were also employed for coastal and freshwater fish culture. The food safety program has been implemented for the whole supply chain production using from-farm-to-table (or processing plant) approach.

Even in the fish processing stage, the DOF has set standard operating practices or protocols for inspections in the form of a procedural and policies manual intended to provide reasonable assurance that the requirements of other countries are satisfactorily met. Inspection at processing plant is based on *Good Manufacturing Practices* (GMP) consisting of general principles of food hygiene. In addition, all processors under DOF approval are also required to implement the HACCP principles. The program emphasizes continuous problem solving and prevention from water to marketing rather than relying solely on analysis of product samples. A GMP inspection focuses on hygienic aspects of plant structure and equipment, personnel hygiene, hygienic facilities, pest control. At present, the numbers of certified fishery processing plants in each category are: 218 frozen plants, 55 canned and 78 traditional plants. Similarly, fishing ports, fish landings and fish distributors also need to comply with GMP standards.

The Ministry of Agriculture and Cooperatives (MOAC) has recently launched a quality label called “Q-mark” for certifying agricultural commodities including fishery products. The Q-mark logo represents high quality agricultural commodities and ensures safety in consumption. This national logo is awarded on a voluntary basis. Both production systems and agricultural products can apply for the label provided they are in compliance with the standards established by MOAC. The Q-mark is now being promoted internationally to signal consumers of premium quality agricultural products produced and exported from Thailand.

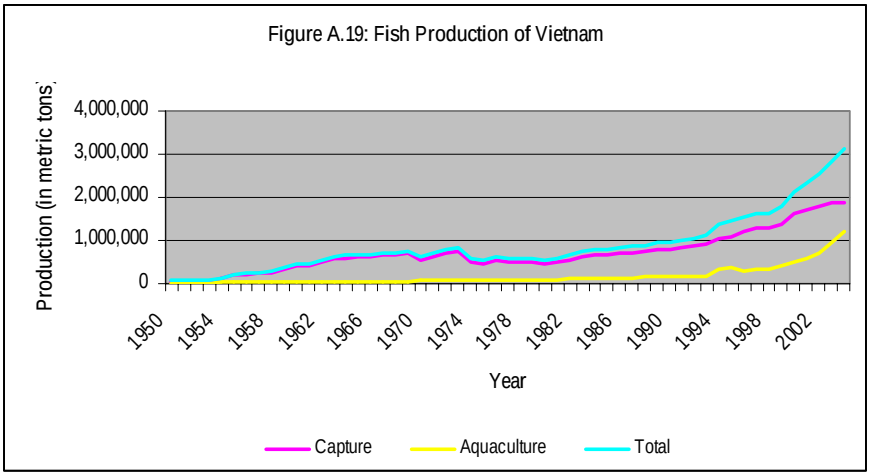
Cognizant of the need to protect its marine resources, Thailand has also adopted the International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA-IUU). The IPOA’s objectives and principles and the implementation of prescribed measures are intended to prevent, deter and eliminate IUU fishing.

In addition, Thailand's Board of Investment (BOI) promotes investment in agriculture and agricultural products. The BOI listed aquaculture (except shrimp culture), deep sea fishing, fish feed manufacturing, trading centers for fisheries products, agro-industry processing zones, and aquariums and ocean marine services as priority activities for investment promotion. A subsidy scheme to assist small-scale fishers who operate with smaller vessels is in place. The government also provides subsidized credit and price support for the tuna fishers. There is a special interest credit scheme for target fishers to buy and renovate boats, fishing gear, cages and ponds at a lower than market rate of interest (9%). The current policy on fish seed emphasizes standardization and controls over hatcheries. It may be considered that the Thai fishery has enough investment and input policy; however, it has been observed that in some instances implementation is inadequate due to structural bottlenecks and financial constraints. As such, the private sector needs to be encouraged as the principal stakeholder in investment in the fisheries industry.

Vietnam

In Vietnam, the fisheries sector, especially coastal and inland aquaculture, is a priority sector for development. Fish and seafood constitute the second most important agricultural export product for Vietnam – after rice. It is important not only for its foreign exchange contribution but also as a poverty reduction measure among the large rural population. Based on government statistics, over 3.4 million people earn their livelihoods with seafood related industries: with fishing, in aquaculture, or in processing plants.

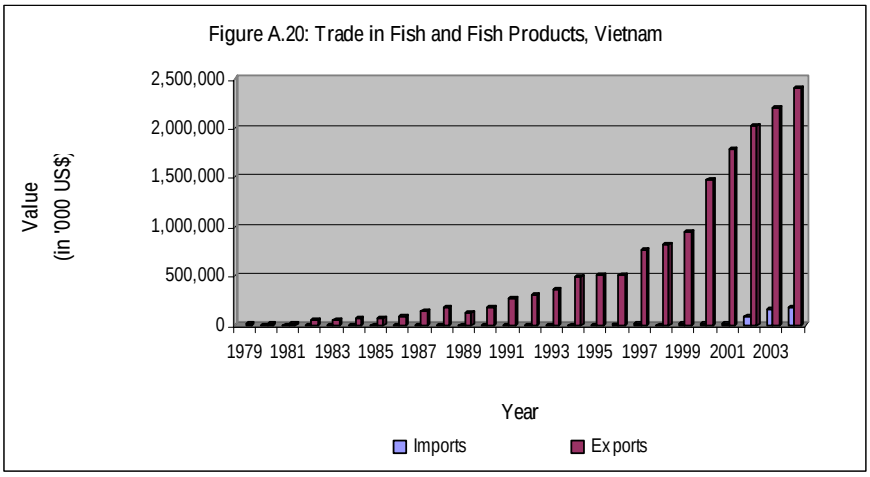
Vietnam's seafood industry, like the rest of the country's economy, is going through a process of change. Over 2 million tons of fish, shellfish and crustaceans are caught wild or produced in ponds or floating farms annually (Figure A.19). The Vietnamese government has launched a program for the development of the seafood industry, particularly in aquaculture. Aquaculture has advanced to become the core sector of the seafood industry within just a very short time. The growth rates in this sector are impressive. In 1990, aquaculture production amounted to 160,076 metric tons and by 2004, it had risen to 1,198,617 metric tons.



Vietnam's aquaculture industry mainly produces shrimp, *basa* (a kind of catfish), and various carps, plus some other species. Shrimp is by far the most important aquaculture species. Apart from the shrimp farms, there are also thousands of hatcheries that produce stocking material for the ponds. Lately, *tilapia* is considered the most promising candidate for the future and its production is expected to be increased considerably in the coming years. Fish farm areas doubled during the last decade. By 2002, there were already 955,000 hectares of ponds, which represented a near doubling of what has been allocated for aquaculture in 1990.

From a relatively insignificant sector in the 1980s, Vietnam is one of the world's biggest seafood exporters (See Figure A.20). Just fewer than 539,526 metric tons of seafood products worth nearly US$ 2.4 billion were exported in 2004. Shrimps accounted for half of this, which makes Vietnam among the leading shrimp producers worldwide.

Although the average Vietnamese consumer consumes more seafood than meat, the domestic market is relatively insignificance to the country's seafood processing companies. Aside from the lack of purchasing power for convenience and value-added products, the average consumer prefers fresh products. Hence, majority of processing plants cater to export requirements.



The center of the processing industry is in the south of Vietnam where 70% of all companies are based. The focus of the Vietnamese fish industry is on frozen products. In recent years there have been considerable investments in the modernization and new building of processing plants. About 175 of the more than 300 seafood-processing plants operate in accordance to HACCP standards and about 100 of them have been approved for exports to the EU. Although there are still a lot of state-owned companies in the seafood sector, there is a definite growth in private enterprises. On a national average, the state and provincial governments keep about 30% of company shares in order to enable continued influence of the economy's development. Viewed overall, however, privatization can be expected to trigger additional growth within the seafood industry.

In order to develop the fish industry further, an area of major focus in the country is the improvement of infrastructure. A conservative estimate of about 20% to 30% of catch value is lost due to a lack of transport facilities and cooling capacity (EUROFISH Magazine, 2004). The losses are not only the result of direct spoilage but of insufficient utilization of the latent value potential of the raw material. Tuna, for example, which was caught in sashimi quality, can often only be processed to canned products because of inadequate handling and treatment.

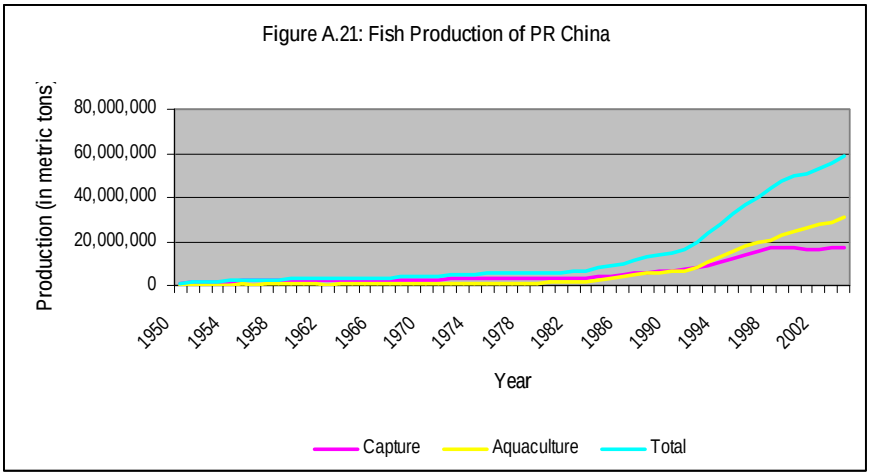
Since 1998, the Vietnamese government has been implementing a policy to give preferential loans to offshore fisher folks to upgrade their vessels to 90 horsepower (hp) and install modern equipment and efficient fishing gear. The government also invested in harbor infrastructure. Private businesses (including foreign-invested businesses) operating in offshore fisheries are given reduced tax reductions during the first 3 years of business.

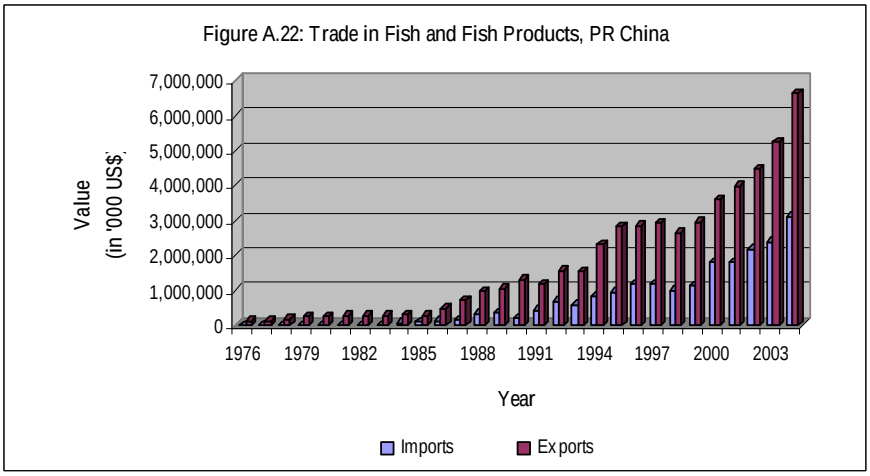
The dumping allegations leveled by the United States against the imports of certain Vietnamese frozen catfish fillets have hurt the Vietnamese *basa* and *tra* industries. Fortunately, it has recovered and is now looking for new markets.

There are a number of legal instruments covering the fisheries sector in Vietnam. The most important law is the Fisheries Law that went into practice in 2003. Overall, the law aims to improve the fishing activities while avoiding potential environmental damages and preserving the natural fishing resources. Increasing attention is also being paid to environmental aspects during the development of aquaculture. For example, mangrove forests are not permitted for use as farming locations and such regions are partially being reforested. In addition, protection zones are being set up which are closed for shrimp farming in order to protect the rice fields from salt water from the farms.

People's Republic of China

PR China has been a perennial top fish producer. It produces over 40 million tons of fish annually or about 30% of total world production (Figure A.21). Since 2001, over 25 million tons is from the aquaculture sector, the biggest in the world. In 2002, China overtook Thailand as the world's largest exporter of fish and fisheries products with US$4.5 billion worth of exports, or roughly 8% of the world total of US$57.6 billion. It has also become a major fish importer and was ranked as the 8th largest in the world in 2002. Lem (2004b) stated that the growth in country's fish imports compared to its exports is noteworthy considering that just five years ago it was not even among the world's 15 largest importers (See Figure A.22).





FAO (2002) attributed the rapid development in China's aquaculture to supportive and proactive government policies, which includes: i) production of high-quality, disease resistant seeds through modern biotechnology; ii) development of new value-added products; (iii) promotion of high-value species; (iv)sponsoring research in fish feeds and nutrition and provision of preferential tariffs on raw materials used in manufacturing feeds; and (v) improvement in the legal and regulatory framework for the development of the sector.

In parallel with its growing production, China has also developed a sizable fish processing industry utilizing both domestic and international supplies. This burgeoning raw material requirement of the processing industry now drives much of the import growth. The Chinese processing industry benefits from economies of scale with

extremely competitive labor and production costs and has come to play a crucial role in supplying international markets for processed fish products such as fish fillets or processed shrimp.

Given its sizeable contribution to world fish trade, the entry of China into the WTO in late 2001 was a significant event. As part of its accession conditions, China lowered its average import tariffs on fish and fishery products from as high as 15.3% in 2001 to 12% in 2002, 11% in 2003, and finally 10.4% in 2004. After 2004, only minor reductions remain to be implemented as part of its current commitments to the WTO.

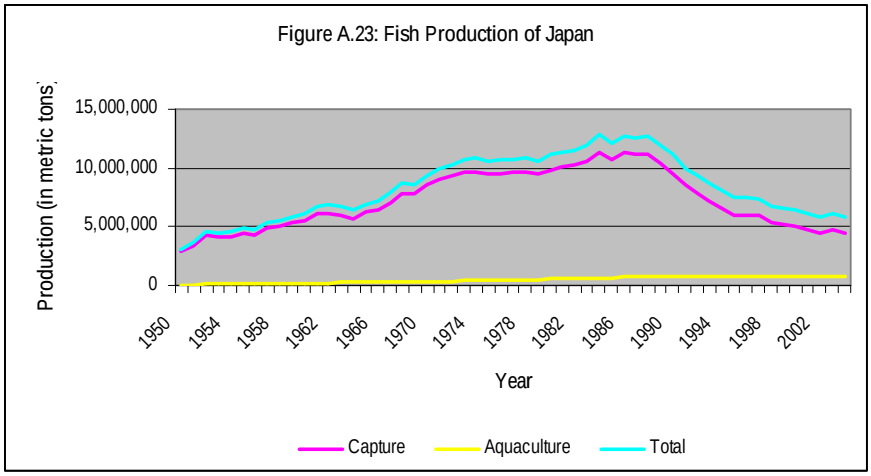
The reduction of China's import duties on fish and fishery products is beneficial to trade as it makes international suppliers more competitive in the Chinese market and lower prices for the consumers. In addition, harmonization of Chinese standards with international requirements raises the quality and safety of fish products from China in international markets.

Similarly, rising income levels and increasing purchasing power in China have resulted in millions of Chinese consumers enjoying living standards that approach those found in many developed countries. Therefore, China is rapidly emerging as a growing market for imported fish products, which would most likely to be processed in China.

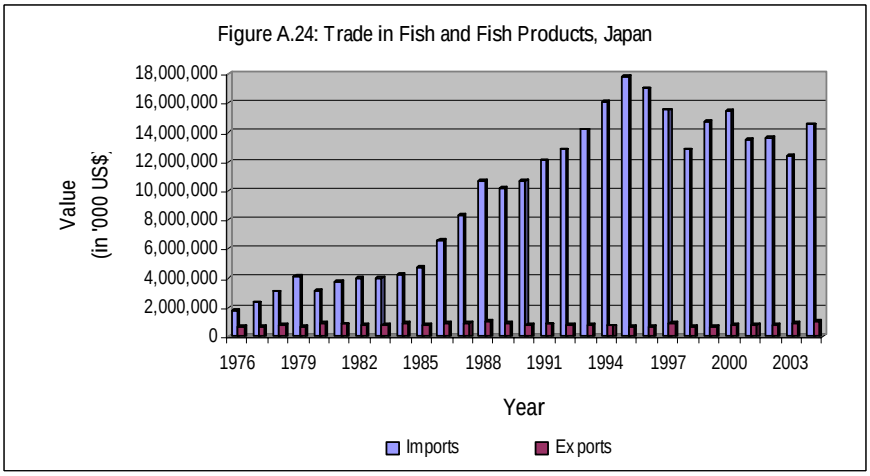
Japan

Marine capture fisheries is the most important sector of Japan's fishing industry. It is divided into distant-water fisheries operated mainly on the high seas, as well as under bilateral agreements in the EEZs of foreign countries; offshore fisheries (operated mainly in the domestic EEZ and under bilateral agreements in the EEZs of neighboring countries); and coastal fisheries (operated mainly in waters adjacent to fishing villages). The production from distant-water and offshore fisheries have been declining in recent years while coastal fisheries maintained a stable supply of marine products (Figure A.23). In 2003, the three subsectors yielded a total of 4.72 million tons of fish (worth US$9,410 million).

Mariculture likewise plays an important role in seafood supply, producing 1.28 million tons in 2003 valued at about US$3,947 million. The main products from mariculture are seaweeds, oysters, scallops, yellowtail and seabream. Production has flattened in the last 10 years after reaching a peak in 1994. This is due to the limited capacity of farms, the decreasing fish price and the excessive supply of cultured fish.



For 2002, nearly 13% of the Japanese fish catch was used for industrial purposes, including fishmeal to meet the demand for feeds for livestock and aquaculture purposes. Nonetheless, Japan still annually exports small quantities of fish and fishery products, particularly fresh and frozen products. It remains to be the world's largest fish product importer, both in terms of volume and quantity



(Figure A.24). On the other hand, China has been the largest fishery product exporter to Japan since 1998.

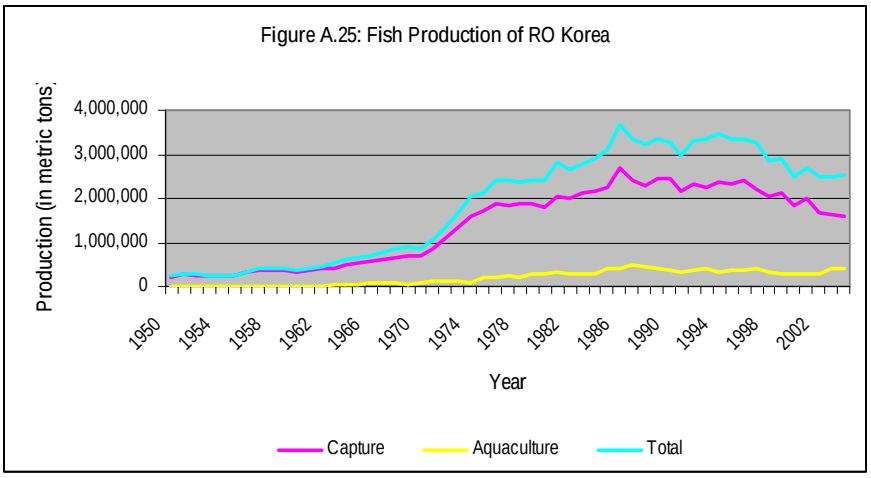
Development prospects in the near future for the fishery industry are not bright in Japan. According to the results of a resource assessment conducted in 2004 on major fishery resources in the waters surrounding Japan, the levels of fishery resources are low for more than half of the species or stocks assessed. In addition, the decrease in the number of fishers and their increasing average age pose serious problems, affecting the production structure and closely linked to the sustainable use of fishery resources and the stable supply of fish.

Current Japanese fishery policy is mainly focused on improving the productivity of fisheries and increasing fisheries production. While doing so, emphasis is given to rehabilitation of the state of fishery resources within the EEZ so as to increase fish production while reducing excessive fishing effort. As part of fisheries policies relating to the EEZ, the total allowable catch (TAC) system has been introduced with a view to establishing a framework for the conservation and sustainable utilization of fishery resource. The TAC system is properly implemented in the light of the Law Concerning Conservation and Management of Marine Living Resources, to increase the effectiveness of fisheries management.

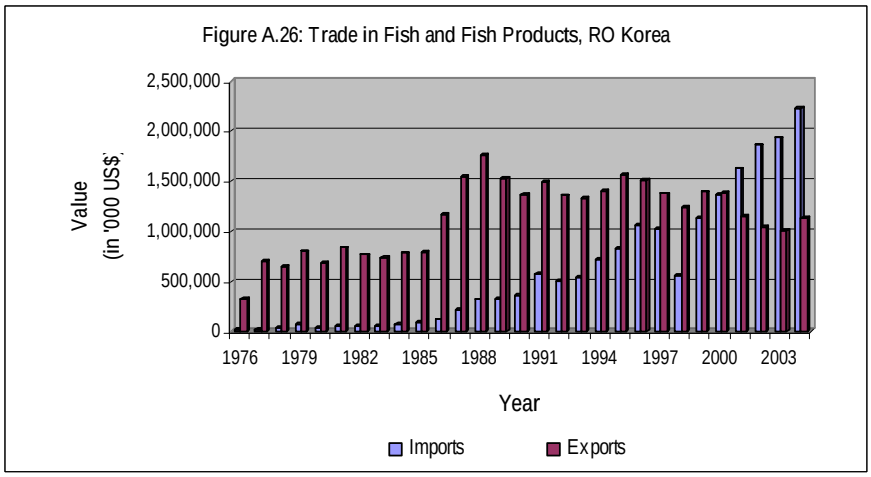
Under agreements between relevant fisher groups, resource recovery plans have been developed for deteriorating fish stocks. For example, no-fishing period or bans on catches of small fish and other fishing restrictions have been imposed. Releases of seedlings have been promoted to enhance fishery resources and the environment of fishing grounds have been restored and conserved. Since 2004, resources restoration plans have been developed and implemented. These plans include measures that have severe short-term effects on fishery business management.

Republic of Korea

The Republic of Korea produced over 2.5 metric tons of fish in 2004, which is a substantial decline from the figures registered in the mid-1980s until the early 1990s (Figure A.25). About 47% of the total fishery production came from offshore and coastal waters; only 0.2% came from inland waters. With the development of new technologies, aquaculture production, which stagnated and even started to decline during the 1990s, is now rising to account for one quarter of the total fishery production. The Korean government has been pursuing a long-term aquaculture development program through the expansion of cultivating areas and the intensified development of both profitable and unexploited species.



The value of the country's fish exports and imports were almost equal in 2000 and begun experiencing fish trade deficits starting in 2001 (Figure A.26). This is attributed to declining exports to Japan following Japan's economic depression and increasing imports from China. Although the output of the fishery industry accounts for only a small percentage of the country's GDP, it stimulates the development of services and infrastructure facilities in vessel construction and repair, fishing gear and marine electronics manufacturing (Tietze et al., 2001).



The main legal documents regulating Korean fisheries are the Fishery Act, amended in December, 1995 and the Resources Protection Decree. Since 1994, the chronic overexploitation of marine fishery resources due to over-capacity in coastal and offshore waters has been addressed by imposing a fleet reduction program. This was

intended to reduce the fishing capacity of unprofitable fishing methods due to the loss of fishing grounds resulting from the declaration of the EEZ by other coastal states such as China and Japan (Asianinfo, 2003). At the same time, the program addresses the issue raised in a study, which indicated that Korean fishing fleets had been heavily reliant on government subsidies in order to operate profitably (Tietze et al., 2001). Other difficulties encountered by RO Korea's fishing industry include increasing incidents of marine pollution from all sources and the industrialization and reclamation of coastal areas that negatively affect fish habitats and reduce fishing grounds.

To secure food safety and harmonize with international standards of food quality, the Korean Government has enacted the "Fishery Products Quality Control Act", which integrated the acts on control of fishery products quality and took effect in 2001. The act introduced the HACCP system for seafood handling and processing. Subsequently, the government has also issued a Ministerial decree in accordance to the Act, which sets the HACCP for fishery products and commodities intended for export on 14 March 2002 and the HACCP system will soon cover other producing and processing facilities (OECD, 2002).

Selected WTO Members' Positions on Fisheries Subsidies (as of 10 March 2006)

	Friends of Fish (RL/W/3, 58, 166, 196, GEN/100)	Japan, Taiwan and Korea (RL/W/11, 17, 52, 69, 159, 160, 164, 172, 47, GEN/92, W/201, 202)	Small Vulnerable Coastal States (SVCS) (RL/W/136, 57/Rev.2)	Brazil (RL/W/176, RL/GEN/56, RL/GEN/79, 79/Rev.1)	India (RL/W/203)	EC (RL/W/82, 178)
New disciplines?	There should be new disciplines on fisheries because fisheries subsidies can distort access to productive resources and because of heterogeneous nature of fisheries products, and economic structure of industry, makes applying existing SCM rules difficult.	No need for new disciplines on fisheries subsidies because the principal cause of stock depletion is inadequate management of fisheries resources; and there has been no concrete supporting example that subsidies lead to overexploitation of resources or trade distortions	Fisheries management and conservation issues are best addressed in forums such as the FAO or UNEP rather than in the WTO	Fisheries subsidies cause a damaging distortion in the access to fisheries resources which are not captured by the existing subsidies disciplines – that is, on the ability of competitors to produce and not merely to sell.		
Approach	Top-down: start with a prohibition on all subsidies that benefit the fishing industry and then identify and define the exceptions to the prohibition	Bottom-up: specify which types of subsidies should be made illegal. Important to evaluate each type of existing subsidy to distinguish prohibited from permitted subsidies rather than a "blanket ban". Should be done in a cross-sectoral manner within the SCM agreement.	"The traffic-light approach may not serve to promote conservation of fish stocks" (57). While the traffic light approach is within the ambit of WTO disciplines, it should only address trade related issues.	Top down. Except for inland fisheries, all capture fisheries subsidies programmes should be included in the definition of "fisheries subsidies". The definition of fisheries subsidies must include all financial contributions or income or price support by a government that is given to or on behalf of fishing interests. Fisheries subsidies should be classified based both on their design and effects, according to the context in which they are provided. Subsidies granted for		

	Friends of Fish (RL/W/3, 58, 166, 196, GEN/100)	Japan, Taiwan and Korea (RL/W/11, 17, 52, 69, 159, 160, 164, 172, 47, GEN/92, W/201, 202)	Small Vulnerable Coastal States (SVCS) (RL/W/136, 57/Rev.2)	Brazil (RL/W/176, RL/GEN/56, RL/GEN/79, 79/Rev.1)	India (RL/W/203)	EC (RL/W/82, 178)
				the purchase of foreign access rights should also be covered by the definition of fisheries subsidies, while public service of fisheries management, should, in principle, not be defined as fisheries subsidy. GEN/79/Rev.1: Any fishery subsidy that is not generally available shall be deemed to be specific: 1) any government to government payment for access by domestic fleets to foreign EEZ fisheries or to quotas established by any RFMO; 2) public services of fisheries resource management shall not be considered a fishery subsidy; 3) provision of goods and services by a government under the form of general infrastructure shall be regarded as specific if it is demonstrated that such subsidies have trade and/ or production-distorting effects. Production-distorting effects include any negative effect a fishery subsidy may have on the sustainability of fishing resources.		
Red Light	Subsidies that benefit the fishing industry (positions vary amongst FoF; see subsequent	Subsidies which encourage IUU fishing and fishing vessel construction engaged in		All subsidies that do not fall within the "green box", together with those already prohibited under current disciplines.		Capacity enhancing subsidies, including subsidies for marine fishing fleet renewal

	Friends of Fish (RL/W/3, 58, 166, 196, GEN/100)	Japan, Taiwan and Korea (RL/W/11, 17, 52, 69, 159, 160, 164, 172, 47, GEN/92, W/201, 202)	Small Vulnerable Coastal States (SVCS) (RL/W/136, 57/Rev.2)	Brazil (RL/W/176, RL/GEN/56, RL/GEN/79, 79/Rev.1)	India (RL/W/203)	EC (RL/W/82, 178)
	table)	poorly managed fisheries (164); for fishing vessel modification resulting in capacity enhancement; for shipbuilding yards for fishing vessels; for overseas transfers of fishing vessels to non-contracting parties of regional fisheries management orgs (172). Subsidies that might promote IUU directly or indirectly, and therefore to be prohibited are: subsidies for overseas transfers of fishing vessels to non-CPCs of RFMOs; subsidies to the construction of fishing vessels which have capacity to operate on the high seas without proper authorization for fishing; fishing licenses associated with decommissioned vessels have to be withdrawn (47); subsidies for the construction of new fishing vessels resulting in capacity enhancement (201).		Examples: fisheries subsidies that cause 1) the increase of fishing capacity or effort; 2) IUU fishing; 3) the increase of the domestic supply of fish, threatening the sustainability of the fishing resource. Possible exception: short-term emergency relief and adjustment to fishermen suffering significant loss of income as a result of reductions in fishing caused by conservation measures or unforeseeable natural disasters. There should be a 3 years phase out period for Members to eliminate prohibited subsidies.		and/or the permanent transfer of fishing vessels to third countries, including through the creation of joint enterprises with third country partners.

	Friends of Fish (RL/W/3, 58, 166, 196, GEN/100)	Japan, Taiwan and Korea (RL/W/11, 17, 52, 69, 159, 160, 164, 172, 47, GEN/92, W/201, 202)	Small Vulnerable Coastal States (SVCS) (RL/W/136, 57/Rev.2)	Brazil (RL/W/176, RL/GEN/56, RL/GEN/79, 79/Rev.1)	India (RL/W/203)	EC (RL/W/82, 178)
Amber Light	(positions vary amongst FoF; see subsequent table)					
Green Light	Government expenditure for management frameworks, general infrastructure and access; certain fisheries-related social insurance programmes; and appropriately structured decommissioning subsidies (positions vary amongst FoF; see subsequent table)	Subsidies which promote the conservation and sustainable utilization of fisheries resources; subsidies that have the potential to "exacerbate the status of resources" but do not because of proper fisheries management; relief from natural disaster; structural adjustment assistance and regional development assistance which do not cause deterioration of resources; infrastructure (164); fishing vessel decommissioning; resource enhancement and environmental protection; fisheries resource management; R&D; retraining of fishermen and early retirement schemes.	Fisheries access fees; incentives to local and foreign fishers to supply domestic processing facilities in SVCS; government programmes to raise income levels of artisanal fishers (136); any development assistance to developing coastal states; assistance to artisanal or small-scale fisheries; access fees in fisheries access agreements; fiscal incentives – to facilitate the development of capabilities of small vulnerable coastal states (57/Rev.2) social safety net for fishermen (172), for example relief of natural disasters at sea, subsidies for off-season, unemployment relief and early retirement fund, or subsidies for fishermen reeducation, retraining, or alternative employment (202);	Exhaustive list of non-actionable fisheries subsidies provided that they do not have trade-distorting or production distorting effects through enhancing capacity and overfishing. E.g. subsidies that are aimed at improving conservation and the sustainable use of fisheries resources; subsidies to small scale and artisanal fishing , to fishing port facilities; and to processing facilities provided that such fisheries are not "patently at risk"; payments for access to EEZ of developing countries by RFMOs (79/Rev.1); subsidies for capacity reduction; subsidies aimed at fishermen retraining, to facilitate movement of labor out of the fishery sector, to compensate for suspension of fishing activity and early retirement schemes. (79, 79/Rev.1)		Subsidies to support the retraining of fishermen, early retirement schemes and diversification; limited subsidies for modernization of fishing vessels to improve safety, product quality or working conditions or to promote environmentally friendly methods so long as it does not increase ability to catch fish; subsidies for the scrapping of vessels and reduction of capacity.

	Friends of Fish (RL/W/3, 58, 166, 196, GEN/100)	Japan, Taiwan and Korea (RL/W/11, 17, 52, 69, 159, 160, 164, 172, 47, GEN/92, W/201, 202)	Small Vulnerable Coastal States (SVCS) (RL/W/136, 57/Rev.2)	Brazil (RL/W/176, RL/GEN/56, RL/GEN/79, 79/Rev.1)	India (RL/W/203)	EC (RL/W/82, 178)
			subsidies to small-scale fisheries in the context of a social safety net (GEN/92)			
S&DT	Recognition of need to address needs of Members at different levels of development; calls for identification of other specific areas of concern, but says not to exclude "major players"	Japan welcomes paper from SIDS (136) and says that the topics raised therein should be "fully discussed during the process of the bottom-up negotiation." But later (164) notes that while many developing countries are dependent on fisheries resources in their waters, some of them are also major producers of fisheries products globally; "special consideration" should be given "by allowing some flexibility in the application of the prohibited subsidy category" (172)	They seek S&D treatment to explicitly exclude access fees and development assistance, fiscal incentives to domestication and fisheries development, and artisanal fisheries from the definition of subsidy.	Subsidies permitted for developing countries: (1) Subsidies which increase fishing capacity or effort of Members that are part of a RFMO, within the sustainable level of exploitations as defined by the RFMO GEN/79) and fall within the categories of either fishing vessel construction or repair or vessel modernization or gear acquisition or improvement; (2) supply of fuel, bait or ice; (3) Assistance to disadvantaged regions under certain conditions	Fisheries subsidy disciplines are premised on enhancing the ambit of ASCM from one that has as its primary concern 'trade distortions' to one that seeks to address problems of overfishing and overcapacity. S&DT should therefore have several components to provide adequate policy space to developing countries in addition to those in Art. 27 of SCM.. Words such as artisanal, traditional, small scale are sometimes used interchangeably. While developing a common definition would be difficult, a common understanding on some general	More needs to be done to allow developing country members to achieve development goals; willing to engage constructively in drawing up rules in context of art. 27 of SCM Agreement to take special account of distinct needs of developing countries.(82) Phase-in period of several years for developing countries to set up a comprehensive system for transparency and enforcement during which developing countries would receive technical assistance for setting up such a system. The SCM Committee could manage this time-framed programme (176, 39).

	Friends of Fish (RL/W/3, 58, 166, 196, GEN/100)	Japan, Taiwan and Korea (RL/W/11, 17, 52, 69, 159, 160, 164, 172, 47, GEN/92, W/201, 202)	Small Vulnerable Coastal States (SVCS) (RL/W/136, 57/Rev.2)	Brazil (RL/W/176, RL/GEN/56, RL/GEN/79, 79/Rev.1)	India (RL/W/203)	EC (RL/W/82, 178)
					characteristics applying to such category might be useful. Common characteristics are: traditional fisheries involving fishing households/ small groups; fishing vessel could vary, but use of relatively small fishing vessels without motor or only small out board engines; fishing is confined close to shoreline; fishing gear such a beach sienen gill nets, hook and line, and traps; use of labor intensive technologies; fishing can be both subsistence or commercial	
Involvement/ role of other organisations	Recognized value of categorization work done by other organisations, but as a group hasn't taken a position on this (positions vary amongst FoF; see subsequent table)	Take into account expertise of FAO, OECD, UNEP, APEC (11); points to role of UNCLOS, regional fisheries bodies in fisheries management (11); categorization should be done by other orgs with longer and	Mechanisms to strengthen regional and national fisheries management bodies, and to identify and rehabilitate endangered species, such as those employed by FAO and MEAs would be appropriate for	Possibility of involving the FAO in determining whether a fishery is "patently at risk". Developing countries should not be allowed to use subsidies to enhance capacity beyond the sustainable level of exploitation "within the limits of the fishing managerial schemes established under		Has doubts on whether the Rules group is "well equipped" to deal with the question of the interactions between fisheries subsidies and fisheries management regimes, suggests other fora such as UNEP, OECD, FAO not perhaps

	Friends of Fish (RL/W/3, 58, 166, 196, GEN/100)	Japan, Taiwan and Korea (RL/W/11, 17, 52, 69, 159, 160, 164, 172, 47, GEN/92, W/201, 202)	Small Vulnerable Coastal States (SVCS) (RL/W/136, 57/Rev.2)	Brazil (RL/W/176, RL/GEN/56, RL/GEN/79, 79/Rev.1)	India (RL/W/203)	EC (RL/W/82, 178)
		deeper institutional experience (69); rules group should look into possibility of cooperating with FAO, OECD and possibly giving them the task of categorisation of subsidies	addressing the problem of threatened fish species.	relevant international organizations". (GEN/56) GEN/79: Definition of production-distortion: For fisheries that are subject to RFMOs, a negative effect to the sustainability of fishing resources means exceeding quotas or other rights established by those RFMOs by 5%. For fisheries not subject to RFMOs, this means an annual increase of the volume catch for a specific specie exceeding 3% of the most recent volume catch data covering three years made available by a competent international organization (an RFMO or a multilateral organization) IUU fishing: any vessel is found to be engaged in IUU fishing according to any RFMO, the Member will dispose of a period of 2 months to demonstrate that it took all necessary steps to withdraw the license of that vessel and that the vessel is definitively scrapped. Additionally, the Member shall demonstrate within 6 months from the release of the report by any such RFMO that it had		better. Calls on WTO Secretariat to keep a scoreboard of notifications per Member and per type of programme to be made public.

	Friends of Fish (RL/W/3, 58, 166, 196, GEN/100)	Japan, Taiwan and Korea (RL/W/11, 17, 52, 69, 159, 160, 164, 172, 47, GEN/92, W/201, 202)	Small Vulnerable Coastal States (SVCS) (RL/W/136, 57/Rev.2)	Brazil (RL/W/176, RL/GEN/56, RL/GEN/79, 79/Rev.1)	India (RL/W/203)	EC (RL/W/82, 178)
				taken all necessary steps to improve its management schemes in relation to IUU fishing. If any of the two conditions is not fulfilled, serious prejudice is deemed to exist regarding all non-actionable subsidies by that Member. Membership in a RFMO shall determine whether capacity enhancing subsidies are allowed or not. RFMOs are defined in GEN/79/Rev.1		
Enforcement				Any fishery subsidy shall be notified, otherwise shall be presumed prohibited. Notifications have to contain information regarding a) identification of fisheries in which subsidized fishing takes place; b) the status of the fishery; c) subsidy amounts on a per vessel, per fleet, and per fishery basis; whether fishery is under RFMO management, nature of monitoring and the quantitative limits applicable to the Member; d) steps taken to ensure that subsidy does not contribute to IUU fishing. Yearly updates of notifications shall be provided. Upon request of a Member, the Secretariat shall review a notification report its finding to		Provide options that countries can choose from: (1) domestic control system (ex post monitoring system of the subsidies that are granted to the fisheries sector), including a reporting system for non-prohibited subsidies, or (2) WTO control system (rigorous and continuous screening at the WTO level with requirements for both pre-notification and follow-up reporting of all subsidies given by all levels of government) Follow-up reporting could be yearly and include, for example, data on the amounts

	Friends of Fish (RL/W/3, 58, 166, 196, GEN/100)	Japan, Taiwan and Korea (RL/W/11, 17, 52, 69, 159, 160, 164, 172, 47, GEN/92, W/201, 202)	Small Vulnerable Coastal States (SVCS) (RL/W/136, 57/Rev.2)	Brazil (RL/W/176, RL/GEN/56, RL/GEN/79, 79/Rev.1)	India (RL/W/203)	EC (RL/W/82, 178)
				the Committee of SCM. Committee shall promptly review the Secretariat findings and determine whether the conditions and criteria laid down have not been met. In case of failure by Committee to make a determination as well as the violation of the conditions set out in a notified programme, shall be submitted to binding arbitration requirements (GEN/79/Rev.1) Prevention of circumvention: Rules of origin, the flag of a vessel and government-to-government payments, among others, shall not be used as a means to circumvent Members obligations and responsibilities under the provisions of this Annex.		granted in that year. Any subsidy which is not notified, or reported on, would be presumed prohibited. For both systems, some form of de-minimis rules would have to be introduced, possibly including block pre-notification, pre-authorisation, follow-up reporting and ex post monitoring.

Breakdown of Selected 'Friends of Fish' Positions on Fisheries Subsidies (as of 10 March 2006)

	Common FoF (3, 58, 166)	New Zealand (12, 154, 36, 100)	Chile (115)	US (77, 169, 41)
New Disciplines?	There should be new disciplines on fisheries because fisheries subsidies can distort access to productive resources and because heterogeneous nature of fisheries products, and economic structure of industry, makes applying existing SCM rules difficult	Most of the major subsidizing members are also major consumers and have limited exports but their subsidies can make it harder or impossible for other members' exporters to compete in the subsidising Member's market; difficult to prove the "serious prejudice" in Part III of SCM Agreement because of heterogeneous, diverse nature of fisheries products; no unsubsidised reference prices available	Same: tragedy of the commons is the problem because it is impossible to assign property rights to migratory, dynamic fish populations; extremely difficult to demonstrate damaging trade effects of fisheries subsidies	Same
Approach	Top-down: start with a prohibition on all subsidies that benefit the fishing industry and then identify and define the exceptions to the prohibition	Same (154): A broad prohibition of programmes that have revenue or cost impacts for the industry balanced by exceptions and transitional provisions including S&D provisions; this would minimise risks of circumvention	Same	Same
Red Light	Subsidies that benefit the fishing industry	Subsidies within the meaning of Art 1 of the ASCM that confer a benefit directly or indirectly on any natural or legal person engaged in the harvesting, processing, transport, marketing or sale of the fish and fisheries products listed in Annex IX of this Agreement ("fisheries subsidies") (GEN/100)	Fisheries subsidies of a commercial nature, directly geared towards lowering costs, increasing revenues, raising production or directly promoting overcapacity and overfishing, inc. subsidies designed to transfer a country's ships for operation on the high seas or local waters of third country; contribute to purchase of ships; to help modernize an existing fleet; reduce costs of production factors; positive discrimination in tax treatment; and positive discrimination in access to credit.	Those fishing subsidies that directly promote overcapacity and overfishing, or have other trade-distorting effects
Amber Light			All remaining subsidies that are not in the red light box. When the subsidizing Member has failed to notify an amber light subsidy, it would bear the burden of demonstrating that this subsidy does not	Dark Amber: presumed to be harmful unless the subsidizing government could affirmatively demonstrate that no overcapacity, overfishing or other adverse trade

	Common FoF (3, 58, 166)	New Zealand (12, 154, 36, 100)	Chile (115)	US (77, 169, 41)
			cause trade injury to the complaining Member. For all other subsidies (including for social purposes in small scale fisheries and fisheries management), the complaining Member would have to provide evidence showing adverse trade effects of the subsidy.	effects result, modelled on art. 6.1 of SCM agreement
Green Light	Government expenditure for management frameworks, general infrastructure and access; certain fisheries-related social insurance programmes; and appropriately structured decommissioning subsidies	Management services (as different from capacity reduction and effort reduction programmes and subsidies for conservation which should be treated as separate categories). Three sub-categories of management services: 1) Research to inform fisheries management decision makers (36, GEN/100); 2) Creating and implementing fisheries management systems and 3) Enforcing fisheries management rules (36); subsidies to aquaculture activities provided that…{to be specified to ensure any adverse impacts on wild capture fisheries are addressed}; subsidies for vessel decommissioning and license retirement provided that …{conditions to ensure permanent removal of capacity}; subsidies for conservation related activities; access payments {provisions for additional transparency requirements}; certain infrastructure; certain social insurance programmes (e.g. worker retraining programmes); and natural disaster relief {to extent that it only restores the fishery to its pre-disaster state) (GEN/100)		Vessel decommissioning, (buyback and similar programmes designed to permanently remove overcapacity from fisheries), provided that appropriate programme conditions are attached (41)
Categorisation methodology	Presented a variety of different methodologies in RL/W/58			Using the top-down approach it would be possible to make exceptions based upon the current particular fisheries programs of

	Common FoF (3, 58, 166)	New Zealand (12, 154, 36, 100)	Chile (115)	US (77, 169, 41)
				Members than upon broad categories of subsidies. It is unclear what particular subsidies programs would be encompassed in the categories proposed by OECD, APEC, UNEP and others
S&DT	Recognition of need to address needs of Members at different levels of development; calls for identification of other specific areas of concern, but says not to exclude "major players"	The prohibition shall not apply to fisheries subsidies provided by a developing country Member where such subsidies do not exceed the de minimis level for that Member {To be elaborated, including the possibility of further flexibilities for LDCs} (GEN/100)		
Involvement/ role of other organisations	Recognised value of categorisation work done by other organisations, but as a group hasn't taken a position on this		Supports EC idea that the WTO Secretariat should keep a "scoreboard" of notification received by Members.	Rules group should explore ways to draw upon information and expertise of other orgs, inc. development of relationships with the FAO and regional fisheries management organisations. Group could also find ways to obtain views of NGOs and experts

The Friends of Fish include:
*Chile 3, 58, 166 +115
*Peru 3, 58, 166
*New Zealand 3, 58, 166 +12, 154, 161
Ecuador 3, 166
Philippines 3, 166
US 3 + 77, 169
Iceland 3, 58
Argentina 58, 166
Norway 58
Australia 3
* indicates core group signing on to all 3 FoF documents
+ indicates additional documents submitted by the Member in its individual capacity

NOTE: Links to all Members' submissions on fisheries subsidies are available at http://www.trade-environment.org/page/theme/tewto/para28.htm.

Annex 3: ASEAN Roadmap for the Integration of the Fisheries Sector

No.	Measures	Implementing Body	Timeline
COMMON ISSUES			
I	Tariff Elimination		
1	Eliminate CEPT-AFTA tariffs on all identified products	Coordinating Committee on the Implementation of the CEPT Scheme for AFTA (CCCA)	ASEAN 6: 2007 CLMV: 2012
II	Non-Tariff Measures (NTMs)		
2	Establish the Database of ASEAN NTMs to ensure transparency [1]	CCCA and Senior Officials Meeting - ASEAN Ministers on Agriculture and Forestry (SOM AMAF)	30 June 2004
3	Establish clear criteria to identify measures that are classified as barriers to trade		30 June 2005
4	Establish a clear and definitive work programme for the removal of the barriers.		31 December 2005
5	Adopt the WTO Agreement on Import Licensing Procedures and develop implementation guidelines appropriate for ASEAN.		31 December 2004
III	Rules of Origin		
6	Improve the CEPT Rules of Origin by:	Task Force on CEPT Rules of Origin (ROO-TF)	31 December 2004
	- making it more transparent, predictable and standardised taking into account the best practices of other Regional Trade Agreements including the rules of origin of the WTO; and		
	- adopting substantial transformation as alternative criteria for conferring origin status		
IV	Customs Procedures		
7	Extend the application of the ASEAN Harmonised Tariff Nomenclature (AHTN) for extra-ASEAN trade.	Expert Committee on Customs Matters (ECCM)	on-going
8	Develop a simplified, improved and harmonised customs declaration form.		31 December 2005
9	Ensure full implementation of the Green Lane System for CEPT Products, or similar systems, at entry points of all Member States.		31 December 2004
10	Develop implementation guidelines, as appropriate, for Member States which are not members of the WTO to fulfill the obligations of the WTO Agreement on Customs Valuation		31 December 2004

No.	Measures	Implementing Body	Timeline
11	Adopt service commitment (client charter) by ASEAN customs authorities.		31 December 2004
12	Develop the Single Window approach, including the electronic processing of trade documents at national and regional levels	Inter-Agency Task Force on Single Window	31 December 2005
V	Standards and Conformance		
13	Accelerate the implementation/ development of sectoral Mutual Recognition Arrangements (MRAs), as appropriate	ASEAN Consultative Committee on Standards and Quality (ACCSQ)	beginning 1 January 2005
14	Encourage domestic regulators to recognise test reports issued by testing laboratories which are already accredited by National Accreditation Bodies in ASEAN that are signatories to ILAC and APLAC MRA		on-going
15	Set clear targets and schedules for harmonisation of standards, wherever required; where international standards are not available, and when requested by industry, align national standards among Member States.		31 December 2005
16	Harmonise and/or develop, wherever appropriate, technical regulations for national application.		31 December 2010
17	Ensure compliance with the requirements, rights and obligations of WTO Agreements on Technical Barriers to Trade and the Application of Sanitary and Phytosanitary Measures		on-going
18	Explore development of ASEAN policy on standards and conformance to further facilitate the realisation of the ASEAN Economic Community.		beginning 2005
VI	Logistics Services		
19	Expedite the development of integrated transport logistics services within ASEAN through:	Senior Transport Officials Meeting (STOM)	beginning 2005
	- Promotion of efficient door-to-door cargo transport and cross-border transport facilitation through the expeditious implementation of the ASEAN Framework Agreement on the Facilitation of Goods in Transit, and the ASEAN Framework Agreement on Multimodal Transport;		

No.	Measures	Implementing Body	Timeline
	- Improvement of land transport network infrastructures and services to achieve better inter-connectivity, inter-operability and inter-modality with the national, regional and international maritime and air transport gateways;		
	- Strengthening intra-ASEAN maritime and shipping transport services; and		
	- Establishment of enabling and conducive policy environment for increased private sector involvement and/or public-private partnerships in the development of transport infrastructure and the provision and operation of transport logistics facilities and services.		
VII	Outsourcing and Industrial Complementation		
20	Identify and develop specialisation of production processes, research and development (R&D), and testing facilities based on comparative advantages of individual Member States	Working Group on Industrial Cooperation (WGIC), with inputs from the private sector	on-going
21	Develop guidelines to promote outsourcing arrangements among Member States, as applicable.		
VIII	ASEAN Integration System of Preferences		
22	Endeavour to expand the coverage of the ASEAN Integration System of Preferences (AISP) Scheme by including products in the priority integration sectors	CCCA	on-going
IX	Investments		
23	Accelerate the opening up of sectors currently in the Sensitive List (SL) by transferring these sectors into the Temporary Exclusion List (TEL) under the Framework Agreement on the ASEAN Investment Area, using the ASEAN-X formula.	Coordinating Committee on Investment (CCI	beginning 2004
24	Reduce restrictive investment measures in the SL		beginning 2004
25	Complete the progressive elimination of restrictive investment measures in the TEL		on-going[2]
26	Identify programmes and activities to promote investments in ASEAN		31 December 2005
27	Promote manufacturing processes across		

No.	Measures	Implementing Body	Timeline
	different ASEAN countries to take advantage of their comparative strengths through:		
	- the establishment of a network of ASEAN free trade zones to facilitate outsourcing activities		beginning 2005
	- undertaking more efficient joint ASEAN facilitation and promotion measures to promote FDI		on-going
28	Promote and facilitate joint/cross border investments in manufacturing activities through:		on-going
	- special incentives, where appropriate, to be given by CLMV for investments from ASEAN		
	- special measures, where appropriate to be given by ASEAN 6 to promote and facilitate relocation of investment to CLMV countries especially for labour intensive manufacturing activities		
X	Trade and Investment Promotion		
29	Intensify intra- and extra ASEAN joint promotion efforts regularly	CCI; ASEAN Chambers of Commerce and Industry (ASEAN-CCI); relevant Industry Clubs/ Associations and AMAF	on-going beginning 2005
30	Organise regular private sector initiatives to undertake:	CCI; ASEAN Business Advisory Council (ASEAN-BAC); and ASEAN-CCI	on-going beginning 2005
	- more efficient joint ASEAN facilitation and promotion measures to promote FDI ASEAN selling-buying missions; and		
	- promotional activities to assist CLMV countries		
31	Undertake more effective joint ASEAN facilitation in promotion measures and develop new sources of inward foreign direct investments, particularly from potential countries such as the People's Republic of China, India and the Republic of Korea		on-going
XI	Intra-ASEAN Trade and Investment Statistics		
32	Establish an effective system to monitor intra-ASEAN trade and investment through:	Working Group on Statistics; Working Group on Foreign Direct Investment Statistics; and CCCA	on-going
	- provision of updates to the ASEAN Secretariat of the latest trade (goods and services) and investment statistics		
	- preparation of consolidated industry profile, by the respective associations, which among other		

No.	Measures	Implementing Body	Timeline
	matters, cover information such as production capacity and product range		
XII	Intellectual Property Rights		
33	Expand the scope of ASEAN intellectual property rights cooperation beyond trademarks and patents by including cooperation in copyrights information exchange and enforcement	ASEAN Working Group on Intellectual Property Cooperation (AWGIPC)	31 December 2004
XIII	Movement of Business Persons, Skilled Labour, Talents and Professionals		
34	Develop an ASEAN Agreement to facilitate the movement of business persons, including the adoption of an ASEAN Travel Card, taking into account Member States' domestic laws and regulations.	Directors-General of Immigration Departments and Heads of Consular Affairs Division of the Ministries of Foreign Affairs (DGICM)	31 December 2005
35	Develop an ASEAN Agreement to facilitate the movement of experts, professionals, skilled labor and talents, taking into account Member States' domestic laws and regulations	Coordinating Committee on Services (CCS)	31 December 2005
36	Accelerate completion of MRAs to facilitate free movement of experts, professionals, skilled labor and talents in ASEAN, taking into account Member States' domestic laws and regulations		31 December 2008
XIV	Facilitation of Travel in ASEAN		
37	Harmonise procedures for the issuance of visas to international travelers	DGICM	31 December 2004
38	Provide visa exemption for intra-ASEAN travel by ASEAN nationals		2005
XV	Human Resource Development		
39	Develop and upgrade skills and capacity building through joint trainings and workshops.	Senior Labour Officials Meeting (SLOM)	on-going
SPECIFIC ISSUES			
XVI	Sanitary and Phytosanitary (SPS) and TBT Measures		
	Fisheries Quality and Safety Management System		
40	Develop and apply fisheries quality management system that ensure food safety and support competitive position of ASEAN fisheries products on world markets though the implementation, validation, verification of Hazard Analysis Critical Control Point (HACCP) -based systems and improved laboratories practices, and adapting quality and safety management systems so that	SOM AMAF; ASEAN Sectoral Working Group on Fisheries; and ACCSQ	2005-2006

No.	Measures	Implementing Body	Timeline
	they may be applied to small enterprises in ASEAN		
	Compliance with international good practices and standards		
41	Implement the Codex Code of Practice of Good Animal Feeding and Recommended International Code of Practice for Control of the Use of Veterinary Drugs and the Codex Guidelines for the Establishment of a Regulatory Programme for Control of Veterinary Drug Residues in Foods in ASEAN in order to reduce potential hazards in terms of chemical contamination, mycotoxins and veterinary drugs	SOM AMAF ASEAN Task Force on Codex	2004-2006
42	Prioritise international standards related to fisheries that would be significant for ASEAN trade value and those with potential for ASEAN trade in the future and set specific targets and schedules for harmonisation in ASEAN	ASEAN Working Group on Fisheries	2004-2008
43	Formulate guidelines for the use of chemicals in aquaculture and measures to eliminate the use of harmful chemical.	SOM AMAF	2004-2006
	Promote and strengthen the compliance of fisheries industry to the regional and international requirements		
44	Promotion of HACCP, Good Aquaculture Practice (GAP), Good Hygiene Practices (GHP) for fishery industry, especially SMEs.	Joint efforts between SOM AMAF, ASEAN Expert Group on Food Safety (AEGFS), and ACCSQ Prepared Foodstuff Product Working Group (PFPWG)	on-going
	Strengthening Testing Facilities in ASEAN and Recognition of Testing Result and Product Certification by Regulators		
45	Establishment of ASEAN Reference Testing Laboratories for fisheries products (Microbiology, mycotoxin, pesticide residues; Veterinary Drug Residues; Heavy Metals etc)	Joint efforts between SOM AMAF and ACCSQ	2007
46	Recognition by ASEAN Domestic Regulators for test reports issues by ASEAN Reference Testing Laboratories and those already accredited by national accreditation bodies who are signatories to ILAC, APLAC MRA		beginning 2005
	Harmonisation of sector specific technical regulatory regime in ASEAN		
47	Identify and prioritise SPS and TBT Measures related to fisheries products for harmonisation in ASEAN	SOM AMAF	2004-2005
48	Harmonise identified SPS and TBTs		2005-2009

No.	Measures	Implementing Body	Timeline
	measures including harmonisation of import and export, labeling requirements and marking of compliance.		
	Development and Implementation of MRAs in selected fisheries products		
49	Development and Implementation of MRAs in selected fisheries products	Joint efforts between SOM AMAF and ACCSQ	2005-2010
XVII	Research and Development (R&D)		
50	Strengthen and develop cooperation among ASEAN Member Countries in research and development programme and share technical know-how in the field of aquaculture, capture fisheries, and post harvest technology and inland water management.	SOM AMAF	on-going
51	Conduct regional workshops and seminars on fisheries research and development		
52	Exchange of experts		
XVIII	Human Resource Development (HRD)		
53	Establish short-term and long-term training programmes for fisheries and fisheries-related workers from ASEAN Member Countries within available resources	SOM AMAF	on-going
XIX	Information		
54	Encourage establishment of an ASEAN Early Warning System on Hazards and Outbreaks	SOM AMAF	on-going

[1] The database on ASEAN NTMs has been completed posted in the ASEAN Website.
[2] Timelines as per AIA Agreement (ASEAN-6 = 2010; Vietnam = 2013; Cambodia, Laos and Myanmar = 2015)

Annex 4: Negative List of ASEAN Member Countries for the Fisheries Sector

Cambodia		
No.	**AHTN**	**Description**
1	0303.11.00	- - Sockeye salmon (red salmon) (Oncorhynchus nerka)
2	0303.19.00	- - Other
3	0304.90.00	- Other
4	1604.12.10	- - - In airtight containers
5	1604.12.90	- - - Other
6	1604.13.11	- - - - In airtight containers
7	1604.13.19	- - - - Other
8	1604.13.91	- - - - In airtight containers
9	1604.13.99	- - - - Other
10	1604.20.91	- - - In airtight containers
11	1604.20.99	- - - Other
Indonesia		
No.	**AHTN**	**Description**
1	0306.13.00	- - Shrimps and prawns
2	0306.23.20	- - - Other, live
3	0306.23.30	- - - Fresh or chilled
4	0306.23.40	- - - Dried
5	0306.23.90	- - - Other
6	1604.14.90	- - - Other
7	2104.10.10	- - Containing meat
Malaysia		
No.	**AHTN**	**Description**
1	0301.10.20	- - Other, marine fish
2	0301.10.30	- - Other, freshwater fish
3	0301.99.30	- - - Other marine fish
4	0301.99.40	- - - Other freshwater fish
5	0302.69.10	- - - Marine fish
6	0302.69.20	- - - Freshwater fish
7	0302.70.00	- Livers and roes
8	0303.77.00	- - Sea bass (Dicentrarchus labrax, Dicentrarchus punctatus)
9	0303.79.10	- - - Marine fish
10	0303.79.20	- - - Freshwater fish
11	0303.80.10	- - Livers
12	0303.80.20	- - Roes
13	0304.10.00	- Fresh or chilled
14	0304.20.00	- Frozen fillets
15	0304.90.00	- Other
16	0305.20.00	- Livers and roes of fish, dried, smoked, salted or in brine
17	0305.30.00	- Fish fillets, dried, salted or in brine but not smoked
18	0305.49.00	- - Other
19	0305.59.10	- - - Sharks' fins
20	0305.59.90	- - - Other
21	0305.63.00	- - Anchovies (Engraulis spp.)
22	0305.69.00	- - Other

23	0306.13.00	- - Shrimps and prawns
24	0306.14.00	- - Crabs
25	0306.19.00	- - Other, including flours, meals and pellets of crustaceans, fit for human consumption
26	1604.20.10	- - Sharks' fins, prepared and ready for use
27	1604.20.20	- - Fish sausages
28	1604.20.91	- - - In airtight containers
29	1604.20.99	- - - Other
30	1604.30.10	- - In airtight containers
31	1604.30.90	- - Other
32	1605.10.00	- Crab
33	1605.20.10	- - Shrimps paste
34	1605.20.90	- - Other
35	1605.30.00	- Lobster
36	1605.40.00	- Other crustaceans
Myanmar		
No.	**AHTN**	**Description**
1	0302.11.00	- - Trout (Salmo trutta, Oncorhynchus mykiss, Oncorhynchus clarki, Oncorhynchus aquabonita, Oncorhynchus gilae, Oncorhynchus apache and Oncorhynchuschrysogaster
2	0302.12.00	- - Pacific Salmon (Oncorhynchus nerka, Oncorhynchus gorbuscha,Oncorhynchus keta, Oncorhynchus tschawytscha, Oncorhynchus kisutch, Oncorhynchus masou, and Oncorhynchus rhodurus), Atlantic salmon (Salmo salar) and Danube salmon (Hucho hucho)
3	0302.19.00	- - Other
4	0302.50.00	- Cod (Gadus morhua, Gadus ogac, Gadus macrocephalus), excluding livers and roes
5	0302.65.00	- - Dogfish and other sharks
6	0303.11.00	- - Sockeye salmon (red salmon) (Oncorhynchus nerka)
7	0303.19.00	- - Other
8	0303.21.00	- - Trout (Salmo trutta, Oncorhynchus mykiss, Oncorhynchus clarki, Oncorhynchus aquabonita, Oncorhynchus gilae, Oncorhynchus apache and Oncorhynchus chrysogaster)
9	0303.22.00	- - Atlantic salmon (Salmo salar) and Danube salmon (Hucho hucho)
10	0303.29.00	- - Other
11	0303.45.00	- - Bluefin tunas (Thunnus thynnus)
12	0303.46.00	- - Southern bluefin tunas (Thunnus maccoyii)
13	0303.60.00	- Cod (Gadus morhua, Gadus ogac, Gadus macrocephalus), excluding livers and roes
14	0303.78.00	- - Hake (Merluccius spp. Urophycis spp.)
15	0303.80.10	- - Livers
16	0303.80.20	- - Roes
17	0307.31.10	- - - Live
18	0307.39.10	- - - Frozen
19	0307.39.20	- - - Dried, salted or in brine
20	0307.99.20	- - - Beche-de-mer (trepang), dried, salted or in brine
21	1604.20.10	- - Sharks' fins, prepared and ready for use
22	1604.30.10	- - In airtight containers
23	1604.30.90	- - Other

Philippines		
No.	**AHTN**	**Description**
1	0301.99.11	- - - - For breeding
2	0301.99.19	- - - - Other
3	0301.99.21	- - - - For breeding
4	0301.99.30	- - - Other marine fish
5	0303.43.00	- - Skipjack or stripe-bellied bonito
6	0303.44.00	- - Bigeye tunas (Thunnus obesus)
7	0303.45.00	- - Bluefin tunas (Thunnus thynnus)
8	0303.49.00	- - Other
9	0304.20.00	- Frozen fillets
10	0304.90.00	- Other
11	0305.69.00	- - Other
12	1604.11.10	- - - In airtight containers
13	1604.11.90	- - - Other
14	1605.20.10	- - Shrimps paste
Thailand		
No.	**No.**	**No.**
1	0301.99.29	- - - - Other
2	0301.99.40	- - - Other freshwater fish
3	0302.29.00	- - Other
4	0302.64.00	- - Mackerel (Scomber scombrus, Scomber australasicus, Scomber japonicus)
5	0302.69.10	- - - Marine fish
6	0302.69.20	- - - Freshwater fish
7	0303.74.00	- - Mackerel (Scomber scombrus, Scomber australasicus, Scomber japonicus)
8	0303.77.00	- - Sea bass (Dicentrarchus labrax, Dicentrarchus punctatus)
9	0303.79.10	- - - Marine fish
10	0303.79.20	- - - Freshwater fish
11	0304.10.00	- Fresh or chilled
12	0304.20.00	- Frozen fillets
13	0304.90.00	- Other
14	0305.49.00	- - Other
15	0305.59.10	- - - Sharks' fins
16	0305.59.90	- - - Other
17	0305.69.00	- - Other
18	0306.13.00	- - Shrimps and prawns
19	0306.23.20	- - - Other, live
20	0306.23.30	- - - Fresh or chilled
21	0306.23.40	- - - Dried
22	0306.23.90	- - - Other
23	1604.20.10	- - Sharks' fins, prepared and ready for use
24	1605.20.10	- - Shrimps paste
25	1605.20.90	- - Other
26	1605.90.90	- - Other

Source: ASEAN Secretariat website

Regional Integration of the Wood-Based industry: Quo Vadis?♣

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Introduction

The wood-based products sector (WBPS) is the 11th or the last in the list of the Priority Integration Projects (PIPs) identified and approved by the ASEAN Leaders during their 10th Summit held in Vientiane, Lao PDR, 2004. It is also the least discussed and, therefore, the least understood among the PIPs. In fact, it is either omitted or mentioned in passing in the growing volume of ASEAN papers on economic integration. Thus, compared to the ten other PIPs (automotives, electronics, textiles, apparels, e-ASEAN/ICT, aviation, tourism, health care, agri-based, rubber-based and fisheries), the wood-based sector does not figure significantly in the ASEAN web site.

There are at least two reasons why ASEAN is not investing much attention on the sector.

One, intra-ASEAN trade on wood-based products pales in comparison to the trillionaire electronics sector, aviation sector, tourism sector and others. The ASEAN headquarters estimates ASEAN trade on wood and wood articles (excluding logs and timber) to be around $12 billion a year only and the export markets happen to be mainly non-ASEAN: United States, European Union and Japan (http://www.aseansec.org/16741.htm). The major ASEAN wood industry players are Indonesia, Malaysia, Thailand and the CLMV countries (Cambodia, Laos, Myanmar and Vietnam). The other ASEAN countries (Brunei and Singapore) are natural importers of wood products. The Philippines is partly a producer and an importer, although it was once a major exporter, in the l960s-l970s.

Second, the wood-based industry is based on timber materials, which are deemed exhaustible and degrading to the environment. Within official and non-official circles in the region, there is growing concern on how ASEAN is losing its forest cover and how the wood-using industries are contributing to forest denudation. In fact, the ASEAN, since the l980s, has been holding regional workshops on sustainable forestry plantations and the sharing of technologies supportive of renewable forestry plantations. However, the reality is such that illegal logging and bad forestry practices, including the

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♣Revised Draft. Summary of an earlier version was presented in the ASEAN Business Summit held December 2006, Laguna Hotel, Cebu City.

controversial intermittent forest fires in Indonesia and the haze they create across the region, are still happening. They are the ones landing in the news.

A third probable reason may be added -- the limited prospects for regional complementation or integration in the wood-based industry. The industry in most of the ASEAN countries is home-grown, oriented mainly to either their individual home market or to the export market outside the region as mentioned earlier. The wood-based PIP does not cover the forestry sector and most of the sawn timber and wood-based furniture sectors (except for a few items); it covers mainly the pulp and paper sector and the wood-based panel sector (plywood, veneers, particleboard, etc.). Timber-rich countries such as Indonesia and Malaysia would rather promote the further processing of these raw materials instead of exporting them to the pulp and paper and wood-based panel sectors of other countries. The inclusion of the wood-based industry in the 11 PIPs launched in Vientiane in 2004 was probably due to the special interest of host country Laos given the potentials of this land-locked country as a wood-based producer. Laos has rich timber resources and an underdeveloped wood-processing industry.

This short paper seeks to outline the state of integration in the WBPS and some critical policy issues and concerns which the ASEAN Leaders and the ASEAN business community should address in relation to the integration of the wood-based sector. The paper covers the following: salient features of the ASEAN Road Map on Wood-Based Sector Integration, an overview of integration in the wood-based sector, an overview of the forestry and wood-based industries in select ASEAN countries, assessment of the integration roadmap and a general outline of critical policy issues and concerns towards integration.

Salient features of the ASEAN Road Map on WBPS Integration

The 2004 'Roadmaps' for the each of the 11 PIPs are almost similarly worded. The objectives listed in the wood-based PIP roadmap can be found in the other roadmaps. They are broad and sweeping, namely:

- *"Strengthen regional integration through liberalisation and facilitation measures in the area of trade in goods, services and investments; and*

- *"Promote private sector participation."*

Likewise, the underlying justifications for integration are similarly worded and are also broad and sweeping. They read as follows:

- *"Combining the economic strengths of ASEAN member countries for regional advantage;*

- *"Facilitate and promote intra-ASEAN investments;*

- *"Improve the condition to attract and retain manufacturing and other economic activities within the region;*

- *"Promote outsourcing program within ASEAN; and*

- *"Promote the development of 'Made in ASEAN' products and services".*

Scope of the ASEAN wood-based PIP

The coverage of the wood-based PIP is limited to the following HS tariff lines:

HS 4401	Fuel wood, in logs, in billets, in twigs, or in similar forms Coniferous and non-coniferous wood Sawdust and other wood waste and scrap
HS 4402	Wood charcoal (including shell and nut charcoal)
HS 4405	Wood wool, flour
HS 4407	Planed, sanded or end-jointed wood
HS 4408	Wood slats for pencil manufacture Pinewood for blockboard manufacturing Veneer sheets
HS 4409	Strips, friezes for parquet flooring
HS 4410	Rough wood Paper products Surface-covered/laminated wood
HS 4411	Wooden beading and mouldings
HS 4412	Plywood Particle board
HS 4413	Densified wood
HS 4414	Wooden frames for paintings, photographs, etc.
HS 4415	Cases, boxes, crates, drums and similar packings Pallets, box pallets and other load boards

HS 4416	Staves
HS 4417	Boot or shoe lasts
HS 4418	Windows and frames Doors, frames and thresholds Parquet panels Shuttering for concrete constructional work Shingles and shakes Cellular wood panels
HS 4419	Wooden tableware and kitchenware
HS 4420	Wooden statuettes and ornaments
HS 4421	Clothes hangers Spools, cops and bobbins Match splints Wooden pegs or pins for footwear Candy-sticks, ice-cream sticks and ice-cream spoons Wood paving blocks Blind and blind fittings Fans and hand screens, frames and handles Horse and bullock gear Prayer and other beads Toothpicks
HS 9401	Rattan, assembled and not assembled

In sum, the WBPS PIP covers mainly the intermediate wood products – the semi-processed wood, chipped wood, plywood and veneer, wood panels, pulp wood and paperboard wastes, and paper and paper products. Furniture is partly covered through items such as windows and frames, doors and frames, table and kitchen wares, statuettes and ornaments and some assembled rattan. Also covered is a host of small wooden items such as toothpicks and candy sticks. Logs and timber are generally excluded or not mentioned. In short, the WBPS does not cover the upstream forestry and timber sub-sectors and the downstream wood-based furniture sub-sector, except for a few items

Integration measures

Like in the other PIPs, the wood-based PIP road map has the following integration measures:

- elimination of the CEPT-AFTA tariffs for the identified products

- identification of non-tariff measures and the adoption of a program to eliminate them
- improvement of the CEPT rules of origin (ROO)
- improvement of the customs procedures
- development of the mutual recognition arrangements (MRAs), harmonized standards and ensure compliance
- improvement of logistics services
- promotion of outsourcing
- expansion of the ASEAN integration system of preferences (AISP) scheme through the inclusion of the PIP sector
- removal of the PIP products from the sensitive and exclusion lists under the Framework Agreement on the ASEAN Investment Area and the promotion of investments and manufacturing based on 'comparative strengths'
- intensification of intra- and extra-ASEAN trade and investment promotion
- establishment of an effective monitoring and statistical system on intra-ASEAN trade and investment
- expansion of the scope of the ASEAN intellectual property rights
- development of an ASEAN agreement to facilitate movement of business persons, experts, professionals, skilled labor and talents, including the completion of the MRA
- facilitation of travel in ASEAN
- joint capacity building and upgrading of skills

In addition to the above 'wish measures', the road map for the wood-based PIP calls for

- enhancement of cooperation in
  - certification of wood-based products to ensure sustainability and legality of origin of such products,
  - combating illegal trade in forest products and ensuring sustainability of forest resources, and
  - increasing awareness of all stakeholders on legal and environmental consequences of forest destruction;

- building up image to counter negative publicity on tropical hardwood product trade;

- joint marketing efforts in showcasing ASEAN wood products;

- promotion of investments on forest plantation and wood-based industry; and

- cooperation in human resources development.

From the foregoing proposed integration measures, it now appears that the ASEAN is also covering the forestry and timber sub-sectors in the integration process even if these sub-sectors are **not explicitly included in the HS coverage listing**. In fact, ***since 2004***, senior ASEAN officials dealing with the environment, forestry and the wood-based industry have been discussing additional measures related to these sub-sectors. There are proposals for:

- establishment of a Pan ASEAN timber certification initiative;
- exchange of information on import-export data of timber and wood-based products;
- promotion of network among law enforcement agencies in curbing illegal trade in wild fauna and flora;
- harmonization of the standards for ASEAN forest products and specifications;
- encouragement of joint ventures in terms of capital investment, technology transfer and access to market opportunities; and
- encouragement of greater use of raw materials from timber plantations by the wood-processing industry.

State of integration in the wood-based sector

In 2004, the ASEAN released the comprehensive study of Dr. Myrna Austria on *The Pattern of Intra-ASEAN Trade in the Priority Goods Sectors*. The following features of trade (l997-2001) in the covered wood-based items can be culled from the Austria study:

1. Intra-ASEAN exports of wood-based items constitute around 12 per cent or one-eight of the total wood-based exports by the ASEAN producers.

2. The bulk of the intra-ASEAN wood-based exports are accounted for by Indonesia and Malaysia, with these two countries garnering over 60 per cent of the total (see Table 1).

Table 1. Percentage Distribution of Intra-ASEAN Wood-Based Exports By Country, 1997-2001 (%)

Country	1997	1998	1999	2000	2001	Average
Brunei						
Indonesia	**21.67**	**37.14**	**31.98**	**31.05**	**33.33**	**31.04**
Laos	2.87	1.57	2.59	3.55	4.76	3.07
Malaysia	**39.67**	**26.98**	**30.12**	**28.95**	**22.73**	**29.69**
Myanmar	6.01	4.42	6.66	6.61	7.15	6.17
Philippines	1.57	2.21	1.39	1.36	1.46	1.60
Singapore	20.36	18.33	17.58	17.11	17.75	18.23
Thailand	7.73	9.22	9.50	11.24	12.50	10.04
Vietnam	0.12	0.13	0.18	0.14	0.32	0.18

3. However, while the shares of Laos and Myanmar in the total ASEAN wood-based exports are only 3 and 6 per cent respectively, these exports account for 71 and 24 per cent of total ASEAN exports of Laos and Myanmar (see Table 2). In contrast, these wood exports constitute 5 and 2 per cent of the total ASEAN exports of Indonesia and Malaysia, respectively. In the case of the Philippines, Singapore and Vietnam, these exports constitute less than 1 per cent of their total ASEAN exports.

Table 2. Share of Wood-Based Exports in Member Country's Total Intra-ASEAN Exports, 1997-2001 (per cent)

Country	1997	1998	1999	2000	2001	Average
Brunei						
Indonesia	3.87	5.21	5.86	4.80	4.94	4.94
Laos	**80.38**	**63.65**	**59.99**	**77.36**	**74.24**	**71.12**
Malaysia	2.91	1.97	2.05	1.86	1.44	2.05
Myanmar	**29.39**	**22.62**	**34.30**	**23.87**	**9.80**	**23.99**
Philippines	0.74	0.75	0.42	0.38	0.41	0.54
Singapore	0.96	0.92	0.90	0.77	0.77	0.86
Thailand	1.02	1.25	1.36	1.44	1.44	1.30
Vietnam	0.15	0.10	0.15	0.11	0.23	0.15

3. The biggest importers of wood-based products are Singapore (27.9 % of total intra-ASEAN imports), Thailand (25.7 %), Malaysia (25.4 %), Philippines (9.4 %), Vietnam (5.5%) and Indonesia (3.8 %) in this order (see Table 3)

Table 3. Percentage Distribution of Intra-ASEAN Wood-Based Imports By Country, 1997-2001 (%)

Country	1997	1998	1999	2000	2001	Average
Brunei	2.00	2.00				1.00
Indonesia	3.49	3.52	2.74	5.24	4.35	3.87
Laos						
Malaysia	16.87	22.89	26.86	29.67	30.52	25.36
Myanmar	0.65	1.01	1.47	1.36	1.77	1.25
Philippines	9.70	10.24	11.23	7.46	8.39	9.40
Singapore	**31.23**	**31.43**	**28.04**	**25.63**	**23.21**	**27.91**
Thailand	32.25	22.06	23.89	24.80	25.66	25.73
Vietnam	3.38	6.42	5.78	5.84	6.10	5.50

4. Singapore came third after Indonesia and Malaysia and accounted for 18.23 per cent of the total intra-ASEAN wood-based exports. Singapore is a major importer (Table 3) and yet it is also a major exporter (Table 1). This is

because Singapore has been churning out higher value-added paper and paper products out of its semi-processed wood imports and/or other paper materials. To a certain extent, this production pattern obtains in the Philippines and Thailand and even in the timber-rich Malaysia.

5. Exporters of lower value-added products (rough wood, sawn or chipped wood, plywood and varied articles of wood) are Laos, Myanmar and Malaysia; while exporters of higher value-added products (wood pulp, paperboard, paper and paper products) are Indonesia, Malaysia, Philippines, Singapore and Thailand.

6. The trade balance has been positive for the big exporter-producers of wood materials -- Indonesia, Laos, Malaysia and Myanmar.

7. The direction of exports is driven by geographical proximity. Laos exports go almost 100 per cent to Thailand; Myanmar, 62 per cent to Thailand and 23 per cent to Singapore; and Malaysia, 55 per cent to Singapore and 27 per cent to Thailand (see Table 4).

8. Total intra-ASEAN foreign direct investments (FDI) in the wood-based sector averaged over $700 million a year, or roughly 20 per cent of the total FDI in the sector. Indonesia and Malaysia accounted for 31 and 40 per cent of total intra-ASEAN FDI for the sector; the Philippines got 16 per cent.

Forest exhaustion concern,
Log shortages

In the ASEAN deliberations on the WBPS PIP road map, there has been increasing attention on the unprocessed log and timber sub-sectors. This is obviously in response to the campaign by the environmental movement, various civil society organizations and other stakeholders on the need to preserve the forest cover of Southeast Asia, made more urgent by the controversies on the forest fires and haze coming from Indonesia. Table 5 shows the rapid decline of the forest cover of the big ASEAN countries.

All countries in the region have been experiencing rapid forest denudation, especially the big WBPS exporters-producers such as Indonesia, Laos, Malaysia and Myanmar. The only exception is Vietnam, which has managed to increase its forest cover through a hard-nosed reforestation program. However, it should be noted that Vietnam, which is famous for its lacquer and other furniture, is forced to import, at an increasing rate, timber and other wood materials from countries as far as Canada.

Table 4. Leading Markets for Intra-ASEAN Export and Import of Wood-Based Products (Based on Average Share, 1997-2001)

Countries	*Export*				*Imports*			
	Product		Market		Product		Market	
	HS Code	% Share	Countries	% Share	HS CODE	% Share	Countries	% Share
Brunei					4418	31.22		
					4407	18.16	Malaysia	44.67
					4819	17.74	Singapore	36.17
Indonesia	4802	20.87	Malaysia	47.60	4707	39.66	Singapore	52.19
	4810	18.92	Singapore	31.17	4703	14.31	Thailand	23.75
	4412	10.10			4802	10.16	Malaysia	17.48
					4818	10.03		
Laos	**4407**	**66.96**	**Thailand**	**100.00**				
	4403	**26.54**						
Malaysia	4407	40.33	Singapore	55.09	4802	18.90	Indonesia	56.36
	4412	14.97	Thailand	27.09	4407	10.20	Singapore	20.32
	4819	4.91			4801	9.15	Thailand	17.20
					4403	9.05		
					4810	8.99		
Myanmar	4403	73.52	Thailand	61.97	4819	57.55	Singapore	66.00
	4407	21.27	Singapore	22.78	4801	17.19	Indonesia	31.06
					4810	9.68		
Philippines	4801	67.77	Singapore	49.98	4407	23.04	Myanmar	83.81
	4407	12.03	Malaysia	24.09	4408	14.08	Indonesia	8.39
	4823	9.53	Thailand	23.22	4802	13.15	Thailand	5.09
Singapore	4811	34.75	Malaysia	54.47	4407	21.21	Malaysia	45.49
	4819	15.49	Thailand	24.41	4412	16.04	Thailand	16.86
	4823	10.95	Vietnam	9.05	4818	10.64	Myanmar	14.73
Thailand	4818	24.07	Malaysia	42.38	4407	47.52	Malaysia	45.49
	4805	15.04	Singapore	23.22	4403	21.62	Singapore	16.86
	4804	12.05	Philippines	16.50	4811	14.75	Myanmar	14.73
	4802	11.01						
Vietnam	4421	56.88	Malaysia	56.88	4810	18.70	Indonesia	35.87
	4412	25.07	Singapore	43.12	4819	14.49	Singapore	30.48
	4819	18.05			4410	9.29	Malaysia	17.81
					4703	9.15		

Sources: PC/TAS

Table 5. Forest cover estimates for ASEAN countries*
(1990-2000)

Country	***1990***	***2000***
Cambodia	56.1	52.9
Indonesia	65.2	58
Laos	56.7	54.4
Malaysia	65.9	58.7
Myanmar	60.2	52.3
Philippines	22.4	19.4
Thailand	31.1	28.9
Vietnam	28.6	30.2

**excluding the small island states of Brunei, Singapore*
Source: UNDP, 2006. Southeast Asia Regional Economic Integration and Cooperation, Colombo: UNDP Regional Office.

The Philippines, a major exporter of timber and wood-based products in the l960s-l970s, has the lowest forest cover in the region. In fact, the shortage of forest materials has led to the collapse of its once vibrant saw mill industry, plywood industry, pulp and paper industry and other wood-based industries. A number of Philippine pulp and paper plants have closed down, and those which are still standing are dependent on imported materials, including imported recyclable paper materials from other countries.

In the meantime, towns once known for their wood-based industries such as Butuan City, Zamboanga City and Davao City in Mindanao get easily flooded during rainy seasons – a stark reminder to all that there is a price to be paid for any reckless harvesting of exhaustible forests. In l900, about 75 per cent of the Philippines (with a total area of 30 million hectares) was covered by virgin forest; by l969, the forest area was down to 10 million hectares; and by l988, to 6.5 million hectares (Howard, l993).

This is why the ASEAN's Roadmap for the WBPS PIP will be incomplete if forestry policies and programs – conservation, illegal logging campaigns, calibrated harvesting and utilization of forestry materials, forestry renewal and plantations, etc. -- are not properly and sufficiently addressed. The vital role of forests in making the region liveable cannot be overemphasized. Apart from illegal logging and deforestation in general, the Road Map should address other related issues such as control over forestry resources, access of the poor to these resources, forestry conversion to promote food security and bio-fuels production, expansion of commercial ranching and agriculture, nexus/linkages between sustainable forestry and sustainable agriculture, technological and institutional packages in support of the foregoing, etc.

In this regard, cross-sectoral linkages to tackle common problems, including the enhancement of the comparative advantages of each sector, requires coordination. Also crucial is the compliance of member countries with international treaties and conventions dealing with forestry and related environmental concerns. Table 6 below is a listing of the treaties and conventions ratified by the different ASEAN countries.

Table 6. Status of Ratification of International Conventions and Agreements (as of Dec.1, 2002)

Country	CBD	UNFCCC	Kyoto Protocol	CCD	CITES	Ramsar Convention	World Heritage Convention
• Brunei					✓		
• Indonesia	✓	✓		✓	✓	✓	✓
• Laos	✓	✓		✓			✓
• Malaysia	✓	✓	✓	✓	✓	✓	✓
• Myanmar	✓	✓		✓	✓	✓	✓
• Philippines	✓	✓		✓	✓	✓	✓
• Singapore	✓	✓		✓	✓		✓
• Thailand		✓	✓	✓	✓	✓	✓
• Vietnam	✓	✓	✓	✓	✓	✓	✓

Notes: The regional breakdown reflects geographic rather than economic or political groupings
CBD – Convention on Biological Diversity
UNFCC – United Nations Framework Convention on Climate Change
CITES – Convention on International Trade in Endangered Species of Wild Fauna and Flora

Only Malaysia, Thailand and Vietnam have ratified all the seven (7) international treaties promoting environmental protection. Outside of these three countries, none has ratified the all-important Kyoto Protocol. Laos, a major wood and wood-based producer, has the least number of ratified conventions.

The forestry conservation issues are bound to intensify. As correctly pointed out by an ADB Forest Sector paper (2002), total demand exceeds the total supply of logs in the whole Asia-Pacific region. The situation is aggravated by widespread illegal logging and timber smuggling, which, the ADB notes, leads not only to environmental degradation but also to government revenue losses. For the ADB, there is urgency for the Asia-Pacific countries to address issues such as forest and tenure security, legal and regulatory framework, integrated forest resource development and planning, monitoring and evaluation of forest policy, and strategizing the role of the private sector in forest development. And yet, despite declining forest resources, both the public and private sectors in Southeast Asia and the rest of the Asia-Pacific region are ***under-investing*** in reforestation, conservation and renewable forestry projects. The situation is further complicated by the growing competition for raw logs or semi-processed timber as a result of the log bans in place in most countries in the region as well as in the tremendous growth of China's wood and furniture industry, which is dependent on imported wood materials (Woodmarkets, September 2004).

Clearly, one integration challenge for the ASEAN in the sector is indeed cooperation in various forestry programs such as combating illegal logging and forest fires, monitoring of timber trade, sharing of technology and experiences in forest conservation, upgrading of skills of forestry officials, regional forestry approaches and so on. Additionally, there is a need to tackle strategies on how to make public and private sector investments in forestry projects a viable proposition, which by itself requires another roadmap. The

roadmap may also include the twin (oftentimes seen as contradictory) issues of poverty reduction and forestry conservation. How can program for the latter promote jobs and incomes for the poor? On this, there are case studies on how people at the grassroots level incorporate trees and forests into their livelihoods and farming systems.

Uneven development of the wood-based industry

As pointed out, the biggest Southeast Asian exporters of wood products (and logs and timber) are Indonesia and Malaysia, which have integrated forestry and wood-based industry. The wood and timber exports are in the top three exports of these resource-rich countries. In the l980s, Indonesia and Malaysia adopted a conscious policy of 'timber industrialization', which is the reason why these countries have now become major exporters of pulp, paper and other wood-based products. Indonesia's annual wood product exports accounted for 13-17 per cent (roughly US $7 billion a year) of the country's total exports in the l990s and sustained the jobs of half a million workers employed by hundreds of sawmills and the big plywood, pulp and paper, blockboard, chipmill and other wood-processing mills (Massijaya and Kartodihardjo, c2000).

Malaysia , on the other hand, earned US $5 billion in 2004 from its wood product exports -- plywood, particleboard, medium density fibreboard, veneered panels, mouldings, etc. (www.mida,gov.my). Because of its huge investments on the wood-processing industry and its own efforts to conserve its forests through a log ban, Malaysia has also been importing part of its raw material requirements and has been experimenting on the use of alternative wood materials such as kenaf and rubber. Malaysia has 'Timber Processing Zones' in Sarawak and Sabah and the industry employs a quarter of a million, including skilled workers from the Philippines and other countries.

The wood-based industry in resource-rich Laos and Myanmar is fairly underdeveloped as reflected in the nature of their exports, which are mainly low value-added semi-processed wood products.

After Indonesia and Malaysia, the biggest wood-based exporters are Thailand, Vietnam, the Philippines and Singapore. Thailand, given its geographical location, has easy access to raw materials coming from Laos, Myanmar and Malaysia. Singapore gets its materials from nearby Indonesia, Malaysia and the world market.

Vietnam and the Philippines source their materials all over the region and from as far as North and South America. Both countries, with expertise in wood working and furniture making, are reported to be losing skilled workers to Indonesia, Malaysia and the Middle East. Because of raw material constraints, these countries have been concentrating on niche markets such as specialized furniture.

As to intra-ASEAN investments in the wood-based industry, information is scarce and limited. Japan, given its requirements, is reported to be the biggest non-ASEAN investor in Indonesia, Malaysia, Philippines and Thailand. However, some home-grown lumber

and wood ASEAN exporters, particularly from Malaysia and Thailand, have become big and have invested in other ASEAN countries and in non-ASEAN areas such as Papua New Guinea (Sizer and Plouvier, 2000). Thailand, for example, has now become a major player in the Philippine pulp and paper industry. With the liberalized and globalized economic environment, the patterns of ownership are likely to change over time.

Other regional cooperation programs

Ironically, one of the early regional economic cooperation programs in the ASEAN relates to log and timber exports. In the late l970s, the Southeast Asian Lumber Producers Association (SEALPA) was formed to establish log standards and a system of certification. In l978, SEALPA adopted its 'log grading rules'. However, with the decline of Philippine log exports as a result of the exhaustion of its forest resources, SEALPA has become an affair involving only Indonesia and Malaysia and a non-ASEAN country, Papua New Guinea.

A more recent cooperation program deals mainly with forestry – the enforcement of forestry laws against illegal logging and corrupt practices (e.g., money laundering) through the Forest Law Enforcement and Governance (FLEG) project, which is supported by the World Bank, the United States and the European Union. An East Asia Ministerial Conference held in Bali got the commitment of ASEAN countries for regional cooperation on forest law enforcement, tracking and policing of illegal logging and illegal trade, and adoption of a system of certification and 'genetic fingerprinting' of timber exports, among others. However, despite this FLEG initiative, the illegal trade of logs continues in some ASEAN countries, especially in Indonesia and the Philippines.

Regional integration:
What's in it for ASEAN countries?

From the foregoing outline of the structure of the industry in the individual ASEAN countries, it is clear that the WBPS integration program is somewhat confused. The PIP Road mapping emphasizes trade liberalization as a key towards economic integration. However, most of the covered HS lines have already been liberalized through the tariff liberalization schedule under the ASEAN Free Trade Agreement-Common Effective Preferential Tariffs (AFTA-CEPT), which lowered tariffs for the ASEAN goods to 0-5 per cent by 2003 for the original ASEAN 6 and by 2007-08 for the CLMV countries. In 2010, tariffs for the PIP-covered sectors will be down to zero; however, the impact of zero tariff rate is not likely to be much different from that of the present AFTA-CEPT rate.

Despite AFTA-CEPT and the PIP Road Map, there are no signs that the WBPS is integrating regionally, that made-in-the-ASEAN wood products are now being developed and marketed regionally and globally, and that countries in the region are cooperating and helping one another (based on comparative advantages) in the development of a regional

WBPS sector. It is obvious that trade liberalization alone does not necessarily lead to sector integration. This is so because ASEAN countries have different levels of WBPS development and are in fact competing with one another for raw materials and in the marketing wood-based products within and outside the ASEAN. This is best illustrated in the case of the Philippines.

Laments of Filipino furniture and paper producers

In the ASEAN Business Summit held in Cebu in December 2006, Filipino furniture participants in the WBPS Workshop were disappointed on the WPBS Road Map. This is because the PIP Road Map, as outlined earlier, is focused on the middle or intermediate sub-sectors. Michael Basubas, president of the Cebu Furniture Industries Foundation, Inc., commented (Natividad, 12-13 January 2007) as follows:

> *"The proposed integration road map did not address the entire value chain. Furniture, which is a wood-based product, was not even included. Only certain sectors were. There's got to be a deeper, more comprehensive consultation that will address the entire value chain."*

The interest of the Cebu and other Filipino furniture makers is to have easier access to cheap wood materials, which are in short supply in the Philippines because of the log and timber shortage in the country. A liberalization in trade in logs and timber will naturally work to the advantage of the Filipino furniture makers, who import these materials from Malaysia and non-ASEAN countries, some as far as Brazil. In addition, Filipino furniture makers are facing keen competition from Indonesia, Thailand and Vietnam and from a non-ASEAN neighbour, China.

On the other hand, the Filipino pulp and paper producers has also a similar complaint – severe shortage of raw materials. However, as explained by Armando Rios, managing director of the Pulp and Paper Manufacturers Association, Inc. or PULPAPEL, the materials that the pulp and paper producers have been securing are not wood materials but waste paper or recyclable paper materials, dumped by consumers at home or imported from countries such as the United States, Israel and so on. The original pulp and paper makers utilizing wood pulp have either closed down or shifted to paper recycling business due to the shortage of wood materials, high cost of energy and the general downscaling of the industry in the last two decades as reflected in table 7. According to Rios, even the giant PICOP in Agusan, Mindanao, which once operated an integrated plywood-newsprint-paper milling operation, has shifted in recent years to paper recycling business. Further, Rios explained that operating a paper mill processing wood pulp requires huge capital outlay (a minimum of $15 million) and a steady supply of cheap energy and wood materials, both of which are not available in the Philippines. As a result, the Philippines, once a paper exporter, is now a major importer of paper and paper products. The Philippines is also a major importer of other wood products (see table 8).

Table 7.
Philippine production of wood products
1976-2002

Year	*Lumber* (‘000 cu m)	*Plywood* (‘000 cm)	*Veneer* (‘000 cm)	*Paper/paper products* (‘000 metric tons)
1980	1529	553	660	324
1985	1062	350	77	155
1990	841	397	49	175
1995	286	290	19	n.a.
2000	150	286	178	na.
2002	163	350	205	n.a.

Source: 2005 Philippine Yearbook, NSO.

Table 8.
Philippine imports and exports of wood-based products
2000

	Imports	*Exports*
Sawn wood (‘000 c m)	359	120
Wood-based panels (‘000 c m)	219	16
Pulp for paper production (‘000 m tons)	60	0
Paper and paper products (‘000 m tons)	388	111

Source: table 4 of FAO’s *State of the World’s Forests*, 2003

The Philippine paper mills have been producing newsprint, printing and writing paper, kraft/sack paper, corrugating medium and linerboards, tissue and specialty paper, etc. out of recycled waste papers. Since 2003, PULPAPEL has been resisting the government’s efforts to lower the tariff rates for imported paper and paper products while demanding for only one (1) per cent tariff rate for imported waste paper and pulp and other materials. It cites that the neighboring ASEAN countries such as Malaysia, Indonesia and Thailand have rates twice or more those of the Philippines. In l978, tariffs for the industry products ranged between 30 to 100 per cent; in 2000, the rates were down to 3-10 per cent and in 2002, to a uniform three (3) per cent (Brucal and Narvaez, June 2006). In contrast, Indonesia, Malaysia and Thailand have kept their tariff rates at 5-10 per cent.

PULPAPEL also wails against the unchecked flow of smuggled paper and paper products and the liberal policy of the government allowing the export of waste paper and other scrap materials. The association has been very critical of the ASEAN-CEPT program and is unable to identify with the ASEAN PIP program, which it said will not be beneficial to the association’s members. Additionally, it is also wary of the proposed bilateral trade liberalization programs involving China, Japan, United States and other countries which

are being negotiated in the context of the ASEAN Framework Agreement with the individual developed countries.

Overall, there is no enthusiastic response from the Philippine wood-based sector to the proposed PIP. As it is, the sector is even being seen as a 'sunset industry', which saw its glory days in the l960s-l970s. A more recent study (Brucal and Narvaez, June 2006) shows that the 'wood manufacturing sector accounted for only 0.5 per cent of the total GVA of the entire manufacturing industry in 2005, making it one of the smallest sub-sectors'. The study blames the weakness of the sector not only on the wood/raw material shortage but also on 'obsolete and inappropriate' production and processing equipment and infrastructure. Likewise, in the case of the pulp and paper industry, it argues that the industry, dependent as it is on waste paper, is being pulled down by the 'low recovery rate' of waste paper in the country.

However, while the picture is dismal for the pulp and paper industry, that of the plywood and veneer wood industries appears different. In Table 7, there appears to be some modest growth recovery in the production of the latter in recent years. This partial recovery is based on imported wood materials sourced not only from Indonesia and Malaysia but also from non-ASEAN countries such as Russia and Brazil.

Case of Indonesia and Malaysia

Indonesia and Malaysia are two countries that are both producers and exporters of unprocessed or semi-processed raw materials and wood-based products as defined in the ASEAN PIP. In 2000, Indonesia's Sarawak earned from various wood-based products a total of over 3.3 billion Malaysian ringgit or over 11 per cent of Sarawak's aggregate export earnings of 31 B MR for the year. Malaysia also earns a lot from exports of timber and varied wood-based products as summarized earlier.

However, both Indonesia and Malaysia have been very conscious of the importance of adding more values to their wood harvests and wood products. Hence, their similar national efforts to restrict export of unprocessed timber and to encourage increased processing of such. In recent years, Malaysia has even encouraged its pulp and paper industry to utilize more and more non-wood materials such as kenaf and ageing rubber trees.

In this context, it is difficult for the two countries to completely open up their existing industries – unless the idea is to open up their WBPS for increased investments from neighboring ASEAN countries. In fact, Malaysia did not hesitate to impose anti-dumping measures against two Philippine companies – TIPCO on its exportation of newsprint and UPPC on corrugating medium.

WBPS Roadmap:
Time for a strategic re-examination

The WBPS is declared important to ASEAN economies because it seen as a source of exports, revenues and employment.

Weaknesses and obstacles to integration

However, the ASEAN Secretariat itself has pointed out that ASEAN trade in timber products amounted to only US$24 billion, with trade in wood and wood articles accounting for over half of this. It is also abundantly clear that trade liberalization per se, as envisioned by the PIP Road Map, will not necessarily lead to deeper regional integration. Some countries are competing against each other. Those with rich wood materials are interested in adding more values to these materials instead exporting said materials to ASEAN countries with severe material shortages. The competition for wood materials has even spilled to competition for waster paper materials.

On the other hand, new ASEAN member countries Laos and Myanmar are also keen in the development of their WBPS given their rich forestry resources. Thus, their natural interest to have a fuller ASEAN implementation of the WBPS PIP. However, this will not easily happen given the interest of the other ASEAN countries to keep their own WBPS industries going and expanding.

On the 'made-in-ASEAN products', we still have to see concrete measures, either undertaken by the governments or private sector of the region, in support of such promotion program. Nor are there any concrete indications that there have been progress in other key WBPS measures dealing with Non-Tariff Measures (NTMs); Rules of Origin (ROO); Customs procedures; Standard & Conformance; Logistic Services; Outsourcing and Industrial Complementation; ASEAN Integration System of Preferences; Investments; Trade and Investment Promotion; Intra-ASEAN Trade and Investment Statistics; Intellectual Property Rights; Movement of Business Persons, Skilled Labour, Talents and Professionals; Facilitation of Travel in ASEAN; and Human Resource Development. Some measures are not exactly applicable to the WBPS PIP.

As it is, progress (see Matrix I) has been mainly in the forestry and timber sub-sectors, with the ASEAN issuing the following measures:

- Measure 40: Developing cooperation programme among authorities dealing with certification of timber/wood-based products to ensure the sustainability and legality of the origin of such products;

- Measure 41: Developing cooperation programme among relevant authorities to combat illegal trade in forest products, including endangered species of flora and

fauna, and exchange of relevant information on wood import as allowed by law, on the basis of mutual respect, equality and mutual benefit, and in all levels, to ensure the sustainability of forest resources.

- Measure 44: Inviting more advanced countries to provide assistance to AMCs, e.g. on the proposed EU Action Plan on Forest Law Enforcement, Governance and Trade (FLEG-T);

The ASEAN has appointed Indonesia as the lead country for the WBPS PIP. However, it has not come up with an up-to-date report on the PIP.

Matrix 1. Highlights of Progress on Some Specific Issues

NO	MEASURES	PROGRESS
XVI	**Enhancing Cooperation in Timber Products**	
40	Develop cooperation programme among authorities dealing with certification of timber/ wood-based products to ensure the sustainability and legality of the origin of such products;	▪ Developing ASEAN Guideline to phased-approach timber certification ▪ Defining legality of timber sources
41	Develop cooperation programme among relevant authorities to combat illegal trade in forest products, including endangered species of flora and fauna, and exchange of relevant information on wood import as allowed by law, on the basis of mutual respect, equality and mutual benefit, and in all levels, to ensure the sustainability of forest resources.	▪ Developed and implement the ASEAN Strategic Alliance in SFM: *The case of illegal logging and associated trade* ▪ Developed and implement the Regional Action Plan on Trade in Wild Fauna and Flora (2005-2010) ▪ Established ASEAN Wildlife Law Enforcement Network ▪ Joint cooperation between forestry and customs agencies
XVII	**Joint Marketing and Image-Building**	
44	Invite more advanced countries to provide assistance to ASEAN Member Countries, e.g. on the proposed EU action plan on Forest Law Enforcement, Governance and Trade (FLEGT);	▪ Some AMCs are in preparation for negotiation to engage in VPA under EU Action Plan for FLEGT

Integration: Prospects and Recommendations

From the foregoing outline of the regional pattern of wood-based industry and the uneven level of development of the industry across the region, it is clear that integration requires some strategic re-visioning and consequent to this, the corresponding road-mapping for the industry. It can consider the following:

First, there is a need to formally bring in the other sub-sectors in the context of the whole value chain, as voiced out by the Filipino furniture makers.

Second, there is indeed urgency in coming up with unified regional approach to illegal trade in timber and logs. In this connection, ASEAN's efforts to ***broaden the integration project by addressing forestry concerns*** is on the right track. In particular, the above FLEG initiative and the following proposed measures are indeed worth supporting:

- ⇒ establishment of a Pan ASEAN timber certification initiative;
- ⇒ exchange of information on import-export data of timber and wood-based products;
- ⇒ promotion of network among law enforcement agencies in curbing illegal trade in wild fauna and flora;
- ⇒ harmonizing standards of ASEAN forest products and specifications;
- ⇒ encouraging joint ventures in terms of capital investment, technology transfer and access to market opportunities; and
- ⇒ Encouraging greater use of raw materials from timber plantations by the wood-processing industry.

Third, there is a need to be more concrete in the programming under the road map. As it is, the current Roadmap has sweeping wish measures which sound very much like motherhood statements. There is a need to link clearly such measures with concrete definable activities in the WBPS.

Fourth, there should be greater focus on productive and mutually-beneficial cooperation programs. These include HRD, investment promotion, standard setting, data base development, all of which are already included in the road map. What is needed to be more concrete as to how these broad mission goals can be achieved.

Fifth, there is a need to have an overall vision of where the ASEAN WBPS shall be by 2015, five years after the integration measures are supposedly to be fully in place. For example, what kind of sector complementation and cooperation will be in place?

Sixth, there is a need to de-romanticize liberalization and integration; instead, it will do well to fully identify all obstacles to integration.

Seventh, there is a need to strategize ASEAN responses to the emerging trends in the East Asian and global producers, e.g., what is happening in China, Japan and Korea and their evolving production programs.

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http://www.forestry.sarawak.gov.my/ for materials on Sarawak's wood-based industry.

Developing an ASEAN Framework for Trade Negotiations:

Determining the Role of the Philippine Natural Rubber and Rubber Based Products Manufacturing Industries in the ASEAN Economic Integration Plan: Is the Philippines capable of making significant contributions to the region and obtaining substantial gains from these industries?

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I. Introduction

The initial reduction of tariff rates under the ASEAN Free Trade Area (AFTA) agreement was a major step towards integrating the economies of member countries within the region. This initiative was designed and taken in order to create one large regional market made up of roughly 530 million consumers that would serve to stimulate the growth of various industries which would exploit the advantages behind economies of scale, encouraging firms to reap the benefits of mass production, lower average costs and lower prices. In view of the competition that would further intensify within the ASEAN region as well as from other regional trading blocs, the quality of goods and services is expected to further improve as ASEAN based firms try to strengthen efforts to increase market shares in the midst of widening global trade.

At the Bali Summit of October 2003, the ASEAN Economic Community (AEC) was established as one of the three pillars of a broader ASEAN Community. ASEAN leaders had declared that the AEC was the realization of the end goal of economic integration as outlined in the ASEAN Vision 2020 which characterizes the region as a single market and production base, with the free flow of goods, services, investment, skilled labor and a freer flow of capital by 2020. As a larger market, countries in the region will be in a better position to compete and allocate resources more efficiently through investments in international production networks and transfer skilled labor into areas where they are expected to make the most contributions and generate the largest returns. Economic integration is crucial for ASEAN in order to better compete with fast growing rivals in the Asia Pacific region as well as in other regional trading blocs.

In September of 2004, ASEAN finance ministers agreed to lay out a ‘road map” for integration and the opening of doors to wider global trade. In particular, tariff rates in eleven (11) industry sectors will be abolished by 2012, forming a common market

containing more than 530 million people. Under this road map, tariff rates on **rubber,** electronics, autos, textiles, air travel, tourism, agriculture, e-commerce, fisheries, wood and healthcare will be scrapped in 2007 between ASEAN's more developed members namely: Brunei, Indonesia, Malaysia, the Philippines, Singapore and Thailand while the four other members namely: Cambodia, Myanmar, Laos and Vietnam, have been given until 2012 to abolish tariff rates in the 11 priority sectors and to fully integrate with the AFTA.

This paper focuses on the Philippine **natural rubber and rubber based products manufacturing industries** with the objective of providing insights on the possible or potential role of these sectors as ASEAN moves towards greater economic integration within the next few years.

II. The Philippine Natural Rubber Industry

Rubber is an elastic substance obtained by coagulating the milky juice of tropical plants of the genera Hevea and Fiscus. Rubber trees that are 5 years old or more produce a white or yellow colored latex that can be harvested by cutting bark with a herringbone pattern, deep enough to reach the latex vessels but before the phloem (the hard wood). The older the rubber tree gets, the more latex is produced. Production from the Philippine rubber industry begins in the plantation where latex, the milk like substance tapped from the bark of the rubber tree (Hevea brasillienses muel ang) is collected into small containers, heated and smoked by burning wood, stirred and then combined with acid or alkali in order to coagulate or thicken the latex to produce cake like products called coagulum or cuplumps.. The resulting flat "cakes" are hung to dry and afterwhich shipped to factories and made into various types of rubber products. This is essentially a polymer of isoprene, prepared into sheets and then dried with the end product being referred to as Casuthosec or India Rubber. It extends to the intermediate industries of processing latex concentrates and baled rubber, down to rubber product manufacturers. The industry spills over from an agricultural based sub group of rubber growers and processors to rubber product manufacturers (BOI-DTI ITRC Report, 1998).

Rubber trees grow best in tropical countries with temperatures ranging from 20 to 28 degrees centigrade and with well distributed rainfall. The mature trees can grow to as high as 20 to 30 meters with upward extending branches and a slim trunk. Rubber trees were planted in Mindanao as early as 1906. Tapping for commercial production began at the Menzi Agricultrual Corporation in Basila in 1914. Another early planter was the Rio Grande Rubber Estate in kabacan, North Cotabato, the area where the Philippine Industrial Crops Institute, a major rubber research center under the University of Southern Mindanao is now situated (BETP-DTI ITRC Report, 2000).

Goodyear Tire and Rubber Company started a 1,000 hectare plantation in Zamboanga del Sur in 1919. In 1929, American Rubber Co. planted another 1,000 hectares in Basilan. By the late 1950's, large scale planting was being tried by Goodrich in Basilan, Firestone in North Cotabato, and Goodyear in Zamboanga del Sur. Goodyear invited neighboring farms to grow rubber by making production technology and planting

materials available, a strategy later followed by Goodrich and Firestone. The lifespan of the rubber tree may extend beyond one hundred years, but its economic life in the plantation covers only 32 years, of which the first seven fall within the immature phase and the succeeding 25 years the productive phase. Small and medium sized landowners were thus encouraged to venture into rubber farming with the support of soft financing from the Development Bank of the Philippines and the Philippine National Bank (BETP-DTI ITRC Report, 2000).

The Philippine rubber industry covers four major product groups namely: natural rubber, tires, molded rubber, and articles of rubber. Natural rubber is the primary product processed from latex into air-dried sheets, crumb rubber and centrifuged latex. Molded rubber refers to materials such as paste, sheets, rods, threads, tubes and latex products. Articles of rubber are final products such as bottle nipples and other articles like conveyor belts, stoppers, plugs, weather strips and gaskets which are mostly used as components of machines (BOI-DTI ITRC Report, 1998).

Product Description	**Coverage**	**HS Code**	**PSIC Code**	**SITC Code**
Natural Rubber	Natural rubber such as air dried sheets, crumb rubber and centrifuged latex	40.01	231	232
Rubber Tires	Tires	40.11 40.12 40.13	625	625
Molded Rubber Products	Materials of rubber such as paste, sheets, rods, thread, tubes of rubber, latex products	40.03 40.09	621	621
Rubber Articles	Bottle nipples, conveyor and transmission belts, stoppers, plugs and seals, gaskets and weather strips.	40.10 40.14 40.17	629	628

Source: BOI-DTI ITRC Report, 1998.

Natural rubber is the raw material for more than 50,000 industrial and consumer products. Among its domestic uses are vehicle tires (41%), footwear (32%) and motorcycle and bicycle tires (15%) (BETP-DTI ITRC Report, 2000).

Tires used for machines and heavy equipment, pick-up vehicles and trucks, automobiles and civil and military aircraft generally use radial tires made of natural rubber. Only natural rubber can provide the necessary resistance in the flanks and the best quality of adhesion for steel belts. The United States which imports more than 1 million tons per year of natural rubber also reflects a 95 percent share of radial tire sales in its total pneumatic market. Radial tires are safer, more resistant, more durable and perform better in terms of contributing to fuel consumption efficiency, than conventional tires. This partly explains the international market's growing preference for radial tires as compared to conventional tires made of synthetic rubber. In addition, synthetic rubber

which is obtained from petroleum products are becoming more expensive because of rapidly rising oil prices during the past three years (BETP-DTI ITRC Report, 2000).

Surgical gloves, condoms, surgical tubes, catheters and other pharmaceutical products are major users of natural rubber in the health services sector. The outbreak of the Acquired Immune Deficiency Syndrome (AIDS) has encouraged the use of condoms for safe sex and dramatically increased the demand for this product over the past several years. These products used by hospitals, clinics and health centers use 100 percent natural rubber and its consumption in the medical industry has grown substantially over the past years. The adhesive characteristics of natural rubber as applied to steel and glass, and its ability to support heat and vapor during sterilization makes it the ideal raw material for these types of products being used by the health services sector (BETP-DTI ITRC Report, 2000).

Rubber artifacts such as soles for shoes, auto parts, small artifacts, camel back for recapping tires and carrier belts are also intensive users of natural rubber as raw materials. These products represent a huge potential in terms of business opportunities for rubber based manufacturing firms gearing to take advantage of a single unified market in the ASEAN region.

2.1 Domestic Production

The domestic production of rubber has grown substantially over the past seven years from 214,575 metric tons in 1999 to 315,600 metric tons for the year 2005. The fastest growth in production was recorded during the year 2001 at 22.07 percent. For the year 2002, production growth slowed down at 1.40 percent but began to accelerate at 2.34 percent to 6.29 to 8.36 percent for the years 2003, 2004 and 2005 respectively. The average growth rate for production was at 6.94 percent. Increases in productivity can also be observed during the seven year period with the yield per hectare improving from 2.34 metric tons per hectare in 1999 to 3.85 metric tons per hectare in 2005. Aside from the new technologies designed to increase productivity, improvements in the yield per hectare may have also been stimulated by rising farm gate prices of rubber cup lumps which increased from P7.29 per kilogram in 1999 to P17.12 per kilogram in 2003. Producers were encouraged to take advantage of the attractive prices by further raising production through productivity improvements.

Philippine Rubber (cup lump) Production Volume from 1999-2003

Year	Production volume in metric tons	Growth rate (percentage)	Yield (metric ton/ hectare)
1999	**214,575**	**-0-**	**2.34**
2000	**216,309**	**0.81**	**2.67**
2001	**264,042**	**22.07**	**3.38**
2002	**267,712**	**1.40**	**3.30**
2003	**273,979**	**2.34**	**3.42**
2004	**311,240**	**13.60**	**3.85**
2005	**315,600**	**1.40**	**3.85**

Source: Bureau of Agricultural Statistics
NEDA Statistical Yearbook

Rubber planters in the Philippines are predominantly small land holders, with a farm size falling within a range of seven to ten hectares. The implementation of the Comprehensive Agrarian Reform Law transformed the natural rubber sector from a structure with a few large-based plantations to one with many small farm land holdings. The remaining rubber plantations are owned by private companies or are formed as a group of integrated small land holders functioning as cooperatives. After land redistribution under the Agrarian reform program, the management of formerly vast tracts of land were consequently left to farmers who were trained to tap rubber trees but did not possess adequate technical and marketing skills and did not have the financial capability to maintain or increase the land's productivity (BOI-DTI ITRC Report 1998).

Rubber is mainly cultivated in the three regions of Mindanao, with most of the farms located in Region 9 which makes up 41 percent of the total land area being used for production. Region 11 and 12 make up 8 percent and 29 percent of the land area used for rubber production respectively. For the year 2004, the total area used for planting rubber was 82,314 hectares (BAS 2005). The number of hectares planted with rubber trees was estimated at 81,925 hectares by the end of 2005 (Panganiban, 2006) . Although there was a decrease in the number of hectares being used for growing rubber trees, cup lump production had still expanded from 291,239 to over 315,600 metric tons due to the continued increases in productivity as shown by the larger yield per hectare of 3.54 metric tons in 2004 to 3.85 metric tons in 2005.

During the last few years, the area planted to rubber had been declining from 91,536 hectares in 1999 to 81,295 hectares by the year 2005. The lowest number of hectares planted to rubber during this period was at 80,144 hectares in 2003, only to make a slight recovery in 2004 at 82,314 hectares. The number of hectares used for growing rubber trees had been decreasing by an average of 4.17 percent. A substantial number of senile as well as less productive old trees were being cut down to be used as wood, without having a sustainable replanting program to replace the old trees particularly from 1999 to 2003.

Area used for Planting Rubber Trees (in hectares) 199-2005

Year	Area Planted to Rubber (in hectares)	Growth Rate (percentage)
1999	**91,536**	**-0-**
2000	**81,036**	**-11.47**
2001	**78,108**	**-3.61**
2002	**81,087**	**3.81**
2003	**80,144**	**-1.16**
2004	**82,314**	**2.70**
2005	**81,925**	**-0.47**

Source: Bureau of Agricultural Statistics
NEDA Statistical Yearbook

There are seven recommended clones for high yielding rubber trees and these are: RRIM 600 (Rb99-01), RRIM 712, RRIM 901, PB217 (Rb 99-02), PB235 (Rb 99-04), PB260, USM1 (Rb 99-03), PB330, and PB 311. Currently there are 29 million rubber trees in the country producing over 315 thousand metric tons of output as of 2005 (Panganiban 2006).

The Department of Agriculture estimates that 500,00 hectares are currently suitable for growing rubber in Mindanao but at present less than 82,000 hectares are being used. The areas being identified for potential expansion are Agusan del Sur with 110,000 hectares; Zamboanga del Sur with 100,000 hectares; Bukidnon with 50,000 hectares; North Cotabato with 50,000 hectares; Zamboanga del Norte with 50,000 hectares and Basilan with 20,000 hectares (BETP-DTI ITRC Report, 2000).

Number of Productive Rubber Trees

Year	Number of Productive Rubber Trees	Growth Rate (percentage)
1999	**26,810,997**	**-0-**
2000	**25,250,262**	**-5.82**
2001	**25,190,726**	**-0.24**
2002	**25,127,597**	**-0.25**
2003	**24,992,305**	**-0.54**
2004	**26,916,712**	**7.69**
2005	**28,989,299**	**7.70**

Source: Bureau of Agricultural Statistics
NEDA Statistical Yearbook

The number of productive rubber trees declined from 1999 to 2003, from over 26.8 million to 24.99 million trees with an average rate of decline of approximately 1.7 percent over the four year period. The growing domestic and global demand for natural rubber and the increasing price in the world market prompted government to implement a national rubber development program which included a substantial increase in the production of rubber seedlings and a consequent expansion of hectares used for growing

rubber trees. This resulted to an increase in the number of productive trees from 24.99 million in 2003 to 26.9 million in 2004 to 28.9 million in 2005 (Panganiban 2006).

Rubber is mainly produced in the provinces of Zamboanga Sibugay, Zamboanga del Sur and North Cotabato. These provinces account for 28 percent, 22 percent and 20 percent respectively of the total domestic production in the Philippines. The other provinces which may be considered as major producers are Basilan and Agusan del Sur which contribute 8 percent and 6 percent to local production respectively (Department of Agriculture Report 2004).

At present, the total plantation area devoted to rubber is about 92,067 hectares, 50 percent of which is located in Western Mindanao, followed by Central Mindanao with 24 percent share. There are 31, 215 rubber growers classified as either small or large scale growers (Eleazar, BAR Chronicle, 2006).

Approximately 40,000 farmers and over a thousand farm workers in the rubber tree tapping and tending nurseries directly benefit from the industry. In addition, downstream industries in primary processing and the manufacture of finished products such as tires, footwear and other industrial products provide other benefits to various sectors of the economy. Roughly 95 percent of the domestic rubber production is used by the downstream industries and from this, 70 percent of the rubber produced is purchased by the tire and footwear industries (Costales 2006).

2.2 Exports of Natural Rubber

Natural rubber exports which include rubber products in its primary form, plates, crepe sheets and strips have been performing well over the past six years. Exports were initially valued at $14.29 million during the year 2000 and have grown substantially reaching a level of $36.51 million during the year 2005. Except for the 7.32 percent decline during the year 2001, all other years going into 2005 revealed positive growth, the highest of which was at 80.23 percent in 2003, and the lowest at 5.21 percent in 2004. Natural rubber exports for 2002 at $18.187 million, increased by almost twice as much in 2003 at $32.779 million.

Philippine Exports and Imports of Natural Rubber (in U.S.$)

Year	Exports	Imports	Trade Balance	Net Trade Ratio

				(percent)
2000	**14,292,880**	**521,870**	**13,771,010**	**92.95**
2001	**13,246,525**	**1,348,346**	**11,898,179**	**81.52**
2002	**18,187,449**	**917,727**	**17,269,722**	**90.39**
2003	**32,779,749**	**1,635,770**	**31,143,979**	**90.49**
2004	**34,487,598**	**1,764,147**	**32,723,451**	**90.26**
2005	**36,508,385**	**5,360,466**	**31,147,919**	**74.39**

Source: National Statistics Office

The major buyers of Philippine rubber primary products were Taiwan, mainland China, Malaysia, Singapore, Hong Kong and Germany. The people's Republic of China purchased more than $ll.2 million worth of rubber products, followed by Taiwan at $9.3 million, Malaysia at $8.9 million and Singapore at $3.6 million.

Growth Rate of Exports and Imports
(in percentage)

Year	Exports	Imports
2001	**-7.32**	**158.37**
2002	**37.30**	**-31.94**
2003	**80.23**	**78.24**
2004	**5.21**	**7.85**
2005	**5.86**	**203.85**

Source: National Statistics Office

2.3 Imports of Natural Rubber

Imports of natural rubber were relatively smaller but had increased substantially over a six year period. In the year 2000, imports were at $521,870, and by 2005 this had reached $5.360 million. Import growth was rapid during the year 2001 and 2005 at 158.37 and 203.85 percent respectively. During the six year period, imports declined in 2002 registering a 31.94 percent reduction from $1.348 million in 2001 to $917,727 in 2002. Although imports grew by more than 200 percent during the year 2005, its $5.360 million level was still below the export value of $36.508 million for the same year. The Philippines imports natural rubber largely from Thailand worth $1.972 million, followed by Singapore at $1.788 million and Indonesia at $542,707. Despite the rapid growth of natural rubber imports, it remained substantially lower compared to exports for all years within the 2000-2005 period.

2.4 Trade Balance and Net Trade Ratios

The trade balance had remained positive all throughout the six year period with exports outpacing imports resulting to an increase in the trade surplus from $13.77 million in 2000 to $31.147 million in 2005. The trade balance became significantly wider beginning in the year 2002 at $17.269 million and this further increased to $31.144 and $32.723 in years 2003 and 2004 respectively. The net trade ratio was over 90 percent during the years 2000, 2002, 2003 and 2004. The lowest net trade ratio was recorded for the year 2005 at 74.39 percent caused by the rapid expansion of imports in 2005. Despite the dramatic increase in imports last year, the trade surplus for natural rubber products continued to stay above $30 million indicating its potential comparative advantage in the industry.

2.5 Domestic Prices

The growing demand for natural rubber which may be attributed to the higher demand for tires used by the automotive industry, the expanding output of the footwear industry as well as the declining competitiveness of synthetic rubber caused by rapidly increasing oil prices, has put pressure on farm gate prices to increase.

Farm Gate Prices of Cup Lump Rubber

Year	Price (Pesos/kg.)	Percentage change
1999	7.29	-0-
2000	9.25	26.89
2001	7.90	-14.59
2002	11.03	39.62
2003	17.12	55.21
2004	26.00	51.87
2005	28.00	7.69

Source: Bureau of Agricultural Statistics

In 1999, cut lump rubber used to be sold at P7.29 per kg. Prices had continuously risen over the past seven years settling at P28.0 per kg. for the year 2005. Cup lumps normally become even more expensive during the summer months of March and April as well as September to December because of seasonal increases in demand caused by additional purchases of raw materials by producers of rubber based products.

Except for the year 2001, prices had risen significantly over the past seven years with the largest increase at 55.21 percent during the year 2003. Increases of 51.87 , 39.62 and 26.89 percent were recorded during the years 2004, 2002, and 2000 respectively. These price increases may have encouraged natural rubber producers to increase cup lump production as shown by the growth in total output from over 214 thousand metric tons in 1999 to over 315 thousand metric tons by 2005, despite a reduction in the number of hectares used for planting rubber trees.

2.6 International Prices

Prices of natural rubber have been increasing in the world market due to strong demand. A comparison of prices across the European, Asian and North American markets reveal a consistent trend of price increases from the year 2004 to 2006. In Europe, the natural rubber grade TSR20 had a price of 1039 euro per ton, which increased to 1197 euro per ton by the end of 2005 and further rose to 1666 euro per ton by the 1st quarter of 2006. This reflected a price increase of 15.21 percent from 2004 to 2005 and 39.2 percent by the end of the 1st quarter of 2006. During the four quarters of 2005, prices have consistently risen from 976 euros per ton during the first quarter to 1446 euros per ton by last quarter reflecting a price increase of 48.15 percent.

Natural Rubber Prices

Natural Rubber Grade	**2004**	**2005 1st Quarter**	**2nd Quarter**	**3rd Quarter**	**4th Quarter**	**Year-end 2005**	**2006 1st Quarter**
Europe TSR20 euro/ton	**1039**	**976**	**1056**	**1311**	**1446**	**1197**	**1666**
SICOM RSS3 S$/ton	**2187**	**2057**	**2292**	**2809**	**2841**	**2500**	**3283**
New York TSR20 US $/ton	**1350**	**1354**	**1381**	**1625**	**1783**	**1535**	**2036**

Source:IRSG Rubber Statistical Bulletin

In the Asian market, the natural rubber grade RSS3 was shown in Singapore to be at S$2187 per ton in 2004. This price had risen to S$2,500 per ton by the end of 2005 and consequently became S$3283 per ton by the 1st quarter of 2006. This represented a price increase of 14.31 percent from 2004 to 2005 and 31.32 percent by the 1st quarter of 2006. Asian prices during the four quarters of 2005 have also shown consistent increases from S$2057 per ton during the first quarter to S$2841 per ton in the last quarter of the year. This reflected a price increase of 38.11 percent within the year 2005.

For the North American market, the New York price of the natural rubber grade TSR20 had risen from $1350 per ton in 2004 to $1535 per ton by the end of 2005 to $2036 going into the 1st quarter of 2006. This represented a growth rate of 13.7 percent and 32.64 percent for the years 2005 and 2006 (1st quarter) respectively. Across the four quarters of the year 2005, prices have also risen from $1354 per ton during the 1st quarter to $1783 per ton by the end of the 4th quarter reflecting an increase of 31.68 percent

It can be observed that for the three grades of natural rubber, prices in Europe, Asia and North America had all risen from 2004 to 2006, with the biggest rates of increase recorded going into the 1st quarter of 2006 (39.2 percent for Europe TSR20, 31.32

percent for SICOM RSS3 and 32.64 percent for New York TSR20). This provides an indication of the strength of demand in the world market which continues to put pressure on natural rubber prices to increase.

By the end of 2006, international prices had increased substantially (more than 30 percent) for the three different grades of natural rubber as presented in the following table:

Natural Rubber Prices

Natural Rubber Grade	2005	2006 (year end)
Europe, TSR20 e/tonne	1197	1646
SICOM, RSS3 S$/tonne	2500	3344
New York, TSR20, US $/tonne	1535	2113

Source: International Rubber Study Group 2007

The price of Europe TSR 20 had increased by 37.5 percent followed by New York TSR 20 at 37.65 percent and the RSS3 in the Singapore commodity market at 33.76 percent.

Relative Price of Natural Rubber to Synthetic Rubber
(price ratio NR/SR in percent)

Ratio of NR to SR	2004	2005 1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Year-end 2005	2006 1st Quarter
New York TSR20 / USA SBR	**100.8**	**83.9**	**84.3**	**102.8**	**111.9**	**95.6**	**123.5**

Source:IRSG Rubber Statistical Bulletin

Robust world demand and higher international prices have made natural rubber more attractive for firms to produce relative to synthetic rubber which has been negatively affected by the rising price of oil in the world market. Synthetic rubber uses petroleum products as a major component in production and rising oil prices from $50 to $70 per barrel has made synthetic rubber production more costly and less competitive as compared to natural rubber. A comparison of international prices shows that natural rubber is more attractive relative to synthetic rubber because of its higher prices in the global market.

The price ratio of natural rubber to synthetic rubber (New York TSR20 / USA SBR) was at 100.8 percent in 2004, 95.6 percent in 2005 and 123.5 percent in 2006. This indicates that for the years 2004 and 2006, the price of natural rubber has been higher than that of synthetic rubber making it more attractive for current as well as prospective natural rubber producers. Although, synthetic rubber prices were slightly

higher than natural rubber by the end of 2005, the 3rd and 4th quarters of the year show that natural rubber prices were still higher compared to those of its synthetic counterpart. It was only during the 1st and 2nd quarters of 2005 where synthetic rubber was priced higher than that of natural rubber. Natural rubber is cheaper to produce (due to its non-dependence on petroleum), and its demand coming from the automotive and footwear industries are strong because of its superior durability, elastic and strength characteristics as compared to synthetic rubber. The price increases in the international market have definitely served as an incentive for natural rubber producers to increase domestic output as well as production for export.

Synthetic Rubber Prices

	2005	**2006**
USA SBR Export Values US $/ tonne	1607	1710
Japan SBR Export Value '000 Yen/tonne	182	205
France, SBR Export Value e/tonne	1284	1382

Source: International Rubber Study Group 2007

Synthetic rubber prices had increased by the end of 2006 with the USA SBR price rising by 6.4 percent, the Japan SBR at 12.64 percent and France SBR at 7.63 percent

Relative Natural Rubber to Synthetic Rubber Price Ratio

	2005	**2006**
New York, TSR20/ USA SBR	95.6	123.6

Source: International Rubber Study Group 2007

By the end of 2006, natural rubber prices had surpassed synthetic rubber prices with the ratio of New York TSR 20 to USA SBR moving from 95.6 percent in 2005 to 123.6 percent in 2006.

Natural Rubber Prices in Malaysia (Ringit per kg.)
2001-2004

Natural Rubber Grade	**1999-2001 average**	**2002**	**2003**	**2004**
RSS1 cif	**243.3**	**292.1**	**401.4**	**480.7**
SMR20 cif	**225.5**	**284.8**	**380.0**	**519.6**

Source: Rubber Commodity Notes, FAO 2004

Malaysia, being the third largest natural rubber producer in the world, also exhibited dramatic price increases across the 2001 to 2004 period. The natural rubber

grade of Malaysian RSS1 reveals continuing price increases from 243.3 ringit per kilogram in 2001 to 292.1, 401.4 and 480.7 for the years 2002, 2003 and 2004 respectively. Prices had risen by 20 percent in 2002, 37.42 percent in 2003 and 19.76 percent in 2004. For the natural rubber grade of Malaysian SMR20, prices had risen from 225.5 ringit per kg. in 2001 to 284.8, 380 and 519.6 ringit per kg in 2002, 2003 and 2004 respectively. These price increases represented annual growth rates of 26.3 percent in 2002, 33.43 percent in 2003 and 36.74 percent in 2004. The rising prices boosted Malaysian natural rubber production during the same period and extending to both 2005 and 2006.

Natural Rubber Prices 1995-2006
(US cents per kg)

Year	USS3	RSS3	STR20
1995	138.76	157.21	153.22
1996	121.39	138.51	132.33
1997	87.28	96.89	95.71
1998	62.07	70.91	67.07
1999	52.25	62.10	60.07
2000	58.32	66.41	64.82
2001	50.65	56.97	53.84
2002	67.77	76.03	75.33
2003	95.62	107.03	101.16
2004	115.92	128.46	122.28
2005	136.61	148.94	139.85
2006	192.86	210.94	194.54

Source: Tavarolit, IRCo, 2006

The upswing in international prices for natural rubber during the year 2000 and 2002, actually began as a recovery from a period of declining prices during the years 1995 to 1999. The three natural rubber grades USS3, RSS3 and STR20 all experienced falling prices from 1995 to 1999, only to recover in the year 2000 and 2002. The lowest price level for the three natural rubber grades were 50.65 US cents per kg for USS3, 56.97 US cents per kg for RSS3 and 53.84 US cents per kg for STR20 all occurring during the year 2001. By the end of 2002, prices began to recover for the three natural rubber grades. For USS3, prices had risen to 67.77 US cents per kg in 2002 to 192.86 US cents per kg in 2006. For RSS3, prices increased from 76.03 US cents per kg in 2002 to 210.94 US cents per kg by 2006. And lastly, for STR20, from a price level of 75.33 US cents per kg in 2002, this had increased to 194.54 US cents per kg in 2006. Price increases for 2006 were 41.17 percent for USS3, 41 percent for RSS3 and 39.1 percent for STR20.

Export prices have generally been increasing, with the price of exported rubber crepes rising by 31 percent from $560 per metric ton in 2003 to $773 per metric ton by

the end of 2004. The same trend can also be observed with natural rubber plates which had increased from $640 per metric ton in 2003 to $932 per metric ton in 2004 reflecting a 45 percent rate of increase. By the year 2005, natural rubber had been selling in the world market for $1,100 to $1,200 per metric ton (Costales, 2006).

Thailand, being one of the largest producers in the world market provides a bench mark for price movements in natural rubber. Driven largely by increasing demand from China and other Asian countries, rubber prices in world major rubber exchange markets continued to move upward in 2003, 2004 and early 2005. The average price of RSS rubber in 2003 in Thailand was 44.5 Baht/kg. ($1.07/kg), which was 36 percent higher than in 2002 and 77 percent higher than 2001. Similar price increases could be observed in other major markets such as London and Tokyo. After reaching 55.9 Baht/kg. in June 2004, the price of RSS rubber in Thailand started falling because of expected higher production in 2004 and a lower growth in demand from China. However, the price reduction was contained. The average price in August 2004, was at 52 Baht/kg. or 16 percent higher than the 2003 level. The price of oil (which is the basic material for producing synthetic rubbers) had risen significantly over the past few years to exceed US$50/barrel, thus providing natural rubber some price competitiveness over synthetic rubber (FAO, 2004).

Thai RSS3 reached a price level of Baht 100.4 per kg, the highest level in the history of the organized rubber market in Thailand. New York TSR20 a proxy for Indonesian SIR 20 and the Malaysian SMR 20 had risen to $2.46 per kg and $2.23 per kg respectively. The latest price gains are a continuation of the four and a half year long bull run and are underwritten by tight global rubber market conditions, affected by recurring but temporary supply interruptions caused by heavy rains, especially over the main producing areas (IRSG Report 2006).

Since the final quarter of 2005, global natural rubber latex consumption and imports have been recovering while production and exports have decline sharply. As a result, latex prices have been rising sharply, responding to rising farmgate prices and overall tightness of the global rubber market. Despite the rising and high cost of raw materials, exports of latex based rubber goods had performed well during the first quarter of 2006 ((IRSG Report 2006).

World rubber prices should continue to show some strength in the near future largely due to high oil prices and continuing global economic growth. If global economic growth particularly in the developed countries such as those in the European Union, Japan and the United States and large developing countries such as China and India continue at their current pace, further price strengthening can be expected. It would however, be limited in the long run by the great potential to increase supply by more intensive tapping and by increasing yield in the major producing countries (FAO, 2005).

III. Natural Rubber in the International Market

3.1 World Consumption of Natural Rubber

The consumption of natural rubber in the world market for the year 2005 was measured at 8.777 million metric tons. This indicates growth of approximately 5.2 percent as compared to the 2004 level of 8.343 million metric tons. The regional group which consumes the largest volume of natural rubber are composed of countries falling within the Asia/ Oceana group which had consumed 4.919 million metric tons of natural rubber during the year 2004, and 5.248 million metric tons by the end of 2005 reflecting a rate of increase of approximately 6.69 percent.

Natural Rubber Consumption (in thousands of metric tons)

Region	2004	2005 1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Year-end 2005	2006 1st Quarter
North America	1290	336	335	329	316	1316	328
Latin America	520	136	143	133	120	532	129
European Union	1295	353	337	320	325	1335	321
Other Europe	196	57	56	59	54	225	53
Africa	123	33	30	31	26	121	29
Asia/Oceana	4919	1296	1301	1323	1328	5248	1303
Total	8343	2211	2201	2195	2170	8777	2162

Source:IRSG Rubber Statistical Bulletin

The second largest regional group consuming natural rubber were countries belonging to the European Union which had used 1.295 million metric tons in 2004 and had increased this to 1.335 million metric tons by the end of 2005. Consumption growth for this regional group was at 3.09 percent.

The third largest consumers of natural rubber are the countries found in the North American region which had used 1.290 million metric tons during the year 2004 and increased this further to 1.316 million metric tons by the end of 2005. Consumption in the North American region grew by 2 percent for this period. Countries in the Latin American region represent the fourth largest consumers, using up 520 thousand metric tons of natural rubber in 2004 and increased this to 532 thousand in 2005, with consumption growing at a rate of 2.3 percent. The rest of the other regional groupings had shown consumption levels which were either “close to” or substantially lower than 200 thousand metric tons. Countries falling in the regional group classified as “the other

Europe" used up 196 thousand metric tons in 2004 and increased this to 225 thousand metric tons in 2005, reflecting growth at 14.8 percent.

The regional group which consumed the smallest volume of natural rubber were the countries belonging to the African region with consumption measured at 123 thousand metric tons in 2004. The region's use of natural rubber had even declined by 1.62 percent to a level of 121 thousand metric tons by the end of 2005, due to their relatively weak economies and the absence of well integrated industries in the automotive, tire manufacturing, footwear, machinery / equipment manufacturing and pharmaceutical industries which are considered to be the major users of natural rubber.

The consumption of natural rubber has been growing rapidly over the past seven years. As of May 2006, the consumption of natural rubber in the world market reached 8.79 million tons and this represents an increase of 10.98 percent compared to the 2003 level of 7.92 million tones. The consumption level in 2006, also reflects growth of 16.58 percent relative to the 2002 level of 7.54 million tones and 32 percent as compared to the 6.655 million tones purchased in the international market in 1999.

Nearly half of the natural rubber used globally is for tire production. The higher demand for motor vehicles, and consequently for tires, stimulated further by stronger economic growth in several key markets, particularly in China and other Asian countries together with substantial increases in oil prices (resulting to higher prices for synthetic rubber), contributed to the stronger demand for natural rubber (Rubber Commodity Notes, FAO, 2004).

The growing economies of developed countries such as the United States, Japan, Canada and other European countries have also contributed significantly to the increase in natural rubber consumption. The United States and Canada maintains consumption from a range of 1.13 to 1.20 million tones to supply their respective transportation industries (Rubber Commodity Notes, FAO, 2004).

China has been a major consumer of natural rubber over the past several years. During the year 2003, its consumption of natural rubber reached nearly 1.49 million tones, 13 percent more than the previous year and nearly 75 percent higher than in 1999. Other countries including India, Japan, the Republic of Korea and Malaysia, also registered substantial increases in consumption in 2003. Brazil became an important driving force for higher consumption in South America using roughly 256,000 tones in 2003, which was 10 percent higher than the previous year and about 39 percent higher than in 1999. While most Western European countries have stabilized consumption over the past few years, several eastern European countries, particularly Poland and the Czech Republic, experienced considerable growth. In 2003, their consumption reached 73,000 and 52,000 tones respectively reflecting an annual growth rate of 10 percent since 1999 (Rubber Commodity Notes, FAO, 2004).

China became the world's largest natural rubber importer in 2003, purchasing over 1.1 million tones, which is approximately 26 percent more than in 2002. This increase

was fuelled by continuing growth in demand by the automotive industry along with the stagnation of their domestic natural rubber industries. China's net imports increased by 430,000 tones from 1999 to 2003 , representing close to 60 percent of the increase in world consumption over the four-year period (Rubber Commodity Notes, FAO, 2004).

The economic value of China's rubber product market is estimated at $9.7 billion and most of this can be found in the shoe and transportation industries (Friedl Business Information, 2003). China is the leading producer and exporter of footwear in the world while its automotive industry consumes a large bulk of natural rubber either produced locally and or imported for use in passenger cars, trucks and other commercial vehicles. For the past two decades, the demand for cars and other commercial vehicles have been increasing by an average of 29 percent and 11 percent respectively. China's automotive industry requires a 1 percent increase in natural rubber supply to be used for tires for every 110,000 cars produced. In 2003, its production of 4.4 million cars produced 40 percent more demand for natural rubber (Business in China, 2004).

Regional Natural Rubber Consumption
(in thousands of tons)

Region	2004	2005	2006
North America	1290	1316	1148
Latin America	523	538	519
European Union	1292	1331	1305
Other Europe	198	227	157
Africa	122	120	115
Asia/Oceania	5156	5463	5625
Total	8581	8994	8956

Source: International Rubber Study Group (IRSG, 2007)

By the end of 2006, the Asia Oceana region registered the highest consumption at 5.625 million tons followed by the European Union at 1.305 and North America at 1.148 million metric tons respectively.

Global Natural Rubber Consumption
(in thousands of tonnes)

Ranking	Country	Volume 2006	% of the world

			total
1	China	2235	24.4
2	USA	1939	21.1
3	Japan	881	09.6
4	India	808	08.8
5	Malaysia	312	03.4
-0-	World	9175	100.0

Source: IRSG Report 2006

For the year 2006, global natural rubber consumption had risen to 9.175 million tones, growing at a rate of 1.5 percent. The largest volume of natural rubber consumption was attributed to China which accounts for a 24.4 percent of world consumption, followed by the United States at 21.1 percent and Japan at 9.6 percent . (IRSG 2006).

3.2 World Production of Natural Rubber

The production of natural rubber in the world market has grown substantially over the last few years with an average growth rate of 5.93 percent over the 2001 to 2005 period. For the past five years, production had the fastest growth in 2003 at 8.84 percent reaching a world output level of 8.0 million metric tons. From 6.93 million metric tons in 2001, production in the world market had surpassed 8.87 million metric tons by 2005.

Although growth was relatively slower for the year 2005 at 2.14 percent , production is still expected to expand further in succeeding years as fueled by the rising demand coming from the tire and footwear industries of both developed as well developing countries, the continued increase in the price of natural rubber in the international market, as well the increasing prices of synthetic rubber which has made it less competitive compared to its natural rubber counterpart.

World Production of Natural Rubber
(in thousands of metric tons)
2001-2005

Year	Total Production	Growth Rate (percentage)
1999-2001	**6,930 (ave.)**	**-0-**
2002	**7,350**	**6.06**
2003	**8,000**	**8.84**
2004	**8,686**	**8.58**
2005	**8,872**	**2.14**

Source: IRSG Rubber Statistical Bulletin

Growing demand for rubber and higher prices have revived rubber tapping in Asian countries and lead to the conversion of some plantation crops such as palm oil into

rubber. Intensive tapping has increased yield and consequently production (Rubber Commodity Notes, FAO 2004).

World Production Across Regions

For the period covering 2004 to 2006, world production distributed across regions reveals that Asia had consistently provided the largest volume of natural rubber output at 8.115 million metric tons in 2004 and 8.277 million metric tons by the end of 2005. Asia's share out of world production was approximately 93.43 and 93.29 percent in 2004 and 2005 respectively. Second to Asia was the African region which produced 380 thousand and 399 thousand metric tons for the year 2004 and 2005, representing 4.37 percent and 4.5 percent of world production. Latin America was the third largest contributor to world production with 191 million metric tons in 2004 and 196 million metric tons in 2005. This represented a share of 2.2 percent and 2.21 percent out of world production for the years 2004 and 2005.

Natural Rubber Production Across Regions
(in thousands of tons)

Region	2004	2005 1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Year-end 2005	2006 1st Quarter
Latin America	191	53	55	41	47	196	55
Africa	380	96	97	99	107	399	100
Asia	8115	2158	1899	2129	2091	8277	2222
Total	8686	2307	2051	2269	2245	8872	2377

Source:IRSG Rubber Statistical Bulletin

Natural rubber production in Asia grew by 2 percent by the end of 2005, while Africa and Latin America increased output by 5 percent and 2.62 percent for the same year respectively.

A comparison of world production during the 1st quarter of 2005 as against the same period in 2006 also reveals an increase in output from 2.307 million metric tons to 2.377 million metric tons reflecting growth of approximately 3.03 percent. All other natural rubber producing regions in the world showed improvements in the first quarter of 2006 compared to that of 2005, with Asia growing by 2.96 percent, Africa increasing by 4.16 percent and Latin America by 3.77 percent. Asia's role as the world's largest natural rubber producer is explained by the fact that the top five producers are found in this region and these are namely; Thailand, Indonesia, Malaysia, India and China. These five countries combined already account for roughly 85 percent of natural rubber production in the world.

Global production which was recorded at 8.872 million metric tons in 2005, was higher by 2.14 percent compared to the previous year and 10.9 percent compared to that

of 2003. Thailand, which is the world's largest natural rubber producer had surpassed its record of 2.87 million metric tons in 2003 to a level of 2.953 million metric tons in 2004 and over 3 million metric tons by the end of 2005. The country accounts for approximately 35 percent of the world's natural rubber production. Higher prices in the international market has been the major factor inducing more intensive tapping by rubber producers in Thailand. Production in Thailand had grown by 9.9 percent, 2.78 percent and 2.13 percent during the years 2003, 2004 and 2005 respectively.

Regional Natural Rubber Production
(in thousands of tons)

Region	2004	2005	2006
Latin America	191	200	203
Africa	363	392	401
Asia	8132	8280	8928
Total	8686	8872	9532

Source: International Rubber Study Group (IRSG, 2007)

By the end of 2006, Asia produced the largest volume of natural rubber at 8.928 million tons, followed by Africa and America at 401 and 203 thousand tons respectively. Asian output grew by 7.8 percent, followed Africa at 2.3 percent and Latin America at 1.5 percent.

Natural Rubber Production
(in thousands of metric tons)
2001-2005

Country	1999-2001 average	2002	2003	2004	2005
World	**6930**	**7350**	**8000**	**8686**	**8872**
Thailand	**2274**	**2615**	**2873**	**2984**	**3016**
Indonesia	**1369**	**1630**	**1792**	**2066**	**2156**
Malaysia	**860**	**890**	**986**	**1169**	**1163**
India	**627**	**641**	**707**	**743**	**750**
China	**456**	**468**	**480**	**486**	**450**
Vietnam	**279**	**373**	**380**	**415**	**450**
Philippines	**264**	**268**	**274**	**311**	**316**
Coite de Ivoite	**122**	**120**	**127**	**130**	**131**
Liberia	**104**	**109**	**110**	**107**	**110**
Brazil	**87**	**89**	**94**	**101**	**103**
Sri Lanka	**90**	**91**	**92**	**94**	**95**
Others	**197**	**57**	**81**	**80**	**132**

Source:IRSG Rubber Statistical Bulletin

The second largest natural rubber producer in the world is Indonesia which had contributed over 2.156 million metric tons in 2005 representing growth of over 4.36

percent compared to the previous year. Growth in 2004 was faster at 15.29 percent when output increased from 1.792 million metric tons in 2003 to 2.066 million metric tons in 2004. Indonesia's share from world out output production was approximately 24.3 percent. The country's production of natural rubber has been increasing since 2001 with growth rates of 19 percent in 2002, 9.9 percent in 2003, 15.29 percent in 2004 and 4.35 percent for the year 2005.

Malaysia is the third largest producer in the world which generated output at a level over 1.163 million metric tons in 2005. Malaysian production had actually decreased by 0.51 percent in 2005 as compared to the 2004 level of 1.169 million metric tons. The Malaysian natural rubber industry had actually performed better before 2005, growing at rates of 3.5 percent , 10.78 percent , and 18.6 percent during years 2002, 2003 and 2004. Production of natural rubber in Malaysia accounts for 13.10 percent of the world production for the year 2005.

India, China, Vietnam and the Philippines make up the rest of the major producers of natural rubber in the world. For the year 2005, India generated output of over 750 thousand metric tons, followed by China at 450 thousand metric tons, Vietnam also at approximately 450 thousand metric tons and the Philippines at 316 thousand metric tons. Natural rubber production has grown steadily for India, Vietnam and the Philippines over the past five years, while China had experienced an actual reduction in output of roughly 7.4 percent for the year 2005. Output growth for natural rubber in China has not been as fast as its other Asian counterparts because of the limited land area being allocated for growing rubber trees. For the year 2005, India had an output growth of 0.94 percent, Vietnam at 8.43 percent and the Philippines at 1.6 percent.

Although the Philippines may be considered as the seventh largest producer of natural rubber in the world, 85 percent of the output produced is used as raw material inputs by the local economy, while the remaining 15 percent is exported. Being the seventh largest producer in the world already provides an indication of the country's potential to be a major contributor in the international market.

For the country to take advantage of the opportunity presented by rising demand in both domestic and international markets, local firms must rehabilitate the existing natural rubber plantations and increase the number of hectares being used for growing rubber trees. And aside from this, it is also necessary to improve the quality of natural rubber and encourage more firms to move into production with higher value added such as rubber blocks and concentrated latex (Costales, 2006).

Natural Rubber Production
(in thousands of tonnes)

Country	2004	2005	2006	2007 (projections)

Thailand	2984	2937	2942	3235
Indonesia	2066	2271	2468	2722
Malaysia	1169	1126	1263	1297
India	743	772	835	890
Vietnam	403	509	563	600
China	486	428	428	456
Philippines	311	316	na	na
Sri Lanka	95	104	109	115
World	8638	8813	9346	10074

Source: IRSG Report 2006

The Asia Pacific region continues to produce the largest volume of natural rubber in 2006 and is expected to continue within the next few years. World production in natural rubber had increased by 2 percent (from 8.638 to 8.813 million tons) in 2005, and 6 percent (to 9.346 million tons) in 2006. Thailand, Indonesia and Malaysia continue to maintain their position as the three largest producers by the end of 2006.

3.3 Natural Rubber Demand and Supply in the World Market

A comparison of production and consumption levels in the global market reveal that the differences between supply and demand for natural rubber in the world has been consistently less than 1 million metric tons over the last six years. There was a surplus occurring during the years 1999, 2001, and 2003 up to 2005. On the other hand, deficits had appeared during the years 2000 and 2002. Although there were more years where surpluses appeared in the world market, the deficits in year 2000 and 2002 were relatively larger. The largest surplus generated was 343 thousand metric tons in 2004, while the biggest deficit was at 577 thousand metric tons. The smallest deficit during the seven year period was 196 thousand metric tons in 2002, while the lowest surplus was recorded in 2003 at 34 thousand metric tons.

The deficits of 577 thousand metric tons in year 2000 and 196 thousand metric tons in 2002 were large enough to offset all of the other surpluses during the 1999-2005 period. This is reflected by the negative (deficit) average of 5.14 thousand metric tons over the seven year period. In addition, despite more years of surpluses, the average supply over the seven year period turned out to be lower at 7.682 million metric tons compared to the average demand of 7.688 million metric tons. The average growth for world supply also reflected a relatively lower rate of increase at 4.43 percent compared to world demand with an average growth rate of 4.8 percent.

The larger average demand over the seven year period, along with its higher average growth rate, the extremely large deficits in 2000 and 2002, as well as the negative average deficit indicates strong pressure on the demand side for natural rubber.

This also explains why prices have been rising in the world market for the past several years. The results also support the claim that world demand has been pushing manufacturers to produce more because of the increasing need for natural rubber as a raw material for the growing tire manufacturing, footwear, machinery and equipment and pharmaceutical and health industries.

World Natural Rubber Situation (in thousands of metric tons) 1999-2005

Year	Supply	Growth rate (percentage)	Demand	Growth rate (percentage)	Surplus/Deficit
1999	6872	-0-	6646	-0-	226
2000	6739	-1.94	7316	10.08	-577
2001	7261	7.75	7222	-1.28	39
2002	7350	1.22	7546	4.49	-196
2003	8000	8.84	7966	5.57	34
2004	8686	8.58	8343	4.73	343
2005	8872	2.14	8777	5.2	95
Average	7682.86	4.43	7688	4.8	-5.14

Source: Tavarolit, IRCo, 2006

It was discussed earlier that production exceeded consumption during the years 2004 and 2005 with surpluses recorded at 343 thousand metric tons and 95 thousand metric tons respectively. A closer look at the quarterly estimates for 2005, reveal that a huge deficit was registered during the second quarter at 150 thousand metric tons, only to be offset by the surpluses of the 3rd and 4th quarters of the year.

Natural Rubber Demand and Supply in the World Market 2004-2005 (in thousands of metric tons)

Region	2004	2005 1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Year-end 2005	2006 1st Quarter
World Production	8686	2307	2051	2269	2245	8872	2377
World Consumption	8343	2211	2201	2195	2170	8777	2162
Surplus/ (Deficit)	343	96	(150)	74	75	95	215

Source: IRSG Rubber Statistical Bulletin

In effect, despite reflecting a surplus of 95 thousand metric tons at the end of the year, strong demand particularly during the second quarter of 2005, continues to put pressure on world production to catch up with consumption and consequently to push prices upward.

Supply - Demand Gaps

(in thousands of tons)

Year	2004	2005	2006
World Production (Supply)	8654	8777	9188
World Consumption (Demand)	8581	8994	8956
world supply - demand surplus/deficit	73	-217	232

Source: International Rubber Study Group (IRSG, 2007)

Both world production and consumption continued their increasing trends during the 2004 to 2006 period. By the year end of 2006, production had surpassed consumption with a surplus of over 232 thousand tons, reversing the deficit of 217 thousand tons recorded in 2005.

3.4 World Exports of Natural Rubber

World natural rubber exports was at a level of 6.423 million metric tons during the year 2005, which was 4 percent higher than the 2004 level of 6.176 million metric tons, and 25.6 percent larger than the 2001 level of 5.114 million metric tons. In 2005, the three largest exporters of natural rubber were Thailand at 2.743 million metric tons, followed by Indonesia at 1.950 million metric tons and Malaysia at 707 thousand metric tons. Output growth for Thailand was at 4 percent, Indonesia also at 4 percent and Malaysia at 3.97 percent. Thailand continues to maintain an export market share of 42.7 percent followed by Indonesia at 30.4 percent and Malaysia at 11 percent.

Natural rubber exports had consistently increased for the top three countries over the 2001 to 2005 period. Thailand's exports had risen by 34.33 percent from a level of 2.042 million metric tons in 2001 to the 2005 level of 2.743 million metric tons. Indonesia registered growth of 30.26 percent from the 2001 to 2005 period while Malaysia grew by 4.37 times its 2001 level of 162 thousand metric tons to 707 thousand metric tons by 2005.

Natural Rubber Exports
(in thousands of metric tons)
2002-2004

Country	2001	2002	2003	2004	2005
Thailand	**2042**	**2354**	**2573**	**2637**	**2743**
Indonesia	**1497**	**1502**	**1661**	**1875**	**1950**

Malaysia	**162**	**430**	**510**	**680**	**707**
Vietnam	**283**	**325**	**325**	**351**	**365**
India	**4**	**44**	**58**	**71**	**74**
Philippines	**33**	**45**	**56**	**58**	**60**
Cambodia	**38**	**40**	**41**	**41**	**42**
Others	**1055**	**492**	**463**	**463**	**482**
World	**5114**	**5232**	**5687**	**6176**	**6423**

Source: IRSG Rubber Statistical Bulletin

Vietnam, India and the Philippines make up the 4th, 5th and 6th largest exporters of natural rubber in the world for the year 2005 with exports at 365 thousand metric tons, 74 thousand metric tons and 60 thousand metric tons respectively. For the same year, Vietnam had a export market share of 5 percent, followed by India at 1.2 percent and the Philippines at approximately 1 percent. Vietnamese exports grew by 4 percent in 2005, Indian exports increased by 4.22 percent while Philippine natural rubber exports had risen by 3.45 percent.

Across the 2001 to 2005 period, exports from Vietnam, India and the Philippines had also grown steadily. Vietnamese exports increased from 283 thousand metric tons in 2001 to 365 thousand metric tons in 2005 registering growth of 29 percent over the five year period. India was at 4 thousand metric tons in 2001 and this increased by 18.5 times as much by the end of 2005 to a level to 74 thousand metric tons. Philippine exports were at 33 thousand metric tons in 2001 and this grew by 1.81 times as much to a level of 60 thousand metric tons by the year 2005.

Asia's share of natural rubber exports in the world market has grown steadily over the past five years with 80 percent in 2001, 91 percent in 2002, 92 percent in 2003 and 2004, and 93 percent in 2005. Considering that Asian production of natural rubber also makes up 93 percent of world output, and that prices continue to increase making the product more attractive to produce compared to synthetic rubber, it is reasonable to expect that the current share of Asian exports will continue to stay at their current level over the next few years.

3.4 World Imports of Natural Rubber

World imports of natural rubber was at 5.181 million metric tons in 2005, which was lower than the 5.978 million metric tons in 2004 reflecting a decline of 13.33 percent. World imports had steadily risen from 5.216 million metric tons in 2001 to 5.978 million metric tons in 2004, representing growth of over 14.6 percent during the four year period. The six largest importers of natural rubber during the year 2005 were China at 1.054 million metric tons, the United States at 973 thousand metric tons, Japan at 712 thousand metric tons, South Korea at 309 thousand metric tons, Germany at 216 thousand metric tons and France at 194 thousand metric tons.

Natural Rubber Imports
(in thousands of metric tons) 2001-2004

Country	2001	2002	2003	2004	2005
China	943	915	1150	1206	1054
United States	972	1110	1077	1144	973
Japan	713	772	792	801	712
S. Korea	330	323	333	352	309
France	282	231	300	230	194
Germany	245	243	260	242	216
Spain	172	182	189	178	154
Brazil	121	144	162	175	152
Canada	141	154	146	149	129
Italy	134	136	142	136	118
United Kingdom	83	76	96	87	75
Others	1080	1048	1168	1278	1095
World	5216	5334	5815	5978	5181

Source: IRSG Rubber Statistical Bulletin

China's share from world imports was at 20 percent, followed by the United States at 19 percent, Japan at 14 percent, South Korea at 6 percent and Germany and France at 4 percent. China has been importing over 1 million metric tons of natural rubber since 2003, recording its highest level at 1.206 million in 2004, and then slowing down in 2005 at 1.054 million metric tons. On the other hand, the United States had been importing over 1 million metric tons of natural rubber since 2002, reaching its highest level at 1.144 million in 2004, and consequently decreasing to 973 thousand metric tons in 2005. Natural rubber imports of Japan have remained above 700 thousand metric tons from 2001 to 2003, peaked at 801 thousand metric tons in 2004, and decreased to 712 thousand metric tons in 2005.

3.6 Synthetic Rubber in the World Market

Synthetic rubber is any type of artificially made polymer material which acts as an elastomer. An elastomer is a material with mechanical (or material) property that can undergo much more elastic deformation under stress than most materials and still return to its previous size without permanent deformation. Synthetic rubber serves as a substitute for natural rubber in many cases when improved material properties are needed. Synthetic rubber can be made from the polymerization of a variety of monomers including isoprene (2-methyl-1,3-butadiene) , 1,3-butadiene, chloroprene (2-chloro-1,3-butadiene) and isobutylene (methylpropene). with a small percentage of isoprene for cross linking (wikipedia.org, 2006). Other conventional forms of synthetic rubber are copolymers or butadiene and styrene (Buna S-type), copolymers of butadiene

and acrylonitrile (Buna N-type or perbunans) together with neoprene and butyl type rubbers. The need for synthetic rubber was derived from the expanded use of motor vehicles which began during the late 19th century.

Synthetic rubber production in the world during the last six years had consistently surpassed the 10 million metric ton level with significant increases recorded during the years 2000, 2002 to 2004. For the year 2005, world production of synthetic rubber was approximately 11.953 million metric tons. Although this represents a decline of 0.2 percent compared to the 2004 level of 11.974 million metric tons, world production has grown by an average of 2.5 percent from the year 2000 to 2005. On the other hand, world demand for synthetic rubber was recorded at 11.881 million metric tons, and has grown by an average of 2.7 percent during the last six years (Tavarolit, 2006).

Synthetic Rubber Situation
1999 – 2005 ('000)

Year	Supply	+/-(%)	Demand	+/-(%)	Excess/ Deficit	Total Stock
1999	**10,336**		**10,188**		**148**	**2,707**
2000	**10,819**	**4.7%**	**10,755**	**5.6%**	**64**	**2,771**
2001	**10,485**	**-3.1%**	**10,243**	**-4.8%**	**242**	**3,013**
2002	**10,882**	**3.8%**	**10,712**	**4.6%**	**170**	**3,183**
2003	**11,448**	**5.2%**	**11,369**	**6.1%**	**79**	**3,262**
2004	**11,974**	**4.6%**	**11,846**	**4.2%**	**128**	**3,390**
2005	**11,953**	**-0.2%**	**11,881**	**0.3%**	**72**	**3,462**
Average		**2.5%**		**2.7%**		**3,113**

Source: **Tavarolit, IRCo, 2006**

From 1999 to 2005, the ratio of natural rubber production to synthetic rubber production in the world increased from 40 percent to 42 percent, while the ratio of world natural rubber demand to synthetic rubber demand increased from 39 percent to 42 percent over the seven year period. This indicates that the proportion of natural rubber production and use in the world market has increased relative to synthetic rubber, although both supply and demand have steadily increased over the last six years (Tavarolit, 2006).

Ratio of Natural Rubber to Synthetic Rubber

1999 – 2005 ('000)

Year	Supply			Demand		
	NR	SR	% of NR	NR	SR	% of NR
1999	6,872	10,336	40%	6,646	10,188	39%
2000	6,739	10,819	38%	7,316	10,755	40%
2001	7,261	10,485	41%	7,222	10,243	41%
2002	7,344	10,882	40%	7,546	10,712	41%
2003	7,992	11,448	41%	7,966	11,369	41%
2004	8,646	11,974	42%	8,319	11,846	41%
2005	8,660	11,953	42%	8,706	11,881	42%

Source: **Tavarolit, IRCo, 2006**

Combining both the world production of natural and synthetic rubber and then comparing these figures with the total world demand reveals that from the period 1999-2005, production had surpassed demand during the years 1999, 2001, and 2003 to 2005. Excess demand in the world market was recorded during the years 2000 and 2002. Total rubber supply had increased to 17.208 million metric tons in 1999 to 20.613 million metric tons in 2005, while demand increased from 16.834 million metric tons to 20.587 million metric tons over the same period. Although world production had surpassed demand for five years during the seven year period, world demand grew faster at an average annual rate of 3.47 percent as compared to production at 3.08 percent.

Total Supply and Demand of Rubber
1999 – 2005 ('000)

Year	Total			Annual Growth	
	Supply	Demand	+/-	Supply	Demand
1999	17,208	16,834	374		
2000	17,558	18,071	(513)	2.03%	7.35%
2001	17,746	17,465	281	1.07%	-3.35%
2002	18,226	18,258	(32)	2.70%	4.54%
2003	19,440	19,335	105	6.66%	5.90%
2004	20,620	20,165	455	6.07%	4.29%
2005	20,613	20,587	26	-0.03%	2.09%
Average				3.08%	3.47%

Source: **Tavarolit, IRCo, 2006**

The three largest producers of synthetic rubber in the world for the year 2005 are the United States, Japan and China with output levels of 1.960, 1.339 and 1.331 million metric tons respectively. The United States produces 20 percent of the world output for synthetic rubber, while Japan and China account for 14 percent and 13 percent respectively. The fourth and fifth largest producers are Russia and Germany, with a world production share of 10 percent and 7 percent respectively. However, compared to the top three producers, output levels for Russia and Germany are

currently below 1 million metric tons. Russia and Germany produced 947 thousand metric tons and 698 thousand metric tons of synthetic rubber respectively for the year 2005.

Synthetic Rubber Production
1999 – 2005 ('000)

No.	Country/ Year	1999	2000	2001	2002	2003	2004	2005	%
1	U.S.A.	2,354	2,397	2,062	2,164	2,270	2,325	1,960	20%
2	Japan	1,577	1,592	1,466	1,522	1,577	1,616	1,339	14%
3	China	754	826	1,052	1,133	1,272	1,478	1,331	13%
4	Russia	737	837	919	919	1,070	1,112	947	10%
5	Germany	720	849	828	869	888	905	698	7%
6	France	592	669	672	681	718	776	567	6%
7	S. Korea	655	678	663	586	700	710	620	6%
8	Taiwan	495	465	480	523	529	545	445	4%
9	U.K.	283	286	333	337	327	351	277	3%
10	Others	2,169	2,221	2,011	2,147	2,097	2,157	1,731	17%
11	Total	10,336	10,819	10,485	10,882	11,448	11,974	9,915	100%

Source: Tavarolit, IRCo, 2006

By the end of 2006, the largest volume of synthetic rubber production came from the Asia Oceana region at 5.248 million tons, followed by the European Union and North America at 2.718 and 2.5 million tons respectively.

Regional Synthetic Rubber Production
(in thousands of tons)

Region	2004	2005	2006
North America	2409	2430	2500
Latin America	675	653	720
European Union	2871	2696	2718
Other Europe	1232	1234	1262
Africa	74	78	67
Asia/Oceania	4731	4988	5248
Total	11989	12078	12515

Source: International Rubber Study Group (IRSG, 2007)

Synthetic rubber consumption in the world for the year 2006 was at 12.617 million tons, with the Asia Oceana region consuming the largest volume at 6.024 million tons, followed by the European Union and the United States at 2.588 and 2.032 million tons respectively. Consumption figures for the other regions are presented as follows:

Regional Synthetic Rubber Consumption
(in thousands of tons)

Region	2004	2005	2006
North America	2139	2181	2032
Latin America	797	766	797
European Union	2651	2563	2588
Other Europe	950	966	894
Africa	103	104	101
Asia/Oceania	5139	5325	6024
Total	11894	12010	12617

Source: International Rubber Study Group (IRSG, 2007)

In the international synthetic rubber market, world consumption had surpassed world production in 2006 revealing a deficit of 102 thousand tons, significantly larger than the previous years surpluses of 68 and 95 thousand tons during the years 2005 and 2004 respectively.

Supply – Demand Gaps
(in thousands of tons)

Year	2004	2005	2006
World production	11989	12078	12515
World consumption	11894	12010	12617
world supply - demand surplus/deficit	95	68	-102

Source: International Rubber Study Group (IRSG, 2007)

The largest importer of synthetic rubber in the world is China with 880 thousand metric tons imported during the year 2005. Chinese imports account for 15 percent of total imports in the world market. The second largest importer is the United States with 550 thousand metric tons representing 9 percent of world imports. These two countries are followed by Germany with 454 thousand metric tons (8 percent share), Belgium and Luxemburg combined with 335 thousand metric tons (6 percent share) and France with 333 thousand metric tons (6 percent share). Canada, Italy and Japan occupy the sixth, seventh and eight positions with imports of 318 thousand, 267 thousand and 163 thousand metric tons respectively. It is also important to note that the countries with the leading automotive industries in the world are also among the largest importers of synthetic rubber namely, the United States, Germany, and Japan.

Net Imports of Synthetic Rubber
1999- 2005 ('000)

No.	Country/ Year	1999	2000	2001	2002	2003	2004	2005	%
1	China	629	670	715	892	999	1,074	880	15
2	U.S.A.	582	657	595	607	577	580	550	9
3	Germany	394	435	424	438	426	490	454	8
4	Belg-Lux	382	424	371	376	381	404	335	6
5	France	343	373	325	337	356	367	333	6
6	Canada	301	339	332	340	336	376	318	5
7	Italy	330	349	319	325	323	325	267	5
8	Japan	122	171	165	175	186	186	163	3
9	Others	2,514	2,761	2,614	2,743	2,795	3,357	2,637	44
10	Total	5,596	6,179	5,859	6,233	6,377	7,159	5,937	100

Source: Tavarolit 2006

On the other hand, France and Italy are one of the leading automotive producers in the European market. The automotive industry generates the largest demand for both synthetic and natural rubber as a primary input for the production of tires, timing belts, fan belts, gaskets, engine supports and other automotive parts

3.7 Philippine Exports and Imports of Natural Rubber and Rubber Based Products Using the Seven Digit Product Standard Classification Code (PSCC)

Using the Department of Trade and Industry seven digit product standard classification code (PSCC), it can be observed that there are currently 54 different types of rubber products being exported by the Philippines as compared to 108 various types of rubber products which the country imports. A complete list of these products is provided in appendix A with both natural and synthetic rubber products included in the list. Based on the figures provided by the Department of Trade and Industry for the year 2005, there are approximately eight (8) specific rubber product categories wherein

exports exceeded imports. The trade surpluses for these product categories were obtained from Malaysia , Singapore, Japan, Taiwan, Thailand, the United States, Vietnam, and Hong Kong. The balance of trade (exports minus imports) as well as the net trade ratio (balance of trade divided by the combined value of export and imports) is estimated for the following product categories in order to provide an indication of competitiveness in the industry. There were five (5) product categories that had registered trade surpluses which exceeded $1 million during the year 2005:

1. The product category which generated the largest trade surplus in the industry was "**natural rubber in its primary forms (other than latex) such as crepe sheets" (PSCC 2312901).** In the year 2005, exports for this product category reached $8.411 million in the Malaysian market, while imports were recorded at only $5,646.00, reflecting a trade surplus of $8.406 million and a positive net trade ratio of 99.87 percent. A trade surplus with Singapore was also recorded for this product category at a level of $2.518 million. Exports to Singapore were at $3.094 million while the value of imports were at $576,441. A positive net trade ratio was recorded with Singapore at 69 percent.

2. **"Steel belted automobile tires, pneumatic, of all sizes, new" (PSCC 6251001)"** is the product category which generated the second largest trade surplus with Malaysia at a level of $6.1008 million. Philippine exports to Malaysia under this category reached $6.130 million while imports were recorded at $29,678, reflecting a positive net trade ratio of 99 percent.

The above mentioned product category also reveals a trade surplus with the United States at approximately $3.6886 million. Philippine exports to the United States reached $3.848 million while imports were at $159,500, yielding a positive net trade ratio of 92 percent.

For the same product category, large trade surpluses were also obtained from trade arrangements with Taiwan and Thailand with $5.315 million and $5.107 million respectively. Philippine exports to Taiwan reached $5.320 million while exports to Thailand were at a level of $6.0649 million. Imports from Taiwan were valued at $4,828 which was substantially lower compared to imports from Thailand which were at $957,641. The Philippines had positive net trade ratios with both Taiwan and Thailand at 99.82 percent and 72.73 percent respectively.

3. The product category with the third largest trade surplus generated was for **"other articles of hard rubber, including hard rubber buckets" (PSCC 6299109).** The trade surplus of $5.827 million was obtained from Japan. Exports of this product category to the Japanese market were at $5.834 million while the value of imports were at $5,979. A positive net trade ratio of 99.79 percent was obtained for this product category.

Under the above mentioned product category, trade with Hong Kong yielded a surplus of $1.225 million. Philippine exports to Hong Kong were valued at $1.226 million while imports were at $614 revealing a positive net trade ratio of 99.9 percent.

4. The fourth largest surplus was at $4.8376 million for the product category **"other articles of unhardened non-cellular vulcanized rubber" (PSCC 6299929)**, obtained from Japan. Philippine exports to Japan under this product category reached $6.8415 million while imports were at $2.0038 million, reflecting a positive net trade ratio of 54.7 percent.

5. The product category which registered the fifth largest trade surplus within the industry was for **"transmission belts or belting of trapezoidal cross-section (v-belts and v-belting)" (PSCC 6292015)** with a value of $1.3707 million. Philippine exports to the United States under this product category reached $1.3774 million while imports were valued at $6,719. Trade with the United States within this product line reflected a positive net trade ratio of 99.029 percent.

Aside from the five (5) product categories that were previously mentioned, several other product types reflected trade surpluses that exceeded the $500,000 level. A trade surplus of $979,696 was obtained from Vietnam under the product category of **"other tires, pneumatic, new, of a kind used on buses (and) or lorries (including trucks)" (PSCC 6252009)**, with a positive net trade ratio of 95.63 percent. This is followed closely by a trade surplus with Singapore of $939,382 for the product category "**"other articles of unhardened non-cellular vulcanized rubber" (PSCC 6299929),** with a positive net trade ratio of 46.87 percent. A trade surplus of $820,509 with Japan for the product category **"other tubes, pipes and hoses of unhardened vulcanized rubber with fittings" (PSCC 6214509)** with a positive net trade ratio of 91.94 percent. A trade surplus with Thailand of $745,576 for the product category "**"other articles of hard rubber, including hard rubber buckets" (PSCC 6299109)** with a positive net trade ratio of 97.34 percent and finally a trade surplus with Malaysia OF $537,229 under the product category **"natural rubber in plate, sheet or strip" (PSCC 2312902)** with a positive net trade ratio of 92.53 percent.

Rubber Based Products with Exports and Trade Deficits over $1 million

There are two other product categories which had generated exports that surpassed the $1 million level, however, imports for these product lines were substantially larger registering huge trade deficits and negative trade ratios. The product category on **"other tires, pneumatic, new, of a kind used on buses (and) or lorries (including trucks)" (PSCC 6252009)** generated exports to Thailand of over $1.791 million. However, imports of the same product line from Thailand were substantially larger at $6.9897 million, indicating a trade deficit of $5.1986 million and reflecting a negative net trade ratio of 59.2 percent.

Exports to Japan of the product line: **"gaskets, packings, washers and other seals, other than those of sub-items 629.99-04 to 629.99-05 [6]" (PSCC 6299907)** reached $1.0897 million, while imports were valued at $2.6059 million, reflecting a trade deficit of $1.516 million and registering a negative net trade ratio of 41 percent.

With over 54 different types of rubber based products being exported to various countries in Asia, North America, Europe and Australia, as well as 108 product categories being imported from the above mentioned regions, other trade surpluses (or deficits) can still be identified from the list provided by the Department of Trade and Industry. However, these other product categories had shown exports and trade surpluses below the $500,000 level.

In addition, a large number of rubber based product categories had shown imports exceeding exports on a per country basis, reflecting relatively larger trade deficits and negative net trade ratios for the year 2005.

Since it is important to identify the product categories which have a good chance of competing in the ASEAN and Asian markets, the rubber based product lines which had exhibited large trade surpluses and positive net trade ratios, should be considered by the business sector and government policy makers as the initial batch of potential winners which can be given more attention and support in order to establish the role and contribution of the Philippine rubber based products manufacturing industry in ASEAN regional trade. A summary of the above mentioned rubber based product categories with significantly large trade surpluses and positive net trade ratios is provided below:

Rubber Based Product Exports for the year 2005
(Export values and trade surpluses of over $500,000)

PSCC #	Description	Philippine Exports in $	Imports in $	Trade Surplus & net trade ratios	Trading Partner
2312901	NAT'L RUBBER, NES, IN PRIMARY FORMS(OTH THN LATE); CREPE SHEETS	8,411,983	5,646	8,406,337 99.87%	Indonesia
2312901	NAT'L RUBBER, NES, IN PRIMARY FORMS(OTH THN LATE); CREPE SHEETS	3,094,572	576,441	2,518,131 69%	Singapore
2312902	NAT'L RUBBER,IN PLATE,SHT/STRIP	558,900	21,671	537,229 92.53%	Malaysia
6214509	OTHER TUBES,PIPES & HOSES, OF UNHARDENED VULCANIZED RUBBER, W/ FITTINGS	856,483	35,974	820,509 91.94%	Japan
6251001	STEEL BELTED AUTOMOBILE TIRES, PNEUMATIC, OF ALL SIZES, NEW	5,320,621	4,828	5,315,793 99.82%	Taiwan
6251001	STEEL BELTED AUTOMOBILE TIRES, PNEUMATIC, OF ALL SIZES, NEW	6,130,505	29,678	6,100,827 99%	Malaysia
6251001	STEEL BELTED AUTOMOBILE TIRES, PNEUMATIC, OF ALL SIZES, NEW	6,064,900	957,641	5,107,259 72.73%	Thailand

Source: Department of Trade and Industry
Bureau of Export Trade Promotion

Rubber Based Product Exports for the year 2005
(Export values and trade surpluses of over $500,000)

PSCC #	Description	Philippine Exports in $	Imports in $	Trade Surplus & net trade ratios	Trading Partner
6251001	STEEL BELTED AUTOMOBILE TIRES, PNEUMATIC, OF ALL SIZES, NEW	3,848,138	159,500	3,688,638 92%	United States
6252009	OTHER TIRES,PNEUMATIC,NEW,OF A KIND USED ON BUSES [AND] OR LORRIES (INCLUDING TRUCKS)	1,002,056	22,360	979,696 95.63%	Vietnam
6292015	TRANSMISSION BELTS OR BELTING OF TRAPEZOIDAL CROSS-SECTION(V-BELTS & V-BELTING) OTHER THAN THOSE OF	1,377,467	6,719	1,370,748 99.029%	United States
6299109	OTHER ARTICLES OF HARD RUBBER, INCLUDING HARD RUBBER BUCKETS	1,226,212	614	1,225,598 99.9%	Hong Kong
6299109	OTHER ARTICLES OF HARD RUBBER, INCLUDING HARD RUBBER BUCKETS	5,833,828	5,979	5,827,849 99.79%	Japan
6299109	OTHER ARTICLES OF HARD RUBBER, INCLUDING HARD RUBBER BUCKETS	755,718	10,202	745,576 97.34%	Thailand
6299929	OTHER ARTICLES OF UNHARDENED NON-CELLULAR VULCANIZED RUBBER, N.E.S.	6,841,520	2,003,854	4,837,666 54.7%	Japan
6299929	OTHER ARTICLES OF UNHARDENED NON-CELLULAR VULCANIZED RUBBER, N.E.S.	1,471,765	532,383	939,382 46.87%	Singapore
6252009	OTHER TIRES,PNEUMATIC,NEW,OF A KIND USED ON BUSES [AND] OR LORRIES (INCLUDING TRUCKS)	1,791,080	6,989,735	(5,198,655) (59.2%)	Thailand
6299907	GASKETS, PACKINGS, WASHERS AND OTHER SEALS, OTHER THAN THOSE OF SUB-ITEMS 629.99-04 TO 629.99-05 [6]	1,089,789	2,605,903	(1,516,114) (41%)	Japan

Source: Department of Trade and Industry
Bureau of Export Trade Promotion

For the year 2006, trade surpluses were largest for **steel belted automobile tires,** followed by **unhardened non-cellular vulcanized rubber, hard rubber buckets, natural rubber in plates sheets and strips and natural rubber in crepe sheets.** These product categories had trade surpluses ranging from $19.395 million to $3.359 million particularly with the United States, Japan, China, Malaysia, Taiwan, Thailand, Malaysia and Hong Kong as the major trading partners.

Trade Surpluses
FOB Value in US Dollars
January- December 2006

PSCC #	Description	Trading Partner	Trade Surplus
2312901	NAT'L RUBBER, NES, IN PRIMARY FORMS(OTH THN LATE); CREPE SHEETS	Taiwan	3,359,733
		Korea	165,995
2312902	NAT'L RUBBER,IN PLATE,SHT/STRIP	Hong Kong	5,345,579
		China	4,925,659
		Malaysia	3,797,424
		Korea	237,655
		Japan	41,032
6214509	OTHER TUBES,PIPES & HOSES, OF UNHARDENED VULCANIZED RUBBER, W/ FITTINGS	USA	85,129
		Taiwan	38,117
		Malaysia	5,467
		Australia	3,944
6251001	STEEL BELTED AUTOMOBILE TIRES, PNEUMATIC, OF ALL SIZES, NEW	USA	19,394,890
		Thailand	7,938,729
		Malaysia	7,896,112
		Taiwan	6,323,096
		South Africa	2,490,458
		Korea	681,041
		Vietnam	644,030
		India	433,826
		China	166,927
6252009	OTHER TIRES,PNEUMATIC,NEW,OF A KIND USED ON BUSES [AND] OR LORRIES (INCLUDING TRUCKS)	USA	813,132
		Argentina	53,030
		Vietnam	44,936

Source: Department of Trade and Industry
Bureau of Export Trade Promotion

Trade Surpluses
FOB Value in US Dollars
January- December 2006

6292015	TRANSMISSION BELTS OR BELTING OF TRAPEZOIDAL CROSS-SECTION(V-BELTS & V-BELTING) OTHER THAN THOSE OF	USA	1,539,216
		China	546,889
		Japan	272,870
		Singapore	172,418
		Hong Kong	39,426
		Germany	6,643
		Australia	2,748
6299109	OTHER ARTICLES OF HARD RUBBER, INCLUDING HARD RUBBER BUCKETS	Japan	5,256,363
		Hong Kong	456,749
		USA	182,030
		Germany	145,533
6299929	OTHER ARTICLES OF UNHARDENED NON-CELLULAR VULCANIZED RUBBER, N.E.S.	Japan	7,548,644
		USA	616,556
		Germany	257,280
		Thailand	243,711
		Indonesia	242,135
		Hong Kong	200,428
		Vietnam	128,845
		Netherlands	33,713
		Belgium	23,517
		Great Britain	1,735
6299907	GASKETS, PACKINGS, WASHERS AND OTHER SEALS, OTHER THAN THOSE OF SUB-ITEMS 629.99-04 TO 629.99-05 [6]	Germany	36,867
		Netherlands	17,301
		Hungary	12,421
		Denmark	10,725
		Vietnam	4,004

Source: Department of Trade and Industry
Bureau of Export Trade Promotion

Other Rubber Based Product Exports
w/o corresponding Imports 2005

Based on the figures released by the Department of Trade and Industry, several other product categories among Philippine rubber based exports reached levels that had surpassed $1 million without any corresponding importation from the designated trading partner. The product category of "**natural rubber in its primary forms (other than latex) such as crepe sheets" (PSCC 2312901)** generated exports to China valued at $9,632,696, and to Taiwan at $7,502,080. There were no corresponding imports from this product category from the aforementioned countries.

For the product category under **" natural rubber in plates, sheets and strips" (PSCC 2312902) ,** exports to China reached $1.637 million and $1.8654 million to Taiwan, again without any corresponding imports from the two countries.

The product category on **"latex of acrylonitrile-butadiene rubber" (PSCC 2321501)** provided exports to Indonesia of approximately $1.4477 million, without any imports from the same product line.

For the product category which includes **"Steel belted automobile tires, pneumatic, of all sizes, new" (PSCC 6251001)",** Philippine exports under this product line were substantially large with the highest export revenue at $5.447 million coming from Italy, followed by $5.2329 million from Australia, $4.6467 million from Germany, $3.7334 million from Finland, $3.1813 million from Brazil $2.5408 million from the United Kingdom, $2.474 million from Singapore and $2.2387 million from France. Exports of over $1 million for this product category were sold to Greece, Portugal, Puerto Rico, Saudi Arabia, South Africa and Sweden. There were also no corresponding imports of the same product line coming from the above mentioned countries. A summary of the exports from these product categories is provided in the following table:

Other Rubber Based Product Exports
w/o corresponding Imports 2005
(Export values of over $1 million)

PSCC #	Description	Philippine Exports in $	Imports in $	Trade Surplus & net trade ratios	Trading Partner
2312901	NAT'L RUBBER, NES, IN PRIMARY FORMS(OTH THN LATE); CREPE SHEETS	9,632,696	none	n.a.	China
2312901	NAT'L RUBBER, NES, IN PRIMARY FORMS(OTH THN LATE); CREPE SHEETS	7,502,080	none	n.a.	Taiwan
2312902	NAT'L RUBBER,IN PLATE,SHT/STRIP	1,637,156	none	n.a.	China
2312902	NAT'L RUBBER,IN PLATE,SHT/STRIP	1,865,553	none	n.a.	Taiwan
2321501	LATEX OF ACRYLONITRILE-BUTADIENE RUBBER(NBR)	1,447,724	none	n.a.	Indonesia
6251001	STEEL BELTED AUTOMOBILE TIRES, PNEUMATIC, OF ALL SIZES, NEW	5,232,957	none	n.a.	Australia
6251001	STEEL BELTED AUTOMOBILE TIRES, PNEUMATIC, OF ALL SIZES, NEW	3,181,330	none	n.a.	Brazil
6251001	STEEL BELTED AUTOMOBILE TIRES, PNEUMATIC, OF ALL SIZES, NEW	3,733,476	none	n.a.	Finland
6251001	STEEL BELTED AUTOMOBILE TIRES, PNEUMATIC, OF ALL SIZES, NEW	2,238,778	none	n.a.	France
6251001	STEEL BELTED AUTOMOBILE TIRES, PNEUMATIC, OF ALL SIZES, NEW	4,646,732	none	n.a.	Germany
6251001	STEEL BELTED AUTOMOBILE TIRES, PNEUMATIC, OF ALL SIZES, NEW	1,031,623	none	n.a.	Greece
6251001	STEEL BELTED AUTOMOBILE TIRES, PNEUMATIC, OF ALL SIZES, NEW	5,447,391	none	n.a.	Italy
6251001	STEEL BELTED AUTOMOBILE TIRES, PNEUMATIC, OF ALL SIZES, NEW	1,774,117	none	n.a.	Portugal
6251001	STEEL BELTED AUTOMOBILE TIRES, PNEUMATIC, OF ALL SIZES, NEW	1,195,929	none	n.a.	Puerto Rico
6251001	STEEL BELTED AUTOMOBILE TIRES, PNEUMATIC, OF ALL SIZES, NEW	1,604,426	none	n.a.	Saudi Arabia
6251001	STEEL BELTED AUTOMOBILE TIRES, PNEUMATIC, OF ALL SIZES, NEW	2,474,108	none	n.a.	Singapore
6251001	STEEL BELTED AUTOMOBILE	1,342,551	none	n.a.	South

	TIRES, PNEUMATIC, OF ALL SIZES, NEW				Africa
6251001	STEEL BELTED AUTOMOBILE TIRES, PNEUMATIC, OF ALL SIZES, NEW	1,388,673	none	n.a.	Sweden
6251001	STEEL BELTED AUTOMOBILE TIRES, PNEUMATIC, OF ALL SIZES, NEW	2,540,826	none	n.a.	U.K.

Source: Department of Trade and Industry
Bureau of Export Trade Promotion
n.a. : not applicable

For the year 2006, the above mentioned product categories which generated trade surpluses of over $ 1 million consistently had the following countries as the top ten export markets for rubber based products and these are: China, the United States, Japan, Taiwan Thailand, Malaysia, Singapore, Hong Kong, Germany and South Korea. The top ten country markets for each of the rubber based product categories is presented as follows:

Top Ten Export Markets
FOB Value in US Dollars
January- December 2006

PSCC #	Description	Trading Partner	Trade Surplus
2312901	NAT'L RUBBER, NES, IN PRIMARY FORMS(OTH THN LATE); CREPE SHEETS	China	5,646,415
		Malaysia	3,582,040
		Taiwan	3,421,999
		Hong Kong	3,322,748
		Vietnam	2,527,124
		Singapore	620,225
		Germany	274,176
		Korea	215,935
		India	89,330
		Japan	38,263
2312902	NAT'L RUBBER,IN PLATE,SHT/STRIP	Hong Kong	5,353,229
		China	4,932,463
		Taiwan	4,835,689
		Vietnam	4,177,527
		Malaysia	3,827,183
		Singapore	1,348,324
		Germany	1,062,432
		South Africa	501,120
		Korea	254,748
		Thailand	74,000

Source: Department of Trade and Industry
Bureau of Export Trade Promotion

Top Ten Export Markets
FOB Value in US Dollars
January- December 2006

6214509	OTHER TUBES,PIPES & HOSES, OF UNHARDENED VULCANIZED RUBBER, W/ FITTINGS	Japan	769,817
		USA	238,949
		Taiwan	57,743
		China	56,529
		Australia	30,037
		Malaysia	24,400
		Thailand	17,085
		Hong Kong	6,131
		Singapore	5,345
		Madagascar	3,801
6251001	STEEL BELTED AUTOMOBILE TIRES, PNEUMATIC, OF ALL SIZES, NEW	USA	19,579,373
		Finland	11,459,670
		Australia	8,562,063
		Thailand	8,475,702
		Italy	8,411,023
		Malaysia	7,904,333
		Great Britain	6,610,419
		Taiwan	6,331,827
		Germany	5,715,798
		Singapore	4,813,037
6252009	OTHER TIRES,PNEUMATIC,NEW,OF A KIND USED ON BUSES [AND] OR LORRIES (INCLUDING TRUCKS)	Thailand	4,543,258
		USA	895,927
		Vietnam	349,450
		Malaysia	261,242
		Finland	90,069
		Singapore	71,499
		Argentina	60,704
		South Africa	52,859
		Great Britain	34,328
		Australia	32,852

Source: Department of Trade and Industry
Bureau of Export Trade Promotion

Top Ten Export Markets
FOB Value in US Dollars
January- December 2006

6292015	**TRANSMISSION BELTS OR BELTING OF TRAPEZOIDAL CROSS-SECTION(V-BELTS & V-BELTING) OTHER THAN THOSE OF**	**USA**	**1,544,949**
		China	**558,829**
		Mexico	**366,872**
		Canada	**302,254**
		Japan	**283,131**
		Singapore	**236,841**
		Thailand	**104,620**
		Indonesia	**72,261**
		Hong Kong	**45,416**
		El Salvador	**42,250**
6299109	**OTHER ARTICLES OF HARD RUBBER, INCLUDING HARD RUBBER BUCKETS**	**Japan**	**5,273,695**
		Thailand	**477,563**
		Hong Kong	**461,144**
		USA	**206,768**
		Germany	**151,489**
		Indonesia	**125,031**
		Great Britain	**83,519**
		China	**44,339**
		Vietnam	**41,143**
		Taiwan	**40,066**
6299929	**OTHER ARTICLES OF UNHARDENED NON-CELLULAR VULCANIZED RUBBER, N.E.S.**	**Japan**	**9,862,328**
		USA	**1,309,612**
		Thailand	**754,000**
		Hong Kong	**606,689**
		Germany	**508,343**
		China	**503,333**
		Indonesia	**319,040**
		Malaysia	**258,923**
		Netherlands	**206,271**
		Vietnam	**147,593**

Source: Department of Trade and Industry
Bureau of Export Trade Promotion

Top Ten Export Markets
FOB Value in US Dollars
January- December 2006

6252009	**OTHER TIRES,PNEUMATIC,NEW,OF A KIND USED ON BUSES [AND] OR LORRIES (INCLUDING TRUCKS)**	**Thailand**	**4,543,258**
		USA	**895,927**
		Vietnam	**349,450**
		Malaysia	**261,242**
		Finland	**90,069**
		Singapore	**71,499**
		Argentina	**60,704**
		South Africa	**52,859**
		Great Britain	**34,328**
		Australia	**32,852**
6299907	**GASKETS, PACKINGS, WASHERS AND OTHER SEALS, OTHER THAN THOSE OF SUB-ITEMS 629.99-04 TO 629.99-05 [6]**	**Japan**	**1,653,201**
		Germany	**278,709**
		Netherlands	**74,333**
		USA	**68,580**
		Thailand	**33,474**
		Singapore	**32,364**
		Indonesia	**31,094**
		Denmark	**25,560**
		Hungary	**13,419**
		China	**10,414**

Source: Department of Trade and Industry
Bureau of Export Trade Promotion

3.8 The Philippine Rubber Industry and its implications on ASEAN, China and South Korea

The Southeast Asian region produces roughly 80 percent of the natural rubber in the world market. The Philippines is ranked fifth in the ASEAN region where countries such as Thailand, Indonesia, Malaysia and Vietnam produce the largest proportion of output in the region. In the year 2005, the Philippines produced 316 thousand metric tons of natural rubber. Thailand, Indonesia, and Malaysia being the three largest producers in both the ASEAN and world markets generated 3.016 million, 2.156 million and 1.163 million metric tons of natural rubber. Cambodia and Myanmar have output levels below 300 thousand metric tons and are ranked behind the Philippines. Natural rubber production has grown for all countries particularly with Thailand and Indonesia having the largest increases in production volume for the year 2004 and 2005.

Estimates of average yield per hectare

A comparison of the average yield per hectare among the major natural rubber producers in the ASEAN region reveals that Thailand is the most efficient producer at 1,418 kg per hectare, followed by Malaysia, the Philippines and Indonesia at 950, 907 and 843 kg per hectare respectively.

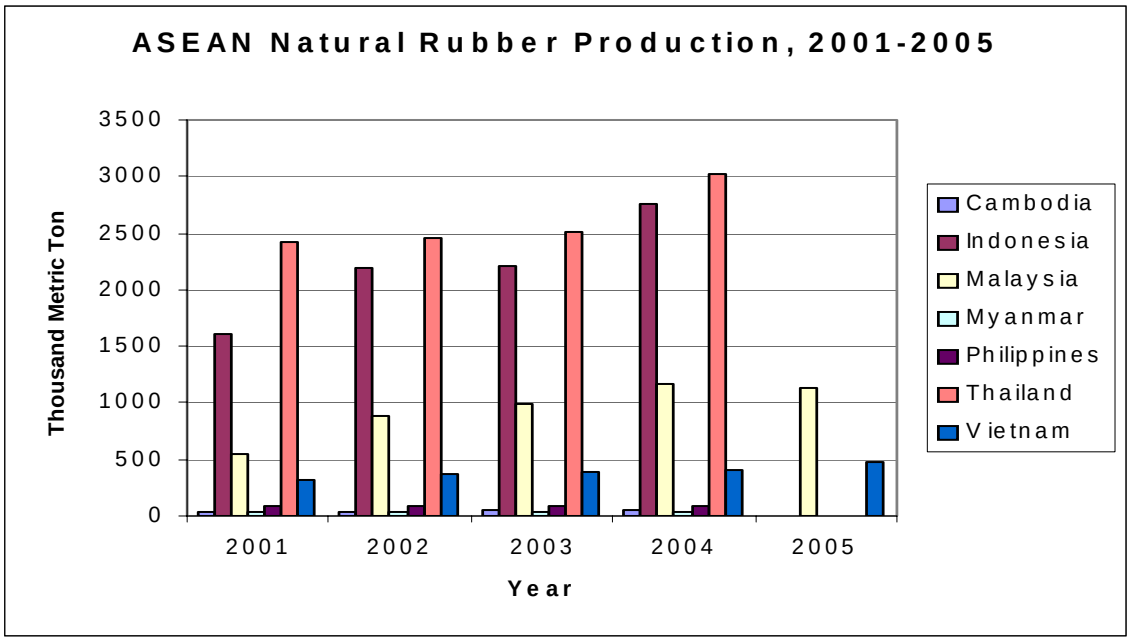
Yield per hectare in selected ASEAN countries

Country	Average yield (kg per hectare)
Thailand	1,418
Malaysia	950
Philippines	907
Indonesia	843

Sources: RCMA Commodities Asia 2006, Colombo Rubber Traders Association 2005, BAR Philippines 2006.

In Thailand and Malaysia, yield per hectare have been known to increase to a maximum of 2,500 kg per hectare depending on the number of trees planted which can range from 375 to 450 trees per hectare. Experimental hybrids of rubber trees with a planting density of 450 trees per hectare have been known to generate a maximum yield of 3,335 kg per hectare under ideal weather conditions in Thailand (RCMA Commodities Asia 2006, Colombo Rubber Traders Association 2005).

Throughout the last decade, Thailand has become the largest natural rubber producer and exporter in the world. The leading export markets for Thai rubber are Japan, the United States, China, Malaysia and South Korea. Rubber plantations in Thailand are dominated by the small land holding sector characterized as production cultivated from four hectares or less. Small farmers continue to be offered incentives and guidance to help them improve the quality of rubber and shift towards production of rubber blocks and concentrate. More focus is also being placed on attracting and expanding rubber based industries which includes the production of rubber gloves, condoms and tires.



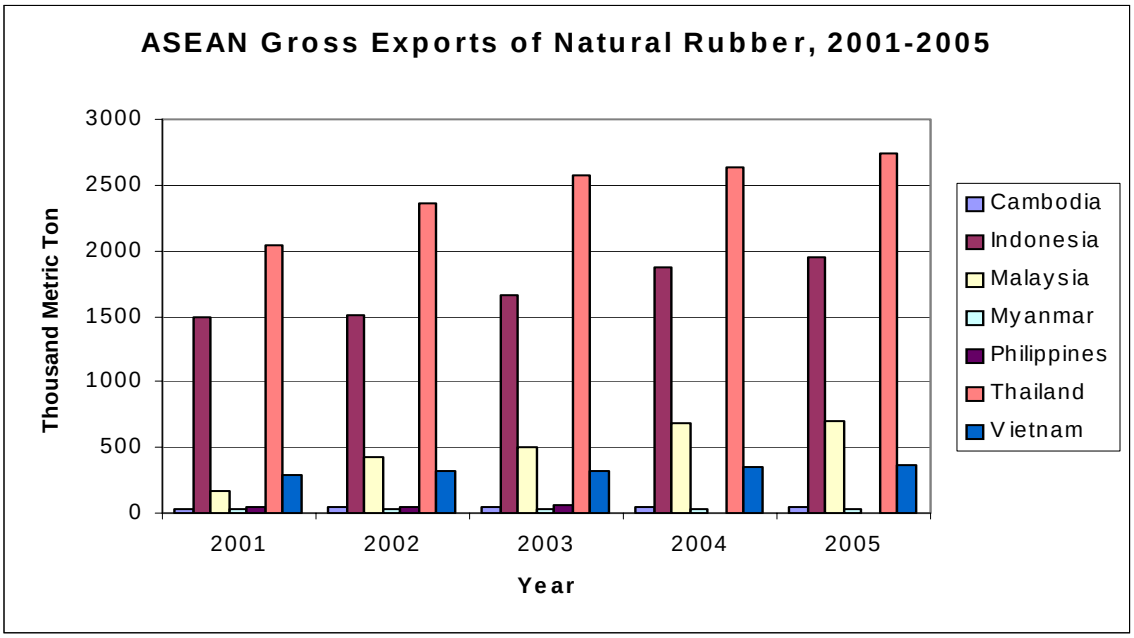
Source: ASEAN Statistical Yearbook 2005; Malaysia Rubber Board (Malaysia, 2005); General Statistics Office of Vietnam (Vietnam, 2005)

Within the ASEAN region, the Philippines is ranked as the fifth largest exporter of natural rubber in 2005 with an export volume of 60 thousand metric tons. In the world market it ranks sixth behind India, Vietnam, Malaysia, Indonesia and Thailand. Both Thailand and Indonesia remain to be the top two exporters of rubber in the ASEAN region as well as in the world with production volumes of 2.743 million and 1.950 million metric tons for the year 2005. Malaysia and Vietnam are ranked fourth and fifth in both ASEAN and the world market with export volumes of 707 thousand and 365 thousand metric tons respectively, while Cambodia and Myanmar lag behind the Philippines with export volumes of less than 42 thousand metric tons. Natural rubber exports have steadily increased during the last five years for the major producers in the ASEAN region.

The intra ASEAN trade pattern for rubber based products indicates that less developed members (Indonesia, Myanmar, the Philippines, Thailand and Vietnam) exported natural rubber to more developed members (Malaysia and Singapore) who in turn supplies them with rubber based manufactured products (Austria 2004). Deeper integration can be achieved if the value added of the natural rubber and other rubber based industries will be increased through further industrial processing, with each economy specializing in the production of a particular rubber based product for export to the rest of the region, with specialization being driven by each country's comparative advantage (Austria 2004)

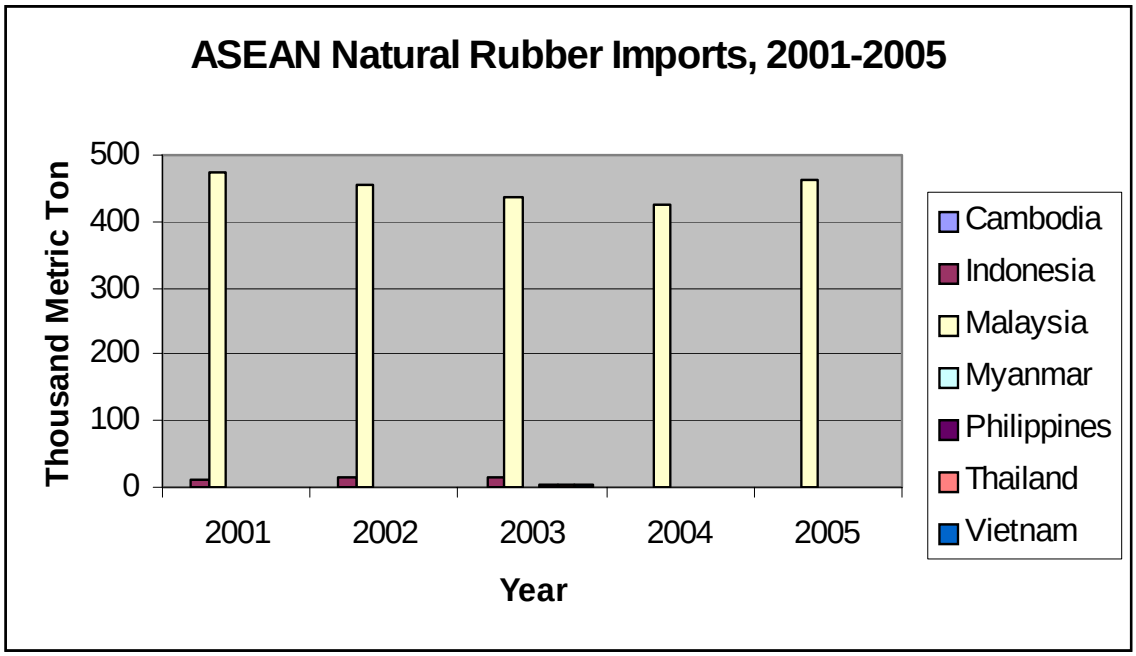
The continued increase in prices of natural rubber in the world market since 2002, had encouraged producers in Thailand , Indonesia, Malaysia and Vietnam to plant more rubber trees, consequently replacing lower income crops. Thailand has been successful

in attracting and promoting domestic rubber manufacturing companies, and continues to focus on the further development of high value added industries as 90 percent of natural rubber is exported. Tire and tube manufacturers are the largest users of natural rubber in Thailand accounting for 47 percent of domestic rubber consumption. There are three well known large tire companies producing tires for cars, trucks, buses and aircraft operating in Thailand, with other large manufacturing industries producing rubber gloves, condoms, balloons, auto parts, cushions and elastic bands (WTO report 2000).



Source: International Rubber Consortium Limited (2006), Bureau of Agricultural Statistics

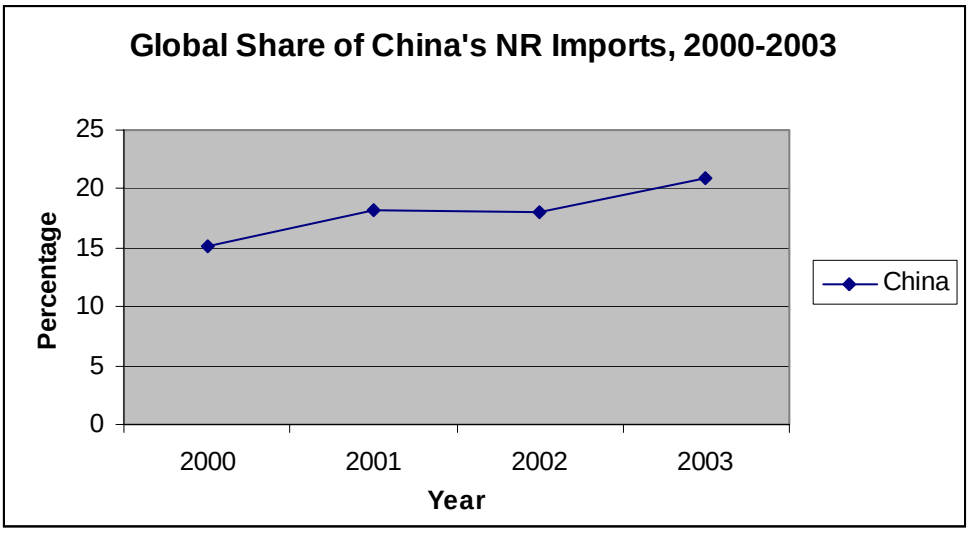
Data on ASEAN natural rubber imports reveal that Malaysia is the largest importer in the region. Although it is the third largest exporter of natural rubber in the world in 2005, it is also the fifth largest consumer in the world (Market Watch Malysia Rubber 2004) using over 460 thousand metric tons of natural rubber annually. The Philippines is ranked as the fourth largest importer in the ASEAN region behind Malaysia, Indonesia and Vietnam.



Source: Food and Agriculture Organization of the United Nations, Malaysian Rubber Board

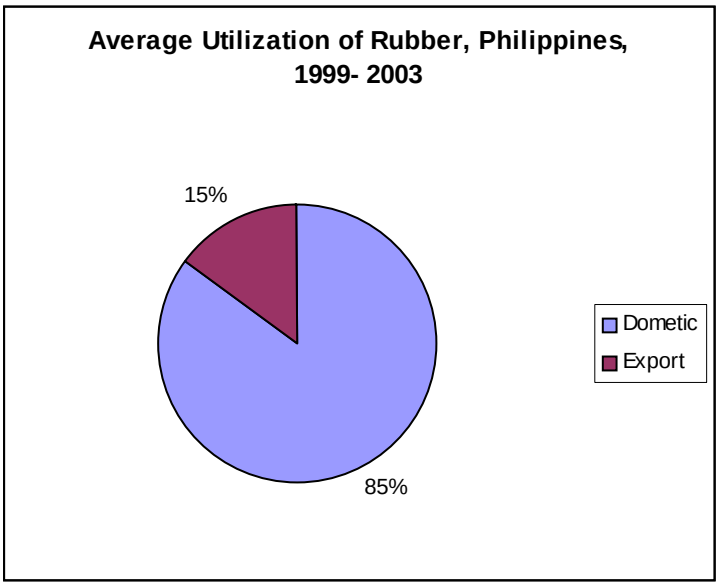
Demand for natural rubber from China

The Chinese rubber industry has grown impressively during the past few years with demand increasing rapidly putting pressure on domestic production to catch up along with increases in imports. With China's production not able to meet demand, the country increased its imports capturing 15 percent of the world's natural rubber imports during the year 2000 and cornering close to 21 percent in 2003. By the year 2005, China had the largest import volume for natural rubber at 1.054 million metric tons which is roughly 20 percent of world imports. The rapidly growing tire and rubber goods industries is the major reason why China is the largest natural rubber importer in the world today. An insufficient supply of natural rubber will seriously affect the sustained growth and development of the Chinese rubber based manufacturing industry and there will be a need to import from several countries particularly Thailand, Indonesia, Malaysia, Vietnam, India and the Philippines.



Source: Food and Agriculture Organization of the United Nations Philippines has shown

Based on the recent monthly integrated surveys of selected industries conducted by the National Statistics Office, initial results show the potential for continued growth in the Philippine rubber industry. The survey indicated growth in the value of production and the value of net sales in the industry. There has been a 14.4 percent increase in rubber production as of August 2006, and firms have been using more than 80 percent of their current production capacity. Presented below is a graph illustrating the average utilization of rubber from 1999-2003.



Source: Bureau of Agricultural Statistics

There is an opportunity for the Philippines to supply more natural rubber to China, considering that it is looking to further sustain growth in their domestic rubber industry.

China cannot depend on its domestic production of natural rubber and neither can it rely on a few producers in the world market to meet the growing demand of its industries . There is a large gap between domestic production and consumption and the growth of the industries which use natural rubber as inputs is too rapid as shown by the amount of natural rubber that is imported yearly by China. The sharp rise in rubber consumption requires the need for more natural rubber inputs.

The Philippines may not be a major competitor as compared to Thailand Indonesia and Malaysia, but the opportunity to increase export volumes in China should be exploited. The large population and the continued growth in the level of output and income show the enormous potential for export revenues coming from China. The demand and consumption per capita is rising as GDP increases and China uses a lot of natural rubber as inputs to produce rubber based industrial and consumer products for other export markets.

The Philippines needs to upgrade its current production capacity, improve product quality to meet international standards and increase rubber production volume in order to exploit the growing demand in China. The industry will need support from government in order to take advantage of this opportunity.

Natural Rubber Imports of South Korea

Aside from China, and the traditional markets such as the United States and Japan, It will also be important to consider the potential of South Korea as a major importer of natural rubber. During the year 2005, it imported 309 thousand metric tons of natural rubber, which is the fourth largest in the world, making up 6 percent of total world imports. Although South Korean imports of natural rubber decreased in 2005, for the years 1999 to 2004, imports remained over 300 thousand metric tons peaking at 352 thousand metric tons in 2004.

Aside from being the fourth largest importer of natural rubber in the world, an economy situated in the Northeast Asian region, and a member of the Asia Pacific Economic Cooperation (APEC) bloc, it is important to note that Korean imports of natural rubber from the Philippines **(natural rubber in plates, sheets and strips, PSCC 2312902)** remains extremely low and insignificant at $31,586. **Its imports of waste paring and scrap of unhardened rubber and powder and granule OBT, PSCC 2322200)** from the Philippines were only at $28,532. Considering that South Korea is a potentially large market with over 300 thousand metric tons of natural rubber imports, is geographically closer to the ASEAN region compared to the United States and is a member of the APEC trading bloc, efforts should be made to further improve on the Philippine export performance of natural rubber and rubber based products in the South Korean market. South Korea has also been aggressive in promoting its automotive industry with new passenger car models and sports utility and commercial vehicles being produced and sold both in its domestic economy as well as in markets in the ASEAN region, Japan, Europe and the United States. The growing South Korean automotive industry generates additional demand for tires and consequently its raw materials both

natural and synthetic rubber, which the Philippines can try to exploit if more effort and support are provided by government in order to gain more access to the South Korean market.

Trade barriers on natural rubber in other large markets

Tariff rates on natural rubber imports have been reduced to zero percent in Japan, South Korea, Thailand, the United States and the European Union. However, two major country markets continue to maintain relatively high tariff rates namely: China at 20 percent and India at 25 percent.

Tariffs on Natural Rubber Imports (2006)

Country	Tariff (in %)
European Union	0
United States	0
China	20
Japan	0
South Korea	0
Thailand	0
India	25

Source: Napoletano & Un Sinath

Although China had cancelled non-tariff measures such as import quotas and licensing controls on natural rubber in January 2005, it still continues to maintain tariff rates at 20 percent.

Most of the non-tariff barriers being imposed on natural rubber imports in the above mentioned countries generally focus on the strict enforcement of product standards (particularly with regard to the different grades of natural rubber which are being imported) and the compliance with certification procedures.

The Malaysian External Trade Development Corporation, for example reports that the South Korean tariff rate on technically specified natural rubber (TSNR processed block types in 33 1/3 kg bales) used to be at 1 percent in 2004 and was reduced to 0 percent in 2006. There is no specific regulation concerning imports of TSNR into South Korea, and that special sample tests are not necessary before customs clearance. However, strict adherence to international standards (ISO 2000) are necessary with TSNR at least complying with the enforced specifications indicated in the 6 different grades (TSR-CV, TSR, LTSR-S, TSR-10, TSR-20, and TSR-50) which are currently being imported by the Korean economy.

IV. Philippine Imperatives and Prospects in

ASEAN and other Large Country Markets

Although the share of Philippine natural rubber production from world output is only close to one percent, the country still ranks as the seventh largest producer of natural rubber in the world market, with 315.6 thousand metric tons of output, and the sixth largest exporter in the world with 60 thousand metric tons for the year 2005. The Philippines has been a net exporter of natural rubber products with a trade surplus of US$ 13.771 million during the year 2000, and this had further increased to $31.147 million by the end of 2005. Its net trade ratio in 2005 was at 74 percent, with exports expected to increase further as world demand expands and natural rubber prices increase.

Prospects are good and promising for natural rubber producers in ASEAN as well as for the rest of the world. Global production had reached 8.872 million metric tons in 2005, growing at a rate of 4 percent, while world demand was at 8.706 million metric tons which increased at a rate of 4.7 percent. Although production was larger than demand , the increase of 4.7% in consumption which was higher than output growth of 4% indicates pressure coming from the demand side due to the growing automotive, tire, footwear, and health and pharmaceutical industries. Natural rubber prices have been rising steadily which should serve as an incentive for firms to produce more. In addition, the cost of producing synthetic rubber has been increasing because of higher oil prices reducing its competitiveness relative to natural rubber. This should further boost the demand for natural rubber products.

Recent updates from the International Rubber Study Group have shown that at the end of 2006, natural rubber production in the world had reached 9.188 million metric tons, while world consumption was recorded at 8.956 million metric tons. World production had grown by 4.68 percent while global consumption had slightly decreased by 0.42 percent compared to its 2005 level of 8.994 million metric tons.

The Philippines should continue to promote its local natural rubber industry because: 1) rubber prices are more lucrative compared to other crops: 2) a vast land area is available for rubber planting; 3) the country's climate is suitable for good rubber growth and production; 4) there are available workers for rubber plantations; 5) rubber is a familiar crop, especially for residents in Mindanao; 6) there is a relatively high income and effort potential for rubber farmers; and lastly : 7) rubber is relatively easy to market (Ismael, T. BAR Chronicle, 2006).

Strategies

The strategies to be adopted are actually within the scope and framework being used by the Department of Agriculture in its vision and mission to develop the industry. Its vision is to develop a sustainable rubber industry that is technologically advanced and globally competitive. Its mission in particular focuses on promoting and developing a globally competitive rubber industry with the view of achieving increased volume as well as quality of production, increasing farmer's incomes and improving the efficiency

of the marketing system through the participation of the private sector, local government units and government agencies.

One of the objectives of this mission is to increase the production of natural rubber by 10 percent per year, and to achieve this, it will be necessary to identify and increase the land area used for planting rubber trees and rehabilitate previously planted areas and increase yield per hectare by 5 percent. This is to be accomplished through more replanting, fertilization, training of production and management personnel, improving rubber tapping and production technology and the effective use of pest and disease control. In order to satisfy domestic demand without importation, the country has to expand its area planted to at least 250 thousand hectares. To further increase export volume as well as its world market share, the country must maintain at least 400,000 hectares of productive rubber trees. Based on the estimates of the Department of Agriculture, there are roughly 52,000 hectares which can be used immediately for natural rubber production and an actual potential area of 300,000 hectares suitable for rubber production in Mindanao specifically in Central Mindanao, Zamboanga peninsula and the ARMM.

The area being planted to rubber is to increase by 10,000 hectares per year using new recommended tree varieties and planting designs using production clusters of 500 hectares as well as the inclusion of other cash crops to be planted during the 5 to 6 year gestation period. It will also be necessary to incorporate rubber into the Agro-forestry program of the Department of Environment and Natural Resources (DENR) , the local government units (LGU's) and the non-governmental organization (NGO's). Quedancor through its self reliant team (SRT) program extends credit to farmers in the amount of P50,000 to P110,000 per hectare with an interest rate of 14 percent per annum payable within one year. For technology adoption and production expansion, the Land Bank of the Philippines similarly provides credit and financial assistance through its ACCESS program. Commercial banks are mandated by law to set aside a certain percentage of their reserves for agricultural loans (Department of Trade and Industry Report 2005). In addition, access to development and rehabilitation loans should be increased along with the possibility of exploring co-financing schemes with other countries.

The procurement of funds from investors, funding agencies or financial institutions

It is important to consider that rubber trees require a gestation period of five to six years, and that any loan or credit program should provide a reasonable grace period to allow farmers to pay interest, not immediately, but at a preferably later date. The General Banking Act (RA337), provides for a maximum grace period of three years for loans. However, this may not be of much assistance for rubber because of the 5 to 6 year gestation period. In the interim, the Departments of Agriculture, Agrarian Reform and Environment and Natural Resources under a proposed Perennial Crop Development Financing Fund (as an integral component of the High Value Crops Development Fund under RA 7099) should provide financing for the first three years of the investment phase

and the Development Bank of the Philippines and the Land Bank during the 4th, 5th and 6th year under an innovated long term rubber financing scheme.

In Thailand, government was able to achieve its objective of increasing the number of hectares planted to rubber by implementing a program under the Rubber Replanting Aid Fund which provides grants to rubber planters within a period of 7 ½ years on 9 installments. These payments were applied only to planting materials during the last five years of the program, and the strategy was successful to the extent that it was able to meet the target of increasing the amount of land planted to rubber to approximately 400,000 rai from 1989 to 1993 (Jassadakasamwimon S. and Preecha, Wishit Suwan, 2006).

Private sector investments will play a crucial role in the expansion of large scale rubber plantations, or the formation of joint ventures with cooperatives or consolidated rubber small holding production units. Although strong international demand and attractive world prices may provide an incentive for businessmen to invest in natural rubber production, this must be complemented by access to low cost long term financing, fiscal incentives, and infrastructure support such as farm to market roads, rural electrification to complement processing, and more efficient access to sea ports and shipping facilities.

There is a need to address the problem of cost inefficiency attributed to the existence of small scale farms, processing inefficiency and logistical constraints. Considering that with an average production area of 8 hectares, it becomes difficult for rubber planters to exploit the advantage behind economies of scale and prevents the adoption of productivity enhancing technologies as well as the optimal utilization of workers. Logistical costs also increase because of the difficulty in consolidating the output of small farms specially if locations are fragmented**. Shipping costs** are high and a large number of farmers do not have the capability to bring their products to the market. This encouraged the entry of traders that unnecessarily increase the cost of distribution. (Costales, 2006).

Aside from increasing output, productivity, efficiency and quality of natural rubber products, it will also be necessary to integrate and strengthen existing markets and expand new ones for natural rubber, rubber wood and manufactured products. To accomplish this, it will be necessary to strengthen the current management information systems being used in the industry, improve infrastructure though new investments in rural electrification, farm to market roads, bridges and irrigation. Improvements in the transport system particularly farm to market roads and ports that would facilitate inter-island shipping should be facilitated as soon as possible. **Shipping cost** is a major part of the cost structure of marketing, distribution and transport of primary rubber products. Rubber crepes have to be transported by sea freight to Metro Manila and Metro Cebu for further processing (Costales 2006). Investments on rural infrastructure would provide an environment for a competitive production transport system and communication network. There will be a need to establish down stream rubber wood industries, organize

marketing clusters and focus on China and South Korea as the main markets for natural rubber and rubber wood products.

The need to identify a lead institution on natural rubber development

Quality improvements and consistency which are outcomes of improved production technologies should meet world market standards if the country intends to increase its share of world production and exports. The Philippine Rubber Research and Development Center in Kabacan North Cotabato provides and extends research and development services to the industry. The Department of Agriculture provides technical assistance and other forms of extension services through its High Value Commercial Crops program (HVCC). This should include further training of extension workers and farmers, as well as the establishment of model farms in order to showcase the latest technologies.

At the level of the producers, rubber organizations should be strengthened in order to further promote internal quality control within the industry. Efforts to shift from low value primary products to higher value rubber blocks and latex should be pursued. Current institutional support from the Philippine Rubber R&D Center and the High Value Commercial Crops Program (HVCC) may be inadequate which makes it necessary for the private sector and government to create a lead institution that could further promote natural rubber development by mobilizing more funds for research and development, identify goals and objectives for the industry and better organize both industry associations and the natural rubber producers which include the large scale firms with plantations, and the small land holding rubber producers which must be integrated into cooperatives or consolidated production units.

Quality and productivity improvements involving the development of technology that covers the entire supply chain of the natural rubber industry should continue to be pursued by the Philippine Rubber R&D Center. For traders, better or more attractive incentives should be given for good quality cup lumps and dry rubber. Trading of cut lumps and latex in the local level is done through the local or municipal assemblers and provincial assemblers who then sell to processors or agents of exporters and manufacturers. An international set of standards serves as a guide in the grading of natural rubber products (Costales 2006). Processors should continue upgrading the efficiency of existing facilities and consequently invest in new capacity in order to accommodate increased production induced by larger demand.

Livelihood alternatives during the five year gestation period

To further encourage rubber tree growing and cup lump production among small land holders, it will be important to significantly increase the income of growers and those in the peripheral industries at a rate of 5 to 10 percent per year. This may be accomplished through the introduction of an integrated and sustainable farming systems approach in relatively flat lands. The Department of Agriculture should implement programs that will provide livelihood alternatives for the farmers as rubber trees are allowed to mature within the next 5 to 7 years. Based on the Malaysian and Thai experience for small land holders, livelihood alternatives may include livestock raising (swine, cattle and poultry), timber production, the cultivation of fruit trees and the production of cash crops which are to be integrated within the rubber plantations.

Establishing more nurseries for massive planting material production

The lack of planting materials continues to limit output expansion considering that there are only seven bud wood gardens with each site having an approximate area of ½ hectares located at various sites in Mindanao. There are 17 nurseries, seven of which are owned by government and the rest are owned by either the local government or the private sector (Department of Agriculture 2005).

A hectare of bud wood garden can supply the requirement for planting materials of about 300 hectares of natural rubber trees. The capacity of the present bud wood gardens can only supply the requirement for 1,050 hectares of expansion. For 2005-2006, the available expansion area in Mindanao is 6,196 . For the industry to utilize this total area for rubber production would require 21 hectares of bud wood gardens. To support the planting material needs of 10,000 new hectares per year, 34 hectares of bud gardens should be established yearly to meet this goal. (Department of Agriculture 2005, Ismael, T. BAR Chronicle, 2006).

In the short term, government can immediately provide support to the industry by assisting in the opening of clusters of area for development, promoting product quality improvement through advocacy and training in focused areas, controlling the back door marketing operations of raw rubber, establishing more bud wood gardens and nurseries and the implementation of Philippine National Standards for natural rubber products .

Recommendations from the Private Sector

Encouraging joint ventures with domestic and foreign investors

It will be important to explore the possibility of forming joint ventures (probably between the National Development Corporation (NDC) and foreign investors/ firms which use natural rubber as major inputs) particularly in the development of new rubber plantations, (with clusters of 500 hectares) which could exploit the advantages behind economies of scale, and new production technologies which increase yields and improve quality. In view of the land redistribution being implemented under Agrarian Reform, it will be necessary to consolidate the production of small land holding rubber producers through the organization of cooperatives, the establishment of contract growing agreements among firms, buyers and exporters, and as mentioned earlier, the formation of joint ventures involving plantation type lands with long term leasing arrangements between the private sector and the NDC.

The Malaysian experience has shown that small land holdings may still be able to produce with relative efficiency as long as the consolidation of production activities will include the formation of nucleus small holdings, group replanting schemes, group processing centers, centralized processing centers, the formation of mini estates and an efficient management approach to consolidating output. Mechanisms for effective transfer of technologies is the key for successful development of economically viable smallholdings (Seenivasagam, 2006).

It will also be necessary to establish on-site rubber manufacturing plants and implement Philippine National Standards (PNS) for rubber based product manufacturing. The production of rubber blocks and concentrated latex already have established product quality standards which manufacturers should adopt in order to have a chance to compete in the export market.

Leasing agreements and amendments to agrarian reform

In connection with encouraging joint ventures between foreign investors and the NDC, it may be necessary to propose amendments to the Comprehensive Agrarian Reform Law (CARL) . Since the implementation of the law, owners of rubber tree plantations have been discouraged to continue with natural rubber production because of the consequent redistribution of land to farmer beneficiaries. Large tracts of land which are going to be subdivided and redistributed will lose their economies of scale advantage since smaller land holdings will not facilitate the mass production of natural rubber. Although owners of large tracts of private agricultural land may have either disposed of their properties, or converted their land to industrial, commercial or residential estates, the private sector can still consider investing into natural rubber production and the development of large scale rubber tree plantations if public agricultural lands can be offered to prospective natural rubber producers on a long term leasing arrangement covering a period of at least 20 to 25 years. Leasing agreements will provide investors both local and foreign the opportunity to set up and operate large scale rubber plantations, which will have economies of scale advantages. In addition, with

government as the owner of the public agricultural land can generate revenues from the leasing agreement which would put it in a better position to finance its operations and reduce its fiscal deficit.

V. Developing an ASEAN Framework for Trade Negotiations in the Natural Rubber Industry

Based on the discussions conducted during the Second Consultative Meeting for the Priority Integration Sectors, organized by the ASEAN Secretariat last June 2006, the following areas should be considered within the scope of the ASEAN framework for trade negotiations concerning the natural rubber industry:

Technical and product cooperation

There is a need to initiate and encourage proposals to form technical and product cooperation agreements among ASEAN countries which would involve technology transfers that would help increase yields from natural rubber trees and improve the quality of processed rubber products. In addition to this, it will be necessary to promote and encourage the use of rubber products made in ASEAN among member countries. The benefits would be substantial for the entire region if the more developed member countries could initiate the formation of agreements to purchase natural rubber intermediate inputs from less developed member countries to be used in the production of higher value added rubber based products, in order to further strengthen the linkages in both agriculture and industry across all member countries.

Product Testing and Establishing Product Standards

Rubber manufacturers should be encouraged to make use of available accredited testing facilities within ASEAN which are recognized and accepted by ASEAN domestic regulators. Mutual recognition arrangements on testing facilities should be developed to encourage recognition of testing facilities among member countries before promoting them to the manufacturers.

There will be a need to accelerate the harmonization of member countries standards for rubber products through adoption of one common set of standards for all ASEAN member countries based on international standards wherever applicable. Where international standards are not available, these should be developed by member countries. It will also be necessary to accelerate the harmonization of technical regulations imposed by member countries in relation to safety, health and the environment.

ASEAN must have a common position on new standards for rubber products at an international forum such as the International Rubber Organization.

Promoting ASEAN Rubber Exports

In coordination with the ASEAN Rubber Business Council, rubber associations as well as export promotion agencies in member countries will be expected to establish a regional grouping of export promotion agencies in ASEAN member countries in order to promote natural rubber and other rubber based products. It will be important to undertake joint promotional efforts in other international markets and to counter adverse publicity against natural rubber products by using various forms of media to present its positive attributes which are based on scientific findings.

Research and Development in ASEAN Rubber

In cooperation with the ASEAN Committee on Science and Technology and in coordination with International Rubber Research and Development Board, the promotion of joint research and development of rubber based products at all stages from procurement, production and distribution must be undertaken in order to ensure that continuous efforts are made towards improving quality, improving production efficiency and upgrading product and processing standards. The ASEAN Rubber Business Council, the ASEAN Ministers on Agriculture and Forestry and the members of the ASEAN 6 must enhance cooperation with Cambodia, Laos, Myanmar and Vietnam in the development of rubber plantations and processing facilities.

Environmental Implications

To further promote ASEAN natural rubber exports in the world market, it will also be necessary to put more emphasis on the environmental implications of using more natural rubber based products compared to synthetic rubber substitutes. An intensive marketing campaign jointly sponsored by all members of the ASEAN should be developed with the intention of promoting natural rubber as the more favorable source of raw materials for rubber based manufactured products because of its contributions to the preservation of the environment particularly in encouraging and increasing the number of rubber trees being planted in tropical countries. Increasing the number of hectares and trees planted for rubber will generate more environmental benefits for ASEAN countries, relative to the use of petroleum based synthetic rubber substitutes.

Creating an ASEAN Rubber Organization within the Framework of the International Rubber Consortium Limited

Other countries in the ASEAN region which are producers of natural rubber should initiate efforts to form an ASEAN Rubber Organization that will facilitate stability in rubber prices, ensuring consistent supply, strengthening domestic rubber industries in other member countries to sustain demand, as well as support research and development

in technology that would raise farm yields, improve farming methods, and improve the quality of both intermediate and finished rubber based products. During the year 2001, Thailand, Indonesia and Malaysia met and signed a Joint Ministerial Declaration (the Bali Declaration 2001) pledging to work collectively to ensure fair and remunerative income for rubber small holders by establishing the "International Tripartite Rubber Council". The body is responsible for coordinating and overseeing the implementation of natural rubber supply measures such as the Supply Management Scheme (SMS) and the Agreed Export Tonnage Scheme (AETS).

By the year 2004, the three countries had formed the "International Rubber Consortium Limited (IRCo)" with an authorized capital stock of $225 million fully subscribed by Thailand, Indonesia and Malaysia at a ratio of 4:3:2. Its objectives are presented as follows: 1) to achieve a long term price trend that is stable, sustainable and remunerative to the farmers and: 2) to maintain a healthy balance between international supply and demand to encourage adequate production in the market at fair prices. The IRCo is expected to carry out strategic market operations using the SMS and AETS schemes in order to strengthen its bargaining power as organized producers and improve cooperation in the areas of technological development, product quality improvement and increasing market access.

Other ASEAN countries who are currently not members of this consortium should take the initiative of applying for membership in the IRCo or as mentioned earlier , set up an ASEAN Rubber Organization along the framework of the IRCo with the same goals but with a larger base of members which would include other natural rubber producers in the region such as the Philippines, Vietnam, Laos, Cambodia, Brunei and Myanmar. The IRCo's "Supply Management Scheme" and "Agreed Export Tonnage Scheme" may be implemented on a regional level under the ASEAN Rubber Organization in order to efficiently manage the supply of natural rubber within the area, stabilize prices and provide an encouraging remunerative system in order to promote the growth and development of small to medium scale natural rubber producers.

Final Notes

The country has the potential to further improve on its production and export performance in ASEAN as well as other regions in the international market as long as it can continue to develop the local natural rubber industry by increasing the number of rubber bearing trees, increasing the number of hectares being used for planting rubber, and increasing the intensity of rubber tapping activities in order to take advantage of strong demand and rising prices in the world market. The increases in output and productivity can be achieved with the adequate provision of credit, infrastructure (such as farm to market roads, and ports to facilitate shipping transport), management services, research and development extension services as well as the strengthening of cooperatives, specifically for organized groups of small land holders.

With the assumption that all of the above mentioned conditions are met, substantial increases in investments from the private sector into the natural rubber industry will only be fully realized if the peace and order situation in the Mindanao area is finally resolved, along with the resolution of land disputes under the Agrarian Reform program, and the prospective application of long term leasing arrangements for public land to be part of a joint venture scheme between government and private firms to develop large scale plantations. The consolidation of the production activities of small rubber land holdings through cooperatives and contract growing agreements should further boost production as the country attempts to increase its share of the market both within and outside the ASEAN region.

APPENDIX A

EXPORTS

2312901	NAT'L RUBBER, NES, IN PRIMARY FORMS(OTH THN LATE); CREPE SHEETS
2312902	NAT'L RUBBER,IN PLATE,SHT/STRIP
2321501	LATEX OF ACRYLONITRILE-BUTADIENE RUBBER(NBR)
2321901	LATEX OF OTH SYNTHETIC RUBBERS
2321902	SYNTHETIC RUBBER, NES, IN PRIMARY FORMS (OTH TN LATEX)
2322100	RECLAIMED RUBBER IN PRIMARY FORMS/IN PLATES, SHEETS/STRIP
2322200	WASTE,PARING & SCRAP OF UNHARDND RUBBER & POWDER&GRANULE OBT THEREFROM
6212909	OTH FORMS & ART, OF UNVULCNZ RUBBER,NES
6213201	PLATES, SHEETS & STRIP, OF UNHARDENED VULCANIZED CELLULAR RUBBER
6213303	RUBBER SHEETING FOR FOOTWEAR, OF UNHARDENED VULCNZ NON-CELLULAR RUBBER
6213309	OTH PLATES,SHEETS & STRIP,OF UNHARDENED VULCANIZED NON-CELLULAR RUBBER
6214209	OTH TUBES,PIPES & HOSES, OF UNHARDENED VULCANIZE RUBBER,REINFORCED OR W/ METAL
6214309	OTH TUBE,PIPE&HOSES,OF UNHARDND VULCNZ RUBBER, REINFORCED OR W/ TEXTILE MAT'L
6214309	OTH TUBE,PIPE&HOSES,OF UNHARDND VULCNZ RUBBER, REINFORCED OR W/ TEXTILE MAT'L
6214509	OTH TUBES,PIPES & HOSES, OF UNHARDENED VULCANIZED RUBBER, W/ FITTINGS
6251001	STEEL BELTED AUTOMOBILE TIRES, PNEUMATIC, OF ALL SIZES, NEW
6251009	OTH TIRES, PNEUMATIC, NEW, USE ON MOTOR CARS(INCLDG STATION WAGON&RACING CARS)
6252001	STEEL BELTED TIRES,PNEUMATIC,NEW,OF A KIND USED ON BUSES[&]OR LORRIES(INCLUDING TRUCKS)
6252009	OTHER TIRES,PNEUMATIC,NEW,OF A KIND USED ON BUSES [AND] OR LORRIES (INCLUDING TRUCKS)
6253000	TIRES, PNEUMATIC, NEW, USED ON AIRCRAFT
6254100	TIRES,PNEUMATIC,NEW,USED ON MOTORCYCLES
6254200	TIRES, PNEUMATIC, NEW, USED ON BICYCLES
6255903	TIRES, PNEUMATIC, FOR AGRI'L,CONST&IND EQUIPMENT, NES
6259101	AUTOMOBILE TUBES, NEW
6259103	TRUCK TUBES, NEW
6259105	BICYCLE TUBES, NEW
6259203	RETREADED AIRCRAFT TIRES
6259303	AIRCRAFT TIRES, PNEUMATIC, USED
6259402	INTERCHANGEABLE TIRE TREADS&TIRE FLAPS
6291100	SHEATH CONTRACEPTIVES(CONDOM)
6291903	NIPPLES FOR FEEDING BOTTLE, OF UNHARDENED VULCANIZED RUBBER
6291909	UNHARDENED VULCANIZED RUBBER, NES
6292001	CONVEYOR BELTS OR BELTING REINFORCED ONLY WITH METAL
6292009	OTHER CONVEYOR BELTS OR BELTING
6292014	ENDLESS SYNCHRONOUS BELTS,OF A CIRCUMFERENCE EXCEEDING150 CM BUT NOT EXCEEDING 198 CM
6292015	TRANSMISSION BELTS OR BELTING OF TRAPEZOIDAL CROSS-SECTION(V-BELTS

	& V-BELTING) OTHER THAN THOSE OF
6292019	OTHER TRANSMISSION BELTS OR BELTING
6299102	HARD RUBBER (E.G., EBONITE), IN ALL FORMS, IN BULK (OTHER THAN THOSE OF SUB-ITEMS 629.91-01 AND 629.
6299103	SCRAP, WASTE AND POWDER, OF HARD RUBBER
6299104	HYGIENIC, MEDICAL AND SURGICAL ARTICLES, OF HARD RUBBER
6299105	BOTTLE CAPS, BULBS, STOPPERS, PLUGS AND SEALS, OF HARD RUBBER
6299109	OTHER ARTICLES OF HARD RUBBER, INCLUDING HARD RUBBER BUCKETS
6299200	ARTICLES OF UNHARDENED CELLULAR VULCANIZED RUBBER, N.E.S.
6299901	FLOOR COVERINGS & MATS, OF UNHARDENED NON-CELLULAR VULCANIZED RUBBER
6299902	ERASERS [FOR PENCILS], OF UNHARDENED NON-CELLULAR VULCANIZED RUBBER
6299905	PACKING FOR ELECTROLYTIC CAPACITORS, OF UNHARDENED NON-CELLULAR VULCNZ RUBBER
6299907	GASKETS, PACKINGS, WASHERS AND OTHER SEALS, OTHER THAN THOSE OF SUB-ITEMS 629.99-04 TO 629.99-05 [6]
6299901	FLOOR COVERINGS & MATS, OF UNHARDENED NON-CELLULAR VULCANIZED RUBBER
6299902	ERASERS [FOR PENCILS], OF UNHARDENED NON-CELLULAR VULCANIZED RUBBER
6299905	PACKING FOR ELECTROLYTIC CAPACITORS, OF UNHARDENED NON-CELLULAR VULCNZ RUBBER
6299907	GASKETS, PACKINGS, WASHERS AND OTHER SEALS, OTHER THAN THOSE OF SUB-ITEMS 629.99-04 TO 629.99-05 [6]
6299922	RUBBER GROMMETS AND RUBBER COVERS FOR AUTOMOTIVE WIRING HARNESS
6299929	OTHER ARTICLES OF UNHARDENED NON-CELLULAR VULCANIZED RUBBER, N.E.S.

IMPORTS

2311000	NATL RUBBER LATX,PREVULCANZE/NOT
2312901	NAT'L RUBBER, NES, IN PRIMARY FORMS(OTH THN LATE); CREPE SHEETS
2312902	NAT'L RUBBER,IN PLATE,SHT/STRIP
2313001	BALATA, GUTTA-PERCHA, GUAYULE, CHICLES & SIMLR NATL GUM,IN PRIMARY FORM
2321101	LATEX OF STYRENE-BUTADIENE RUBBER (SBR)
2321102	LATEX OF CARBOXYLATED STYRENEBUTADIENE RUBBER (XSBR)
2321103	STYRENE-BUTADIENE RUBBER (SBR),IN PRIMARY FORMS (OTHER THAN LATEX)
2321104	CARBOXYLATED STYRENE-BUTADIENE RUBBER (XSBR), IN PRIMARY FORMS (OTHER THAN LATEX)
2321105	STYRENE-BUTADIENE RUBBER (SBR), AND CARBOXYLATED STYRENERUBBER (XSBR), IN PLATES, SHEETS OR STRIP
2321201	BUTADIENE RUBBER (BR), IN PRIMARY FORMS
2321301	ISOBUTENE-ISOPRENE(BUTYL) RUBBER(IIR), IN PRIMARY FORMS
2321302	ISOBUTENE-ISOPRENE(BUTYL) RUBBER(IIR), IN PLATES, SHEETS/STRIP
2321501	LATEX OF ACRYLONITRILE-BUTADIENE RUBBER(NBR)
2321502	ACRYLONITRILE-BUTADIENE RUBBER(NBR), IN PRIMARY FORMS(OTH THN LATEX)
2321503	ACRYLONITRILE-BUTADIENE RUBBER(NBR), IN PLATES, SHEETS/STRIP

2321601	ISOPRENE RUBBER(IR), IN PRIMARY FORMS
2321701	ETHYLENE-PROPYLENE-NON-CONJUGATED DIENE RUBBER(EPDM), IN PRIMARY FORMS
2321702	ETHYLENE-PROPYLENE-NON-CONJUGATED DIENE RUBBER(EPDM),IN PLATE,SHTS/STRIP
2321901	LATEX OF OTH SYNTHETIC RUBBERS
2321902	SYNTHETIC RUBBER, NES, IN PRIMARY FORMS (OTH TN LATEX)
2321903	FACTICE DERIVED FROM OILS
2321904	OTH SYNTHETIC RUBBERS, NES, IN PLATES, SHEETS/STRIP
2322100	RECLAIMED RUBBER IN PRIMARY FORMS/IN PLATES, SHEETS/STRIP
2322200	WASTE,PARING & SCRAP OF UNHARDND RUBBER & POWDER&GRANULE OBT THEREFROM
6211100	RUBBER COMPOUNDED W/ CARBON BLACK/ SILICA, IN PRIMARY FORMS, PLATES, ETC
6211200	RUBBER SOLUTIONS, DISPERSIONS(OTH THN OF ITEM 62111)
6211901	COMPOUNDED RUBBER, OTH THN 6211100 UNVULCANIZED,IN PLATES,SHEETS/STRIP
6211902	GRANULES OF UNVULCNZ NAT'L/SYNTHETIC RUBBER COMPOUNDED READY FOR VULCNZN
6211909	OTH COMPOUNDED RUBBER, UNVULCANIZED, IN PRIMARY FORMS, NES
6212100	CAMEL-BACK STRIPS FOR RETREADING RUBBER TIRES
6212901	RUBBER TREAD, CUSHION & TREAD GUMS, UNVULCNZ, FOR TIRE MANUFACTURING&REPAIR
6212901	RUBBER TREAD, CUSHION & TREAD GUMS, UNVULCNZ, FOR TIRE MANUFACTURING&REPAIR
6212909	OTH FORMS & ART, OF UNVULCNZ RUBBER,NES
6213100	VULCANIZED RUBBER THREAD & CORD
6213201	PLATES, SHEETS & STRIP, OF UNHARDENED VULCANIZED CELLULAR RUBBER
6213202	RODS & PROFILE SHAPES, OF UNHARDENED VULCANIZED CELLULAR RUBBER
6213301	PRESSURE SENSITIVE TAPES,OF UNHARDENED VULCANIZED NON-CELLULAR RUBBER
6213302	RUBBER BLANKET FOR PRINTING MACHINE, OF UNHARDENED VULCNZ NON-CELLULAR RUBBER
6213303	RUBBER SHEETING FOR FOOTWEAR, OF UNHARDENED VULCNZ NON-CELLULAR RUBBER
6213309	OTH PLATES,SHEETS & STRIP,OF UNHARDENED VULCANIZED NON-CELLULAR RUBBER
6213311	RODS & PROFILE SHAPES, OF UNHARDENED VULCANIZED NON-CELLULAR RUBBER
6214101	GARDEN HOSE,OF UNHARDENED VULCANIZED RUBBER, W/O FITTINGS
6214109	OTH TUBES, PIPES & HOSES, OF UNHARDENED VULCANIZED RUBBER, W/O FITTINGS
6214201	MINING SLURRY SUCTION&DISCHARGE HOSE,OF VULCNZ RUBBER,REINFORCED OR W/ METAL
6214209	OTH TUBES,PIPES & HOSES, OF UNHARDENED VULCANIZE RUBBER,REINFORCED OR W/ METAL
6214301	MINING SLURRY SUCTION&DISCHARGE HOSE,OF RUBBER, REINFORCED OR W/ TEXTILE MAT'L
6214309	OTH TUBE,PIPE&HOSES,OF UNHARDND VULCNZ RUBBER, REINFORCED OR W/ TEXTILE MAT'L
6251001	STEEL BELTED AUTOMOBILE TIRES, PNEUMATIC, OF ALL SIZES, NEW
6251009	OTH TIRES, PNEUMATIC, NEW, USE ON MOTOR CARS(INCLDG STATION

	WAGON&RACING CARS)
6252001	STEEL BELTED TIRES,PNEUMATIC,NEW,OF A KIND USED ON BUSES[&]OR LORRIES(INCLUDING TRUCKS)
6252009	OTHER TIRES,PNEUMATIC,NEW,OF A KIND USED ON BUSES [AND] OR LORRIES (INCLUDING TRUCKS)
6253000	TIRES, PNEUMATIC, NEW, USED ON AIRCRAFT
6254100	TIRES,PNEUMATIC,NEW,USED ON MOTORCYCLES
6254200	TIRES, PNEUMATIC, NEW, USED ON BICYCLES
6255101	TRACTOR TIRES, PNEUMATIC, NEW, HAVING A "HERRING-BONE" OR SIMILAR TREAD
6255102	OFF-THE-ROAD TIRES OF 300KG & ABOVE, PNEUMATIC, NEW, HAVING "HERRING-BONE" OR SIMILAR TREAD
6255109	OTHER PNEUMATIC TIRES, NEW, HAVING "HERRING-BONE" OR SIMILAR TREAD, N.E.S.
6255901	TRACTOR TIRES, PNEUMATIC, NEW, HAVING TREADS OTH THN HERRING-BONE/SIMLR TREAD
6255902	OFF-THE-ROAD TIRES OF 300 K & ABOVE, PNEUMATIC, NEW, NES
6255903	TIRES, PNEUMATIC, FOR AGRI'L,CONST&IND EQUIPMENT, NES
6255909	OTH PNEUMATIC TIRES, NEW, NES
6259102	AUTOMOBILE TUBES, USED
6259103	TRUCK TUBES, NEW
6259105	BICYCLE TUBES, NEW
6259113	MOTORCYCLE TUBES, NEW
6259114	MOTORCYCLE TUBES, USED
6259117	INNER TUBES FOR AGRICULTURAL, CONSTRUC- TION & INDUSTRIAL EQUIPMENT
6259119	INNER TUBES, NES
6259203	RETREADED AIRCRAFT TIRES
6259209	RETREADED TIRES, NES
6259302	TRUCK TIRES, PNEUMATIC, USED
6259309	PNEUMATIC TIRES, N.E.S., USED
6259401	SOLID/CUSHION TIRES
6259402	INTERCHANGEABLE TIRE TREADS&TIRE FLAPS
6291100	SHEATH CONTRACEPTIVES(CONDOM)
6291901	RUBBER BAGS FOR ICE, HOT WATER & OXYGEN
6291903	NIPPLES FOR FEEDING BOTTLE, OF UNHARDENED VULCANIZED RUBBER
6291905	OTH HYGIENIC/PHARMACEUTICAL ARTICLES OF RUBBER COT SHEET, AIR FILLED
6291909	UNHARDENED VULCANIZED RUBBER, NES
6292001	CONVEYOR BELTS OR BELTING REINFORCED ONLY WITH METAL
6292002	CONVEYOR BELT OR BELTING REINFORCED ONLY WITH TEXTILE MATERIALS
6292003	CONVEYOR BELTS OR BELTING REINFORCED ONLY WITH PLASTICS
6292009	OTHER CONVEYOR BELTS OR BELTING
6292011	ENDLESSS TRANSMISSION BELTS OF TRAPEZOIDAL CROSS SECTION (V-BELTS), WHETHER OR NOT GROOVED, OF A CIR
6292011	ENDLESSS TRANSMISSION BELTS OF TRAPEZOIDAL CROSS SECTION (V-BELTS), WHETHER OR NOT GROOVED, OF A CIR
6292012	ENDLESS TRANSMISSION BELTS OF TRAPEZOIDAL CROSS-SECTION(V-BELTS), WHETHER OR NOT GROOVED,OF A CIRCUM
6292013	ENDLESS SYNCHRONOUS BELT,OF A CIRCUMFERENCE EXCEEDING 60 CM BUT NOT EXCEEDING 150 CM
6292015	TRANSMISSION BELTS OR BELTING OF TRAPEZOIDAL CROSS-SECTION(V-BELTS

	& V-BELTING) OTHER THAN THOSE OF
6292019	OTHER TRANSMISSION BELTS OR BELTING
6299105	BOTTLE CAPS, BULBS, STOPPERS, PLUGS AND SEALS, OF HARD RUBBER
6299109	OTHER ARTICLES OF HARD RUBBER, INCLUDING HARD RUBBER BUCKETS
6299200	ARTICLES OF UNHARDENED CELLULAR VULCANIZED RUBBER, N.E.S.
6299901	FLOOR COVERINGS & MATS, OF UNHARDENED NON-CELLULAR VULCANIZED RUBBER
6299902	ERASERS [FOR PENCILS], OF UNHARDENED NON-CELLULAR VULCANIZED RUBBER
6299904	STOPPERS FOR PHARMACEUTICAL VIALS, OF UNHARDENED NON-CELLULAR VULCNZ RUBBER
6299905	PACKING FOR ELECTROLYTIC CAPACITORS, OF UNHARDENED NON-CELLULAR VULCNZ RUBBER
6299907	GASKETS, PACKINGS, WASHERS AND OTHER SEALS, OTHER THAN THOSE OF SUB-ITEMS 629.99-04 TO 629.99-05 [6]
6299908	BOAT/DOCK FENDERS,WTR/NOT INFLATABLE,OF UNHARDENED NON-CELLULAR VULCNZ RUBBER
6299911	STORAGE TANKS, OF UNHARDENED NON- CELLULAR VULCANIZED RUBBER
6299912	PNEUMATIC PILLOWS,CUSHIONS&OTH INFLATBL ART,UNHARDND NON-CELLULAR VULCNZ RUBBER
6299914	ARTICLES OF A KIND USED IN MACHINERY OR MECH'L. OR ELEC'L. APPLIANCES OR FOR OTHER TECH'L. USES, OF
6299915	LINERS FOR BALL MILLS, CHUTES & OTHERS, OF UNHARDND NON-CELLULAR VULCNZ RUBBER
6299916	INSULATOR HOODS FOR INSULATION OF UNHARDND NON-CELLULAR VULCNZ RUBBER
6299917	CHASIS MOUNTING RUBBERS&OTH, FOR MOTOR VEHICLES, UNHARDND NON-CELLULAR RUBBER
6299918	BRAKE-BLOCK,MUDGUARD-FLAP&OTH,FOR CYCLE OF UNHARDND NON-CELLULAR VULCNZ RUBBER
6299922	RUBBER GROMMETS AND RUBBER COVERS FOR AUTOMOTIVE WIRING HARNESS
6299929	OTHER ARTICLES OF UNHARDENED NON-CELLULAR VULCANIZED RUBBER, N.E.S.

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Towards the Development of an ASEAN Framework for Trade Negotiations and Regional Cooperation:

Bio-fuels

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May 28, 2007

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1. INTRODUCTION

Increases in prices of petroleum products and global warming have made the use of bio fuels necessary particularly for Third World countries. Greenhouse gases which cause global warming have been largely caused by excessive pollution brought about largely through the use of fossil fuels. Bio fuels on the other hand do not cause pollution. Proponents of bio fuels claim that bio fuels may even clean up the engines on which these are used.

Unlike fossil fuels, bio fuels can be absorbed by the environment. There is less danger to the environment in cases of oil spills as what had happened recently in Guimaras.

Fossil fuels take millions of years to form. Bio fuels can be derived from plants and is renewable. Many of the plants from which it can be derived are locally available. Many of the plants from which bio fuels may be derived are grown in the Philippines such as coconut from which bio diesel can be obtained and sugar cane from which ethanol which can be blended with gasoline can be extracted.

ASEAN can be a center for production of bio fuels. The Philippines and ASEAN are the major world producers of four plants from which bio fuels may be derived. These are coconut, sugar cane, cassava and palm oil. Many of them are net exporters of these products.

Jatropha or tubang bakod which is found all over the Philippine shows promise as a source of bio diesel. It grows even on marginal soil and is used as a material for hedges. It can also be grown as an intercrop. At present, it is being utilized in India as a source of bio diesel. The Indian Railways, largest land owner in the country, grows jatropha on thousands of acres of land along both sides of the railway tracks. It hopes to cut its fuel bill, by blending jatropha oil with diesel.

This study was prepared with the aim to serve as a guide to policy makers as they negotiate with their ASEAN counterparts. The study was based on interviews with oil industry executives, government officials and experts in the field of bio fuels. Secondary data was obtained through the internet and library research.

Limited time and resources prevented the author from visiting far flung provinces where jatropa plantations were being established.

Biofuels is the answer to dependence of fossil fuels for many countries, including the Philippines. With crisis brewing in the Middle East and oil prices rising up again in the world market, bio fuels will once again be of strategic importance to ASEAN and its major trading partners.

2. HISTORICAL BACKGROUND

Biofuels are any fuel derived from biomass. These are renewable sources of fuel, unlike other natural resources such as petroleum, coal and nuclear fuels. Used as motor fuels, these can be used in compression-ignition and spark ignition engines with no major modifications. Bio fuels are also biodegradable, nontoxic and free of sulfur and aromatics. These are also inexhaustible and can be produced from locally available agricultural resources. Typically, bio fuels are burned to release its stored chemical energy. The carbon from biofuels however is extracted from the atmosphere by growing plants, so burning does not increase the average amount of carbon dioxide.

Bio Fuels are not a new energy source. It was used in Germany and France way back in 1894 by the then developing industry of internal combustion engines. Brazil utilized ethanol as fuel since 1925. Over the years, however, petroleum became difficult to beat, being considered as a limitless and cheaper resource. The difficulty with petroleum, however, was that very few countries were endowed with this resource. Some countries in the Middle East led in the huge concentration of reserve.

Instability of supply always created a series of petroleum crisis. When oil supply is disrupted, it is always accompanied by a rapid increase in oil prices which threaten a country's economic and national security. Crude oil prices behave like any commodity with wide swings in times of shortage or over supply. Demand is dependent on the nature of society, technical development, economic cycles and political conditions.

Since 1998, global demand for oil rose by two percent every year. The US Energy Information Administration forecasted that worldwide demand for oil would increase to 60 percent by 2020. In 1994, the Wall Street Journal reported that at current rates of production, proven reserves in 2002 40.6 years of consumption, beyond this point, we are looking at unprecedented supply-demand imbalances. Recent events such as the war with Iraq, violence in Nigeria and terrorist attacks have raised doubts about the sufficiency of oil supplies in the near future.

3. TYPES OF BIO FUELS

There are three types of bio fuels, solid, liquid and gaseous.

3.1 Solid Biofuels

Solid bio fuels come from wood, dried compressed peat, straw and other dried plants, animal waste and from crops such as rice, ground nut and cotton.

3.2 Liquid Biofuels

Liquid bio fuels have three sub classes namely bioalcohols, biologically produced oils and oils and gases produced from various sources. This category includes ethanol and methanol. Methanol is also known as methyl alcohol and wood alcohol. It is water soluble and undergoes all of the reactions of primary alcohol.

While ethanol product is of the same carbon structure worldwide, bio diesels differ from one another in carbon hydrogen structure depending on the raw material source. Europe has rapeseed biodiesel, Canada has canola biodiesel; South Africa has jatropa biodiesel and Malaysia has palm biodiesel. The Philippines has CME coco methyl ester or coconut biodiesel. Tests proved that coco bio diesel is the only alternative bio diesel in the world which is closest to the profile of an ideal of diesel in its natural state (with no additives).

3.3 Gaseous Biofuels

The most prominent gaseous biofuels is bio gas from methane. Methane is produced by the natural decay of garbage or agricultural manure and can be collected for use as fuel. Methane may also be collected from animal manure and human waste. Hydrogen, another gaseous bio fuel can be produced by cracking any hydrocarbon fuel in a reformer or by the electrolysis of water.

4. The Oil Industry in the Philippines

4.1 Industry Structure

At present, the Philippines is almost entirely dependent on fossil fuels for its vehicles. Great strides have been made in generating power from non traditional sources such as geothermal energy, hydropower and power has also been generated from wind energy, but bio fuels is something new.

Philippine oil industry has been deregulated since 1998 through Republic Act 8479. It is currently dominated by two major oil refining and marketing companies, Petron and Shell Philippines. Caltex Philippine, a unit of Chevron Texaco of the United States, converted its oil refinery into an import terminal in 2003. The Philippine National Oil Company jointly owns Petron together with Aramco. PNOC and Aramco each have a 40 percent share in Petron while the public hold the balance of 20 percent of the shares. (Department of Energy, 2007)

Petron is the biggest oil company operating a 180,000 bbl/day refinery and over 1,200 gasoline stations all over the country. Shell operates at 110,000 bbl/day refinery and over 800 gasoline stations all over the country. Caltex owns two import oil terminals and operates 850 gasoline stations all over the country.

Caltex was the first to build an oil refinery in the country in 1954. This was followed by Stanvac which built the biggest oil refinery in the country today the Bataan Refining Corporation. In 1973, PNOC acquired ESSO Philippines, Inc., and majority equity interest in the Bataan Refining Corporation (BRC). Shell started operations in July, 1962 and a local player, Filioil started operating in September, 1962. There are currently 3,472 registered gasoline dispensing stations, 182 LPG refilling plants, 28.30 MB storage capacity for oil and 16 MMB storage for import and exports. There is a pipeline transporting oil from refineries in Batangas to Manila. (Department of Energy, 2007)

At present, there are only two new players in the industry actively promoting and distributing bio fuel additives. Flying V sells pre blended bio diesel and bio diesel additives and Seoil, which sells gasoline blended with ethanol. Two manufacturers, Senbel and Chemrez produce l coco methyl ester. Senbel sells additives through deaers and Chemez provides coco methyl ester blended into regular diesel by Flying V.

4.2 Deregulation in the Oil Industry

Republic Act 8479 which deregulated the oil industry promoted a free market atmosphere to the industry. It liberalized the downstream oil industry, established uniform tariff codes on imported crude oil and refined products, promoted fair trade practices encouraged retail competition and encouraged entry of new players in the industry, In a span of eight years, a total of 601 new players entered the market, bringing in total investments of P28.4 billion. These new players already posted a market share of 15.3 by 2005. (Department of Energy, 2007)

4.3 Stockpiling in the Oil Industry

Stockpiling is practiced in developed countries to address supply disruptions. “Strategic stockpiles” act as reserves and are released in periods when supply is disrupted. Generally only crude oil is maintained in strategic stockpiles. Finished products deteriorate faster giving rise to a “commercial stockpile” which has shorter turnover. (Department of Energy, 2006)

A number of issues have to be resolved regarding a stockpile for ASEAN. These are the following;

1. Program Management;
2. Composition of stockpile;
3. Storage method and location;
4. Stockpile ownership
5. Cost of storage facility

There have been calls for an energy stockpile to cushion effects of possible disruptions in oil supply due to political uncertainties in major l sources of oil such as the Middle East. In August, 2006, Philippine Energy Secretary Raphael Lotilla proposed a clearer understanding of policies among ASEAN countries on oil stockpiling to maintain regional oil supply security during the ASEAN +3 meeting which was held in Laos. Participating countries, including the Philippines should be clear on the common purpose of stockpiling. (Department of Energy, 2006)

Stockpiling of oil has been advocated in the past. IN 2004, Japan's Minister of Economy, Trade and industry offered to provide financial assistance to conduct feasibility studies on stockpiling. A similar study was done for the Philippines and Thailand in 2004 and for Vietnam in 2005. A similar study was done for the Philippines by the US Department of Energy in 2004. (Department of Energy, 2006) Please refer to Table 1

Table 1
Petroleum Stockpiling Capacity in the Philippines

Depots	Number	Capacity
Majors	72	6.267
Others	47	2.115
Import/Export Terminals	3	3,011
Subic/ Olongapo	1	2,334
Clark/Pampanga	1	386
SGEI-Tabangao-Batangas	-	290
(Refinery, Crudes & Products)	-	14,477
Petron, LImay, Bataan	-	8,959
Shell Tabangao, Batangas	-	5.518
Total	-	25,869

Source: Department of Energy, Downstream Oil Industry, http://www.doe.gov.ph/down_petro/default.htm

4.4 Relocation of the Pandacan Oil Depot

The relocation of the Pandacan Oil Depot as ordered by the Philippine Supreme Court will have significant effects on the plans to stockpile bio fuels in the Philippines. In a landmark decision the Philippine Supreme Court in March, 2007 decided to order the immediate implementation of the Manila City Ordinance No. 8027 which reclassified the Pandacan Oil Depot from industrial to commercial and directed the owners and operators of businesses disallowed under Section 1 to cease and desist from operating their businesses within six months from the date of effectivity of the ordinance. Among the businesses situated in the area are the so-called "Pandacan Terminals" of the oil companies

Caltex (Philippines), Inc., Petron Corporation and Pilipinas Shell Petroleum Corporation. (Supreme Court, 2007)

The three oil companies operate the depot, which can currently hold about 170 million liters of oil, supplies half of the country's fuel requirements and 90 percent of Metro Manila's.

Senator Mar Roxas noted the apprehension of consumers that the relocation costs involved in the transfer of the oil depot will be passed on to them by the country's top three oil companies, namely, Petron Corporation, Pilipinas Shell Petroleum Corporation, and Chevron (formerly Caltex). (Senate of the Philippines, 2007)

4.5 Storage of Bio Fuels

There has been no comprehensive study on the storage of bio fuels. At present, coco methyl ester or bio diesel is the only bio fuel being utilized in the Philippines. There are storage depots of coconut oil, but these are not enough for a stockpile. Coconut oil needs to be stored out of direct sunlight. If exposed to high temperatures, the oil the heat can slow the oil's potential from becoming rancid. In tropical climates the oil is not refrigerated and is stored in liquid form while in colder climates, the oil solidifies. (Encyclopedia of Product Reviews, 2006)

5. BioFuel in the Philippines

5.1 Bio Diesel

Diesel may be mixed with bio fuels to form bio diesel. Between one to twenty percent bio fuels maybe mixed with diesel from fossil fuels to form bio diesel. The most widely used raw material for bio diesel is obtained from coconut. Jatropha has also been found to be a raw material for bio fuels to be mixed with fossil fuels.

5.2 Bio Diesel from Coconut

At present, bio diesel in the Philippines is obtained from coconut oil. This is called the coco methyl ester or coco diesel. This is being produced by two companies, Senbel Fine Chemicals and Chemrez Inc. The bio diesel that they sell is commonly called coco diesel. Senbel sells its bio diesel as a fuel additive and Chemrez sells its bio diesel both as fuel additives and in a pre blended formula through Flying V, one of the independent petroleum dealers.

Chemrez plans to sell 340.91 million new shares at P4.0 per share. The offer is equivalent to 24.4 percent of the firm's outstanding capital after the stock sales.

Proceeds from the offer, roughly to P1.43 billion will be used to retire the firm's obligations, wipe out its bank loans and partially finance its working capital requirements. (Sanchez, 2006)

Coconut oil remains the primary raw material for bio diesel in the Philippines. Indonesia, Philippines and India dominate world coconut production. They jointly account for 73% of world coconut production. The Philippines continues to export coconut products which have low value such as copra and crude coconut oil. Thailand whose land planted to coconut is only 10% the size of land planted to coconut in the Philippines earns more from coconut products because the produce and export higher value processed products made from coconut. Please refer to Table 2 below:

Table 2
Top Ten Producers of Coconut in the World in 2005

Country	**Value (In US$1,000)**	**Volume (MT)**
Indonesia	1,474,172	16,300,000
Philippines	1,311,380	14,500,000
India	859,180	9,500,000
Brazil	274,380	3,033,830
Sri Lanka	176,358	1,950,000
Thailand	135,660	1,500,000
Mexico	86,732	959,000
Vietnam	85,014	940,000
Malaysia	64,212	710,000
Papua New Guinea	58,786	650,000
Production in In $1000 have been calculated based on 1999-2001 international prices.		

Source: Food and Agriculture Organization
http://www.fao.org/es/ess/top/commodity.html?lang=en&item=249&year=2005

Production of coconuts rose modestly compared with other oilseeds due to its being a perennial crop as compared to other oilseeds such as rapeseed whose output can be more flexible depending on the world market.

In the Philippines, hectarage devoted to coconuts as well as production of coconuts increased. As 2004 a total of 3,259 hectares are planted to coconuts compared to 3,217 the previous year. The number of nut bearing trees has likewise increased.

Table 3
Philippine Coconut Situation

Year	Area	Bearing Trees	Nuts Gathered
1990	3,112	302,297	11,941,960
1991	3,093	301,796	11,292,500
1992	3,075	298,705	11,580,400
1993	3,076	294,850	11,669,480
1994	3,083	298,556	11,837,160
1995	3,095	301,310	12,790,840
1996	3,149	304,331	11,936,720
1997	3,134	302,940	13,707,837
1998	3,116	301,077	12,806,429
1999	3,138	299,749	11,589,010
2000	3,144	300,833	12,994,654
2001	3,149	297,439	13,146,052
2002	3,182	312,944	14,068,495
2003	3,217	324,325	14,294,203
2004	3,259	331,466	14,366,164

Source: United Coconut Association, Coconut Statistics

It is estimated that there would always be a supply of coconut oil to convert into coco methyl ester or CME if the bio fuels bill mandating a one percent blend of CME to diesel is implemented. The Philippines exports an estimated one billion liters per year of coconut oil. The projected demand for diesel is 6.6 billion liters per year. When the Bio Fuels Bill is implemented mandating a one percent blend of coco diesel and 99 percent blend petroleum based , diesel is implemented, this would mean only 6.6 million liters of coconut oil would be diverted to production of coco diesel. Please refer to Table 4.

Table 4
Potential Demand and Supply of Bio Diesel

RP Diesel Demand	6.6 billion liters per year
RP Coconut Oil Export	1.0 billion liters
1% Coco bio diesel as diesel blend	6.6 million liters
% of Coconut Oil Exports	6.6%

Source: Asian Institute of Petroleum Studies, as cited by United Coconut Association of the Philippines

Four groups of products dominate the coconut trade in the international market. These are coconut oil, copra meal, dessicated coconut and oleochemicals. Apart

from these, there is a wide range of coconut products and by products like coconut shell charcoal, coconut water, coconut milk, coir products, coconut vinegar, coconut sugar, coconut wine and others.

Other plants which will extract bio diesel from coconut are being built. Aurora province ventured into biofuel production through a partnership with the Bureau of Post Harvest Research and Extension (BPRE), the Department of Science and Technology (DOST), the Department of Agriculture (DA), the Philippine Coconut Authority (PCA), the lone district congressional office, the provincial government and the Aurora State College of Technology (ASCOT).

Under the agreement, the provincial government, the congressional district office and the BPRE would provide the funding and manpower requirements for the installation, establishment and maintenance of the coconut biofuel project. The ASCOT would utilize its existing coconut oil mill, facilities and location for the adoption of appropriate technologies for the production of coconut biofuel as well as the sourcing of the raw materials for the project. (Galvez, 2006)

5.3 Jatropha as Another Source of Bio Diesel

The government is looking seriously at jatropha, a plant whose seeds contain 28 percent oil that is almost the same grade as diesel fuel. Jatropha oil can be used as a fuel for cooking, lighting and even as fuel in diesel engines. One major advantage of utilizing jatropha for bio diesel is that it cannot be used as food, unlike coconut. Utilizing coconut as bio diesel will divert part of its production from food uses and increase prices of coconut based food such as cooking oil.

The Philippine National Oil Company Energy Development Corp. (PNOC-EDC) has a jatropha project in Cabangcalan, Negros Occidental in which three varieties of the plant have been grown side-by-side to determine which one to use in Philippine plantations. The government has big plans for jatropha plantations. A Korean firm signed an agreement with PNOC for a 120,000-hectare plantation.

Jatropha is a hardy tropical and subtropical plant with an economic life of 35 years and thrives well in marginal soil, sandy, gravelly, or saline soil and high temperatures don’t bother it. The Tuba-Tuba needs little or no maintenance and grows quickly (the first shoot appears within six days of planting). The "energy" tree’s natural low-maintenance cost, let alone the soaring prices of fossil fuels ensures the viability of its commercial cultivation. Expected yield is 250 kilos per hectare on the first year and 1,000 kilos in the second year and as much as 6,000 kilos by the sixth year onwards when the plantation has fully matured. Five tons of seed can produce two tons of biodiesel, about 2,300 liters. (Paredes 2006)

5.4 Bio Gasoline

Sugar cane and sweet sorghum are two sources of bio gasoline from the Philippines. There are petroleum dealers are currently utilizing ethanol imported from Brazil and Australia. There are plans to extract fuel grade ethanol from sweet sorghum.

5.4.1 Bio Gasoline from Ethanol Derived from Sugar Cane

Seaoil Philippines and Eastern Petroleum are selling gasoline with a ten percent blend of ethanol. Seaoil started selling this blend since 2005. One of the problems cited by its Chief Executive, Glenn Yu is the myth among Filipino motorists that ethanol may harm their engines.

At present there is no fuel grade ethanol produced in the Philippines. Ethanol in the Philippines will be sourced from sugarcane. The British firm, Bronzeoak Ltd, in partnership with the National Development Corporation is building the e San Carlos Bio-Energy Inc. (SCBI) plant. It is an integrated facility that will have a capacity of 100,000 liters of bio-ethanol a day in its distillery plant. It will also have a cane milling plant with a throughput capacity of 1,500 metric tons of cane daily, as well as a co-generation power plant that will produce around nine megawatts of power, of which four megawatts will be sold to the main power grid It will start commercial operations next year.

Through its local unit Bronzeoak Philippines Bronzeoak Ltd. will spend P1.5 billion to construct a dedicated ethanol plant in the southern province Bukidnon. It purchased a 24-hectare lot in the village of Labuagon in Kidawe town, in the southern part of the province, in preparation for the plant's construction. The plant would have a capacity of 150,000 liters a day, bigger than a plant Bronzeoak is building San Carlos City in Negros Occidental. (Ho, 2006)

The Board of Investments recently approved incentives for JG Summit Holdings which is building a distillery to produce fuel grade ethanol in Negros Occidental. It has a projected capacity of 32 million liters per year and is expected to be operational by October, 2009.

5.4.2 Bio Gasoline from Sweet Sorghum

There are plans to extract bio gasoline from sweet sorghum. A team of investors together with government authorities led by Presidential Assistant for Northern Luzon Enrie Mendoza is mapping out the establishment of the country's first sweet sorghum ethanol plant which may even turn out to become the country's first ethanol plant. Sweet sorghum has a lower ethanol production cost of P13.11 per liter against sugarcane's R14.98 per liter. Unlike sugarcane, which is a one-year crop, sweet sorghum can be harvested two to three times a year.

Water requirement may be one-fourth less with only 8,000 cubic meters over two crops compared to 36,000 cubic meters for sugarcane. Sweet sorghum ethanol productivity is at 3,200 liters per year at 80 metric tons per hectare millable stalk over two crops at 40 liters ethanol yield. (Sun Star, 2006)

5.5 Flexible Fuel Vehicles Manufactured in the Philippines

Ford Motors Group is concentrating on the promotion of its biofuel vehicles to gain acceptance in the Asian region. Ford Philippines demonstrated its commitment by investing P1.1 billion to set up an engine plant within its Santa Rosa, Laguna manufacturing facility. This is the first in ASEAN and makes the Philippines the ASEAN Center for Excellence in flex fuel vehicle (FFV) technology. As of late 2006, Ford is the only car manufacturer in the country offering flex fuel vehicles in the form of Ford Focus 1.8L and 2.0L which are sold in the Philippines and in ASEAN markets. (Magkilat, 2006)

5.6 Exports of Coco Diesel

Bio fuels commonly known as coco methyl ester has been exported from the Philippines since. 1995. Before the increased interest in bio diesel, coconut methyl ester existed as an intermediate oleochemical product which was further processed into coconut fatty alcohol or fatty acids for use as material for surface active agents. (UCAP 2005) CME exports started with a volume of 5,545,064 kgs and FOB value of P4,440,000. The value of coco diesel exports has decreased to 1,403,837 kilograms with a value of P1,166,895. Only two companies, Senbel and Chemrez are presently exporting coco diesel. Please refer to Table 5:

Table 5
Exports of Coco Methyl Ester from the Philippines

Year	Volume (MT)	Value (Int US$1000)
2005	1,403,837	1,166,895
2004	826,555	878,119
2003	755,013	874,295
2002	732,868	442,490
2001	1,274,355	712,283
2000	1,182,253	979,890
1999	1,361,108	1,324.707
1998	1,161,792	928,775
1997	3,374,400	3,279,133
1996	4,106,541	4,173,093
1995	5,645,064	4,440,010

Source: Department of Trade and Industry, Republic of the Philippines

When the Philippines started exporting coco diesel in 1995, ninety-nine percent of its exports went to Japan. In recent years, however, Germany started to buy bigger quantities of coco diesel. Please refer to Exhibit 1.

5.7 Local Market for Coco Diesel

Coco diesel is presently being sold in the local market. Senbel sells its coco diesel with the brand name Estrol through a network of dealers. It does not have a tie up with a petroleum company. It also sells 2T coco oil which is specially designed for tricycles.

Chemrez sells its coco diesel with the brand name “Bio Aktiv” and “Envirotek” through service stations of Flying V, an independent petroleum dealer, Shell and Petron. Chemrez sells coco diesel in 200 ml and 1 liter plastic containers through Flying V service stations and through dealers. It also sells pre blended mixture of coco diesel and petroleum derived diesel. Among the three oil companies selling bio diesel additives in their outlets, Flying V has the most extensive network of service stations selling the product. Forty of the 126 service stations of Flying V in Ilocos and Metro Manila sell bio diesel blended with diesel. These blends have a composition of one percent coco diesel and ninety percent fossil fuel diesel.

The government became a market for bio diesel was developed when it was ordered that government offices had to utilize a one percent blend of coco bio diesel in their land vehicles. President Gloria Macapagal Arroyo issued Memorandum Circular No. 55 on February 9, 2004 which required the use of 1% CME-diesel blend in the diesel requirements of all diesel-fed land vehicles of the government. Please refer to Exhibit 1.

During an interview with executives of Chemrez and Senbel, it was learned that prices of bio diesel were higher in the Japanese export market than in the local market. Some of the bio fuel dealers of Senbel ran out of stocks of coco diesel.

5.8 Local Prices of Bio Fuels

Prices of coco diesel are higher than the prices of petroleum based diesel. At Flying V where coco diesel is pre blended with petrol based diesel, it costs P38.80 per liter compared with P30.08 per liter of pure petroleum based diesel as of October, 2006. Please refer to Table 6 at the next page for a comparison of the prices.

Table 6
Local Prices of Bio Diesel Additives

	Senbel	Flying V
1 liter	P 86.60	P 130.00
20 liters (in carbuoys)	67.20	
200 liters (in drums)	62.62	

6. Manufacture of Bio Fuels

Bio fuels can be used as a pure fuel or blended with petroleum in any percentage. B20 (a blend of 20 volume of bio diesel with 80 percent b volume of petroleum diesel) demonstrated significant environmental benefits with a minimum increase in cost for fleet operations and other consumers. (TWG, Ethanol Program Consultative Committee, 2006)

6.1 Process of Deriving Coco Diesel from Coconut Oil

In the petroleum industry, the ideal diesel is referred to as 10% n paraffin, straight carbon chain known as “alkane”, a saturated carbon chain. Saturated carbon means that it is not prone to oxidation and bacterial growth. Saturated carbon has excellent anti corrosion properties and is resistant to polymerization or gumming. An ideal diesel requires little or no anti oxidant additive had has excellent combustion characteristics.

The ideal petroleum diesel, is however unattainable because commercial diesel fuel contains a blend of components like “cracked” diesel which have lower oxidation characteristics. Typical blend elements are oleins, iso-paraffins, and aromatics. These make the fuel a bit difficult to burn. It is also prone to oxidation, bacterial growth, corrosion, polymerization and gumming, clogging the fuel line. This is the reason why additives are mixed with diesel fuel formulations, to make a distinction between competing brands of diesel fuels and make this more effective.

Coco diesel is sourced from coconut oil by removing glycerine. The process of separation of glycerine from fatty acid is known as esterication. Methanol is reacted with coconut oil with the aid of a catalyst. Glycerine is then drawn out of the mixture, leaving just the fatty substance known as methyl ester. Coconut methyl ester is a diesel like derivative of coconut oil after its glycerine content has been separated. (Diaz and Galindo, 2006)

6.2 Advantages of Coco Diesel

The medium carbon fatty acid (MCPA) of coconut has excellent solvency solubility. This makes it ideal for Third World countries where there are many old diesel engines in use. Heavy carbon soot deposits or partially clogged fuel nozzles will be cleansed and declogged.

The high level of saturation in coconut oil (91%) consisting of “easy to burn” medium saturated carbon chains gives the following benefits:

1. oxidation stability making coconut methyl esters not prone to bacterial growth, corrosion and polymerization (an issue with other bio fuels)
2. high octane number which enhances combustion and acceleration response
3. lower emissions for cleaner air

7. Cross Country Comparisons of Bio Fuel Programs

7.1 Pioneers in Bio Fuels

Brazil and the United States spearheaded the setting up of a national ethanol program. The two countries set the regulatory and trade framework conducive to the growth of the ethanol fuel industry. Ethanol is produced from molasses and sugar cane juice.

7.1.1 Brazil

Brazil is considered as the world’s leader in production and consumption of ethanol. It produced 14.4 billion liters or 11.52 million tons of sugarcane for ethanol in 2004. it exported 2.3 billion liters of ethanol to India, United States and the Caribbean. Out of the projected 41.3 billon liters of ethanol to be produced, 67% is projected to be consumed by Brazil. Brazil uses ethanol as an octane enhancer in gasoline in the form of 22 percent any hydrous ethanol.

Brazil started using ethanol with substantial official support in 1975 as a reaction to the oil crisis of 1973. During its initial stages of production, it produced ethanol at a high cost. Competitive prices were secured only during upset conditions in the world’s petroleum supply.

The government gave all out support for production of ethanol. These incentives ranged from guaranteed purchase of ethanol by the state owned PETROBAS, guaranteed prices for ethanol, control of ethanol distribution by a state owned company and giving incentives for construction of distilleries including credit guarantees and low interest loans to reach the needed capacity.

The Brazilian government started a bio diesel program in the city of Curitiba in Parana State. The production of biodiesel from low-quality coffee, from the oils extracted from urban runoff, or from cattle fat is a pioneering initiative in Brazil, where efforts are under way to diversity the raw materials used as clean fuels, the consumption of which is on the rise. (Osava 2006) Under the Brazilian system for the voluntary addition of two percent biofuel to petroleum diesel (B-2), the demand currently stands at about 800 million litres annually. This mixture will be obligatory beginning in 2008, and the proportion will rise to five percent in 2013, driving up total biodiesel consumption to an estimated 2.5 billion litres a year.

Coffee beans of lower quality, which represent about 20 percent of the national coffee harvest, are emerging as an alternative raw material for biodiesel.

There was a crisis in the ethanol program in the 1980's to the 1990's. The crisis was caused by the lower prices of oil, recovery of sugar prices and the decline in interest in specialized ethanol cars running with hydrous alcohol and the emergence of any hydrous ethanol as against hydrous ethanol.

The period between 1997 and 1999 saw the liberalization of Brazil's Proalcol Program. The liberalization involved the end of the monopoly of state owned oil company, liberalization of ethanol prices, reduction of subsidies, restriction of State intervention in ethanol-gasoline blending provisions and minor tax reduction for fuel ethanol.

7.1.2 United States

In the early 1990's the Clean Air Act was passed mandating the use of cleaner burning fuels by requiring oxygen level in gasoline of 2.7% by weight in the dirtiest US cities and a 2.0% level in cities with severe ozone problem in order to reduce ground level ozone formation. The Energy Policy Act of 1992 established a goal of replacing 10 percent of motor fuels with non petroleum alternatives by 2000, increasing to 30 percent by 2010. By 1995, 10 percent of Federal vehicles were to be using alternative fuels to set an example. There is a strong lobby from the petroleum industry, but despite this, use of bio fuels increased. (Canadian Renewable Fuels Association, 2006)

United States was the second largest producer after Brazil of ethanol in 2004. It r produced 10.9 billion liters or 8.7 million tons of ethanol of which 97% was fuel ethanol. It produces its ethanol mainly from corn.

During the farm crisis of the early 80's policymakers at the state and federal levels increased tax and production incentives. Income tax credits were given to users as well as producers. Incentives were given to auto manufacturers for producing alternative fuel vehicles. Loans, loan guarantees and grants were given to assist farmers in value added agricultural enterprises including bio fuels.

Soybeans are the leading feedstock for bio diesel in the United States. It is the world's biggest producer of soybeans. The production of biodiesel in the U.S. tripled in 2005 to 75 million gallons from 25 million gallons in 2004. This was spurred on in large part by the Blenders Credit provision in the Energy Bill. A number of public transit fleets have been using biodiesel. Tests indicate production costs for biodiesel are 2.5 times that of petroleum diesel.

A number of public transit fleets started using bio diesel produced from soybeans. An increasing number of school districts also used these for their school buses.

7.2 Asia

Several countries in Asia which have little or no petroleum resources at all have begun bio fuel programs. These are India, Sri Lanka and Japan.

7.2.1 India

Beginning October of 2006, the Indian government plans to make it mandatory for all oil and petroleum companies to blend five per cent ethanol with their products. This will be doubled to 10 per cent by October 2007. .Petroleum Minister Murli Deora directed petroleum marketing firms, Indian Oil Corporation, Hindustan Petroleum and Bharat Petroleum to start acquiring ethanol and begin the blending process by October. Private refiners are expected to follow.

Ethanol has become popular in India, with sugar producers finding it a lucrative alternative. There are about 125 ethanol producers in the country, with a total capacity of 1.25 billion liters of ethanol. Most of them are concentrated in sugar cane growing states like Maharashtra and Uttar Pradesh, but many of them also operate in states like Tamil Nadu, Andhra Pradesh, Karnataka and Gujarat.

Brazilian firmsare tying up with Gill & Co, plan to set up 15 ethanol plants in India over the next two years. Kantilal Shah, managing director, Gill & Co, points out that the Brazilian technology is suitable not just for sugar but even for wheat corn and other agricultural produce.

The Indian government identified jatropha as a source of bio diesel and identified 100 million acres of land for growing jatropha. Jatropha does not require much water, and can be raised in arid, semi-desert areas as well. Experts estimate that the bio-diesel produced from jatropha raised on 100 million acres of land can easily save 20 per cent of diesel consumption in India.

Indian Railways, largest land owner in the country, grows jatropha on thousands of acres of land along both sides of the railway tracks. It hopes to cut its fuel bill, by blending jatropha oil with diesel.

Reliance Industries Ltd, plans to invest $500 million in a bio-diesel refinery near Jamnagar in Gujarat. It also acquired 200 acres of land for growing jatropha.

British Petroleum is investing about $10 million in a bio-diesel facility in India, and plans to grow jatropha in over 8,000 hectares of wasteland. Daimler Chrysler India has completed road trials for its Mecedes Benz, using bio-diesel.
(Kuma, 2006)

7.2.2 Sri Lanka

In a bid to find a solution to the mounting global oil prices Sri Lanka is to manufacture diesel using coconut oil by the end of 2005. This breakthrough product Coconut Diesel is branded as Coco Diesel. The manufacturing would be undertaken by the British Ceylon Company Limited (BCC) which is Sri Lanka's first coconut oil and by product manufacturing company in a joint venture with a Malaysian company.

7.2.3 Japan

Japan is a big prospective market for bio fuels. Due to the fact that Japan imports 60 percent of its food will make it difficult for her produce bio fuels. It has to substitute its dependence on foreign oil producers with dependence on grain producers. In the interest of meeting the Kyoto Protocol commitment to reduce emissions by 6% from the 1990 levels, it has to import ethanol for use in bio fuels. The Government of Japan supports up to three percent ethanol blend. Production is severely limited by Japan’s shrinking agricultural production. (Fukuda, Kingsbury and Obara 2006).

7.3 Europe

Among European countries, Austria and France started their own bio fuel programs. They derive their bio fuels from rapeseed which is grown in their country.

7.3.1 Austria

Austria utilizes rapeseed as feedstock for bio diesel. Rapeseed oil as used as fuels for tractors and as lubricating oils. The Austrian government gives direct subsidies for rapeseed oil. Austrian rapeseed producers are given US$675 per acre as subsidy and growers of other crops which may be utilized as bio fuels receive $225 per acre. Rapeseed methyl ester which will be used for agriculture is tax free.

Bio-energie GmBH which is a combination and interests from private industry and from agricultural cooperatives has a 10,000 Metric ton per year capacity plant in operation at Asheaeh.

7.3.2 France

Bio fuels in France are derived from rapeseed. French rapeseed growers signed an agreement with Elf and Total (the French state owned petroleum companies). The agreement states the amount of rapeseed that the oil companies will buy to incorporate into mineral diesel. The resulting bio fuel blend is five to fifty percent bio diesel. Elf plans to start distribution in 90 filling stations in three French departments.

Robbe in Compiegne operates a 20,000 metric ton per year rapeseed methyl ester plant. There are plans for more plants. The French government expects to get five percent of the diesel market for rapeseed oil methyl ester or 800,000 metric tons of biodiesel annually. (Leysen, 2006)

7.4 ASEAN Biofuel Users

Other than the Philippines, there are countries in ASEAN which have active bio fuel programs. Indonesia which has fossil fuel resources started developing a bio fuel industry. Malaysia and Indonesia utilize palm oil and coconut for their bio fuel industry and Thailand utilizes sugarcane. Among ASEAN countries, Thailand was the first to set up a national bio fuels program.

7.4.1 Indonesia

The Indonesian government plans to invest $1.1 billion to develop eight bio-fuel factories and several jatropha and palm oil plantations, as part of a larger initiative to expand the bio-fuel industry. The proposed factories will produce annually a total of around 36,000 metric tons of bio-fuel derived from jatropha and palm oil, the newspaper reported, citing Industry Minister Fahmi Idris. The project has dual goals of supplying a growing demand for bio-fuel in Indonesia. (Investment Report, 2006)

Although rich in fossil fuels, Indonesia does not have an endless supply with 23 to 25 years of oil, 60 years of gas and 150 years of coal. Jakarta plans to make at least five million hectares of forest lands available for palm oil, jathropa, sugar cane and cassava plantations in a bid to create three million jobs. (Galvez, 2006)

7.4.2 Malaysia

Malaysia recently inaugurated its Carotino palm bio-diesel plant in Pasir Gudang in August, 2006. The Nexsol (M) Sdn Bhd's bio-diesel plant was also recently inaugurated and the Tanjung Langsat Industrial Complex was declared as a bio-

diesel park. The world's largest producer of palm oil by far is Malaysia with 48% of world production and Indonesia is the second largest producer with 36% of world production. Together they account for 84% of world production. Malaysian production in 2002/3 rose by 6% to 12.520 million metric tons from 11.856 million in 2001/2. Indonesian production in 2002/3 rose by 8% to 9.480 million metric tons from 8.790 million in 2001/2. (Palm Oil, Commodity Research Bureau, 2006)

7.4.3 Thailand

Gasohol project started in Thailand since 1985 by His Majesty The King Bhumibol to solve problems related to oil supply scarcity and falling crop prices. Now gasohol is promoted by government to Thai people in the point of view to reduction of emitted gas from vehicles that cause air pollution. The government through Ministry of Energy continues to campaign the use of more and more gasohol by offer gasohol price at 1.50 baht/liter lower than gasoline.

Thais see the need for alternative products from sugarcane because of the perennially low prices of sugar in the old market where a big volume of Thai sugar production is sold.

Through the initiative of the Thai Sugar Board, the Thai Ethanol Committee was organized to create alternative products from sugar cane. This committee is composed of representatives from the following:

1. Ministry of Energy
2. Ministry of Industry
3. Ministry of Finance
4. Ministry of Agriculture
5. Ministry of Interior
6. Defense Department
7. Department of Excise Tax
8. Secretary General of the Cane and Sugar Board
9. National Economic and Social Development Board

Incentives have been granted for production of ethanol in Thailand. These range from reduction of value added taxes. Exemption from income tax, investment incentives and exemption from contributions to the fuel stabilization fund.

As of 2003, two distilleries are producing the supply requirement for a ten percent gasohol blend with ethanol. One is using tapioca and the other molasses as feed stocks. Two companies, PTT and Bangchak, distributed gasoline blended with gasoline.

Thailand was the first country to launch bio-diesel as a national program on July 10, 2001. In 2006, several bio-diesel plants are operating in Thailand using the

excess palm oil/palm stearin and in some cases, waste vegetable oil as raw materials. About 15 petrol stations are now distributing B5 (5% bio-diesel with 95% diesel) in Chiangmai and Bangkok (SIRIMANE, 2006).

8. ASEAN as a Center for Bio Fuels Production in Asia

ASEAN countries rank among the top twenty world producers of the following feedstocks used in bio fuel production:

1. Coconut
2. Sugar Cane
3. Cassava
4. Palm Oil

8.1 Coconut

Six ASEAN countries are among he top twenty producers of coconut in the world. These are Indonesia, Philippines, Thailand, Vietnam, and Malaysia. based on its order of importance, most of the coconut in these countries is used as food, particularly as cooking oil. Please refer to Table 8.

The coconut palm (*Cocos nucifera, L.*) has multifarious uses. It is often described as a tree of life and is one of the most important crops in the tropics. It is also considered as one of the world's most beautiful trees. All parts of the coconut can be manufactured into commercial products. The coconut provides food, shelter and fuel especially in countries in Asia and the Pacific where it is abundantly grown.

Indonesia is the world's leading producer of coconut. The 1999 total area coconut plantation in Indonesia was 3.712 million hectares. The industry is dominated by smallholders coconut plantations (96,6%) and large estate companies (3.4%). Coconut plantation spreads all over Indonesia, in 1999 from the total area of 3,712 thousand ha, there one 1,222 thousand ha (32.9%) in Sumatera, 903 thousand ha (24.3%) in Java, 305 thousand ha (8.2%) in Bali, NTB, NTT, 277 thousand ha (7.5%) in Kalimantan, 716 thousand ha (19.3%) in Sulawesi, and 289 thousand ha (7.8%) in Maluku and Irian Jaya.

Indonesia exports coconut products to USA, Netherlands, United Kingdom, Germany, France, Spain, Italy, Belgium, Ireland, Singapore, Malaysia, Bangladesh, India, Sri Lanka, China, Taiwan, South Korea, Thailand, and other countries. The industry which use coconut products are cooking oil, refined coconut oil, desiccated oil, food, beverages, and other industries. Only around 45% is processed for coconut oil, 45% fresh consumption, and 10% are for the others. The lack of coconut oil is substituted by palm oil.

The Philippines is second to Indonesia as the world's top producer of coconut products. The Philippines, however is the top exporter of coconut products, about 64% of the world's copra & coconut oil comes from the Philippines. 25% of the country's 12 million hectares of agricultural land is planted with coconuts. There are 3.5 million coconut farmers and about 25 million people who benefit from the coconut industry (directly & indirectly) and not surprisingly, coconut product exports is one of the top 5 dollar earners for the county (U.S. $760 M p.a.). The coconut industry contributes about 1.14% of the Gross National product (GNP). ((Philippine Herbal Medicine Site, 2007)

Thailand is the third largest producer of coconut in ASEAN and ranked as the sixth largest producer of coconuts in the world. Most of the coconut areas in Thailand are found in the peninsular provinces and in the shores of the Gulf of Thailand. Coconut farms in Thailand are primarily smallholder type with a mean farm size of 2.4 hectares, 80% or more of the holdings being less than 2 hectares. Please refer to Table 7.ring the period 1970-1992, the coconut area ranged between 320,000 and 412,000 hectares and is expected to remain stable up to year 2000. The country estimates the present age structure of coconut palms at 60% of the population between 15 and 40 years old, 10% immature or non-bearing and the remaining 30% mainly senile palms. Typhoons also hit the prime coconut producing areas in Southern Thailand and cause massive felling of trees. Some of the country's coconut area is also converted into the production of other more profitable crops or into housing development projects. (Food and Agriculture Organization Resource Directory, 2006)

Vietnam is the fourth largest producer of coconut in ASEAN and ranked as the eighth largest producer of coconuts in the world. The coconut industry in Vietnam contributes to the economic welfare of 10 million Vietnamese. It provides direct employment to some one million people. In 1957, the country had 31,540 hectares planted to coconut which increased to 40,800 hectares in the early 60's. Due to war damage, coconut area decreased to about 35,000 hectares in the early and mid 1970's. The area under coconut henceforth increased reaching a peak of 350,000 hectares in 1990 and drastically declined to some 186,000 hectares in 1995. The decline in area was due to the shift in land use from coconuts to fruit trees. Coconut cultivation has been steadily declining in Malaysia in recent years, resulting in a down trending outlook for copra.

Domestic coconut oil output amounted to 36,000 metric tons (MT) in 2003 mainly for the export market, reckons the U.S. agricultural attache here. Coconut oil accounts for only about 1% of total domestic oil consumption. Malaysia imported 135,000 MT of crude oil from Indonesia and the Philippines in 2003. Exports of refined coconut oil reached about 166,000 MT with major markets being Sri Lanka, China and Singapore

Of the total area under coconut, 73% is located in the 9 provinces of the Mekong delta. As a matter of national land policy, private coconut holdings in Vietnam are

limited to 0.5 hectares or less, with 60% smallholders, 30% cooperatives and 10% state farms. Since nearly 65% of the area under coconut has been planted after 1983, the majority of the palms are relatively young; senile palms are estimated to be about 10%.

Vietnam's coconuts once chopped down or abandoned due to e a shortage of outlets for such products in the Mekong delta region and Vietnam's central provinces, are being revived through the high profits brought about by the export of coconut products.

Vietnam now expects to become one of four leading coconut exporters in the world, aside from the Philippines, Indonesia and Sri Lanka, with its products available in 46 countries and territories. A rise in the price of raw coconut due to exports to China and Thailand and the resultant nut shortage threatens to put domestic processors out of business. *(Thanhmien News, 2006)

Products made from coconuts for export now more varied compared to several years ago, when only unprocessed fresh and desiccated coconuts were exported to China. Besides copra for the food processing industry, farmers use coconut covers, shells and juice for producing coir fiber, an activated carbon and jelly that bring high profits. (Asia Times, 2004)

Malaysia is the fifth largest producer of coconut in ASEAN and ranked as the ninth largest producer of coconuts in the world. Coconut ranks fifth in Malaysia's agriculture in terms of cultivated area with oil palm and rubber occupying the greater portion. The coconut industry, however, still plays an important role in the country's economy providing livelihood to some 100,000 farm families or almost 10% of the nation's farming community.

In terms of area planted, the highest level was attained in 1982 at 363,000 hectares. Since 1986 at 330,000 hectares, the area planted to coconut was observed to be at a generally decreasing trend reaching to 315,000 hectares level in 1992 and down to 290,000 hectares in 1995.

Coconut in Malaysia is generally a smallholder's crop with 91% under smallholder cultivation and 9% under estate management. Of the total area planted to coconut, 63% is located in Peninsular, Malaysia, 19% in Sabah and 18% in Sarawak. With increasing labor shortage, decreasing productivity of palms and massive conversion of coconut lands to oil palm plantation and other more profitable crops, a continuous decline in coconut area at a rate of 2.5-3.5% per year to some 285,000 hectares towards year 2000 is projected. It was estimated that about 32% of the total plantings are now well over 60 years old. Malaysia is a net crude coconut oil importer. It imported 135,000 MT of crude oil from Indonesia and the Philippines in 2003. Exports of refined coconut oil reached about 166,000 MT with major markets being Sri Lanka, China and Singapore. (STAT Communications Ltd., 2004)

Table 7
Top 20 Coconut Producers in the World

Rank	Country	Production (Int $1000)	Foot Note	Production (MT)	Foot note
1	Indonesia	1,474,172	C	16,300,000	F
2	Philippines	1,311,380	C	14,500,000	F
3	India	859,180	C	9,500,000	F
4	Brazil	274,380	C	3,033,830	
5	Sri Lanka	176,358	C	1,950,000	F
6	Thailand	135,660	C	1,500,000	F
7	Mexico	86,732	C	959,000	F
8	Viet Nam	85,014	C	940,000	F
9	Malaysia	64,212	C	710,000	F
10	Papua New Guinea	58,786	C	650,000	F
11	Tanzania, United Rep of	33,463	C	370,000	F
12	Myanmar	31,654	C	350,000	F
13	Vanuatu	28,489	C	315,000	F
14	Ghana	28,489	C	315,000	F
15	China	22,610	C	297,500	F
16	Solomon Islands	24,961	C	276,000	*
17	Mozambique	23,967	C	265,000	F
18	Côte d'Ivoire	21,706	C	240,000	F
19	Dominican Republic	16,279	C	180,000	F
20	Jamaica	15,375	C	170,000	
No symbol = *official figure*			*** = *Unofficial figure***		
F = *FAO estimate*			**C = *Calculated figure***		
Production in Int $1000 have been calculated based on 1999-2001 international prices					

Source: Food and Agriculture Organization Major Food and Agricultural Commodities Producers., http://www.fao.org/es/ess/top/commodity.html?lang=en&item=125&year=2005

8.2 Sugar Cane

Four ASEAN countries, Thailand, Philippines, Indonesia and Vietnam are among the top twenty producers of sugar cane in the world. Only two of them, Thailand and the Philippines have been net sugar exporters in recent years. Vietnam, however, has a rapidly expanding area devoted to production of sugar cane. Indonesia also has an established sugar industry and refining capacities which may be expanded. Please refer to Table 8.

Among ASEAN countries, Thailand is the biggest sugar producer. It ranks the fourth largest producer of sugar in the world and is a net exporter of sugar. During the first half of the nineties, sugar exports averaged 3.1 million tons per year, nearly double the level of exports during the first half of the eighties. This upward trend in exports has been spurred by growing regional markets, higher domestic production, low internal consumption relative to total production, and favorable export policies.

Due to freight cost advantages and reliable services, sugar has become increasingly important in growing Asian regional trade. According to trade sources, sugar moves from Thailand to the major regional buyers China, Japan, the Republic of Korea, and Malaysia, with a freight advantages over Western Hemisphere sugar making. (FAO, 1997)

According to international sugar production cost analysts, Thailand ranks among the world's lowest cost producers. Efforts to expand cane production to match milling capacity should enhance this status. In the long run Thailand's future as a very low-cost producer is not certain in view of sharply increasing land costs reflecting rapid industrialization and rising labor costs.

The Philippines is the ninth largest sugar producer in the world and the second biggest producer in ASEAN after Thailand. Sugar cane as a commercial crop started in the Philippines in the 18th century. By the 19th century the crop became a major commodity for export. By the 20th century, the growing needs of America for sugar fuelled a major expansion of the crop. This, together with new technology in sugar milling and the provision of adequate financing, created what is now known as the Philippine sugar industry.

Negros Occidental is the “Sugar Capital of the Philippines.” It accounted for 43% of total sugar produced in the Philippines in 2003. This is explained by factors such as soil suitability, complemented by regular monsoon rains. The other top producing provinces during the period were Bukidnon, which producred 13 %, Negros Oriental, 8%, Batangas, 7% and Tarlac which produced 4% during the same period. (Department of Agriculture, 2004)

The industry’s performance has been marked by production fluctuations. The country was a net importer from 1999 to 2002 and was a net exporter in 2003.

While climatic factors do play an important role, it is felt that the major cause has been due to fragmentation of farms to smaller production units which are highly dependent on yearly price fluctuations and do not have the financial resources. Moreover, the lack of capability to restore full production in many areas and the inability to improve productivity have been attributed to a lack of research, development, and extension

The sugar industry through a consortium of sugar millers and National Sugar Refining Company (NASUREFCO) founded the Philippine Sugar Research Institute Foundation, Inc. (Philsurin). Initial funds from them came to P9.76 million eventually regularly augmented from a P2 levy per bag of sugar produced. Philsurin analyzed the causes of low productivity. These were the limited use of high-yielding varieties, pests and diseases, low ratooning due to RSD (ratoon stunting disease), improper fertilization, harvesting immature canes and delay between cutting and milling. There were more than enough tasks to undertake for these problems.

Philsurin cooperated with UPLB and other entities, including foreign sugar research and development groups. It has developed high-yielding varieties and massively distributed them. It has come up with biotechnology that will soon replace chemical fertilizers that are expensive and cause unwanted side effects. It took over the Victorias Milling Corp.'s sugar-breeding station and turned a l2-hectare area into a state-of-the-art experiment station with cutting edge equipment, nurseries, greenhouses and micropropagation facilities which, with its investment in scientific personnel, started to make waves in the development of new varieties of cane, new ways of enhancing their growth with selection of which to distribute. The new varieties have high sugar content, high tonnage and resistant to disease.

Indonesia is the 11th largest sugar producer in the world in 2005 and the third largest producer of sugar in ASEAN after the Philippines. It's sugar industry dates back to the seventeenth century. Indonesia harvests about 400 000 hectares of cane for centrifugal sugar, of which almost three-quarters is on Java. The remainder comes from Sumatra, Kalimantan and Sulawesi islands. Since 1967, Indonesia reverted to a net importer position. The national sugar policy seeks to encourage the intensification of production, the rehabilitation of factories in Java and establishment of new factories outside Java to meet growing domestic requirements due to steady population growth, rising incomes and the growth of the food and beverage industries.

A major challenge facing the Indonesian sugar industry is the extent to which domestic production can be expanded. Despite dynamic growth in output between the early-eighties and the early-nineties, in more recent years production of sugar appears to have stabilized reflecting the emergence of constraints at both the agricultural and industry level. This resulted in substantial increases in net import requirements.

Competition for land, particularly irrigated areas, from other crops and livestock production and increasing urbanization in densely populated Java, resulted in a shift in the cultivation of sugarcane to non-irrigated areas and to poorer lands. Unless yields can be sufficiently increased to enhance the economic viability of crop, possibilities for growth will continue to be dampened.

Vietnam is the fourth biggest producer of sugar cane in ASEAN after the Philippines and the sixteenth largest sugar producer of the world in 2005 base don figures from FAO. . The sugar industry of the Socialist Republic of Viet Nam is currently in transformation as growth in sugar consumption outpaced domestic production. The shortfall is met by increased imports. The Government is implementing a series of projects to attain self-sufficiency and achieve a net exporter status. In its development plan, the Government is taking into consideration all stages in the production process; from growing the cane to processing the sugar. Key elements of the plan include: expansion in area planted to sugarcane to increase potential production capabilities, introduction of methods to improve current yields and of new higher yielding varieties, and a major investment initiative to expand the capacity of the domestic processing sector. The Government has set targets of 12.7 million tons of sugarcane production and 1.0 to 1.2 million tons of sugar production by the year 2000.

Viet Nam's domestic sugar industry is primarily based on sugarcane. The regions in the south account for 80 percent of the nation's cane production. Cane is generally grown in the drier regions of the Mekong Delta area in the south without irrigation, and of the Red River Delta area in the north. The area planted to sugarcane gradually expanded in recent years, from 140 000 hectares in the early nineties, to around 225 000 hectares in 1995.

The recent expansion in cane production areas may partially reflect the fact that sugarcane is becoming more competitive with other crops. In the southern province of Long An, the area planted to sugarcane expanded to over 11 000 hectares in recent years, in direct competition with rice, groundnuts, and pineapples. And in the north-central province of Thanh Hoa, increases in sugarcane areas were taken from land formerly used for pineapples and coffee.

Table 8
Top 20 Sugar Cane Producers in the World

Rank	Country	Production (Int $1000)	Foot note	Production (MT)	Foot note
1	Brazil	8,725,914	C	420,121,000	
2	India	4,825,286	C	232,*320,000	
3	China	1,819,452	C	88,730,000	
4	Thailand	1,029,610	C	49,572,000	
5	Pakistan	981,260	C	47,244,100	
6	Mexico	937,277	C	45,126,500	F
7	Colombia	827,669	C	39,849,240	
8	Australia	794,369	C	38,246,000	*
9	Philippines	643,870	C	31,000,000	F
10	United States of America	535,948	C	25,803,960	
11	Indonesia	529,635	C	25,500,000	*
12	South Africa	451,230	C	21,725,100	
13	Argentina	400,861	C	19,300,000	F
14	Guatemala	373,860	C	18,000,000	F
15	Egypt	339,278	C	16,335,000	F
16	Viet Nam	311,550	C	15,000,000	F
17	Cuba	259,625	C	12,500,000	F
18	Venezuela,Bolivar Rep of	182,776	C	8,800,000	F
19	Peru	147,467	C	7,100,000	F
20	Iran, Islamic Rep of	135,005	C	6,500,000	F
	No symbol = official figure		*** = Unofficial figure**		
	F = FAO estimate		**C = Calculated figure**		
Production in Int $1000 have been calculated based on 1999-2001 international prices					

Source: Food and Agriculture Organization Major Food and Agricultural Commodities Producers
http://www.fao.org/es/ess/top/commodity.html?lang=en&item=125&year=2005

8.3 Palm Oil

Three ASEAN countries are among the top ten producers of palm oil in the world. These are Malaysia which is the biggest palm oil producer as of 2003, followed by Indonesia and Thailand which ranked second and fourth in world oil

production. Only Malaysia and Indonesia are net exporters of the product. Please refer to Table 9.

Malaysia currently accounts for 51 % of world palm oil production and 62% of world exports, and therefore also for 8% and 22% of the world's total production and exports of oils and fats. As the biggest producer and exporter of palm oil and palm oil products, Malaysia has an important role to play in fulfilling the growing global need for oils and fats in general. Its palm oil output is exported to the European community, China and the United States, India and Egypt. (Malaysian Palm Oil Council, 2006)

Palm trees were first introduced to Malaya in early 1870's as ornamental plants. In 1917 the first commercial planting took place in Tennamaran Estate in Selangor, laying the foundations for the vast oil palm plantations and palm oil industry in Malaysia. Cultivation of oil palm rapidly increased in the sixties under the government's agricultural diversification program which was to reduce the country's economic dependence on rubber and tin. Later in the 1960s, the government introduced land settlement schemes for planting oil palm as a means to eradicate poverty for the landless farmers and smallholders. The oil palm plantations in Malaysia are largely based on the estate management system and small holders scheme. (Malaysian Palm Oil Council 2003)

Indonesia is the world's second largest producer of palm oil. Palm trees were brought to Bogor, West Java as ornamental plants in 1848. Palm oil plantations started in Sumatra in 1911 and spread out to other Indonesian islands. In 1974, when prices of palm oil in the international market was high, the government started the Nucleus Estate Scheme wherein state owned plantation companies provided seedlings, technical assistance and financing to small farmers who were given access to oil mills. At present, oil palm plantations are no longer confined to northern Sumatra but have expanded to Kalimantan, Sulawesi and Irian Jaya. (Bangun, 2006).

Indonesia developed its downstream palm oil industry. Downstream products could be classified as edible and non edible. Non edible products are soap and oleochemicals while edible products are cooking oil, fats for bakery and margarine. Palm oil is the raw material used for cooking oil in Indonesia. At present, Indonesia exports palm oil to India, Netherlands, Malaysia, the United Kingdom, Pakistan and Bangladesh. (Bangun, 2006)

Thailand is the third biggest producer of palm oil in ASEAN and the fourth largest producer of palm oil in the world based on figures from the **:** Federacion Nacional de Cultivadores de Palma (Colombia) Please refer to Table 9. In the Asia-Pacific region Thailand is currently the third biggest palm oil producers, but is still way behind leading producers Malaysia and Indonesia in terms of output. In the course of the past ten years, the country has managed to more than double annual production to around 6 million tons, representing an annual growth

rate of 9.5 per cent which has largely been bought about by rubber plant farmers in the south of the country switching over to palm oil production.

Despite being one of the top palm oil producers in the world, Thailand is still a net importing country of palm oil. In the course of the past ten years, the country has managed to more than double annual production to around six million tons, representing an annual growth rate of 9.5 per cent which has largely been bought about by rubber plant farmers in the south of the country switching over to palm oil production. (AP. Foodtechnology Com, 2004)

The Thai government may allow imports of palm oil to produce bio-diesel due to a shortage of palm oil in Thailand, said Energy Minister Piyasvasti Amranand. Local production of palm oil for use in the manufacturing of the alternative fuel may be insufficient this year, he said, so the Energy Ministry may ask the Commerce Ministry to allow palm oil imports to refine into bio-diesel. (AP. Foodtechnology Com, 2004)

Table 9
World Production of Palm Oil
(In thousand tons)

Country	**2003**
Malaysia	1.642
Indonesia	1.064
Nigeria	203
Thailand	59
Colombia	50
Papua New Guinea	30
Ivory Coast	23
Costa Rica	12
Others	230
Total Production	3.314

Source: Federacion Nacional de Cultivadores de Palma (Colombia)
http://www.fedepalma.org/index.shtm

8.4 Cassava

Four ASEAN countries, Indonesia, Thailand and the Philippines ranks among the twenty largest producers of cassava in the world in 2005 based on figures from the Food and Agriculture Organization. All of these countries exported cassava in the past. Some of the key characteristics of the crop are its efficiency in producing carbohydrate, its tolerance to drought and to impoverished soils, even though it thrives on fertile, sandy-clay soils, and its high flexibility with respect to the timing of planting and harvesting. For these reasons, cassava plays an essential role for food security, especially in those regions prone to drought and with poor soils. It is the world's fourth most important staple after rice, wheat and maize and is an important component in the diet of over one billion people.(Food and Agriculture Organization, 1998) Please refer to Table 10.

Indonesia is the biggest producer of cassava in ASEAN and the third largest producer of cassava in the world. It has a long history of utilizing cassava as a staple food, especially where soil and climate conditions do not permit growing of rice, or in years of rice shortfalls. Nonetheless, cassava's role as food security crop is declining, with new interest in further diversification of products and markets. Cassava in Indonesia has traditionally been planted in association with other crops by small farmers, mainly for their own consumption. Cassava cultivation used to be concentrated in Java, but as pressure on land and other resources intensified, it has been spread to the other islands, especially Lampung. (Food and Agriculture Organization, 1998)

The major consumers of cassava in Indonesia are the rural poor. . Roots are also converted into small chips, flour and “sago”, a type of wet starch that is roasted. Cassava roots are eaten boiled or steamed and processed into dried chips, known as “gaplek”, and starch. Gaplek is used for human consumption in a large variety of traditional dishes and, in times of rice scarcity, it substitutes for rice in rural diets.

Most of the production is used internally, although there are significant exports of dry chips for animal feed and of starch. Indonesia is historically Asia's major producer, although overtaken by Thailand in the 1970s and 1980s. There is interest in expanding demand in the processed food industry, and for flour as a wheat substitute.

Thailand is the second largest producer of cassava in ASEAN and the fourth largest producer of cassava in the world. Thailand claims to have an 88 percent market share of the world cassava market. Cassava exports of Thailand declined as a result of the reduced import demand the EU whose past import had been more than 50 percent of the world import. The Common Agricultural Policy of the EU decreased its feedgrain prices in a major effort to provide incentive to increase use of the domestic grains instead of cassava pellets. At the same

time, Thailand exercises voluntary restraint of limiting the annual pellet export to 5.5 million tons on the average under the agreement that EU provides assistance for cassava replacement cropping in the bilateral attempt to reduce the cassava planting. (Kajonwan 2003)

Other markets, the People's Republic of China (PRC), Japan and Indonesia formerly did not consume much of the products but the, PRC in particular, increased their demand after 1999. These caused a major upward shift in the world export. It is notable that the PRC increased its demand for cassava products to compensate the needs for animal feeds in its livestock industry. . (Kajonwan 2003)

Thai cassava exports include pellets, chips, flour and sago. As the major export item, pellets had 80-90% share of the total export and EU had been importing from Thailand 60-70% of its total cassava imports. Cassava flour is the second export item following the pellets. Its share ranges from 8-30 percent of the total export. Flour export value continues to show a rising trend of 10 percent with the share of 18 percent in 1992 which increased to 62 percent in 2000. The foreign demand for Thai cassava flour has been expanding and its main importers have been Japan, South Korea and Taiwan. Competition is stiff with substitutable potato flour and corn flour from sources in Europe.

Vietnam is the third larges producer of cassava in ASEAN and the 13th largest producer of cassava in the world based on statistics from the Food and Agriculture Organization. It is the fourth largest producer of cassava in ASEAN. In North Vietnam, cassava is grown for food and animal feed by small farmer households. In South Vietnam cassava has become a cash crop and as raw material for cassava processing factories, which have a total annual processing capacity of one million tons of fresh roots. The main constraints in cassava production in Vietnam are fluctuating prices and marketing problems and slow adoption of new varieties and improved technologies in remote areas. Low soil fertility in cassava growing areas is an important problem, as is the lack of processing facilities. (Bien, Kim et. al 2007)

Cassava research in Vietnam has made remarkable progress since 1988 when Vietnam began its cooperation with the International Center for Tropical Agriculture (CIAT) and the Asian Cassava Research Network. Further progress was achieved when Vietnam established its Cassava Research and Extension Network, in close cooperation with starch processing factories Ne and high yield cassava varieties and more sustainable production practices have increased the economic effectiveness of cassava production, especially in the Southeastern region. In order to transfer new technologies Farmer Participatory Research was conducted in mountainous and hilly areas of North Vietnam. (Bien, Kim et. al 2007)

Table 10
World Production of Cassava, 2005

Rank	Country	Production (Int $1000)	Foot note	Production (MT)	Foot note
1	Nigeria	2,751,179	C	38,179,000	F
2	Brazil	1,920,017	C	26,644,700	
3	Indonesia	1,402,244	C	19,459,400	
4	Thailand	1,220,552	C	16,938,000	
5	Congo, Dem Republic of	1,079,060	C	14,974,470	
6	Ghana	701,779	C	9,738,812	F
7	Angola	620,163	C	8,606,210	
8	Tanzania, United Rep of	504,420	C	7,000,000	F
9	India	482,802	C	6,700,000	F
10	Mozambique	443,169	C	6,150,000	F
11	Viet Nam	410,742	C	5,700,000	F
12	Uganda	396,330	C	5,500,000	F
13	Paraguay	353,822	C	4,910,110	F
14	China	302,652	C	4,215,700	F
15	Benin	223,386	C	3,100,000	F
16	Malawi	187,356	C	2,600,000	F
17	Madagascar	157,914	C	2,191,420	F
18	Colombia	153,139	C	2,125,163	
19	Philippines	117,458	C	1,630,000	F
20	Côte d'Ivoire	108,090	C	1,500,000	F
	No symbol = official figure		**F = FAO estimate**		
	*** = Unofficial figure**		**C = Calculated figure**		
Production in Int $1000 have been calculated based on 1999-2001 international prices					

Source: Food and Agriculture Organization Major Food and Agricultural Commodities Producers
http://www.fao.org/es/ess/top/commodity.html?lang=en&item=125&year=2005

9. Other Possible Sources of Bio Diesel in ASEAN

As mentioned earlier, jatropha has been identified as another source of bio diesel in the Philippines and in other Asian countries. Jatropha is found in all places in the Philippines. It grows even in marginal soils. It can be used as an intercrop to coconut, another source of bio diesel. SAMASA Foundation is currently promoting it as an alterative source or another source of bio diesel.

Jatropha has different names in different c places--tuba-tuba, tubang-bakod, sambo, and agumbao apparently proves that, by whatever name, the previously ignored plant sprouting practically all over the country has become a celebrity plant these days.At present, jatropha is used as hedge or fencing material in rural areas of the Philippines. It can be grown together with other crops.

Jatropha is a perennial shrub-tree resistant to drought, typhoon, and flood, jatropha grows fast on marginal or poor soil conditions with little or no maintenance at all. It starts to bear fruits after two years but economic yield starts on the 4th year. This plant can live up to fifty years. Local jatropha species bear fruits 3-4 times a year. Seeds for planting can be gathered when the fruits are already yellow to dark brown. Seeds that are ready for oil extraction are black and dry.

A hectare grown to jatropha could yield 3.5 to 5 tons of seeds. Initial studies revealed that with 3-4 kilos of jatropha seeds, oil yield would be about one liter of crude or unprocessed oil that can be used directly to run low-rpm diesel engines like hand tractors, water pumps, and threshers. (Department of Science and Technology, 2007)

The Department of Science and Technology's Industrial Technology Development Institute initially tested five kilograms of jatropha last March, which confirmed the seeds' 28.60% oil content. This jatropha oil can be used as additive to diesel. Tuba-tuba has been grown because of folk belief that it's smell turns snakes away. This idea made the shrub-tree a primary fencing material in rural areas.

9.1 Promotion of Jatropha Cultivation in the Philippines

The Philippine National Oil Co. board approved a budget of more than a billion pesos for its alternative fuel arm PNOC Alternative Fuels Corp.'s (PNOC-AFC), a chunk of which would be used to fund investments in jatropa plantations. Under PNOC-AFC's approved budget for 2007 worth P1.257 billion, about P679.96 million has been earmarked for investments; P411.36 million has been allocated for operating expenses; and P165.67million has been earmarked for other capital expenditures.

“The budget of PNOC-AFC for 2007 covers the financing requirement for the development and establishment of the jatropha mega-nurseries. We are upbeat about jatropha and we aim to become the most prominent alternative fuels-producing company,” Peter Anthony Abaya, PNOC-AFC president, said. (Añonuevo, 2007)

PNOC-AFC is looking to establish its own nurseries for jatropha, a biodiesel source, utilizing an aggregate area of 1,000 hectares in various areas in Mindanao this year. Likewise, another 500 hectares will be established at Fort Magsaysay, Nueva Ecija, in coordination with the Philippine Army. (Añonuevo, 2007)

“The mega-nurseries will serve not only as sources of seedlings for the commercial plantations but will also be used for research and development including propagation methods, provenance testing, intercropping and effective management practices. Locally sourced jatropha planting materials will be used in the mega-nurseries,” he added. (Añonuevo, 2007)

Much earlier, PhilForest, a subsidiary of the Natural Resources Development Corp. under the Department of Environment and Natural Resources, was created in compliance with President Macapagal-Arroyo’s instruction in October 2004 to step up reforestation.

It’s been given the responsibility to undertake the agro-reforestation projects of the NRDC, the primary corporate arm of the DENR. PhilForest’s tuba-tuba cultivation projects will cover public idle lands, such as mountain sides and denuded forests. “This is to ensure that tuba-tuba cultivation does not encroach into farmlands already devoted to food and other commercial crops,” Lozada said.PhilForest records show that 2 million hectares of public land will be available for planting tuba-tuba.

Unlike other source of bio fuels, jatropha is not edible. Its utilization as a bio fuel will not compete with traditional bio fuels feedstock such as coconut, sugar, palm oil and cassava. It can be grown in marginal areas and may be planted as secondary crops in a way that it will not decrease harvest of traditional food crops. These may also be grown hedges in existing farms. This will prevent it from competing with food crops.

10. Possible Market for Carbon Credits

The Carbon Credit market is another market which can be explored by bio fuel processors. .Carbon credits provide a way to reduce greenhouse gas emissions by giving them a monetary value. A credit gives the owner the right to emit one ton of carbon dioxide. International treaties such as the Kyoto Protocol set quotas on the amount of greenhouse gases countries can produce. Countries, in turn, set quotas on the emissions of businesses. Businesses that are over their

quotas must buy carbon credits for their excess emissions, while businesses that are below their quotas can sell their remaining credits. By allowing credits to be bought and sold, a business for which reducing its emissions would be expensive or prohibitive can pay another business to make the reduction for it. This minimizes the quota's impact on the business, while still reaching the quota.(Wikipedia, Carbon Credit 2006)

Credits can be exchanged between businesses or bought and sold in international markets at the prevailing market price. There are currently two exchanges for carbon credits: the Chicago Climate Exchange and the European Climate Exchange.

Processors and users of bio fuels may calculate the amount of carbon dioxide that they save from being emitted into the atmosphere. They can in turn sell these as carbon credits.

11. Recommendations

11.1 ASEAN Private Sector Support Framework

1. Initiate Industry Academe Partnership in Research and Advocacy About Bio Fuels

   The private sector may initiate partnership between corporations manufacturing or blending bio fuels with petroleum fuels and the academe. Faculty and students may conduct research to improve bio fuels and discover other sources of bio fuels. This will allow industry to assist the academe in their research.

   Tapping the academe to conduct research studies will also mean savings for industry since the academe has the equipment and trained research personnel needed for testing bio fuels.

2. Initiate an inventory of academe and industry based research institutes which focus research on crops which may be converted into bio fuels

   The private sector should initiate a network among research institutions in ASEAN which focus their research on coconut, sugar, palm oil an cassava, the major sources of bio fuels in the region. These institutes can concentrate on problems common to the industry in the ASEAN region to increase productivity and ensure a sustainable source of bio fuel feestock.

3. Initiate cross country collaboration in bio fuels research and development of bio fuels by universities and research institutes within ASEAN

   The private sector may sponsor cross country collaboration among universities in bio fuel development to hasten development of bio fuel sources. This may include visits by faculty to countries where there is ongoing research and development for bio fuels.

4. Encourage petroleum companies to assist or be partners of manufacturers of bio fuels.

   The private sector may encourage petroleum companies to assist manufacturers of bio fuels. They may also assist farmers who cultivate crops which may be utilized as bio fuels. This can be done by matching petroleum companies which need bio fuels with manufacturers of bio fuels.

5. Include small farmers in programs to encourage cultivation and processing of bio fuels.

   Small farmers, who comprise the majority of the rural population particularly in less developed ASEAN countries such as the Philippines and Indonesia should be given credit and technical assistance to participate the bio fuels development programs. This will enable them to increase their incomes and this will help upgrade the local economy

   Technical as well as credit assistance should be given to small scale processing of bio fuels which could be utilized to power farm implements should be encouraged to further upgrade the local economy. .

11.2 Regulatory Framework

1. Common Standards for Bio Fuels in ASEAN, Japan, China and South Korea

   ASEAN countries with a potential to produce bio fuels such as the Philippines, Malaysia and Indonesia should negotiate with Japan, China and South Korea for a common standard on bio fuels which will be acceptable to them. This will facilitate the entry of ASEAN bio fuels to their markets. The fact that Japan imports 60 percent of its food and has limited arable land will make it difficult for her produce bio fuels.

2. Negotiate for preferential tariff on bio fuels

   a. ASEAN as a body should negotiate for a preferential tariff on bio fuels particularly with Japan which has very limited sources of bio fuels at present and has to meet its obligations to the Kyoto Protocol.
   b. ASEAN as a body should negotiate with South Korea for lower or no tariff on raw intermediate materials for bio fuels to be exported to South Korea to increase markets for newly developed sources for bio fuels such as jatropha which is now being introduced in Indonesia and the Philippines.

3. Bio Fuels Should be Utilized by Governments in ASEAN for its operations

   In order to develop an expanded market for bio fuels, ASEAN governments should follow the example of the Philippines by requiring government vehicles to utilize fuels containing a certain percentage of bio fuels for its vehicles

4. Bio Fuels Should Form Part of the Energy Stockpile or Reserves of ASEAN Countries

   In order to help ASEAN countries, such as Indonesia, Malaysia and the Philippines with potentials for manufacturing bio fuels develop their bio fuel resources and reduce greenhouse gases in ASEAN, ASEAN member countries should agree to have a specific percentage of their oil reserves devoted to bio fuels from other ASEAN countries.

5. Provide Tax Incentives to ASEAN businesses which are able to sell carbon credits by utilizing bio fuels.

   Tax incentives may be given to ASEAN businesses which are able to sell carbon credits to companies in industrialized countries by reducing the amount of carbon dioxide emitted into the atmosphere through its operation by utilizing bio fuels. This will further encourage industries to shift to bio fuels despite initial fuel conversion costs..

11.3 Investment Incentives for Bio Fuels

1. ASEAN countries should give investment incentives to investors in the bio fuels technology.
2. ASEAN countries should provide investment incentives to businesses which will establish stockpiles of bio fuels.
3. ASEAN providers of bio fuels should negotiate with China, Japan and South Korea to provide for investment incentives to importers and users of bio fuels in their respective countries.

11.4 An integrated Approach to Planning for Oil Depots and Pipelines

1. There should be an integrated, long range plan regarding the plans for oil depots. With the impending closure of the Pandacan Oil Depot, there should be an integrated plan where to locate new oil terminals and how to maximize usage or existing terminals taking into consideration the safety of nearby residents.
2. Strategic areas for storage of bio fuels should be identified. The following should be taken into consideration:

    a. ease of transport to oil company depots where the bio fuels will be mixed with fossil fuels;
    b. security of the nearby residential areas

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Exhibit 1

MALACANANG PALACE

MANILA

BY THE PRESIDENT OF THE PHILIPPINES

MEMORANDUM CIRCULAR NO. 55

DIRECTING ALL DEPARTMENTS, BUREAUS, OFFICES AND INSTRUMENTALITIES OF THE GOVERNMENT, INCLUDING GOVERNMENT-OWNED AND CONTROLLED CORPORATIONS TO INCORPORATE THE USE OF ONE PERCENT (1%) BY VOLUME COCONUT METHYL ESTER IN THEIR DIESEL REQUIREMENTS

WHEREAS, under Section 2(a) of R.A. No. 7638, known as the "Department of Energy Act of 1992", it is declared the policy of the State to ensure a continuous, adequate and economic supply of energy with the end in view of ultimately achieving self-reliance in the country's energy requirements through the integrated and intensive exploration, production, management and development of the country's indigenous energy resources, without sacrificing ecological concerns;

WHEREAS, under Sections 2 and 4(a) of R.A. No. 8749, known as "The Philippine Clean Air Act (PCAA) of 1999", it is declared the policy of the State to protect and advance the right of the people to a balanced and healthful ecology in accord with the rhythm and harmony of nature and recognize the citizens' right to breath clean air;

WHEREAS, the government is a major user of motor vehicles operating on diesel fuel;

WHEREAS, the Coconut Methyl Ester (CME) blended with petroleum diesel fuel can reduce harmful emissions such as carbon particulates and greenhouse gases thereby improving air quality and at the same time improving the performance of the engines;

WHEREAS, the use of CME in the petroleum industry will create a new and significant application for coconut oil and reinvigorate the Philippine coconut industry through the creation of a new domestic market and increased productivity, thereby improving the lives of coconut farmers.

NOW, THEREFORE, I, GLORIA MACAPAGAL-ARROYO, President of the Republic of the Philippines, by virtue of the powers vested in me by law, do hereby order:

SECTION 1. All departments, bureaus, offices and instrumentalities of the Government, including government-owned and controlled corporations, are hereby directed to use one

percent (1%) CME by volume as a blend in petroleum diesel fuel.

SEC. 2. The Department of Energy (DOE) shall be the lead implementing agency for the CME-Diesel Program. The DOE shall coordinate with various government agencies and private entities involved in CME activities and shall prepare a strategic plan outlining national goals in the development and expanded utilization of CME and provide policy direction for the effective implementation and monitoring of the program.

SEC. 3. The Philippine Coconut Authority (PCA) is hereby directed to include in its national program for the coconut industry the development of the supply chain for CME, and in consultation/coordination with the other government agencies and the private sector, shall formulate a program to encourage investment and technology for the production of CME to meet the needs of the domestic market.

SEC. 4. The DOE, in coordination, with the concerned government agencies shall formulate and issue the necessary implementing rules and regulations within thirty (30) days after the effectivity of this Circular.

SEC. 5. All departments, bureaus, offices and instrumentalities of the Government, including government-owned and controlled corporations, are hereby directed to provide the necessary resources which will be utilized to implement the CME program subject to existing auditing and accounting rules and regulations.

SEC. 6. All orders, issuances, rules and regulations or parts thereof, which are inconsistent with this Circular are hereby repealed or modified accordingly.

SEC. 7. If for any reason or reasons, any part of this circular is declared unconstitutional or invalid, the validity of the other provisions shall not be affected by such declaration.

SEC. 8. This Memorandum Circular shall take effect fifteen (15) days after its publication in at least two (2) newspapers of general circulation.

DONE in the City of Manila, this 9th day of February, in the year of Our Lord, Two Thousand and Four.

(Sgd.) **GLORIA MACAPAGAL-ARROYO**

By the President:

(Sgd.)**ALBERTO G. ROMULO**

Executive Secretary

ASEAN FRAMEWORK FOR TRADE NEGOTIATIONS

BPO, CALL CENTER AND INFORMATION TECHNOLOGY INDUSTRIES

A STUDY PREPARED FOR PACT / EMERGE / USAID

By Srinivas Polishetty

May 28, 2007

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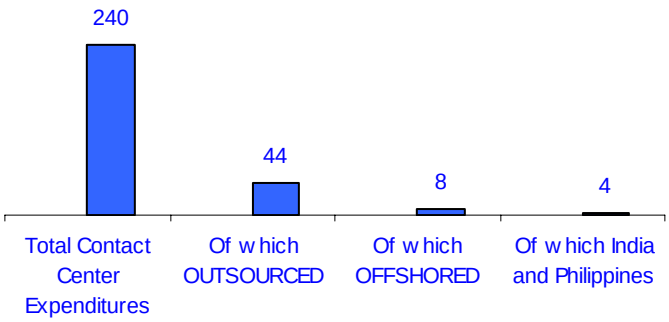
Section 1: Overview of the Call Center Industry

Global Call Center Industry Overview

The global call center industry is huge. Despite, its size and the surrounding controversy in the US about jobs going offshore, however, only a small portion of the Pie is currently off shored thereby demonstrating the tremendous potential of the industry for other countries. Industry data show that total Contact Center expenditures[1] in the USA has reached US$240 billion, of which approximately 82% (US$196 billion) is in sourced and only 18% (US$44 billion) is outsourced. This number is further narrowed down to account for the portion off shored to other countries. If the US$44 billion expenditures off shored, approximately 82% is outsourced within the USA and only 18% (US$8 billion) is off shored.

Of the US$8 billion off shored[2] to other countries, approximately US$3 billion is off shored to India while only US$1 billion is off shored to the Philippines. The fact that the % of total contact center expenditures that are currently being served in the Philippines indicates the still huge potential of the industry for growth. The above data is summarized in the graph below which shows the breakdown of contact center spending in US$ billions:



[1] *Refers to both in sourced and outsourced services. Outsourced includes special-purpose captive subsidiaries.*

[2] *"Outsourced" includes ALL captive subsidiaries, notwithstanding the fact that, strictly speaking, Citigroup's seats in Philippines are in-sourced-but-off shored while Convergys's seats in Philippines are outsourced-and-off shored).*

The following shows the global distribution of call center seats from 2003 to 2005:

Call Centers: Number of Seats 2003 thru 2005

Country	**2003**	**2004**	**Est. 2005**
Australia	135,000	146,000	157,680
India	96,000	158,000	260,700
China	38,000	54,000	76,680
Philippines	20,000	40,000	70,000
New Zealand	12,000	13,500	15,255
Thailand	11,000	13,000	15,340
Singapore	10,000	10,100	10,201
Hong Kong	10,000	10,700	11,449
TOTAL	332,000	445,300	617,305

Philippine Call Center Industry Overview

The BPO and call center industry has proven to be one of the fastest growing industries thereby contributing a lot in terms of generating employment for the Philippines' 400,000 graduates every year and causing a multiplier effect to the Philippine economy. The success of the industry does not come as a surprise given the Philippines' natural advantage in this field. These advantages are discussed below:

Key Advantages of the Philippines

- Abundance of low cost American English speaking labor force.

  The Philippines send about 2.5 million of its youth to college education every year and produces about 400,000 graduates annually. More than half of these graduates are from the fields of IT, engineering or commerce that are all eligible for call center work. Although this is lower than India's 2 million graduates every year, the number of Filipino graduates remains a compelling factor for investors who wish to set up call center operations offshore.

  The average annual salary of entry level call center agents in the Philippines is US$4,000 to US$4,500 per year while the average annual salary for all levels is US$7,000 per year. These costs represent approximately only 1/5 of the hiring costs for equivalent positions in the United States and are only marginally higher than the hiring costs in India. The gap though from India's hiring costs is narrowing down due to increasing competition in India for quality English speaking graduates and poaching from Multinationals.

The Philippines also has relatively low attrition rates compared to Agents situated in the United States. This is largely due to the difference in perception regarding the job, i.e., whereas in the United States a job in the Call center industry is generally not highly regarded, in the Philippines, a certain level of Prestige is associated with the job, given the higher salaries and the premium attached to the ability to speak English fluently.

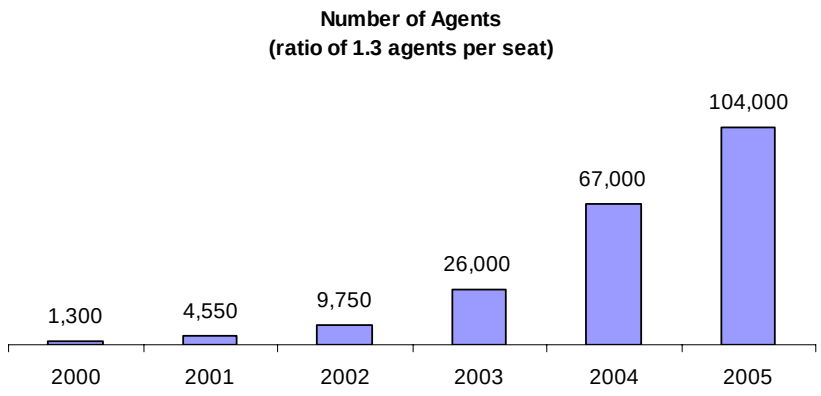
- While the ability to speak English is valuable, the experience of most call center companies is that the ability to speak American English in particular makes a huge difference to clients. The Filipinos' neutral accent, and the emergence of educational institutions that cater to training students and graduates on American English grammar, intonation and accent put Filipinos at a distinct advantage over its counterparts in India and China. The Philippine Educational System, Business and Legal practices are heavily influenced by the American system, it being an American colony for about 50 years in the past. It should be noted that English remains the primary medium of instruction in most schools in the Philippines.

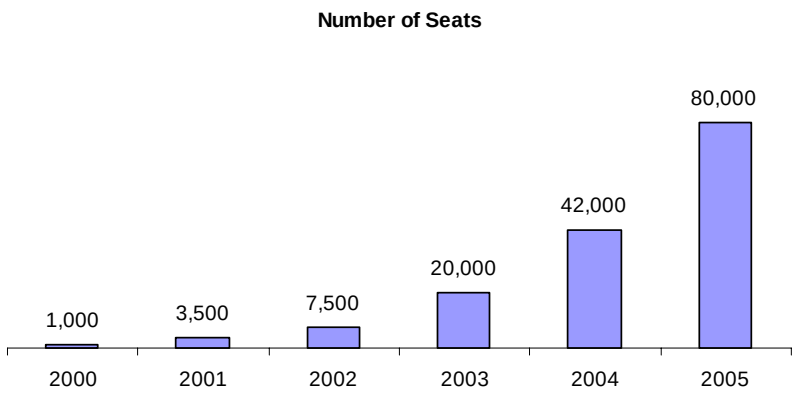
- **Means of diversifying Geo-Political risk.**
  A number of Call center companies that have set up in India and in other countries have decided to lessen their exposure to geo-political and exchange rate risks due to the concentration of their businesses in a single country. Given the advantages that the Philippines has to offer, it has become a logical step for such companies to expand their operations here.

- **Cheap Telecommunications cost.**
  Bandwidth costs have dropped significantly to about US$4,500 for an E1/T1 line from US$30,000 for each line before. This results in one area in which the Philippines has an advantage over India's bandwidth cost of US$4,800 per full time equivalent ("FTE"). Savings in IT/Telecom expenses offsets the higher average cost of labor in the Philippine vs. India such that the total cost per FTE for voice-based services is only slightly lower in India compared to the Philippines.

Historical volume growth

The Philippines saw its number of seats grow exponentially from about 1,000 seats in 2000 to approximately 70,000 seats in 2005 and finally to its current 95,000 seats as of April 2006. Currently the Philippine has 105 Call center, most of which are subsidiaries of US-based companies operating 95,000 seats and providing employment for at least 120,000 agents. The following graphs indicate the exponential growth experienced by the call center industry for the past 6 years:





Historical Revenues.

Call centers' revenues have increased from US$173 million in 2002 to US$1.2 billion in 2005 translating to a compounded annual growth rate of 90% and 90,000 new jobs created over this period.

Current Government Incentive structure for the Industry.

Government agencies that support the development of the industry include: (1) the Securities and Exchange Commission; (2) the Department of Trade and Industry through the Information Technology and e-Commerce Council; (3) the Board of Investments and (4) the Philippine Economic Zone Authority. Incentives are given to IT related companies including BPO and call center companies, through registration with these government agencies.

Incentives under the Board of Investments include the following:

- Call centers are included in the Investment Priorities Act for 2004 of the Board of Investments and is also one of the priority sectors of the DTI

- BOI-registered call centers with a minimum capitalization of US$2,500 per seat are qualified to avail of a 4-year income tax holiday from start of commercial operations. The capitalization requirement covers hardware and software costs, office furniture and fixtures, building improvement and working capital.

- The income tax holiday can be extended for another three years following an approved expansion plan of the company.

Incentives under the Philippine Economic Zone Authority include:

- PEZA registered IT enterprises are entitled to four years income tax holiday for non-pioneer enterprises and six years income tax holiday for pioneer enterprises.

- After the ITH period, PEZA registered IT companies are given an option to pay 5% tax on gross income earned instead of the regular corporate income taxes and other national or local taxes except real property taxes. Companies are also given a special deduction of 50% of training expenses if they opt to pay the special 5% gross income tax.

- Exemption from import duties and taxes on imported machinery, equipment and raw materials.

Section 2: The Porter's Diamond Theory of Competitive Advantage of Nations

BPO Cluster in ASEAN:

A cluster is an economic phenomenon whereby large number of interconnected Industries group together in a small area. Some examples include California wine, Italian leather fashion and IT cluster in Silicon Valley.
According to Michael E. Porter, a famous Harvard Business School professor who developed "Diamond Theory of Competitive Advantage of nations" , these clusters emerge due to the following four main conditions:

1. **Factor conditions** (i.e. the nation's position in factors of production, such as skilled labor and infrastructure),

2. **Demand conditions** (i.e. sophisticated customers in home market),

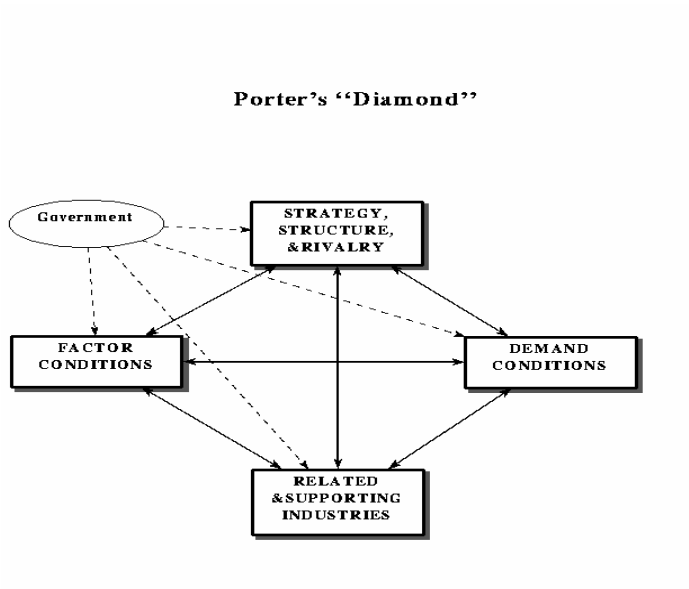
3. **Related and supporting industries,** and

4. **Firm strategy, structure and rivalry** (i.e. conditions for organization of companies, and the nature of domestic rivalry).

Classical theories of international trade propose that a comparative advantage resides in the factor endowments that a country may be fortunate enough to inherit. Factor endowments include land, natural resources, labor and the size of the local population.

Professor Michael Porter argued that a Nation can create new advanced factor endowments such as skilled labor, strong technology and knowledge base, government support and culture. Porter used a diamond shaped diagram as a basis of framework to illustrate the determinants of national advantage.

The same diamond model has been used to represent the national playing field that ASEAN countries have for the BPO industry.



Factor Conditions:

Factor conditions refer to inputs used as factors of production - such as labor, land, natural resources, capital and infrastructure. The "key" factors of production (or specialized factors) are created, not inherited. "Non-key" factors or general use factors, such as unskilled labor and raw materials, can be obtained by any company and, hence, do not generate sustained competitive advantage. However, specialized factors involve heavy, sustained investment. They are more difficult to duplicate. This leads to a competitive advantage, because if other firms cannot easily duplicate these factors, they are valuable. Lack of resources often actually helps countries to become competitive (call it selected factor disadvantage). Abundance generates waste and scarcity generates an innovative mindset. Such countries are forced to innovate to overcome their problem of scarce resources. For example Switzerland was the first country to experience labor shortages. They abandoned labor-intensive watches and concentrated on innovative/high-end watches.

ASEAN Context:

- Low manufacturing activity (as a result of China becoming world's manufacturing hub) created ASEAN countries' dependence on service related industry
- Less of industrial activity has created presence of skilled labor in ASEAN
- Less presence of natural resources led to migration to non-natural resource related production.
- Good presence of US English speaking population due to past colonial structure and global trade dependency….Philippines/India
- High level of scientific and research and development to keep pace with other resource rich ASEAN neighbors…Singapore/India
- Presence of good infrastructure and communication allowed ASEAN to become attractive location for investment by international companies…..Singapore/Philippines/India/Malaysia

Demand Conditions:

Firms that face a sophisticated domestic market are likely to sell superior products because the market demands high quality and a close proximity to such consumers enables the firm to better understand the needs and desires of the customers. One example is the French wine industry. The French are sophisticated wine consumers. These consumers force and help French wineries to produce high quality wines.

ASEAN Context

- The local customers in ASEAN region demand high level of customer service which inturn has created an environment within firms to delight their customers. For example regional airlines like Singapore airlines, Thai Airways and Malaysian Airlines are well known around the world for their level of customer service.
- The high reliability on services sector is one of the main reason for creating a customer led environment.

Related and Supporting Industries:

A set of strong related and supporting industries is important to the competitiveness of firms. This includes suppliers and related industries. This usually occurs at a regional level as opposed to a national level. Examples include Silicon Valley in the U.S.(for the technology industry), Detroit (for the auto industry) and Italy (leather-shoes-other leather goods industry).

ASEAN Context:

- Due to small size of most countries in ASEAN region, it is likely that the main BPO centers would be concentrated in the same area and lead to clustering or agglomeration. Some of the advantage of this would be potential technology knowledge spillovers, and availability of skilled labor forces at a lower cost. This also has few disadvantages such as poaching of employees by rival companies and obvious increase in competition leading to reduced mark-ups and inflationary pressures on labor costs.

- The early liberalization and entry of multi-national companies in the region has led to developing a work force used to US style of working culture.

Firms Strategy, Structure and Rivalry:

Strategy:

Domestic capital markets affect the strategy of firms. Some countries' capital markets have a long-run outlook, while others have a short-run outlook. Industries vary in how long the long-run is. In the ASEAN context, while countries such as Singapore (which has a long-term capital outlook) attracts investments into infrastructure (which is long-term oriented), countries such as Philippines is likely to attract investments into highly dynamic computer and services industry (short-term in outlook) given Philippines' short-run outlook of its capital markets..

Individuals' Career Choices-

Individuals base their career decisions on opportunities and prestige. A country will be competitive in an industry whose key personnel hold positions that are considered prestigious. In the ASEAN region, individuals regard call centre job as highly prestigious and also take pride working for a multi national foreign company.

Structure:

The best management styles vary among industries. Some countries may be oriented toward a particular style of management. Those countries will tend to be more competitive in industries for which that style of management is suited. The ASEAN countries follow relatively flat management structure and are not hierarchical based like some other ASEAN economies such as India. This suits the US BPO industry as it is more oriented towards less hierarchical style of management.

Rivalry:

Porter argues that intense competition spurs innovation. Competition is particularly fierce in Japan, where many companies compete vigorously in most industries. Similarly there is fierce competition among IT and BPO sector companies in India which has brought India to a No.1 position in business confidence survey in BPO industry.

The rivalry of BPO companies in a small concentrated area of ASEAN would benefit from fierce competition and lead to spur innovation. ASEAN nations could also come together as one team and get more business from the developed nations. For e.g. Singapore with the advantage of world's best infrastructure and highly skilled engineers can become leading service provider in high end Information and Technology Services and specialized finance outsourcing activities; India can become the software product development and finance processes outsourcing hub, Malaysia and Vietnam can lead the way in Data Processing and Philippines can become the biggest Animation and Customer Service/Contact Center Zone.

The multinationals like IBM, Dell, Genpact and Sykes are segmenting their operations on similar lines across the globe. The governments' support by setting the uniform legal system and the start up process along with creation of free trade zone and better ICT across the ASEAN region would attract more multinationals and lead to increase in returns.

Government Role:

The government's role in the diamond model is to:

- Encourage companies to raise their performance, for e.g. by enforcing strict product standards.
- Stimulate early demand for advanced product
- Focus on the creation of specialized factor conditions.
- Stimulate local rivalry by limiting direct cooperation and enforcing antitrust regulations.

ASEAN CONTEXT:

- Establishment of a free trade zone by 2010. Philippines and other ASEAN countries should push for fair and open trade .This would build the confidence and focus the attention of the global corporations and investors.
- Encouragement of free movement of people by simplifying the visa and work permit process.
- Full recognition of certificates awarded by universities /professional bodies/Institutes.
- Recognition of the infrastructure, quality standards and environmental standards etc.-CMM, COCP, BS7000.
- Cross-country recognition of Techno Park and Economic Zones.
- Single organization promoting the ASEAN cluster to the world like setting up EAI (Enterprise for ASEAN initiatives) by US for trading with ASEAN.
- Encouragement of e-government services like IDA in Singapore to cut bureaucracy.
- Tax rebates and smooth legal steps in start ups.
- Friendly ties with world super powers and strategic alliances .e.g. WTO ties. Leaders of ASEAN community have signed the Cebu declaration on the acceleration of the establishment of an "ASEAN Community" by 2015.
- This should establish an environment that promotes free flow of trade and services among the ASEAN member countries
- The community should have stronger understanding of its identity and should be bound by uniform rules and commitments.
- Free air linkages and direct flights need to be established between the outsourcing giants like India and Philippines. This would bring the two countries closer and easily accessible. Currently clients from the US who are visiting their outsource branches in India and Philippines find the journey too long and cumbersome .The two countries are yet to establish direct flights.
- The EAI offers the prospect of bilateral free trade agreements (FTAs) between the United States and ASEAN countries that are committed to economic reforms and openness. The goal is to create a network of bilateral FTAs, which will increase trade and investment, tying more closely together ASEAN economies and their member countries' futures. The EAI initiative will encourage both bilateral and regional liberalization, and help APEC reach the Bogor goals for achieving free and open trade and investment in the Asia Pacific region.
- According to ADB President Haruhiko Kuroda in a conference in Manila "Trying to set up a grand European union –style community for ASIA" does not appear feasible. We should rely on a pragmatic step –by –step approach rather than on conceiving and implementing a comprehensive pan ASEAN vision as was done in Europe."

The key challenge is how to consolidate and streamline the 192 FTAs (free trade agreements) at various stages of negotiations or implementation in ASEAN. They should adopt a multispeed approach to cooperation whereby a few countries can start working together on selected common issues, leaving the option for other countries to join later. BPO sector can be the first such step in the right direction.

Conclusion:

Porter's Diamond Theory of National Advantage indicates that ASEAN countries clustering in the BPO and information Technology sector could take them to a remarkable economic growth by 2015.

- The ASEAN could become the regional hub for Asia, pulling together the fragmented national markets into an East Asia –wide FTA. There is a great disparity in the economy of various ASEAN countries in comparison to EU; like Cambodia and Brunei compared with Singapore and Philippines;. Never the less, ASEAN economic integration is still possible.

- Until a year ago, BPO was a simple industry to understand with few large American companies sending call centre work and some IT processes offshore. No longer is the case. The next phase is more complicated with myriad of activities like Accounting ,HR ,Financial Analysis ,Design Engineering ,Animation, Medical Services, Legal Services, Insurance processes, Banking, Map making, content solution, research and so on.

- Secondly it is just not US and UK but every developed country is in the race to take advantage of the offshoring benefits. E.g. Canada.

- Third, there are third party captive partners also. This increases the competition among the outsourcing providers by offers wider choices to companies that are seeking outsourcing.

- Fourth, ASEAN sector is becoming more competitive. .Most developing countries have seen the success of India and want to participate in the offshoring. Therefore, ASEAN needs to improve its promotional activity and increase the value of its service proposition.

- Lastly, leaders like India are moving up the value chain to more sophisticated processes like Analytics, Data Mining, Financial Strategies, Medical Services, etc.

"Singapore is already a recognized player on the global BPO scene, but in a very different way than the countries like India and China are" said Corbett. "The nation has extremely strong ties to the West and has always been positioned as a natural 'jumping off' point for Western business interests in the region."

In fact, according to Hui Min of Singapore Computer Systems, most Western companies view Singapore as a business continuity hub that is ideally located away from natural disasters. "Moreover, Singapore also adopts world-class standards to ensure that the services provided are of top quality," she says

Philippines- location of choice due to its less expensive labor costs. Offers 24/7 multilingual and multimedia supported premium services for marketing, sales, customer care, crisis management, investor relations and other key business applications. The reasons cited for the bullish outlook towards the Philippines have been, among others, due to lower operating costs, English language proficiency and high ICT skills yet low-cost workforce. Ranked second among 32 countries in a business optimism survey and scored 88% from a negative rate in 2004- International business Report (IBR) Survey of Grant Thornton International .

Therefore, if all these strong players from ASEAN cluster together and get new projects according to their expertise, like Philippines-Customer Service; India-Analytics and Singapore-Financial Strategy, Malaysia and Vietnam-Data Processing, it would become easier to attract global community and get more business in ASEAN's favor.

Current boom time in BPO seems to be stronger than any boom time to-date. Most BPO organizations have been growing 40% to 50%. So it is in the interest of the ASEAN nations to take advantage of the opportunity with in view of the competitive advantages that ASEAN nations possess.

Reference:*The data has been gathered from the book Porter,Michael.E-The competative Advantage of Nations; Manila Bulletin;The foreign Post –Newspapers;Google Search-Wikipedia,Economy of ASIA; ASEAN-JAPAN centre-what is ASEAN,The facts about ASEAN;Enterprise for ASEAN initiative;etc.*

Interviews with Key People and Major Findings

Following are the companies and individuals interviewed to assess their respective needs for effective Globalization in General and for ASEAN free trade in particular:

Issue 1- Free Movement of People – Work Visas

The following are the companies and the individuals interviewed:

1. **BLAST ASIA PHILIPPINES-SOFTWARE DEVELOPMENT** –Mr. Arup Maity, CEO.

Blastasia,Inc. is a Philippine based company that established its operation in the year 2000 with a vision to be a Global Technology Company. The company began to build its competency and track record in the local Philippine Market providing IT services to government and private institutions. Blastasia started providing offshore services to international clients from countries like US and Japan in the year 2004. In line with its vision, Blastasia has intensified its marketing effort by opening its California USA office in 2006 and is continually establishing channels in other parts of the US and in Europe through its partners.

Blastasia's primary business model is to work with technology companies in high cost regions helping them to grow with cost efficiency and flexibility. Blastasia capitalizes on its core strength in delivering not just software but total solutions to empower the business of its clients. Blastasia is not only strong in capabilities, but also equipped with proper tools to ensure the success of its projects. Blastasia ensures quality software solutions by providing the right team of people to work on the project and defined software development process and standards.

2. **NUCLEUS SOFTWARE PHILIPPINES**-Mr.Kumar Vaibhav-Country Manager

Nucleus Software is a leading **global software powerhouse** providing innovative and pioneering products and software solutions since 1986. Nucleus's core competence is wholly focused in banking and financial services spanning across solutions in the areas of **Core Banking, Retail & Corporate Banking,** Credit Cards, Cash Management, Relationship Banking, Financial CRM, Credit Risk & Appraisal, Trade Finance, EAI, Internet Banking, FX, Basel II, Data warehousing and Analytics. **Nucleus Software** has a strong quality culture, reflected in **SEI CMM Level 5 certification and Six Sigma** initiatives. Nucleus Software Philippines is a wholly owned subsidiary of Nucleus Software.

Complete Banking Solution	Banking Software Services
***FinnOne*™ (Complete Banking)**:The flagship product of Nucleus Software is an integrated suite of applications designed to support the business offerings of banks and financial services companies.	> Consulting > Outsourcing Software Solutions > Software Support and Maintenance > Customized Software Development
Accolades	**Best Practices**
Nucleus Software's flagship product ***FinnOne*™** globally ranked **"No.1 Best Selling Lending Software"** by **IBS Publishing London** 2006. Nucleus Software received the best Partner award for "Building World Class Loan Management Solution" by **Oracle Corporation** (2003-2004).	> Core Banking > Retail Banking > Cash Management > Trade Finance > Customer Acquisition > Credit Risk Management > Credit Cards > Enterprise Application Integration

3. **TELETECH SINGAPORE**-Mr. Vineeth Iyengar, Business Development Manager,
4. **Teletech India Limited** – Mohan Kulkarni, Country Manager

TeleTech Holdings, Inc., a global business process outsourcing company, provides a range of front-to-back office outsourced solutions, including customer management, transaction-based processing, and database marketing services. Teletech's solutions comprise on-demand services, including infrastructure, software, and business intelligence, which the company delivers on a centralized and standardized delivery platform. The company's Customer Management Services segment provides outsourced customer support and marketing services to various industries worldwide. Its Database Marketing and Consulting segment offers outsourced database management, direct marketing, and related customer acquisitions and retention services for automotive dealerships and manufacturers operating in North America. TeleTech offers its services in 150 languages to Global 1000 businesses and governments. The company was founded in 1982 and is headquartered in Englewood, Colorado.

5. **Credence Analytics – Indonesia** – CK Guruprasad, Head, International business.

Credence Analytics is a specialist financial software solutions provider with strong domain skills in the treasury markets, investment and risk management, and financial products distribution industry. Credence Analytics has been ranked as India's largest wholesale banking software solutions provider (Source : IBS Newsletter, March 2003). Credence primarily focuses on treasury management, risk management & ALM, research and advisory services, as well as related areas like real-time work-flow & communication management, data-mining, client servicing and functional training.

Credence Analytics offers its complete range of products and services through the two divisions within the company :

- Research & Advisory Division
- Software Division ::

➢ **Major Findings:**

Infosys agreement with Singapore Government for 100 pre-arranged employment visas at anytime

1) Increases flexibility of Infosys which results in more contracts and more jobs in favor of Infosys.It would help in importing skilled knowledge at any point in time.

2) Singapore's standing as global business center is reaffirmed-Singapore is strongly positioning itself as a High ICT and intellectual hub day after day .It has the best infrastructure with a business friendly government policies and e-governance .This removes the bureaucracy and makes the set up very business friendly.

3) Global corporations would like to locate their business centers in Singapore given availability of skilled labor force and smooth start up facilities.

4) Combined with the infrastructure, capital availability of Singapore and human resources of India, the combination provides excellent strength to Singapore.

5) When First Data Corp., the US based global back office service provider of electronic commerce and Payment systems , decided to establish a regional hub for its south and South Asian operations last year ,it choose Singapore as its hub instead of India –considered as the top destination for outsourcing. As per the spokes person, Carla Taylor "Singapore was a clear choice because "of its growth, infrastructure and proximity to its clients."

In fact, in a 2004 report the U.S. department of commerce ranked Singapore as the fastest –growing hub for outsourcing, while reports by AT Kearney, Price water house Coopers and Economist Intelligence Unit have all found Singapore to be amongst the Top destination for off shoring

Apart from cost there are other pull factors as well.When a company chooses a BPO destination there are other pull factors as well. According to Chong Hui Min of Singapore Computer Systems, "a BPO service provider that claims to specialize in a unique service called unique forms process outsourcing (FPO)."
"The business environment , political stability ,government support ,workforce competency and having a total eco-system for a particular industry are all factors that also need to be considered," she says ,and Singapore is strong in all of these."

According to Lim Chim Hu, President and CEO OF Singapore frontline technologies Corporation, which claims to be the leading provider of Information Technology including outsourcing?"(It should be positioned) as a trusted BPO hub with the talent and skill sets that are required for high value services."

HIGH IMPACT	Technology, Software, BPO, KPO
MEDIUM IMPACT	Healthcare, Shipping, Engineering, Finance and Accounting
LOW IMPACT	Law, Marketing, Economics, Teachers, Scientists

Issue 2 - Full Recognition of Certificates/Degrees Awarded By Universities/Professional Bodies/Institutes.

The following are the companies and the individuals interviewed:

1. **Have Nurses Inc.**

Have Nurses is an international health care recruiting company poised to help its clients gain a competitive edge by hiring the very best talent and supporting them through our global resource and appraisal base. Have Nurses manages the entire process from the source to the facility, ensuring itse client gets the best service in the fastest time at a very competitive cost. Have Nurses also have very attractive payment plans tied to steps in the process helping clients optimize their recruiting budgets. Have Nurses recruit for a broad spectrum of the health care industry including hospitals, nursing homes, convalescent homes, travel nurse companies and home health agencies.

2. **M3 Medical Corporation**

- Leaders in recruitment of skilled nurses and Medical Practitioners.

3. **24x7 Customer Support**- **PV Kannan**, Co-Founder and Chief Executive Officer

24/7 Customer is the first BPO Company that provides integrated customer lifecycle management services through a " Multi-shore™ global delivery model " and is the number one in business performance to 70% of its clients globally. Recently the Black Book of Outsourcing ranked 24x7 as the best performing call center globally, an achievement that is supported by its commitment to outperform. Headquartered in Los Gatos , California , 24/7 Customer is a rapidly growing global company with a CAGR of over 80%. With state-of-the-art facilities across 7 global delivery centers that accommodate nearly 9000 seats, 24/7 Customer is among the top 20 Contact Centers worldwide. 24/7 Customer provides Integrated Customer Lifecycle Management services (CLM) to the Global 1000 companies across the financial services, technology and telecommunications, retail and services industries. With a focus on predictable and sustainable business performance coupled with innovation 24/7 Customer delivers a sustainable competitive advantage for its clients in their end customer management.

Major Findings

- A framework that will recognize certificates-It will help in increasing the highly skilled Professionals availability at any point of time.

- Degrees awarded by select universities-This would help in standardizing the Education Pattern all across the region.

- Professional institutions among ASEAN countries-This would enhance the technical and Professional capability of the Region.

- **Immediate Requirement**:

- Recognize Qualifications of Healthcare Professionals, Software Engineer and other major Professional categories
- Opens up free movement of qualified and skilled Professionals.

  - Results in off shoring of services
    - ***Medical Tourism***
    - ***Online game testing***
    - ***Software testing***
    - ***Online tutoring***
    - ***Medical transcription***
    - ***Finance and Accounts support***
    - ***Treasury back-office operations***

HIGH IMPACT – Nursing, Doctors, Lawyers, Finance & Accounting, Shipping, Logistics and Teachers

<u>Issue 3</u> - Recognition of the Infrastructure Quality, Standards and Environmental Standards etc. – CMM, COCP, BS7000

The following are the companies and the individuals interviewed:

1. **ECCI Philippines**-Mr. Tan Hak Yek, SVP

- Leaders in Environmental Management .Involved in the development of Quality tools, Research, Safety and Productivity Management Consultants, Knowledge Management tools, Environmental, Training Services.

2. **BFL MPHASIS- Mr. Lakuman, Quality Assurance Manager**

- End to end service provider for E-business. Mphasis is global IT and BPO services company which consistently delivers real improvements in business performance for its clients through a combination of technology know- how, domain and process expertise.

3. **IPVG Corporation-**Mr. Enrique Gonzalez, CEO

- The group's principal activity is investing in and engages in business related to media & InfoTech industries. Its objective is to invest in innovative and market moving ventures that are rich intellectual capital.

Major Findings

- Automatic recognition of the Infrastructure, Quality Standards and Environmental Standards etc.

Among ASEAN countries following steps are immediately needed :-

- Allows opening of more world class data centers in Philippines
- Results in more off shoring of services to Philippines
- More jobs and more investment
- Win-win for both advanced ASEAN countries such as Singapore and Malaysia and developing ASEAN countries such as Philippines

- Singapore helped launch the World's first industry standard for business continuity and Disaster Recovery, which outlines certification requirements that service centers must meet.

- The U.S. –Singapore free trade Agreement, which strengthens IPR enforcement (among other things) gave an additional boost to Singapore's business environment for foreign investor.

HIGH IMPACT:

- Software and Hardware Infrastructure Data Centers
- Hospitals -Health Care Tourism
- Banking- Mobile Banking/ Online Remittances
- Broad Band Infrastructure-Online Games Outsourcing
- Educational Institutions-Teachers
- Scientific Institutions and R & D Labs- Scientist

Issue 4 - Recognition of Techno Park and Economic Zones.

The following are the companies and the individuals interviewed:

1. **Walden International** -Mr. Martin Lichauco, VP

Established in 1987, Walden International is an established global venture capital firm. They invest in companies which demonstrate an ability to gain a competitive advantage in the markets they serve. They focus the investment on four key industries: communications; electronics/digital
Consumer, software & IT Services, and semiconductors.

2. **ICCP Philippines-Venture Capital**-Mr. Jovy Cruz, MD

It is a leading Philippine investment house with a unique character and orientation. Principle activities include-Mergers and acquisition, Project finance, Loan arrangement, Venture capital access, etc.

3. **IBM Daksh-** Call Center-Mr. Pradeep Agarwal, VP.

It is a fast growing BPO global service provider in Philippines. IBM Daksh provides a comprehensive range of outsourced voice based services as well as back office transactions. IBM Daksh offers services to fortune 500 companies in the following cross industry offering such as banking, insurance, travel, and hospitality ,technology, telecom and retail industries.

The various Cyber Parks which are being developed across the ASEAN and the neighboring countries are:

PHILIPPINES -Cyber Corridor

- The corridor will stretch 600 miles from the city of Baguio in the north of the country to the city of Zamboanga in the south of the country.

- A major center of the corridor, Silicon Gulf, is also being developed which will be based in Davao

MALAYSIA – Multi Media Super Corridor, Cyberjaya High tech city

THAILAND – Knowledge Park, Software

INDIA – Software Technology Parks

Major Findings

Call centers have opened in Bacolod City, Iloilo, Cagayan de Oro and Baguio. Business process outsourcing operations have also sprung up in Legaspi, Tacloban and Pampanga. Medical transcription agent's centers have been established in Dumaguete, Davao, and Naga.

- Automatic recognition of technology and knowledge parks will put Philippines on par with similar sites in Singapore and Malaysia and India.

    - Results in giving option to offshore investors to have ready to move in ICT infrastructure with fiber optic network spreading all across the corridor.
    - Provides a competitive advantage to the regions.
    - Help in creating a pool and development of Human Resource
    - Offers Investment Avenue to Singapore/Malaysia/Philippines.

Conclusion:

From the small, highly specialized market of Singapore to low cost Vietnam, the ASEAN region spans the extremes. Singapore, Malaysia, The Philippines and Thailand are all in the top 10 of the Index, and Indonesia and Vietnam are emerging as low cost contenders. Free movement of highly skilled professionals, increased seats and expenditure on technical education, standard certification and quality standards along with the building of strong infrastructure ground can give the ASEAN region a competitive advantage.The Governments' free trade policies and political stability will play a major role in building a strong threshold in the ASEAN region.

Annex A : PEST Analysis

A scan of the external environment in which the Philippines BPO /Contact centers, operate can be expressed in terms of the following factors:-

Environmental Scan:

POLITICAL FACTORS:

Philippines is a member of the ASEAN and has friendly relationship with its neighbours.The President of the Philippines is the concurrent Chairman of the ASEAN and is spearheading the promotion of ASEAN and Philippines to the Global community.

Bagiuo, Bacolad, Lagayan de Oro, Cebu city, Clark, Dagupan city, Davao City and Iloilo City are being developed as new Cyber cities. PEZA along with the Government support is creating a cyber service corridor .It is the 10 point agenda of President GMA.
(http://en.wikipedia.org/wiki/Philippine_Cyberservices_Corridor)

Politically, the Philippines has been through a rather tumultuous period in the past few years. Now the President's position appears to be stable particularly as the opposition is fragmented and without a unified leader. What is likely is that political unrest might continue, but as in the past it may not impact the business (Ref: Economic outlook of Philippines; By Peter Wallace-internet explorer)

The government has been showing stability and in spite of the coming elections, the Peso has been gaining strength. There does not seem to be any major changes in the political arena because the opposition is disintegrated.

CONCERNS

- Absence of clear policies and strategies to promote competition and ensured innovative and more efficient services at lower cost has discouraged entry of new players and further investment in the sector.
- Relaxation in Visa policy is needed to attract qualified managers from more developed market of BPO.
- Free Trade Zone and Better Air links to be established in between Philippines, India, Singapore, China, Malaysia to encourage easier connectivity and development of competitive market in ASEAN.

ECONOMIC FACTORS:

The Call center industry is an emerging industry in the Philippines. Business process outsourcing is regarded as one of the fastest growing industries in the world. Business process outsourcing in the Philippines became the latest trend in the services sector in the 2000s and is led by demand for offshore call centers. The growth of Call centers continue to be rapid, up from 72 registered in late 2003 when the ASEAN Call Center Review reported the Philippines as the **first rank** in the off shore Call center industry for the ASEAN region, surpassing India

at the second spot. From being an almost unexplored BPO territory in 2000, the Call center industry has grown leaps and bounds.

From an employment base of less than 2,000 seats at the start of the millennium, industry sources reveal that the employment has burgeoned to more than 200,000 seats as of end-2006, a yearly two-fold increase for six consecutive years. Consequently revenues have dramatically soared from only US$350 million in 2001 according to archives of Philippines Information Agency to nearly US$3.0 billion in 2006, a quantum leap of more than seven times.

In 2004, the Philippines already captured 20 percent of the total world market share in Contact center services. The Philippine government estimates the Philippines could capture 50 percent of the total world English-speaking market in 2008. This industry, aside from contributing 12 percent in to the Philippines gross national product, is also the fastest growing provider for Filipino college graduates.. According to industry forecasts, more than a million Filipinos would be employed in the Call center industry, with more than US$12 billion in revenues in the year 2010.

(Ref:http://en.wikipedia.org/wiki/Call_center_industry_in_the_Philippines#Locations)

The Philippine economy is Service Led, Consumer Driven, with a significant and growing overseas income component. Services account for 49.5% of total GNP while personal consumption accounts for 65.3% of total expenditures.

The Philippine economy posted a 5.4% growth for 2006, higher than the 5.0% growth registered in 2005. Global analysts predict that the Philippines will continue its recent economic strides and see the following three catalysts that will propel the economy in the coming years:

- Overseas Filipino Workers' ("OFW) remittances boom
- Beginning of banks lending activity
- Outsourcing industry boom

For immediate reference, the following table shows Philippines GDP growth forecast for the year 2007 by various international agencies:

Philippines GDP Growth Forecasts for FY07	% Growth
Philippine Government's target	5.7 to 6.5
IMF	5.4
World Bank	5.7
ADB	5.3
EIU	5.4
IDEA	4.9 to 5.4
Merrill Lynch	5.8
UBS	5.4
World GDP Growth*	4.9
U.S.*	2.9
Japan*	2.1

*World Economic Outlook, IMF, September 2006

- **OFW remittances boom**: The Philippines is the third largest recipient of remittances in the world, after India and Mexico. There are 8 million Filipinos living abroad and 2.7 Million Filipinos in the US alone. The Bangko Sentral ng Pilipinas ("BSP") said total remittances from Filipino migrant workers may have reached US$13 billion to US$14 billion last year, including those sent through informal channels. It said remittances sent through official channels like banks would have likely reached US$12 billion to US$13 billion in 2006. Remittances from Filipino migrant workers, coupled with robust exports and heavy investment flows, have strengthened the peso against the US dollar.

    - Overseas remittances surged to USD1.3Bn in December (+37%YoY), a historic monthly high, which encouraged investors on the expectation that remittances will continue to drive the economy.

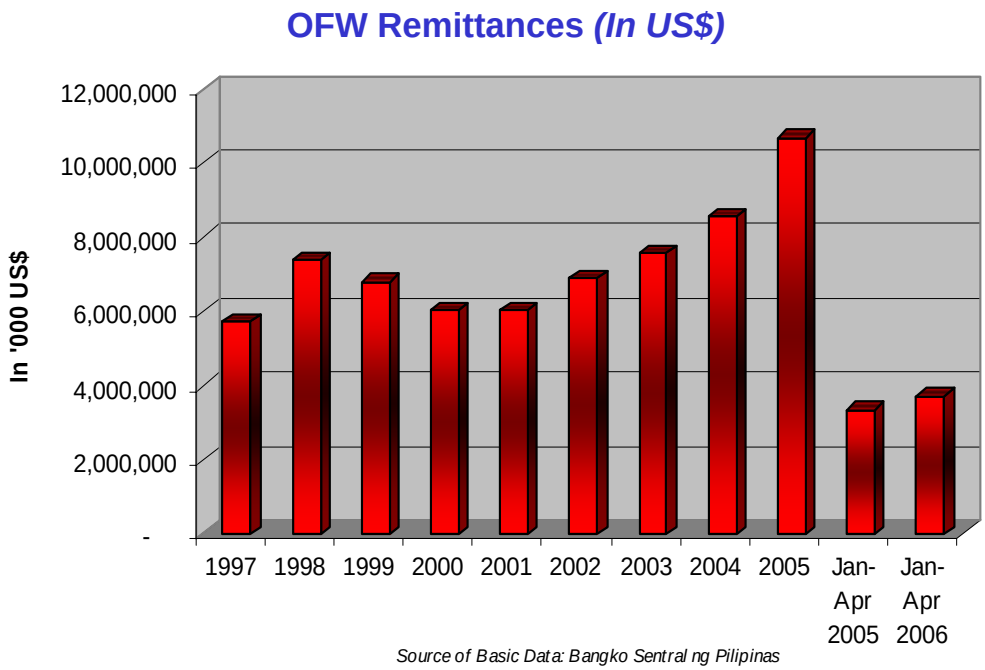
    - Real estate, consumer and retail sectors are the direct beneficiaries of strong OFW remittances resulting in robust performance for these sectors.

Stock Estimates of Overseas Filipinos, as of December 2004

	Permanent	Temporary	Irregular	Total	% of total
World Total	3,187,586	3,599,257	1,296,972	8,083,815	
Africa	318	58,369	17,141	75,828	0.9
Asia	91,901	1,005,609	443,343	1,540,853	19.1
Middle East	2,312	1,449,031	112,750	1,564,093	19.3
Europe	174,387	506,997	143,035	824,419	10.2
Americas	2,689,722	292,892	549,725	3,532,339	43.7
-- Including US	2,271,933	101,249	350,000	2,723,182	33.7
Oceania	228,946	57,357	30,978	317,281	3.9
Seabased Workers		229,002		229,002	

Note: "Permanent" refers to immigrants or legal permanent residents abroad whose stay does not depend on work contracts. "Temporary" are persons whose stay overseas is employment related and who are expected to return at the end of their work contracts. "Irregular" refers to those not properly documented or are without valid residence or work permits or who are overstaying in a foreign country.

Source: POEA, Merrill Lynch calculations



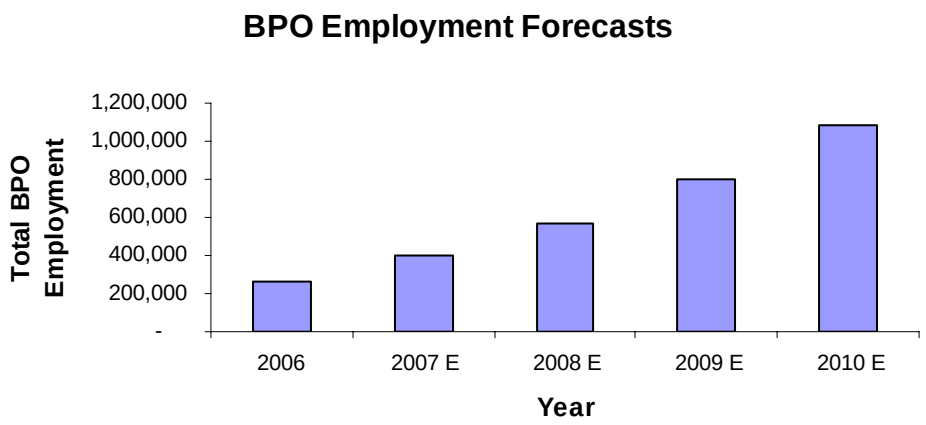
- **Beginning of banks' lending activity:** In December 2006 outstanding loans of commercial banks rose 10.1 percent to PhP1.695 trillion from the same month a year earlier according to BSP reports. Loans grew 6.8 percent year-on-year in November. In its latest client report, Macquarie Research Equities said it expects bank lending in the Philippines to rise 14 percent in 2007- the fastest pace since 1998.

- **BPO and Call Center industry sparking growth:** Given the country's large English-speaking population, high hopes have been placed on the BPO industry for years. Finally it appears to be gaining momentum as the rapid pace of globalization, which has increased outsourcing activity, has spilled over to the Philippines. According to the Business Process Association of the Philippines, about 200 thousand jobs have been created by the Industry. This is expected to grow to 1.08 million jobs by 2010. More than US$2.5 billion in revenues have been created by this industry and this is expected to grow to US$3.5 billion next year to 1.4% of the world BPO market. All this bodes well for the real estate industry in both the residential and the commercial space as sales and leases of new apartments and office space is expected to increase in line with the growth of this industry.

BPO Employment Forecasts

	2006	2007 E	2008 E	2009 E	2010 E
Customer contact	179,200	259,800	337,700	422,100	506,500
Back office	40,500	72,900	123,900	210,600	337,000
Software development	15,600	20,300	26,400	34,300	44,600
Medical transcription	13,800	24,800	42,200	71,700	114,700
Animation	6,800	9,900	13,900	18,800	24,400
Engineering design	4,200	6,700	10,700	16,100	22,500
Other data transcription	4,200	5,900	8,300	10,800	14,000
Legal transcription	700	1,100	1,700	2,400	3,100
Digital content	1,000	2,000	4,000	8,000	16,000
Total workforce	**266,000**	**403,400**	**568,800**	**794,800**	**1,082,800**

Source: NEDA, CICT, BOI, BPAP and its member organizations



- **<u>Decreasing interest rates:</u>** The strengthening of the Peso against the US Dollar (+8% YoY) is despite record low interest rates of 2.88% for benchmark 91 day T-Bill which Philippine banks have traditionally used to price loans. Low rates are also driving the real estate market. New banking products such as 25 year mortgages are also spurring on the property market and helping loan growth for December 2006 increase by 10% YoY according to BSP data.
    - ❖ The benchmark Treasury bill (T-bill) yield fell to a record low at a regular auction on February 19, 2007, prompting the government to sell more securities than planned. The yield on the 91-day T-bill dropped to 2.885 percent from 3.008 percent percent at the Feb. 5 sale. The yield on the 182-day T-bill declined to 3.395 percent from 3.473 percent while the rate on the 364-day T-bill fell to 3.820 percent from 3.9980 pecent. The government sold a combined P4.8 billion of the three bills instead of the P4 billion it planned to sell. Banks and other investors submitted bids totaling P22.1 billion.

- **Overall Business Sentiment:**
    - ❖ **<u>Philippines business confidence at record high levels</u>**: an independent survey by the Grant Thornton International group, polled businessmen across 30 major world economies, and concluded that the Philippines ranks second in terms of

optimism in the economy over the next 12 months. Optimism from Filipinos improved significantly to +88% from last year's 70%.

- **IMF bullish on Philippine growth**: The IMF sees the Philippine economy to expand 5.4% this year, and growing to a higher range of 7% in the medium term on the back of additional reforms "that put public debt on a more sustainable downward path and boost investor confidence and investment".

- **CALPERS**, the largest US pension fund with over $223Bn in assets ranks the Philippines 10th (up from 14th) out of 27 emerging markets that the pension fund tracks.

CONCERNS

- Require higher, sustained growth path to make appreciable progress in the alleviation of poverty given the Philippines' high annual population growth rate and unequal distribution of income.

- More bullish approach to be taken to encourage Free Trade and Open Trade Policies, just like Singapore is doing with US presently.

SOCIAL FACTORS:

There are various social factors which contribute to the rise of call centers in Philippines. The biggest being command on the English Language. The Filipinos have a great affinity towards US culture and Pop music. Filipinos are able to understand and comprehend the US slang and Idioms. As the Philippines was ruled by US for a long time, the infrastructure, legal systems, education and medical system in the Philippines follows the same guidelines as US. This provides a tremendous competitive advantage to the Philippines in BPO sector. The various other factors which contribute are as follows:

- Attraction towards customer service job due to high EQ level. Culturally humble approach.

- Call centre job treated with pride and people are naturally inclined.

- 2.9 million People unemployed.

- Huge gap between rich and poor with high population growth rate. Low skilled labor costs suitable for outsourcing.

- 200,000 employed in BPO sector and 500,000 could get the job in next 4 years.

- More than 1000 accredited CPAs and IT trained professionals available in the market at lower salary cost.

- The expatriates enjoy the lifestyle in the Philippines and prefer Philippines as a living destination.

CONCERNS

- Negative security perception of Philippines.
- Lack of local entrepreneurs and senior managers with BPO Knowledge and interested in BPO industry.
- Lack of highest degree of professionalism demanded by US corporations.

TECHNOLOGICAL FACTORS:

- The Philippines Cyber Service corridor is a plan that is being pursued by the government to create interconnected centers of tech related services that are spread all over the country. The corridor will stretch 600 miles from the city of Baguio in the north, to the city of Zamboanga in the south of the country. (Ref:http://en.wikipedia.org/wiki/Call_center_industry_in_the_Philippines#Locations)
- A major centre of the corridor Silicon gulf is also being constructed. It is based in Davao.
- A fast growing Telecom & IT enabled infrastructure to be set up by 2008 is the 10 point agenda of President GMA.
- Government Broadband Network budgeted at P5.1 billion; ICT Education and distance learning at P11.1 Billion ;Tech assistance project P221 Million.
- Philippines is a preferred country over other outsourcing locations such as India in Infrastructure facilities but has a long way to develop the infrastructure similar to the one prevailing in Singapore.
- Cebu is being developed as the biggest Animation hub.
- P 400 million RP-Canada E-governance projects launched. The project is being funded by CIDA (Canadian information development agency) and should be completed by 2012.
- The Information and Communications Technology division of the BOI reported that the call center industry experienced a growth rate of 70 percent in 2005 making it the most dynamic of all sectors in the Philippine information technology industry.
- CICT promotes computer for all Initiative .This would educate and enhance the usage of ICT.

CONCERNS

- The country's broadband infrastructure and connectivity is a lot to be desied.
- The absence of clear and updated policies and strategies to promote competition and ensure innovative and more efficient services at lower cost has discouraged entry of new players and further investment in the sector.
- PEZA and BPAP should play a more aggressive role in facilitating the initial infrastructure hurdles by new BPO investors.
- The rental value of the office space is shooting up due to upsurge in the demand of no. of seats and office space in Makati, Ortigas, etc. Government needs to make sure that Cyber corridor is ready on time.

Conclusion

The PEST Analysis clearly indicates that Philippines is "**The fashion of the Year**".

It has a stable government which is working towards economic reforms. The Peso is continuously strengthening. Philippines has highly skilled English speaking work force that are inclined towards customer service and available at a lower labor cost. The new Cyber Corridor which is being constructed covering 600 miles should get ready on time and contribute in attracting more global players. This could be possible with a proper investment in ICT infrastructure, Computer education and E-Governance.

There is no time to become complacent, as there are smarter players in the Market like Singapore, India, Mainland China and other developing countries who have seen the success story of India and are slowly trying to catch up.

The "Product" is good .The Philippines just need to market it little better backed by good economic reforms and the government's strong will. There is a strong possibility that Philippines can rise up and take its rightful place among the Tigers in Asia.

References: The Manila bulletin; Google search-Wikpedia; getting ready for the Deluge-Philippines by Richard Mills; Callcentre.net report.

Development of a private sector framework for ASEAN trade negotiations: Health care sector[1]

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1. Introduction

The economic integration of East and Southeast Asia has been an expressed goal of the ASEAN, Japan, China and South Korea. Economic integration in the East Asian region has been influenced by market driven forces as well as institutional drivers (Urata, 2006). The market-driven forces refer to the impact of economic of growth, globalization, improvements in information technology and increasing competition on the rapid expansion of trade, investments and flows of people across the region. It is estimated that intra-regional trade among countries in East and Southeast Asia has risen to over 50 percent of their global trade in 2004 compared to over 40 percent in 1990 (Urata, 2006) The growth in FDI has also been phenomenal. These can be attributed to rapid economic growth in the region. The movement of people through permanent or temporal migration has made the region closer economically.

There are also institutional factors that facilitated the expansion of trade, investment and flows of workers. These factors refer to the role of trade negotiations at multilateral, regional and bilateral levels. Trade in services, for example, has expanded to some extent due to increasing coverage and depth of liberalization as enumerated in the commitments of countries in the General Agreement of Trade in Services, (GATS) at the multilateral trade negotiations. At the regional level, the ASEAN Framework Agreement on Services (AFAS) has served as an institutional driving force in expanding trade in services. Countries, likewise, enter into bilateral preferential agreements to expand trade in services (Tullao & Cortez, 2006).

Because the contributions of regional trading accords like the AFTA and the AFAS have been recognized in enhancing regional cooperation and integration, there is a need to explore the potentials of the ASEAN+ 3 framework towards the establishment of a regional economic community. In particular this paper analyzes how trade in services in the health care sector, one of the identified priority sectors in the ASEAN, can be expanded using ASEAN+3[3] trade negotiation framework.

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[1] Prepared for the Angelo King Institute of Business and Economics, September 2006
[2] Full professor, Economics Department and Assistant professor, Accountancy Department, respectively.
[3] ASEAN plus China, Japan, and South Korea

The health care sector has been identified as one of the priority sectors in the ASEAN because of its potentials for growth and as an important driver for enhancing regional integration. Improvement in economic performance of the economies, longer life expectancy of people in the region and increasing population are the major economic and demographic factors that influence the demand for health services. Aside from these factors, institutional as well as developments in information technology are likewise increasing not only the internal demand for health services but also the global trade in health services.

In addition, the health sector has been chosen as one or the priority sectors for the completion of the MRA and harmonization of technical standards. Although, this sector has a lot of potentials and accompany the growth in income in the region as well in addressing the asymmetry in demography and development, it is one of the most regulated sectors. Because of the high public sector involvement, it highly regulated domestically by "country specific laws and guidelines, and overseen by powerful professional organizations." The regulations provide powerful barriers to entry for foreign professionals (Manning & Sidorenko, 2005).

International trade in health, however, is problematic since countries in the region consider it as a basic right of its citizens and they provide free health services as mandated by their basic law. As a consequence, provision of health services cannot be subject to forces and disciplines of global trade (Arunanondchai and Fink, 2005). Moreover, the countries in the region are faced with a trade-off between promoting equitable and affordable basic health services with minimum quality or creating an environment for an efficient healthcare system beyond the constraints of the resources of the government. The choice in these health alternatives can be influenced by trade in health services by offering opportunities for "cost savings and access to better quality care, but it can also raise challenges in promoting equitable and affordable access" (Arunanondchai and Fink, 2005).

In the light of this backdrop, the following objectives will be pursued in the paper:

1. Evaluate the status of the health care sector within the ASEAN and its competitiveness in the East Asian region.
2. Examine the various trade negotiation and trade facilitation issues by industry and by country in terms of market access, technical barriers, rules of origin and other pertinent issues with special focus on the implementation process and private sector cooperation
3. Examine the flexibilities needed by the industry to effectively adjust to regional integration and liberalization processes
4. Construct a strategic framework and roadmap for ASEAN+3 trade negotiations.

2. Overview of health care sector in the ASEAN

The health care sector is a rapidly growing sector in the world economy with about USD 3 trillion in revenue per year. Because of improving income of individuals in developed countries and the expansion of more affluent middle class segment in developing economies, the demand for health services is increasing rapidly. The provision of this service has extended beyond the territorial boundaries. Increasing cost of medical and health services, the developments in information and communications technology and mobility of people have made the provision of this service extend beyond national territorial boundaries. Medical services have utilized the information highways to provide services. Sophisticated and financial able people have crossed borders to consume medical, health and related services. Health professionals seeking greener pastures have transferred their locations in providing services. Privately run-hospitals extend their services in other territories to provide sophisticated and medical services to discriminating clientele.

International trade in services can involve the transfer of either the producer or consumer across boundaries to provide or consume services or simply the transfer of services without producers and consumers necessarily transferring locations. As such international trade of services can take four following modes of supply: cross-border transactions, consumption abroad, commercial presence and movement of natural persons.

Cross Border Transactions (Mode 1). The service is received by the consumer through the various means of transfer including mail and electronic means without the producer and consumer changing their locations. An example is the provision of telemedicine.

Cross-border transactions in health services have been practiced in the region through the shipment of laboratory samples, diagnosis, clinical consultation via traditional mail channels, and various tele-health services (telepathology, telemedicine, telediagnosis, teleradiology and telepsychiatry) (Chanda, 2002).

Medical transcription has been possible due to developments in information and communications technology (ICT). Outsourcing of data conversion and transcription services are undertaken for several reasons, amongst which is the reduction in labor expense and improvement in the quality of transcription work, absorption by providers of overflow capacity for episodic high-volume periods and increase in turnaround time, this latter being a critical factor especially for billing and claims purposes.

Firms particularly offering medical transcription services may be able to provide consultation on managing medical transcription needs, transcription of dictations of patient's physical examination, surgery and laboratory reports, immediate hot-line services and the education and training of physicians and health workers in dictation techniques. Because of the labor cost in the Philippines and the understanding of the English language and knowledge in medical terms this supply mode has high potentials on competitiveness. The country's medical transcription is a huge industry with the U.S. spending close to USD 13 billion and the Philippines accounting for less than one percent of the value of trade.

Consumption Abroad. The service is received by the consumer by a temporary transfer of the consumer to the territory of the producer. An example is medical tourism. Alternative or traditional forms of medicine and healing have gained popularity in the Philippines. In addition, there are certain operations like eye surgery, dental and cosmetic surgery that the country can exploit. Many Cambodian patients seeking treatment abroad go to Thailand and Singapore. Majority of foreign patients coming to Singapore for treatment come from other ASEAN countries while those going to Thailand are mostly patients from non-ASEAN countries. Vietnam also exports some health services, mainly to neighboring Cambodia.

Commercial Presence. The service is received by the consumer by the transfer of the producer to the territory of the consumer by establishing branches and other forms of commercial presence. An example is the setting up of branches of hospitals in foreign countries.

This supply mode is done through joint ventures of foreign financial and health service providers with local partners that will ensure access to qualified local health personnel and a supply of paying patients. Foreign providers usually invest in health care services through various forms of contracting with local and international health care providers and with partnership with insurance companies.

Foreign commercial presence in medical education or in hospitals may lead to better quality of health care because of increased availability of sophisticated medical technology. At the same time, it may distort the health care market by inducing an internal brain drain. The quality of education of health care in the public sector might suffer due to loss of qualified human resources in the private sector.

The commercial provision of health care via foreign-invested clinics and practices could attract capital and technology. The extent to which governments depends upon how far the national trade policy makes it liberal. Countries like India, Indonesia, Nepal, Sri Lanka, and Thailand have become increasingly open to foreign direct investment. Many joint ventures and alliances have also resulted

to several health care networks and chains (Chanda, 2002). In the ASEAN, Parkway Group Healthcare, the biggest investment group in the healthcare sector in Singapore, has set up joint ventures with hospitals in India, Indonesia, Malaysia, Sri Lanka, and the United Kingdom. The Bumrungrad Hospital in Thailand has entered into management contracts with hospitals in Bangladesh and Myanmar, and has formed a joint venture with a hospital in the Philippines. Bangkok Hospital has established twelve branches in Southeast and South Asia, locating primarily in tourist towns. In Cambodia, Most foreign hospitals are of Chinese origin.

Movement of Natural Persons. The service is received by the consumer by the temporary transfer of a natural person as producer to the territory of the consumer. Example is the migration of doctors, nurses and other professionals abroad.

The ASEAN region hosts two of the world's largest exporters of healthcare workers. The Philippines and Indonesia send large numbers of nurses and midwifes to countries around the world. Short-term flows of health personnel are mainly driven by conscious strategies to promote health services exports, in order to earn foreign exchange and foster cooperation between governments. Many are also driven by wage differentials between countries and better working conditions and living standards (Chanda, 2002).

The movement of health professionals across the region, however, is governed by domestic regulations. In Malaysia, foreign specialists can be employed in private hospitals and in public hospitals with fewer than two specialists, with the approval of Ministry of Health. Private general practitioners are not allowed, but there are foreign medical officers (MOs) in government clinics. A basic medical degree and at least 3 years (usually 5 years) of clinical experience is required. In the Philippines, there are Constitutional and legal prohibitions in the employment of foreign doctors and nurses. In addition, Filipino citizenship is a requirement for the practice of any profession including doctors, nurses, dentists, pharmacists and other health professionals. In Singapore, according to the data from the Singapore Nursing Board, 23 percent of nurses were overseas residents, mainly from the Philippines and several private hospitals report a smaller but significant share of foreign doctors (Manning & Sidorenko, 2005). In Indonesia the health care sector is closed to foreign doctors and nurses although some foreign doctors were recorded as employed mainly for work as administrators and managers in several foreign hospitals and teachers in overseas twinning programs for nurses in 2004.

Despite high levels of regulation, there is a growing trend of flows of health professionals in the region due to responses to demographic and economic asymmetries and responses to the push and pull factors of migration (Stilwell, et al.(2004); Hardill and MacDonald (2000); and (Martineau et al. (2004): in Manning & Sidorenko, 2005). The pool of educated English speaking health

workers is one of the bases of the Philippines' export of medical transcription services to the United States and health professionals in various capitals in Southeast Asia. In Vietnam, the health care sector is closed to foreign health professionals but a limited number of foreign health workers were permitted to enter as part of the FDI in health services. In Indonesia, although foreign doctors and nurses are not permitted to practice their profession in local hospitals, there is an exemption for temporary service provision as senior medical officers or medical specialists in corporations in selected sectors such as in oil, gas and mining.

3. SWOT analysis of health care sector in ASEAN countries

a. Brunei

Strengths

Expenditures on health services are quite substantial. The government spends USD 244 million to provide health services making the per capita health expenditure at USD 336 in 2002, the highest rate in the region. (The Government of Brunei Darussalam Official Website, 2006).

Around 3.5 percent of GDP is spent on health expenditures with huge government subsidy to provide free medical and health care, which is provided via government hospitals, health centers and health clinics throughout the country (Country Health Information Profiles).

The main hospital in the country, Raja Isteri Pengiran Anak Saleha (RIPAS) Hospital, is a B$ 162 million (US$ 97.63 million) investment by the government, is equipped with modern, cutting-edge medical technology (Country Health Information Profiles).

Doctors per 1,000 population is estimated at 1.0056 one of the highest in the region. There are 2.67 nurses per 1,000 population second only to the index of Singapore.

Weaknesses

The weakness of the Brunei Darussalam health care sector is on the apparent over dependence of its citizens on the government in the provision of health services. There is limited private sector participation because health services provision is mainly for domestic and internal demand.

Opportunities

As economic development proceeds, there is an increasing demand for health services. The government needs to secure health professionals from abroad to maintain the quality established in the health index of Brunei Darussalam.

As for its external linkages, Brunei is exploiting the opportunities of forging alliances with educational institutions abroad like Dalhousie University and the University of Calgary from Canada and University of Windsor in Great Britain in the field of medicine and health related sciences.

Threats

Increasing costs in the provision of health and medical care is the pertinent threat to Brunei. Because health and medical care is free and heavily subsidized, this can put a pressure on government expenditures. Even minor ailments that do not need hospital treatment are referred to hospitals causing a heavy traffic of people in health centers due to the heavy expectation on the quality of health care.

b. Cambodia

Strengths

It appears that Cambodia has a strength in spending 12 percent of its GDP on health care. The amount is even larger than its neighboring Vietnam's GDP health care spending. However, other indicators point that Cambodia's health care sector is performing inadequately (Hong & Betancourt 2006).

Weaknesses

Although, health expenditures as a proportion of GDP is quite high and almost one-fifth of the health expenditure is coming from the public sector, it has some dismal health indicators including 0.2 physicians per 1000 population, 0.5 beds per 1,000 population, and a health expenditure per capita at USD 33 estimated in 2003 (Central Asia Human Development Report 2006). Cambodia's infant mortality rate and under-five mortality rate are among the highest in the world.

Access to health services in Cambodia remains very limited particularly access to public health facilities. Corruption aggravated the situation as budget for public health are diverted to other sectors. Provision of health services was banned by the government until the late 1980s (Hong & Betancourt 2006).

Opportunities

Cambodia permits cross-border of hospital services. For commercial presence, foreign ownership and management of private hospitals and clinics is permitted as long as at least one director for technical matters is Cambodian. Foreign firms are allowed to provide dental services through joint ventures with Cambodian legal entities

Foreign direct investment in hospitals or diagnostic centers is likely to improve the delivery of health services, especially for the affluent segments of the population in developing countries.

Threats

Foreign commercial presence could similarly siphon off trained staff from public facilities to the highly paid private hospitals and practices.

c. Indonesia

Strengths

More than 60 percent of total health expenditure in Indonesia is for private health provision.

In most areas of Indonesia, the private sector is the dominant provider of health care and now accounts for more than two-thirds of ambulatory care, more than half of hospital contacts and 30 to 50 percent of all deliveries (compared with only approximately 10% a decade ago) (World Bank 2006).

Weaknesses

The state of telecommunication infrastructure is weak for efficient transfer of data, voice and images for telemedicine to be fully utilized and optimized. Aside from poor telecommunication infrastructure, the concept of telemedicine has not be fully grasped by people in the rural areas

Indonesia's health care sector is still under developed. In 2003, 3.1 percent of GDP is spent on health related expenditures. There doctor to population ratio is 0.10 per 1000 population. Only six hospital beds are available per 1,000 people. Total public health expenditure of in 2003 reach USD 9 billion.

Opportunities

The country is open to foreign health service providers including Singapore, Australia, Canada. Possible cooperation with health care providers from Singapore and Australia on telemedicine and services could be arranged.

Cooperation with Singapore Gleneagles International on the provision of health care services under mode 1 is promising given the dearth of health professionals in the country

There is a prospect of setting up telemedicine network to reduce the cost of health services at the pre-treatment level.

Threats

Given the level of income, the utilization of telemedicine may be quite limited.

d. Laos

Strengths

The number of health care personnel has been increasing since 1975, and in 1990 the ministry reported 1,095 physicians, 3,313 medical assistants, and 8,143 nurses. Most personnel are concentrated in the Vientiane area, where the population per physician ratio (1,400 to one) is more than ten times higher than in the provinces. In 1989 the national ratio was 2.6 physicians per 10,000 persons (Country Studies, Laos 2006).

Weaknesses

According to figures from 1988, less than 5 percent of the total government budget was targeted for health, with the result that the Ministry of Public Health was unable to establish a management and planning system to facilitate the changes envisioned. UNICEF considered the effort to construct a primary health care system to have failed entirely (Country Studies, Laos 2006).

Medical facilities and services in Laos are limited and do not meet Western standards.

Opportunities

While consultation with spirit healers and traditional herbal doctors is prevalent, citizens do not see any contradiction with Western trained medical practitioners.

Threats

Pharmacies are unregulated and their owners unlicensed. As a consequence, misprescription is common for both inappropriate drugs and incorrect dosages. In rural areas, vendors commonly make up small packets of drugs and sell them as single-dose cures for a variety of ailments (Country Studies, Laos 2006).

e. Malaysia

Strengths

Health sector is one of the rapidly growing sectors in the services sector. There is also a growing prominence of the private sector as a result of the privatization program of the government in the health care sector

The government Implemented various initiatives to improve the quality and efficiency of health care programs including the health promotion and prevention programs, restructuring of public hospitals, setting up sub-specialty centers, development of health infrastructure, use of information and multimedia technology, introduction of the National Healthcare Financing Scheme (NHFS), and the Implementation of National Quality Assurance programs.

Weaknesses

For Malaysia's weakness, there are shortages of doctors, nurses and other health professionals.

Opportunities

Malaysia is open to FDI in the health sector. The investments made in the country such as the IBA organization from Australia are other FDIs that helped propel the Malaysian health sector. However, not only does Malaysia depend on foreign companies investing in them, Malaysian health companies are also studying on establishing investments in Bangladesh.

Developments in ICT and its impact on telemedicine and cross border transactions in health services are also seen as opportunities. An Australian company, IBA Health Limited, is an E-Health company that has been able to win the bid to provide one of Malaysia's top teaching hospitals with a Total Hospital Information System (THIS) which will consolidate and strengthen its administrative and health-information management systems.

There is a growing demand from ASEAN to seek medical treatment in Malaysia. Some 100,000 foreign patients seek treatment in Malaysian hospitals. Many of the patients are coming from Indonesia and earning the sector some USD 40 million annually.

Malaysia is promoting health tourism within the region with quality health service at affordable prices

The country has the ability to absorb the technological advances, developments and opportunities from countries like Australia, New Zealand and U.S. to improve the provision of health services and create demand niches.

Although there are no MRAs among ASEAN countries on professional medical and nursing services, discussion has started between the members on developing MRA in nursing, and to enhance recognition of qualifications between Singapore and several countries outside the ASEAN. In the preliminary draft of an MRA on nursing in ASEAN, the decision on recognition of foreign nursing qualifications is left to a nursing board/council in the host

countries, and foreign-trained nurses are required to work with local nurses (ASEAN-ANU, 2005).

Malaysia's middle class is becoming more economically prosperous. This can also increase the demand for medical services in addition to the increasing demand for high quality medical and health services by overseas consumers.

Lastly, Malaysia's promotion of 'My Second Home Program' targets the Middle Eastern Muslims.

Threats

Thailand, Singapore are the major competitors in health tourism

f. Myanmar

Weaknesses

It has poor health sector as indicated by 0.6 beds per 1,000 population, 0.3 physicians per 1000 population. The government spends only 2 percent of the GDP for health expenditures. Around 4 percent of government expenditures is spent on health while almost 85 percent of health expenditures is provided by the private sector. Health expenditure per capita was estimated at USD 86 in 1998. Source: Central Asia Human Development Report 2005

Opportunities

Myanmar is more open to trade in health services as reflected by the presence of foreigners in health sector and most of its foreign hospitals are of Chinese origin.

Bumrungrad Hospital in Thailand has entered into management contracts with hospitals in Myanmar.

Facility in the English language can serve as an opportunity for deploying nurses overseas in the future.

g. Philippines

Strengths

Domestic service providers have lower maintenance costs in the same manner that Filipino medical practitioners have lower professional fees as compared to foreign competition in the event of a liberalized health and medical services.

While advancements in technology are lagging behind, Filipino professionals have the ability to technically develop expertise in laser eye surgery, cosmetic surgery, and dental medicine.

The country now has world-class general and specialized hospitals that can be seen to compete with foreign health and medical service providers.

As for the quality of health professionals, the country has a wealth of competent health professionals in health services, health education and health research. Moreover, Filipino health professionals have the caring attitude towards patients, which is unique in the culture.

In the absence of modern technology, Filipino medical professionals have been creative and resourceful in improvising for quality health service yet they are adaptable to modern technology once made available to them.

The quality of medical schools is also comparable to world standards. Foreign students study medicine in the Philippines for cost and quality reasons. Health colleges and universities are available all over the country. In addition, alternative health services and traditional medical technologies are being integrated with mainstream medical practice.

Weaknesses

The same thing with nurses and teachers, the quality of health professionals is threatened by over migration. The excellent ones get hired in developed countries, while the inexperienced and incompetent are left in the Philippines to train and gain more knowledge and experience. This threatens the health services sector because brain drain might cause further inefficiencies in the sector.

Doctors and other non-nursing health professionals are going back to school to study nursing and explore the opportunities of working abroad. Because of the huge demand for nursing, many of the qualified and well-trained nurses have migrated abroad making it more difficult and costly to train nurses.

The country also lacks specialized technicians, physicians and highly trained health professionals. The proliferation of herbal and other alternative medicines shows the inability of the BFAD to evaluate her-bal medicine.

Because of the huge demand for nursing education, the quality of nursing education has suffered. Many nursing schools have been established as shown by the 100 percent increase in the number of nursing schools in the last 2 years. Many of these schools have limited affiliation with hospitals. Given the number of hospitals and their number is not increasing in the same

rate as nursing schools, clinical and practical exposure of these graduates are very limited.

As for limited resources, although the total health expenditure is increasing, the real value of this has been declining and estimated at Php 434 in 2003. Moreover, the number of hospitals should be increased to increase the hospital beds per 10,000 population. The per capita expenditure is rather low. The share of health expenditure to GNP is below the 5 percent prescribed by WHO.

While provision of health services is left to the private sector, the high cost of establishing hospitals makes the sector unattractive to invest in. These limited resources also resound to lack of resources to conduct research and development; and outdated technology and facilities.

Opportunities

The demographic changes, particularly the ageing of population in developed countries is both an opportunity and threat for the Philippines. It is an opportunity because the Philippines can provide medical and health services under various modes of supply. The most prominent is the movement of natural persons. Although it is also possible that health and medical care can be provided by Philippine health service firms abroad. It is also possible for consumption abroad, or in the case of medical tourism and retirement havens for the Philippines.

High medical and health costs in developed countries lead to opportunities in medical tourism and personalized health care in the Philippines.

Rapid developments in ICT can be explored for certain aspects so medical and health care can be performed or provided using the Internet or telecommunications.

The increased awareness and acceptance to use alternative therapies can be exploited by the Philippines in marketing traditional medicines and therapy.

Deregulation in foreign markets is another opportunity where mutual recognition of nurses, doctors and other health professionals could be tapped.

Threats

The egress of health professionals as well as shift of other health professionals into nursing is threatening the viability of the health sector in providing adequate and inexpensive health and medical care to an increasing population. Moreover, because of the great demand for nurses, the best and

experienced nurses including the precious nursing instructors are the ones easily recruited for employment abroad.

There is also an insufficiency in health infrastructure. As indicated by the bed capacity per 10,000 population, it declined from a high of 18.2 in 1980 to 10.4 in 2004. This is an indicator that the sector is not increasing the number of hospitals and their number of beds to an increasing population. Moreover, of the 1,723 hospitals, 192 are situated in NCR representing 11 percent.

Health insurance in the Philippines is non-portable. This means that health services bought in the other countries could not be availed of in the Philippines, thus preventing trade in services.

In the absence of mutual recognition agreements between countries, professionals would be subject to further examinations and tests to ensure their qualification and competence to practice in the host country. Nurses for the meantime serve as nursing aides until they pass a federal or national examination that will allow them to fully practice their profession.

Alternative medicine in the country appears to go underground as giant pharmaceutical companies and branded medicines dominate the market. In the first place, generic medicines are not as socially acceptable and preferred by medical practitioners over branded ones. In the absence of support, medical care in the country is expensive.

The establishment of a hospital is very costly even if it is passed on to the responsibility of local government units. Government hospitals have been suffering from the lack of supply and experienced doctors.

The regulation and complexity of health services could serve as a threat to existing and potential market players. Regulations could serve as a hindering factors to the growth and development of this service sector.

h. Singapore

Strengths

Singapore is one of the best health services provider in Asia. Provision of health services is comparable with U.S. and Great Britain. It is considered as Asia' Health Hub with the quality of health infrastructure and health professionals.

Singapore has a provision of 8,279 hospital beds for acute care from a total of 11,840 hospital beds in 2004. Private sector participation in the provision of health is significant. More than 50 percent of the hospitals are privately-owned although only 25 percent of the number of hospital beds is in

private hospitals. Of the 6,492 doctors, 44 percent are in the private sector. More than 65 percent of dentists are in the private sector and 25 percent of the nurses are in the private sector and 56 percent of the pharmacists.

There are 1.5 doctors, 0.3 dentists, 4.6 nurses and 0.3 pharmacists per 1000 population. In 2004, the government allocated 5.9 percent of its budget to health expenditures or SD 491 per person.

Singapore has a number of MRA in various areas in health services with various groups of countries. It also has well developed trade in services at various modes, mode 1 (telehealth), mode 2 (huge foreign patients coming to Singapore for treatment), mode 3 (chain of hospitals like Gleneagles International) and mode 4 (recruitment of foreign medical scientist).

Weaknesses

As for the weaknesses of Singapore's health care sector, the cost of treatment is quite prohibitive.

Their health sector lacks regulatory framework dealing with malpractice liability, confidentiality, privacy, recognition, lack of insurance coverage and cross border arrangements.

Singapore has to recruit foreign doctors and nurses in recent years because local training institutions have not been able to meet demand.

Opportunities

Current foreign patients treated in Singapore reached the 200,000 market in recent years and it is expected to reach 1 million per year by 2012.

Approximately 40 percent of annual revenues from health services are derived from foreign patients.

Developments in ICT allows the expansion of the use of Telehealth, an on-line medical services that allows medical images, x-rays, and other medical diagnostic tests to be digitized and transmitted all around Asia using the computer. Estimated demand for telehealth is estimated at S$ 1.25 trillion.

Regional disparities in the state of health care sector will allow the utilization of Singapore's on-line educational data bases and training for health professionals in other countries in the ASEAN.

Foreign patients come from developed (Malaysia, Japan, U.S.) and developing countries (Myanmar, Bangladesh). Close to 15 percent of the

foreign patients come to Singapore for major treatments like cancer and heart problems.

With per capita income similar with many developed countries, the demand for health services will rapidly increase given the high income elasticity demand for health services.

Lastly, there is an increasing demand for high quality medical and health services by overseas consumers

Threats

With the improvement in ICT, other countries in the region may be cost efficient in the provision of Telehealth services.

With an aging population and low population growth rate, the internal demand for health services may increase faster than the ability to provide heath infrastructure and health professionals.

An aging population get put a strain on the capability of the government to provide public health services

i. Thailand

Strengths

Health expenditure in Thailand is 6 percent of GDP (Hiranprueck 2004) and per capita public expenditure is estimated at USD 63 fourth highest in the region. Public health expenditure has been increasing from 3.8 percent in 1980 to 6 percent in 2002.

Low tariff rates on imported medical equipment makes Thai hospitals acquire new and technologically advanced medical equipment in the provision of health care.

The country is competitive in by-pass operations and in the daily rate of hospital room cost

There are 11 medical schools producing 1,300-1500 medical professionals annually.

The provision of health and medical services that cater to foreigners are competitive by regional standards. Instead of paying USD 39,000 for a hip replacement, a person can pay the equivalent of USD 3,000 in Thailand (International Medical Tourism, 2005). This can be attributed to the lower labor costs and the observed price differences (Arunanondchai & Fink, 2005).

Weaknesses

The doctor per 1000 population ratio estimated at 0.03 and 0.16 nurses per 1,000 people. Expansion of health care sector will demand more health professionals. If schools are not as fast in producing health professionals, the Thai government may be willing to accept foreign health professionals. Very few overseas professionals, however, work in the health care industry in Thailand.

There is difficulty in deploying health professionals overseas because of the language barrier. The Thai health care sector requires language proficiency for practice in the health profession

Opportunities

The volume and value of consumption abroad in medical and health services is quite significant in Thailand amounting to USD 482 million and around 603, 000 foreign patients from Japan and the ASEAN.

The medical tour companies that serve Thailand put emphasis on quality care and luxury accommodations. Thailand offers modern medical services to medical tourists (International Medical Tourism, 2005). Medical tourism has given Thailand additional revenue of 20 billion baht or US $482 million in 2005 (Arunanondchai & Fink, 2005).

Bumungrad Hospital in Thailand has entered into management contracts with several hospitals in Myanmar and Bangladesh, and has formed a joint venture with a hospital in the Philippines. Bangkok hospital has established twelve branches in South and Southeast Asia, which are generally located in tourist areas (Arunanondchai & Fink, 2005).

Promotion of the government of the Medical Hub in Asia is seen as another significant opportunity. The country leads in the number of overseas patients treated in the ASEAN region.

Threats

Competition from Singapore and Malaysia is seen as the significant threat.

j. Vietnam

Strengths

Vietnam is one of ASEAN's low level income countries. However, it exports some health services, mainly to its neighbor Cambodia. Nonetheless, Cambodian patients who seek treatment abroad choose the reputable hospitals in Thailand and Singapore. Several private hospitals in Cambodia

make a business of facilitating treatment in foreign hospitals. Similar services are also provided by independent agents at Cambodia's borders. [Arunanondchai, 2005].

Vietnam's health indicators are better than would be expected for a country at its development level, and the country continues to improve at rates that equal or surpass those in most neighboring countries (Adams 2005).

New policy tools have been developed by the government to include including user fees, health insurance and health-care funds for the poor. These tools all focus on the financing of health, but still failed to merge into a coherent health financing system. Therefore, a strong private sector emerged to provide health care in Vietnam (Adams 2005).

Vietnam spends about 5-6 percent GDP on health care (both public and private expenditure), twice as much as its neighbor Lao PDR, but half as much as Cambodia (Adams 2005).

Weaknesses

Health care has been controlled by the government for the past 20 years.

Opportunities

Threats

Summary analysis

Malaysia, Singapore and Thailand are the top exporters of health care services in the ASEAN region. Table 1 illustrates the number of patients, their ASEAN countries of origin and the total value of export revenues in million U.S. dollars.

Table 1. Export of health tourism services

	Export revenues	No. of patients	Origin of patients
Malaysia	USD 40 million	> 100,000	60% from Indonesia; 10% from other ASEAN countries
Singapore	USD 420 million	210,000	45% from Indonesia; 20% from Malaysia; 3% from other ASEAN countries
Thailand	USD 482 million	470,000 (2001) 630,000 (2002)	42% from the Far East (mostly Japan); 7% from ASEAN countries

Sources: Singapore Tourism Board; Abidin, Alavi, and Kamaruddin (2005); Arunanondchai (2005).

Singapore has a line up of healthcare services from health screening to organ transplants. Foreign patients also come to Singapore for a broad range of specialist care including Cardiology, Gynaecology, Orthopaedic Surgery, Oncology, Otorhinolaryngology, Urology, Neurosurgery and Opthalmology, besides General Surgery and General Medicine. Singapore's medical tourism sector was developed and being promoted by three key agencies: the Economic Development Board, the Singapore Tourism Board and the International Enterprise Singapore.

Statistics in 2003 showed that more than 200,000 foreigners have sought medical care in Singapore. This sector aims to serve one million foreign patients a year by 2012 and generate USD 3 billion in revenues and create at least 13,000 jobs in the health industry.

Thailand's health tourism sector has shown dramatic increases since it launched the amazing Thailand campaign in 1997. Around 470,000 patients in 2001 were accommodated and the number increased to 630,000 in 2002.

Table 2. Price comparisons, 2001

	Coronary by-pass graft surgery (USD)	Single private hospital room
Malaysia	6,315	52
Singapore	10,417	229
Thailand	7,894	55
United Kingdom	19,700	n/a
United States	23,938	1,351

Price comparisons on coronary bypass graft surgery and single private hospital room for the year 2001 are presented in Table 2. Clearly, Thailand and Malaysia are in the same price range, while Singapore is still more affordable than its U.K. and U.S. counterparts.

Table 3 summarizes health indicators of the ASEAN countries as to public health expenditure, private health expenditure, health expenditure per capita, number of physicians etc.

Table 3. ASEAN Comparative ASEAN Health Service Indicators

Indicators	Year/s	Singapore	Brunei	Malaysia	Thailand	Philippines
Public health expenditure (% of GDP)	2002	1.3	2.7	2	3.1	1.1
Private health expenditure % of GDP	2002	3	0.8	1.8	1.3	1.8
Health expenditure per capita (PPP US$	2002	1,105	653	349	321	153
One-year-olds fully immunized against tuberculosis %	2003	97	99	99	99	91
Births attended by skilled health personnel (%)	1995-2003	100	99	97	99	60

Physicians (per 100,000 people)	1990-2004	140	101	70	30	116

Table 3. continued

Indicators	Year/s	Viet Nam	Indonesia	Myanmar	Cambodia	Lao PDR
Public health expenditure (% of GDP)	2002	1.5	1.2	0.4	2.1	1.5
Private health expenditure % of GDP	2002	3.7	2	1.8	9.9	1.4
Health expenditure per capita (PPP US$	2002	148	110	30	192	49
One-year-olds fully immunized against tuberculosis %	2003	98	82	79	76	65
Births attended by skilled health personnel (%)	1995-2003	85	68	56	32	19
Physicians (per 100,000 people)	1990-2004	53	16	30	16	59

Source: Central Asia Human Development Report 2005

4. Trade negotiation issues on health care sector

Factors to be considered by industry leaders/private sector on the ASEAN Integration Framework

The health care sector can be seen as an avenue for regional integration. It can be viewed that the health industry can be expanded through trade in health services in ASEAN with Japan, China, and Korea.

In the light of domestic regulations, what are the potentials of enhancing trade in health services under various modes of supply in the region? Using the GATS modes of supply are the following opportunities:

Mode I or Cross Border Transactions
Telemedicine, medical transcriptions, tele-radiology, tele-pathology, etc.

Mode 2 or Consumption Abroad
Health tourism, alternative medicine, medical treatment, medical education

Mode 3 or Commercial Presence
Establishment of foreign hospitals, establishment of foreign medical schools

Mode 4 or Movement of Natural Persons

Movement of doctors, nurses and other health professionals in the region

Secondly the following market access restrictions, regulatory measures and national treatment limitations should be addressed.

Market Access Limitations

Mode I or Cross Border Transactions
Limitations on foreign-service providers in telemedicine

Mode 2 or Consumption Abroad
Limitations on the entry of foreign patients seeking treatment in the country
Limitations on the type of ailments allowed to be treated in the country
Limitations on the allowable period of stay of patients in the country
Limitations on the entry of foreign students in health related courses

Mode 3 or Commercial Presence
Limitations on the number, type of hospitals, health clinics, and home for the aged that can be established by foreigners
Limitations on foreign equity participation in the establishment of hospitals, medical and nursing schools

Mode 4 or Movement of Natural Persons
Limitations on the number of foreign health professionals allowed to practice in the country

Regulatory Measures

Mode I or Cross Border Transactions
Regulatory measures governing the conduct of telemedicine, tele-radiology, tele-pathology and medical transcriptions

Mode 2 or Consumption Abroad
Regulations of alternative forms of medicine
International accreditation of hospitals to facilitate the portability of health insurance of foreign patients

Mode 3 or Commercial Presence
Regulations in the establishment, management and operation of hospitals, health spas and clinics for alternative medicine

Regulations in the establishment, management and operation of medical schools and nursing schools

Mode 4 or Movement of Natural Persons
Permission of foreign heath professionals to practice in the country
Mechanisms of recognition of training, licensing and experience of foreign health professionals

National Treatment Limitations

Mode I or Cross Border Transactions
Differentiated treatment of foreigners in the granting of incentives for telemedicine and other health-related cross border transactions

Mode 2 or Consumption Abroad
Differential pricing of health and medical services for citizens and foreign patients
Differential treatment of foreigners in the granting of government subsidy for the provision of medical services
Differentiated price system in charging tuition for foreign students in health related courses

Mode 3 or Commercial Presence
Provision of government subsidies and incentives to private hospitals
Extent of government subsidies given to foreign-owned or foreign-controlled hospitals
Provision of government support to private medical and nursing schools
Extent of government support to foreign-owned or foreign-controlled medical schools and nursing schools

Mode 4 or Movement of Natural Persons
Coverage of practice of foreign medical and health services
Differentiated treatment of foreigners in health and medical practice

The recommendations to strengthen ASEAN integration with respect to market access, competitiveness. industry upgrading and trade facilitation are the following:

Ways of addressing market access limitations in various modes of supply

Mode I or Cross Border Transactions
Openness to the liberalization of cross border transactions in health and medical related activities

Mode 2 or Consumption Abroad
Lifting the restrictions on the number and duration of stay of foreigners seeking medical treatment in the country
Lifting the limitations on the kind of ailments that foreign patients can seek medical treatment in the country
Lifting the limitations on the number of foreign students allowed to enter and study in health related programs

Mode 3 or Commercial Presence
Reducing or lifting the limitations on the number, and type of hospitals, health clinics, and home for the aged that can be established by foreigners
Reducing or lifting the limitations on foreign equity participation in the establishment of hospitals, medical and nursing schools

Mode 4 or Movement of Natural Persons
Reducing or lifting the restrictions on the number of foreign health professionals allowed to practice in the country
Measures taken in the country to lift these limitations

Ways of improving competitiveness and upgrading the industry

Mode I or Cross Border Transactions
Improve country's telecommunications infrastructure to enhance the cross border trade in health and medical services
Availability of trained human resources to carry out cross border trade in health and medical services
Improve the English language competency of country's graduates

Mode 2 or Consumption Abroad
International accreditation of hospitals to facilitate the portability of health insurance of foreign patients
Increase the number of accredited hospitals
International accreditation of medical and nursing schools
Improvement of quality and standards of medical and nursing schools

Mode 3 or Commercial Presence
Create an environment conducive to foreign investment in health and medical services
Availability of qualified health and medical professionals to attract foreign capital in the field of health services and medical and nursing education

Mode 4 or Movement of Natural Persons
Attractive compensation package for health and medical professionals to attract foreign health and medical professionals to practice in the country

Ways of improving trade facilitation in health services

Mode I or Cross Border Transactions
Ease in the release the imported computers and telecommunications equipment in the country's customs bureau

Mode 2 or Consumption Abroad
Make immigration policies less restrictive in the entry of students, patients, and tourists
Measures undertaken to address portability of foreign health insurance in the country

Mode 3 or Commercial Presence
Assist hospitals in getting international accreditation

Mode 4 or Movement of Natural Persons
Establish mutual recognition arrangements to facilitate the movement of natural persons in health services
Participation in the discussions on the establishment of a mutual recognition arrangement (MRA) in the health sector in the ASEAN

Suggested strategy for trade negotiations with Japan, China and Korea

How can ASEAN exploit the demographic asymmetry among ASEAN and East Asian nations to enhance East Asian integration via health and medical services?

Push for the opening of the health sector in Japan and South Korea.

- Conduct language and cultural training programs for ASEAN doctors, nurses and other health professionals to facilitate the entry to Japan and Korea
- Promote health tourism
- Establish retirement homes in ASEAN countries
- Allow the temporary movement of health professionals in countries with shortages of health professionals

What can ASEAN get from the well-developed alternative medicine of China and the sophisticated Western-type medicine available in Singapore, Japan and

South Korea to push for the integration of East Asia via health and medical services?

Development of programs in alternative medicine

- International accreditation of curricular programs in medicine, nursing and other health professions
- What can ASEAN do in exploiting the regional health tourism route in enhancing regional economic integration?

Establish an ASEAN+3 wide framework for portability of medical and health insurance

- More liberal immigration policies pertaining to the stay of patients seeking treatment overseas
- Development of ASEAN+3 visa for health tourism and temporary movement of health professionals in the region
- Accreditation of hospital and medical centers
- Promote ASEAN+3 as haven for sophisticated type medical treatment and exotic alternative medicine
- Development of rules of rules on the privacy and confidentiality of patient

How can ASEAN+ 3 proceed in the establishment of a regional MRA for medical and health professionals?

Training and transfer of skills towards the harmonization of standards in the practice of various health professions and in medical and health education towards the establishment of MRA in health

- Assist countries in the development of regulatory boards in health professions
- Facilitate the accreditation of hospitals and medical and nursing schools
- Development of a regulatory framework for alternative medicine

What technical assistance measures can be extended by developed countries in the region to facilitate trade in health services?

- Assist developing countries improve their medical and nursing curricular programs to meet international standards
- Language training for foreign health professionals seeking employment overseas or in the region.

5. Highlights of the Technical Workshop on November 3, 2006

Variability of Professional Fees

One of the weaknesses of the Philippine medical sector in exploiting the opportunities in medical tourism in the region is the variability of professional fees charged by doctors. As self-employed professionals with affiliation with hospitals

doctors are able to segment their market. As a consequence, they practice price discrimination in charging professional fees based on the capacity to pay of their patients.

If the range of price variability is very wide, it can make the provision of health services in the country uncompetitive relative to the other countries in the region where professional fees are known and fixed. In addition, medical insurance requires that professional fees of doctors should be established before hand. If they are not stated and have wide variation, health and medical insurance firms can consider it as a factor for not accrediting the doctor and consequently the hospital leading to the non-portability of medical insurance. Moreover, well known medical doctors may not want to be accredited by health insurance since they have to reveal their professional fees. This may weaken their ability to segment the market and discriminate in charging professional fees.

Thus, it was recommended that there is a need for the PCCI to engage hospital administrators and medical practitioners in a discussion for them to appreciate the benefits of expanding regional trade in medical services. The standardization of medical professional fees can be discussed in these engagements.

Framework for trade negotiation

The framework for trade negotiation in the health and medical sector in the region should be based on existing differences in the regulatory frameworks governing the health sectors in various ASEAN countries. Health and medical sector is a highly regulated sector in many countries since it is considered a basic right sometimes enshrined the fundamental law of the country. Because of this, many citizens and to some extent policy makers in the several countries view health as a non-tradable service that should not be subjected to global market forces. But because of limited public funds for medical and health services, on the one hand, and the increasing demand for efficient health care systems in many countries, on the other hand, trade in health services becomes very crucial in offering access to better quality of health care.

However, because of the differences in domestic regulation there is a need to standardize these regulatory frameworks to allow the greater trade in services within the region. In particular, there is a need to liberalize the limitations on market access, national treatment and domestic regulation to make the health sector market friendly to domestic and foreign consumers and suppliers within the region.

Basis of intra-regional trade in health services

In expanding trade in health services with the region, the basis of trade will be anchored on the relative strengths of the country in a specific field in the

medical and health sector. In order to attain this, the ASEAN as a regional institution should push for policies that would promote the role of market forces in enhancing intra-regional trade in health and medical services. In addition, technical assistance should be extended to other member countries to improve their environment in facilitating market friendly policies.

Best practices in enhancing regional trade in health services

Some best practices in the health and medical services can likewise be promoted that can make the region competitive in the medical and health care sector including the following:

- Hasten the international accreditation of hospitals by addressing the limitations of hospitals through technical assistance
- Expand intra-ASEAN trade based on the relative strengths of the country
- Work towards the portability of health and medical insurance
- Harmonization of pharmaceutical products
- The regional competitiveness in health and medical sector can also be addressed by making medicine and pharmaceutical products competitive.

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Development of a private sector framework for ASEAN trade negotiations: Health care sector

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Introduction

- Economic integration of East and Southeast Asia
- Institutional factors that facilitate trade
- AFTA, AFAS, ASEAN+3
- Health care sector has been identified as one of the priority sectors in the ASEAN
- Problems with international trade in health services

Objectives

- Evaluate the status of the health care sector within the ASEAN and its competitiveness in the East Asian region.
- Examine the various trade negotiation and trade facilitation issues by industry and by country in terms of market access, technical barriers, rules of origin and other pertinent issues with special focus on the implementation process and private sector cooperation
- Examine the flexibilities needed by the industry to effectively adjust to regional integration and liberalization processes
- Construct a strategic framework and roadmap for ASEAN+3 trade negotiations.

Overview of healthcare in the ASEAN

- USD 3 trillion in revenue per year
- International trade in services can involve the transfer of either the producer or consumer across boundaries
- Mode 1 – cross border transactions
- Mode 2 – consumption abroad
- Mode 3 – commercial presence
- Mode 4 – movement of natural persons

SWOT analysis of the healthcare sector of ASEAN countries

Summary Analysis

- Malaysia, Singapore and Thailand are the top exporters of health care services in the ASEAN region.

Table 1. Export of health tourism services

	Export revenues	No. of patients	Origin of patients
Malaysia	USD 40 million	> 100,000	60% from Indonesia; 10% from other ASEAN countries
Singapore	USD 420 million	210,000	45% from Indonesia; 20% from Malaysia; 3% from other ASEAN countries
Thailand	USD 482 million	470,000 (2001) 630,000 (2002)	42% from the Far East (mostly Japan); 7% from ASEAN countries

Sources: Singapore Tourism Board; Abidin, Alavi, and Kamaruddin (2005); Arunanondchai (2005).

Summary Analysis

Strengths

- Increasing health expenditures in some countries
- Increasing private sector participation in the health sector
- Availability of well-trained health professionals
- Availability of medical services comparable with global standards

Summary Analysis

Weaknesses

- Health sector is still underdeveloped in poor countries
- Shortages in health professionals in some countries
- Over-migration of health professionals threatens the provision of health services

Summary Analysis

Opportunities

- Rapid economic growth in the region
- Aging population in Northeast Asia
- Asymmetries in demography, economic development and labor market
- Well-developed alternative medicine in Northeast Asia

Summary Analysis

Threats

- Increasing cost in the provision of health
- Variability in the regulatory framework on health services across the region
- Non-portability of medical and health insurance
- Limited hospitals with international accreditation
- Variability of prices and quality of pharmaceutical products

Trade Negotiation Issues

- The health care sector can be seen as an avenue for regional integration. It can be viewed that the health industry can be expanded through trade in health services in ASEAN with Japan, China, and Korea.

Trade Negotiation Issues

- OPPORTUNITIES

Mode I or Cross Border Transactions - Telemedicine, medical transcriptions, tele-radiology, tele-pathology, etc.

Mode 2 or Consumption Abroad - Health tourism, alternative medicine, medical treatment, medical education

Mode 3 or Commercial Presence - Establishment of foreign hospitals, establishment of foreign medical schools

Mode 4 or Movement of Natural Persons - Movement of doctors, nurses and other health professionals in the region

Trade Negotiation Issues

- MARKET ACCESS LIMITATIONS

Mode I or Cross Border Transactions

Limitations on foreign-service providers in telemedicine

Mode 2 or Consumption Abroad

Limitations on the entry of foreign patients seeking treatment in the country

Limitations on the type of ailments allowed to be treated in the country

Limitations on the allowable period of stay of patients in the country

Limitations on the entry of foreign students in health related courses

Trade Negotiation Issues

- MARKET ACCESS LIMITATIONS

Mode 3 or Commercial Presence

Limitations on the number, type of hospitals, health clinics, and home for the aged that can be established by foreigners

Limitations on foreign equity participation in the establishment of hospitals, medical and nursing schools

Mode 4 or Movement of Natural Persons

Limitations on the number of foreign health professionals allowed to practice in the country

Trade Negotiation Issues

- REGULATORY MEASURES

Mode I or Cross Border Transactions

Regulatory measures governing the conduct of telemedicine, tele-radiology, tele-pathology and medical transcriptions

Mode 2 or Consumption Abroad

Regulations on alternative forms of medicine

International accreditation of hospitals accredited to facilitate the portability of health insurance of foreign patients

Trade Negotiation Issues

- REGULATORY MEASURES

Mode 3 or Commercial Presence

Regulations on the establishment, management and operation of hospitals, health spas and clinics for alternative medicine

Regulations on the establishment, management and operation of medical schools and nursing schools

Mode 4 or Movement of Natural Persons

Permission of foreign heath professionals to practice in the country

Mechanisms of recognition of training, licensing and experience of foreign health professionals

Trade Negotiation Issues

- NATIONAL TREATMENT LIMITATIONS

Mode I or Cross Border Transactions

Differentiated treatment of foreigners in the granting of incentives for telemedicine and other health-related cross border transactions

Mode 2 or Consumption Abroad

Differential pricing of health and medical services for citizens and foreign patients

Differential treatment of foreigners in the granting of government subsidy for the provision of medical services

Differentiated price system in charging tuition for foreign students in health related courses

Trade Negotiation Issues

- NATIONAL TREATMENT LIMITATIONS

Mode 3 or Commercial Presence

Provision of government subsidies and incentives to private hospitals

Extent of government subsidies given to foreign-owned or foreign-controlled hospitals

Provision of government support to private medical and nursing schools

Extent of government support to foreign-owned or foreign-controlled medical schools and nursing schools

Mode 4 or Movement of Natural Persons

Coverage of practice of foreign medical and health services

Differentiated treatment of foreigners in health and medical practice

Trade Negotiation Issues

- WAYS OF ADDRESSING MARKET ACCESS LIMITATIONS IN VARIOUS MODES OF SUPPLY

Mode I or Cross Border Transactions

Openness to the liberalization of cross border transactions in health and medical related activities

Mode 2 or Consumption Abroad

Lifting the restrictions on the number and duration of stay of foreigners seeking medical treatment in the country

Lifting the limitations on the kind of ailments that foreign patients can seek medical treatment in the country

Lifting the limitations on the number of foreign students allowed to enter and study in health related programs

Trade Negotiation Issues

- WAYS OF ADDRESSING MARKET ACCESS LIMITATIONS IN VARIOUS MODES OF SUPPLY

Mode 3 or Commercial Presence

Reducing or lifting the limitations on the number, and type of hospitals, health clinics, and home for the aged that can be established by foreigners

Reducing or lifting the limitations on foreign equity participation in the establishment of hospitals, medical and nursing schools

Mode 4 or Movement of Natural Persons

Reducing or lifting the restrictions on the number of foreign health professionals allowed to practice in the

Measures taken in the country to lift these limitations

Trade Negotiation Issues

- WAYS OF IMPROVING COMPETITIVENESS AND UPGRADING THE INDUSTRY

Mode I or Cross Border Transactions

Improve country's telecommunications infrastructure to enhance the cross border trade in health and medical services

Availability of trained human resources to carry out cross border trade in health and medical services

Improve the English language competency of country's graduates

Mode 2 or Consumption Abroad

International accreditation of hospitals to facilitate the portability of health insurance of foreign patients

Increase the number of accredited hospitals

International accreditation of medical and nursing schools

Improvement of quality and standards of medical and nursing schools

Trade Negotiation Issues

- WAYS OF IMPROVING COMPETITIVENESS AND UPGRADING THE INDUSTRY

Mode 3 or Commercial Presence

Create an environment conducive to foreign investment in health and medical services

Availability of qualified health and medical professionals to attract foreign capital in the field of health services and medical and nursing education

Mode 4 or Movement of Natural Persons

Attractive compensation package for health and medical professionals to attract foreign health and medical professionals to practice in the country

Trade Negotiation Issues

- WAYS OF IMPROVING TRADE FACILITATION IN HEALTH SERVICES

Mode I or Cross Border Transactions

Ease in the release the imported computers and telecommunications equipment in the country's customs bureau

Mode 2 or Consumption Abroad

Make immigration policies less restrictive in the entry of students, patients, and tourists

Measures undertaken to address portability of foreign health insurance in your country

Trade Negotiation Issues

- WAYS OF IMPROVING TRADE FACILITATION IN HEALTH SERVICES

Mode 3 or Commercial Presence

Assist hospitals in getting international accreditation

Mode 4 or Movement of Natural Persons

Establish mutual recognition arrangements to facilitate the movement of natural persons in health services

Participation in the discussions on the establishment of a mutual recognition arrangement (MRA) in the health sector in the ASEAN

Trade Negotiation Issues

- SUGGESTED STRATEGY FOR TRADE NEGOTIATIONS WITH JAPAN, CHINA AND KOREA
  - Push for the opening of the health sector in Japan and South Korea.
  - Conduct language and cultural training programs for ASEAN doctors, nurses and other health professionals to facilitate the entry to Japan and Korea
  - Promote health tourism
  - Establish retirement homes in ASEAN countries
  - Allow the temporary movement of health professionals in countries with shortages of health professionals

Trade Negotiation Issues

- DEVELOPMENT OF PROGRAMS IN ALTERNATIVE MEDICINE
  - International accreditation of curricular programs in medicine, nursing and other health professions
  - What can ASEAN do in exploiting the regional health tourism route in enhancing regional economic integration?

Trade Negotiation Issues

- ESTABLISH AN ASEAN+3 WIDE FRAMEWORK FOR PORTABILITY OF MEDICAL AND HEALTH INSURANCE
  - More liberal immigration policies pertaining to the stay of patients seeking treatment overseas
  - Development of ASEAN+3 visa for health tourism and temporary movement of health professionals in the region
  - Accreditation of hospital and medical centers
  - Promote ASEAN+3 as haven for sophisticated type medical treatment and exotic alternative medicine
  - Development of rules of rules on the privacy and confidentiality of patient

Trade Negotiation Issues

- TRAINING AND TRANSFER OF SKILLS TOWARDS THE HARMONIZATION OF STANDARDS IN THE PRACTICE OF VARIOUS HEALTH PROFESSIONS AND IN MEDICAL AND HEALTH EDUCATION TOWARDS THE ESTABLISHMENT OF MRA IN HEALTH
  - Assist countries in the development of regulatory boards in health professions
  - Facilitate the accreditation of hospitals and medical and nursing schools
  - Development of a regulatory framework for alternative medicine

Trade Negotiation Issues

- WHAT TECHNICAL ASSISTANCE MEASURES CAN BE EXTENDED BY DEVELOPED COUNTRIES IN THE REGION TO FACILITATE TRADE IN HEALTH SERVICES?
  - Assist developing countries improve their medical and nursing curricular programs to meet international standards
  - Language training for foreign health professionals seeking employment overseas or in the region.

Highlights of Technical Workshop

- Variability of Professional Fees
  - Weakness of RP medical sector in exploiting medical tourism
  - Can make RP medical services uncompetitive
  - Basis for non-accreditation of doctors
  - Need to convince hospital administrators and medical practitioners on the benefits of regional trade in health services

Highlights of Technical Workshop

- Framework for trade negotiation
  - Based on existing differences in regulatory frameworks
  - Need to address regulatory heterogeneity by liberalizing limitations on market access, national treatment and domestic regulation
  - Make health sector market friendly to domestic and foreign consumers and suppliers within the region

Highlights of Technical Workshop

- Basis for intra-regional trade in service
  - Based on the relative strengths of the country
  - ASEAN should promote the role of market forces in enhancing trade in medical and health services
  - Provision of technical assistance to other countries to improve their environment for market friendly policies

Highlights of Technical Workshop

- Best practices in enhancing regional trade in health services
  - Hasten the international accreditation of hospitals
  - Expand intra-ASEAN trade based on relative strengths of countries
  - Work towards portability of health and medical insurance
  - Harmonization of pharmaceutical products

TRANSLATING THE "ASEAN ADVANTAGE" THEME INTO A SUSTAINED SELF-PROPELLING PROGRAM

By Felipe V. Neri, Principal Consultant, and Ben Milano, Assisting Consultant
December 6, 2006

AREAS OF COVERAGE

I. The Policy Issues that are imperative to empower and propagate the ASEAN Advantage Tourism Program on a region-wide basis at various levels viz., political, business, cultural, educational and social sphere.

II. The institutional structures that have to be put in place to insure the continuity of policy initiatives beyond person-centered leadership which while necessary, nonetheless has to be perpetuated through the longevity of institutional and social structures.

III. The hard infrastructures that are not just desired but more presumed as given if we are to talk of a "seamless" movement of ASEAN tourist/visitors within ASEAN (intra-ASEAN) and the rest of the world….ASEAN-India/China…..ASEAN-EU…..ASEAN-Middle East…..ASEAN-Russia/CIS/Eastern Europe…..ASEAN-North & South America.

I. POLICY ISSUES - Political/Governance Level

1. For the ASEAN Advantage to take of as an honest-to-goodness long-term program, ASEAN needs to immediately put in place and empower an ASEAN Tourism Council, composed of ten (10) representatives (council members) from each of the member nations plus three (3) designated private sector tourism and tourism-related practitioner recommended by the majority of the ten council members. For the more regular month-to-month meeting of the ATC, an Excom be formed representing at least six (6) of the ten (10) members, plus one (1) private sector representative.

   The council can meet every quarter to be held at different member country venue, whereas, the ATC Excom will meet at least bi-monthly to take care of the month-to-month agenda at hand.

   The ATC will lay-out the various implementing action programs in tourism and tourism-related activities such as:

   - ASEAN Amazing Race Program
   - ASEAN Eco-tourism Program
   - ASEAN Surfing and other water- sports Program
   - ASEAN Volcano Discovery Program

- Tour de ASEAN for pedal and motor bikes Racing
- ASEAN Cruise (similar to the Mediterranean/Caribbean and similar tour packages)
- Or a BIMP-EAGA sub-region cruise variation
- ASEAN Car Rally/Off-Road Race Program

2. ATC to conduct regular meetings/workshops to discuss, monitor, refine or revise certain on-going programs to acclimatize and adjust to the current needs and concerns of the times like health scare and security matters.

3. There should be an "ASEAN Tourism Champion" who could well be the concurrent Chairman of the ASEAN Tourism Council with a 2 year fixed term but rotating to other member countries. Hence, we can adopt the "flying Geese formation" where the strongest take the initial lead then replaced in succession by the next most able member. He or she should carry the equivalent title of "Minister".

4. Work towards the establishment and issuance of an AAP Personal Card to support the incentive mechanism of the various AATP that ATC has designed and operationalized. This can also serve as an additional identity card to the ASEAN member holder containing home country address and passport details for quick reference. This could serve as alternate identity card for any inter-island travels within the country visited.

5. Representation with an ASEAN perspective in each member country's banking and international finance policies/laws especially those that touch on regional trade, commerce and taxation. This is important in breaking down barriers that obstruct the free flow of business and commerce amongst ASEAN country members as an operating regional community.

6. Need to provide some meaningful incentive programs through ATC policy directives such as 30-50% discounts on "ASEAN Week", "ASEAN Month" and "ASEAN Day" programs as is appropriate. Collaborate with IATA/PATA/UNDP and other similar international organization where synergies can be derived.

   Where possible, provide tax or tariff incentives for whatever tourism programs the ATC may declare as priority promotion to advance the AA theme. (1-2 year time-frame)

7. The ATC should have regular communication and interaction with other equivalent global organizations like IATA/UN/APEC/EU/CAFTA to insure that ASEAN Tourism is in step with the rest of the world in matters of travel and tourism at the regional and sub-regional level. This initiative should be ongoing and immediate.

8. Establish and promote a Tourism Summit bi-yearly to encourage greater and higher levels of interaction amongst member countries to be hosted on rotating basis with all tem (10) member countries. (1-2 year time frame)

9. Pledging of commitment by member counties to the budget requirement of the AAP Institutions that will be responsible for the various initiatives that will be carried out. (Immediate time frame)

10. Support a reciprocal “Open-Sky” policy for landing rights and privileges of member flag carriers and the now emerging Low Cost Carrier (LCC) which have been robust in the last three years among member countries like Malaysia, Singapore, Indonesia, Thailand, and more recently, the Philippines. This should be initiated immediately with a 1-2 year period of adjustment and preparation.

11. Unified Visa application and issuance by ASEAN Member Country. What is issued by one is honoured by all policy. This will strengthen the solidarity of ASEAN as one geographical, economic and political block much like the EU is. (Target is within 1-2 years)

12. Information campaign program to announce and promote the various AAP that the ATC will launch and implement. This should cover tri-media format of advertising and promotion to cover maximum ground.

13. ASEAN should form its own equivalent of an “Interpol” to weed-out and police the region of undesirable criminal elements or organizations.

II. INSTITUTIONAL STRUCTURES

1. We have mentioned above the creation of the ASEAN Tourism Council as a distinct fully operational office within the ASEAN Secretariat as the supreme governing body for any and all matters pertaining to tourism in ASEAN. As such, it will assume some quasi regulatory function to enable it to pursue such programs drawn up for all member countries to implement. It will also carry out, on a region-wide basis, the promotion of such programs promulgated and approved by the majority of the ATC.

2. In this regard, ATC can designate junior/youth delegates at the individual member countries university level to assure maximum awareness and understanding of ASEAN tourism initiatives for AAP.

3. Establish an ASEAN Desk/ASEAN Kiosk in all member countries major international airports and inter-representations with member countries local tourism boards or council.

4. Cultural and Educational Activities that will promote the ASEAN ADVANTAGE THEME. Intensify ASEAN Inter-Cultural programs amongst member countries. Existing activities have been lacking in vigor due perhaps to lack of support and budgets from member countries. This is where individual member country's financial commitment will spell the difference of either a lack lustre program or a highly energized sustained regional activity.

5. At the Educational Level, establish special ASEAN scholarship programs in its field of expertise in the tourism service industry, hotel/resort management, second or third language learning programs, airline and aircraft maintenance proficiency courses. Educational exchanges in the Arts, Entertainment and Music, Culinary Arts so unique to the ASEAN Region. Prop-up the ASEAN Desk in International Book Fairs that is dominated by mostly western world literature. Continued support to existing awards programs like the Magsaysay Award that in many ways promote the ASEAN Region's social and economic concerns including journalism, film-making, applied sciences, and indigenous arts, painting, and music.

III. THE HARD INFRASTRUCTURE ISSUES

1. Tourism growth will more and more be essentially fed by the international airports of member countries. It is obvious that the member country with the most modern, fully equipped, expansive and inter-modally connected with other modes of transport like expressways, light rail systems, traditional rail systems for cargos, modern ports nearby (40-60 km radius) will attract the greater number of tourist within ASEAN and outside ASEAN.
2. For US and EU markets special concerns on security and safety will have to be put-in-place to conform with their respective comfort levels for such concerns. In this regard, some regional cooperation and mutual assistance program among member countries can accelerate region wide compliance to current safety measures required by Europe and the US.

3. International seaports also have to be of global standard to be able to accommodate such large cruise vessels as Queen Mary, Carnival Cruise ships, and its equivalent customs and immigration rules may be specialized for ASEAN member countries to facilitate and encourage an increasing flow of tourist traffic intra-ASEAN. Of critical importance is the need for night time navigational aids system if we are to develop the ASEAN regional cruise traffic in the South China Sea, Java Sea, Andaman Sea, and Banda Sea.

4. Primary hotels and accommodation facilities must be present to allow for the inflow of tourists. Standards must be set and followed to assure an acceptable level of appearance ad safety to visiting tourists. They must be accessible to the modern mode of electronic bookings and search via the internet. Rates should also be openly established to prevent unscrupulous practices of “hostage pricing” and the like. Move towards an ASEAN Seal of Excellence in Housekeeping and Quality. Thailand has its “Orchids” ratings, Indonesia its “Diamond” ratings, and Singapore and the Philippines “Star” category ratings, perhaps there is need to harmonize these ratings on a region wide ASEAN basis.

   These needs are even more critical in the secondary category dwellings and accommodation facilities which are not covered by the international standards of excellence, safety and security.

5. Other transport support services and facilities like taxis, buses, shuttle service to and from international airports and seaports, local fast ferries, ships and ethnic modes of transport like jeepneys of the Philippines, tuktuk of Bangkok, outriggers in Indonesia, Philippines,

and Malaysia – all must carry a minimum of safety and hygiene standards that will not discourage repeat business from foreign tourists. So not just exotic ASEAN but also safe ASEAN for all.

Many of these policy programs initiatives will be of a long-term nature but initial impetus has to be provided now to reap the benefits in the succeeding years up to 2010 which WTO/ASEAN has set as ultimate target date for the final breakdown of tariff barriers and a more efficient regional and sub-regional economic integration. The ASEAN Advantage Tourism Program (AATP) should be viewed and approached as a lead opener and gateway facilitator to this 2010 target. Trade and commerce are greatly enhanced and propelled when the entry point of travel and tourism have been smoothened and softened to visitor-friendly levels.

It is in this light that this paper is presented to our ASEAN leaders to address these initiatives with more vim and vigour in its funding support, institutional permanence, perseverance and more political resolve than before.

PRIVATE SECTOR VIEWS ON ASEAN TOURISM STRATEGY PAPER

By Felipe V. Neri
Consultant for ASEAN Tourism Initiatives
January 26, 2007

I. POLICY ISSUES

a) There is a lack of resolve on the part of the officials of ASEAN to institute sanctions on erring or non-compliant members as regards policy issues either on matters affecting tourism or basic issued such s human rights and democratic principles. (From Singaporean delegates/attendees)

b) Lack of firmness of resolve or perhaps political will to truly implement an "open-sky" policy that would certainly catapult ASEAN Tourism traffic to greater heights closer than the levels of the Americas and Europe where traffic is at much higher levels viz., Europe 401 MM, Americas 112 MM, Asia Pacific 119 MM, ASEAN estimated 50 MM less than 50% of the Asia-Pacific traffic. (Reference 2003 WTO statistics). (From Philippine attendees)

c) Lack of focus on urgent priority policy guidelines to encourage the growth and expansion of ASEAN Tourism traffic such as perhaps a unified Visa processing/acceptance amongst member countries. A unified policy stand on anti-hijacking/terrorist acts on both air lanes and sea lanes of the seven (7) seas bounding the ten (10) member countries.

   In this regard, increase mutual cooperation in the regional policing of known criminal and/or terrorist groups/persons or organizations that pose a threat to air and sea travel to the region. This could be extended to other areas that could be more pro-active than re-active in matters of security. A freer flow or exchange of security threat matters/information to facilitate prevention/intervention by proper authorities of each member matters all within the confines of existing military or defence treaties each may have.

   Encourage mutual cooperation in hardware/software and training facilities to more effectively deter the further growth of piracy, kidnappings and other forms of criminal acts that discourages potential tourists from entering the shores of the ten-member nations either by sea and/or air.

d) Pursue and implement greater standardization of quality, of categories, of safety and of hygiene in primary, secondary and even local tertiary type of hotels, resorts, inns and dwellings for easier understanding and better comfort levels of incoming foreign tourists.

This standardization will also be for bridging the great divide between the high-end up-market tourists from first world countries ad the more adventurous mass market type tourists that are expected to carry the critical mass of the ASEAN tourism traffic that is expected to raise the volume levels closer to the 100 million level in the next decade.

e) "Putting money where the mouth is" as far as implementation of the various programs of creating a consciousness of an "ASEAN BRAND" in all of the ten member nations. Allocate meaningful budgets proportionate to the financial status and size of the member country. The first six and the second four type of funding size per member country. Singapore, Thailand, Malaysia, Philippines, Brunei, Indonesia are one. Then the second four: Vietnam, Myanmar, Laos and Cambodia.

   Such funding commitment can now finance a more vigorous and sustained awareness, PR/communication and active marketing program to promote a truly ASEAN-wide tourism coverage in the likes of the EEC/European Community—a ten nation but one community theme. Even pursue and implement the ASEAN hotel chain in all the ten member countries which will underscore the need to integrate now more concretely the "ASEAN BRAND" beyond the confines of rhetoric and pronouncements. Time to "walk the talk" on ASEAN after forty years of kicking around. Time to spill over the advantages that some, e.g., Singapore, Thailand and Malaysia had employed over the late comers or late movers line Philippines, Vietnam, Cambodia, Laos, Myanmar, and Brunei in regard to tourism.

II. INFRASTRUCTURE

a) As mentioned, one major obstacle to the full realization of a full-blown ASEAN TOURISM milieu is the inadequacy of basic hotel and dwelling facilities to accommodate volume increase. This is true of places like the Philippines, Vietnam, Cambodia, Laos and Myanmar. If al all, many tourist dwellings are not up to par with international standards in cleanliness/hygiene, safety and order and systems like reservations and payments. (Philippines/Singapore delegates)

b) Need for a common acceptable definition of standards and ratings that is perhaps more ASEAN thank European or American. All member countries have to agree and to abide by the accepted standards. This cannot just be a purely private sector arrangement or agreement. Government agencies have to accept and promulgate such mutual agreements amongst Tourist Operators in all its sectors: hotels, resorts, travellers' inns, hostels; service operators including transport services (land, sea, and secondary transporters). (BIMP-EAGA attendees)

c) Customs and immigration policies have to be transparent, consistent and clear-cut. Oftentimes, lack of transparency and consistency

d) become areas of abuse especially amongst non-ASEAN travellers. (BIMP-EAGA delegates)

e) Tariffs and rates of hotels/resort/hostels. As well as airline rates, both regular and the now popular LCCs that offer much lower budget fares have to be appropriately published and disseminated to all member county service and tour operators. Conversely, all legitimate tourist/services operators have to be accredited and graded to prevent unscrupulous or travel business scams from emerging especially when tourism expands and booms. An official directory has to be published by the ASEAN Tourism Board, as the highest tourism authority for the community of ten nations. (Philippines and BIMP-EAGA and Singaporean attendees)

f) Emergency standard procedures for both medical and security matters have to be set and agreed upon to ensure an internationally acceptable level of response and attention. This will enhance the comfort levels of foreign tourists especially from the West. (varied participants, American/Australian)

g) In regard to sea travel, especially for tourist cruise ships, certain infrastructural requirements were mentioned: (1) special berth for cruise ships, (2) adequate depth and water approach facilities, (3) navigational aids for night time travel manoeuvres. Oftentimes, outside of Singapore, Malaysia and Thailand, this is inadequate, thus hindering the greater expansion of ASEAN cruise programs like the Caribbean, Alaskan, and Mediterranean cruises which have become a reliable and steady volume-oriented segment of the world tourism market. The BIMP-EAGA sub-region could well benefit immensely from this untapped market. Currently, it is only Singapore, Malaysia and Thailand that have exploited this segment but still in a limited way since the potential is vast considering the kind of tourists that this segment caters to viz., the burgeoning “retiree” market that are swelling in most of the advanced developed countries of Europe, Japan, Korea, China and America, estimated at 400 million young retirees (45-59 yrs.) and 327 million older retirees (60 and above) based on 2006 figures. This is quite a potent segment if effectively tapped and the ASEAN region is a perfect match considering the inherent “caring character” of ASEAN members’ citizens, not to mention the conducive tropical climate of most of the ten member countries.

h) The more extensive use of electronic information/communication technologies in the marketing, booking and settlements at all levels of tourism services from airlines to shipping, hotel bookings and

reservations, choice of destinations and satellite tracking for outdoor and adventure tourism that is also growing in popularity and traffic volume.

i) Monitoring and standardization of the medical and wellness service tourism that is also becoming popular amongst the younger segment of tourist in point of lower-cost and boldness of treatment offered, like gender bender type of procedures otherwise not allowed in western home countries.

j) ASEAN tourism should keep in-step with the level of intra-and international trade that have been growing in leaps and bounds through the 80's, 90's, and now the 21st century. Intra-Asia trade valued at US$1.4 trillion and Asian international trade at US$900 billion as of 2005. All the more, ASEAN tourism must be viewed as the twin sister of trade and commerce, perhaps preceding the latter than trailing behind.

III. SUMMARY RECOMMENDATIONS

This study endorses the evaluation and findings of the April 26, 2006, World Bank sponsored Padeco Co., Ltd. Of Japan in regard to the greater integration of the ASEAN travel sectors such as the Visit ASEAN Program through a travel portal which would provide greater linkages between some 6,000 travel agencies within the Region. Continued support of ASEANTA as the premier private sector driven association that would nurture, espouse, promote, police, and recognize of deserving groups, companies, agencies and institutions that advances the ASEAN destinations/ASEAN Brand/ASEAN theme is regional tourism. There is a whole range of coverage here that seek to expand the current tourism play in ASEN such as ecotourism, adventure tourism, wellness tourism, and even medical tourism that caters to a growing retirees market estimated at 727 million worldwide as of 2006.

Commit more government funding into the various programs initiated by ASEANTA to enable it to sustain said activities as well as duly recognize the past years' effort of this private sector initiative so that truly this will become public and private sector collaboration to raise the level of volume, quality, multiplicity of destinations in this diverse region of ASEAN.

This financial comment by the ten member nations should extend towards the drastic improvement of basic infrastructures in hotels, in transport (Land, sea and air) as well as proper governance of travel policies and laws that tend to facilitate and smoothen the entry, movements, and exits of the foreign travelling tourist to and from the Region.

ASEAN Single Aviation Market*

1. Introduction – Growth in Tourism and Aviation, Open Skies

1.1 World Aviation Industry Post 9/11

Aviation Industry analysts predicted that with the events of 11 September 2001 (9/11) and the growing alarm for terrorism, aviation would experience a downturn for the medium term.

Very few predicted that a year later, tourism would surpass Information Technology as the world's largest industry, and with this growth a new hope for aviation. Also, the rise in the need for quick delivery in logistics also became a contributing factor. World aviation traffic grew between 2001 to 2003 at an average of 14% per year despite previous predictions the day after 9/11.

Another development that contributed to growth in the aviation industry is the move towards a more liberal aviation and economic policy among countries.

Surprisingly, the United States (prior to agreeing to open skies) was seen before by European States as protectionist, initiated between 2002 to 2006 more than 28 multilateral and bilateral agreements that provide for open skies (5th Freedom Rights Chicago convention see Appendix 1) and even full seventh freedom cargo rights.

With this move by the United States, and similarly the creation of single market in EU and ANZ, there is a growing trend to move towards partial or full open skies implementation. Island states with no air flag carrier of their own have long practiced such policies and have lately seen increased air traffic.

1.2 The ASEAN Market

In the ASEAN region + Brunei, Singapore and Thailand are among the two top countries with a strong growth and presence in the world aviation industry. They are followed by Malaysia which recently became ASEAN's top tourist destination since 2002 debunking Thailand.

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* This report was prepared by Aileen Sosa, Ph.D., of the Philippine Bases Conversion Development Authority (BCDA), March 28, 2007

The strong presence of aviation in these three countries may be attributed to their firm commitment on policies that promote tourism development. This strong correlation between tourism and air travel have pushed these governments to strengthen coordination and development efforts between the two sectors in their governments.

It must also be mentioned that these four countries are some of the countries who entered into open skies arrangements with the United States.

However, majority of the countries in ASEAN have not signed any open skies agreement with any country or even among themselves.

In the recent ASEAN summit, and concluding STOMs (Senior Transport Official's Meeting), moves have been made to study carefully the benefits of moving towards a single aviation market or open skies with-in ASEAN.

Proponents point out that a atatistical survey shows that there is a low frequency of 5th freedom operations conducted within ASEAN, making Traffic Rights less of a problem in the process of integration. This argument is very true, adding to the fact that short haul operations are rendered unviable as seen in airline operations.

For ASEAN, the European Union (EU) and Australian-New Zealand (ANZ) models for aviation market integration may not be viable at the moment. There are greater issues involved such as the Regulatory Capacities of each country and their respective readiness to accept liberalization.

1.3 Philippine Aviation Market Developments

Contrary to world trend, the aviation industry in the Philippines has been sluggish. Between 2001 to 2005, average passenger growth rate has been less than five percent as opposed to the years 1996-2000 which averaged more than five percent a year.

Although operations of the country's national flag carrier have contracted over the last ten years, they are slowly recovering and posting positive earnings.

The Philippine aviation industry is not all gloom, new airlines have emerged, which would hopefully turn a more responsive and dynamic role in serving the passengers.

It must be noted that over the last 15 years, the Philippine

Government tried to spearhead a civil aviation sector reform program.

The first landmark was in the 1990's when monopoly on scheduled commercial air operations was broken with the entry of Grandair, subsequently followed by Air Philippines, Cebu Pacific, SEAIR and Asian Spirit.

There were two major developments that encouraged growth of new airlines. First, domestic routes were opened by the government economic regulatory agency for aviation, the Civil Aeronautics Board (CAB). Second, fare structures adopted less stringent policies on domestic routes.

In 1998

During the Ramos administration, International Airline competition was promoted. The Policy by which air agreements are formulated was changed. Before, the Philippine International Air Service Policy reflected Philippine Air Lines (PAL) as the sole national airline and sought to negotiate solely on the basis of benefits to PAL. The approach now being introduced is to consider the "value to Philippines" on every air service agreement. (EO 219 series1997)

2. INFLECTION POINTS IN PHILIPPINE AVIATION

2.1 Changing view on Aviation as a Catalyst for Growth and the Rise of Budget Airlines

In previous years, the policy on the development of air infrastructure was preferred to cities with a strong population base and industry. Due to their cost, developing an international airport in a provincial tourist area was seen as a wrong investment as compared to a city which serves as a provincial center or regional economic center.

Aviation traffic trends changes this development myth. World aviation statistics reveal that on the average roughly 70% of air passenger travel are for tourism purposes. Tourists have become discriminating in their flying habits, in the sense that they prefer less stops, they prefer to land in airport of destinations and less transfers.

This aviation trend encouraged the development of international airports in areas such as Phattaya and Phuket. The development of a multiplicity of international gateways, this expanding market, is another source which encourages a more liberal skies policy.

Those areas previously perceived as unviable routes, are becoming viable for airlines to operate. Take for example Clark Airport. There is a growing air travel demand from Casino Junket Operations and Golf recreation. An airline which undertook a market study determined that operations at Clark was not viable due to its proximity to Manila. However, two international airlines now profitably operate in Clark.

Another development suddenly on the horizon is the growth of budget fares and budget airlines in the Philippines. Budget airlines are widely accepted in Europe (Ryan air, Budget Airlines) and the Unites States (ValueJet). What is surprising is that three local carriers (Cebu Pacific, SeAir, and Asian Spirit) have started experimenting with budget fares.

A budget airline truly becomes realizable only when government re-structures its Air Tariff system. It has been the common view that it is the affluent who rides airplanes, however as operating costs of airlines are being rationalized to cater to a wider market, taxes should also be rationalized.

2.2 ASEAN Single Aviation Market Preparing a Roadmap

There is a growing push to reap the win-win formula of an open skies policy among ASEAN countries for its obvious economic benefits.

“Open Skies policies are successful because they have gone hand-in-hand with airline globalization. By allowing air carriers unlimited access to points in the signatory countries and unlimited access to intermediate and beyond points, Open Skies agreements provide maximum operational flexibility for alliance partners. Open Skies agreements also have provisions that facilitate code-sharing and other cooperative relationships between carriers. Under a bilateral Open Skies agreement, any carrier could establish code-sharing alliances with any U.S. carrier and thereby market service to any point in the United States by flying to the U.S. gateway and using the equipment of their U.S. partner airline to reach the final U.S. destination. Partner carriers would gain options for entering into code-sharing alliances with airlines of a third country for service to the United States.” (Association for Asia Research - AFAR)

In a recent paper “Preparing ASEAN for Open Sky”, an accelerated program is suggested to be adopted by 2012 to adopt unrestricted 5th freedom within ASEAN.

Among the models that may be adopted for implementation are the EU and the ANZ’s Single Aviation Market program (SAM).

The Philippines would have to contend with the following trans-national issues: liberal criteria of airline ownership and control; full liberalization of third, fourth and fifth freedom traffic rights; capacity and tariffs will be decided by the airlines; airlines entering into cooperative arrangements; commercial access to ground handling services; elimination of state aid to national airlines; safety net and safeguards mechanism to ensure sound competition; common rules governing airline operations, airline liability, airline customer protection, air safety and security, slot allocation; common war risk insurance scheme. (See Appendix 2 for details)

2.3 Avoiding the Perils of Aviation Liberalization

When the Philippine Civil Aviation undertook initial economic liberalization to break the monopoly in scheduled commercial flights in the early nineties, the sector was not prepared for its new found freedom. In a span of 10 years the aviation traffic doubled and the Air Transportation Office (ATO), which was responsible for safety oversight found itself lacking in capability. The lack in qualified personnel to undertake safety surveillance measures posed a serious threat to the development of the aviation industry. In 1997, the International Civil Aviation Organization and Federal Aviation Administration conducted an International Aviation Safety Assessment (IASA) and found several inadequacies with ATO in its Safety Surveillance Capability. The Philippines was downgraded from Category I to Category II. This downgrade had economic implications, such that Philippine registered carriers were not allowed to expand or service new international routes. Likewise, foreign registered carriers were discouraged and made to pay higher insurance payments for flying into the Philippines which was then rated Category II in the ICAO IASA. Largely, this also meant that Philippine carriers had to pay higher insurance premiums which meant added burden to operating costs of even domestic routes.

Taking on an accelerated program of open skies or single market, without changing current safety regulatory institutions may again lead to a 1996 scenario.

In an open skies scenario the Philippines should be concerned about the ability of its air safety division to maintain the required high standards of flight safety supervision in the light of its increased work load resulting from the introduction of new technologies on aircraft, growth in the number of air operators, aircraft, and licensed personnel.

In 1997, the ATO envisioned a program called Civil Aviation Sector

reform and Institutional Strengthening Program. The nature of the program called for an integrated law to be passed by Congress that shall make the government body in tune with world current developments such as open skies, and “free flight”.

However, roughly eleven years have passed and not one single reform on this agenda has been made. No legislation has passed, and as it is, ATO still lacks recommended check pilot to industry ratio.

The required industry policies shall be discussed in Section Four.

3. Policies Attuned to the Times

3.1 Government’s General Policy

For the last 15 years, the DOTC, ATO and CAB have declared a policy promoting the economic deregulation, and the decentralization and devolution of infrastructures, in civil aviation. The government adopted this policy to attune Philippine aviation to the world trend of open skies; that fewer restrictions lead to more development.

In the area of devolution and decentralization of infrastructures, there is a growth of non-ATO controlled airports such as Subic, Clark, Cebu, and Davao, while previously Manila was the only commercial airport not owned by the ATO. Infrastructure devolution and decentralization is another area that paves the way for open skies. The creation of Airport Authorities and secondary gateways makes it easier for airlines to directly communicate and negotiate with the approving authorities for flight scheduling as opposed to the previous bureaucratic red tape of a central approving authority.

Economic deregulation in Philippine aviation has occurred through the further reduction of domestic price controls and eliminated stringent route licensing for domestic air service. However, the CAB has withheld the further opening up of international air services market to readily reflect the concept of “reciprocity and value to the Philippines” rather than to PAL in the negotiation of air services rights.

The economic liberalization of the domestic market has resulted in increased domestic traffic since 1997. In prior years to 1997, the international inbound traffic to Manila enjoyed a higher figure than domestic inbound traffic (international 7.2 MPPA versus domestic

6.2MPPA), but after the opening of domestic routes there is more inbound domestic traffic in Manila than international.

This policy statement drafted 15 years is still relevant today. There is a snail pace motion to truly turn this policy into a reality, A review of the changes in aviation would reveal that they remain still a policy and implementation schemes of the ancient regime of monopolistic and bureaucratic central government are still the driving forces in the many decisions taken by the regulatory agencies.

3.2 Policy Statement versus Actual Economic Regulation

One test case for determining how consistent and faithful the government has been on economic regulation is the Air Services Agreement. Air Services Agreements between States is a traditional method for governments to regulate the aviation market. Why is government regulating, and, for whose benefit is the government regulating? In the Manual for the Regulation for Air Transport (ICAO doc 9626), it is reflected that the principle for such regulation lies in the vision to provide for equal opportunities among airlines between different countries. And for whose benefit: the primary case would be in behalf of the consumer, but to the extent that representing governments also look for benefits that would affect their country as a whole and give protection to their flag carriers.

With the idea of equal opportunity in Air Services Agreements, reciprocity became a by-word. For every frequency of flight allowed to a foreign carrier the local carrier is also allowed an equal amount of market share to passenger traffic and cargo to the second country.

It would seem an easy rule to follow. But what if there was a case when there is more passenger demand and the local carrier cannot service half of the demand? In this scenario, you ask the question, should the government allow the carriers of the second state more frequency for the benefit of the consumers? On the other hand, should the government allow only a maximum number that can be serviced by it local carriers?

When Philippine Airlines downsized its operations in 1998 from 65 aircraft to 14, this was the scenario of the Philippine Aviation Market. In routes with a good passenger and cargo volume such as Taipei, Hong Kong, Singapore and Tokyo, the Civil Aeronautics Board (CAB) was faced with this question.

One case in point is the year 2000 Air Panel negotiations between Taipei and Manila, where the two countries could not agree on the traffic volume because Taipei was negotiating for more seats when

its local carrier could not service the volume. The CAB even went to the point of negotiating that Taipei airline can have more seats provided that a portion of its Gross Income on those flights goes to the Philippine carrier. The dispute was not resolved for a year, so flights between Manila and Taipei were not available to the more than 250,000 Overseas Filipino Workers in Taipei.

This stand taken by the CAB, to protect more its local carrier rather than service its passenger reflect the old regime's view to protect the industry, and does not really reflect the general policy statement of DOTC, ATO and CAB itself, "reciprocity and value to the Philippines" rather than to PAL.

The old view (prior to 1995), that Philippine international air routes were considered as the domain of PAL should be changed. Air Routes should be treated like Air frequencies, they are public domain. And if not adequately served, the government may award or grant them to another entity which may appropriately serve the public requirements.

3.2 Open Skies – The Philippine Experience

In 2001, the Philippines had a first experience on the benefits of open skies when it adopted an "Open skies" policy on Clark Airport.

From a previous traffic of roughly an average of one hundred (100) commercial flights a year roughly five thousand passengers, traffic grew to five hundred flights a year or fifty thousand passenger. Two airlines immediately operated in Clark with destinations to Kota Kinabalu, Singapore, and Kula Lumpur.

However, despite the growing traffic at Clark, and its obvious economic benefits to serve Clark as a growing tourism area, the government has decided to end Open Skies policy at Clark by 31 December 2006. The undisclosed culprit for this policy regression was the competition it posed on Philippine Airlines which does not even service Clark.

The Philippines could have taken the Clark Model as a controlled experiment to deal with the issues of Open Skies, which seem inevitable by 2012 as proposed in the STOM last year.

Clark was merely a secondary gateway. The 2012 scenario would include primary gateways. Such an accelerated program would mean the government technical safety difficulties and economic competitive issues for local carriers.

4. RECCOMENDATION: Need to Implement Civil Aviation Sector Institutional Strengthening Program

The paradigm on how business views Open skies must be made clear. Like any program of liberalization, there are economic benefits. The experiences of almost all documented bilateral open skies have been successful both for consumers and corporations. It would be wrong to say Open Skies is inevitable, the Philippines can refuse to join the ASEAN Single Aviation Market (ASAM), but it has to realize that reciprocity of barriers will be made, and the Philippines may lose even its small presence.

The argument on ASAM is therefore not a matter of a yes and no, but a matter of when. When is not really a matter of projected time, but a state of well being in the Aviation Industry, this means policies must be direct in the fact that every implementation is consistent, rules are fair, and approval processes are stipulated.

Preparations and concrete steps must be taken on the different areas of Aviation.

The following are recommended:

4.1 Open Skies Gradual Program

Within the next 2 years, one or three secondary gateways may be encouraged to adopt an open skies policy within ASEAN. Clark, Cebu, and Davao would be appropriate test cases in Luzon, Visayas and Mindanao.

Although, uni-lateral open skies within ASEAN in these airports would mean no reciprocity, a local airline with initiative entering into an alliance with the airlines flying into these secondary gateways may still gain some benefits in areas such as ground services and other aviation supports.

While this experiment is in-phase, an oversight team should be established to document aspects in the areas of:

- Airline Dynamics
- Cross Industry Effects
- Passenger Behavior, Frequency Statistics and Topography
- Price and Tariff Sensitivities
- Safety Regulation Issues

Another option would be to sign a two year bi-lateral open skies agreement with one ASEAN country such as Thailand or Singapore which has a healthy population of Overseas Filipino Workers. However prior to signing such a treaty, the Philippine ATO must undertake steps to upgrade its safety oversight capabilities.

4.2 Re-engineering Existing Government Structures

If there is any entity which needs to be reformed prior to any bilateral open skies agreement, it would be the government technical and economic regulating agency or the Air Transportation Office and the Civil Aeronautics Board which was created through Republic Act 776 in 1952.

The following are the key areas for reform:

- **Corporatization of the Technical Regulator, the ATO** – A legislative agenda should be made to re-structure the ATO into an independent authority with fiscal autonomy. It shall be responsible for planning and implementing functions in the areas of Air Safety Enforcement in flight operations and airport inspections, Air Traffic Services, Air navigation Services, Aeronautical Information Services, and the conduct of flight Calibration. Airport Development and Management should be devolved from the ATO so that it will be a consistent regulator. All airports shall be merely assessed and inspected by ATO for ICAO compliance on Standards and Recommended Practices (SARPs). On the other hand Air Navigation facilities shall remain within the jurisdiction of ATO due to some regulatory nature of Air Navigation Services.

  By turning ATO into a corporatized body which shall enjoy fiscal autonomy, it will have the ability to hire Pilots to conduct Air Surveillance in competition to market rates. Currently, there are less than 20 organic Check Pilots to conduct Air Safety Checks to more than 5,000 licensed Pilots. This ratio may place the Philippine aviation sector in a bind when open skies is adopted in 2012.

  The following would need to be rationalized within ATO

  - **Debtor rectification, Financial Management and Balance Sheet Re-structuring** – The creation of the new ATO would need to start with a clean slate, assets would need to be transferred and loans assumed by the national government. The current ATO operates under traditional government cash accounting procedures which rely on annual budgets, an accrual-based

accounting system would need to be established now that ATO is corporatized. Self sufficiency in operations must be undertaken.

- **Safety Regulation** – Over the last decades, countries have re-structured their civil aviation with the common theme of separating the service areas and safety regulation; however, other countries have opted to devolve only airport services and lump air safety regulation and air navigation. Thus the issue for the Philippines is to provide adequate attention and resources in order to acquire the appropriate personnel exempted from Civil Service Rules and pay rates, and bureaucratic procedure of a government agency.

- **Tariff Reform** – Based on ICAO cost recovery guidelines, ATO would require its Air Navigation Charges to be increased being the lowest in the region. This will lead to self sufficiency.

- **Human Resource Training and Development** – The current Civil Aviation Training Center (CATC) must be revitalized. Since its funding from UNESCO in the early 1980s, much development is needed to put it at par with the training Center in the region. This will form an important backbone in modernizing Philippine Aviation and gearing it towards open skies.

- **Economic Regulation** – For administrative convenience the economic regulator and the technical regulator must be embodied into the same organization. It is also envisioned that this role may have to be redefined as it will slowly diminish as a world trend. It would need to establish minimum regulations on passenger protection, assist the technical regulator in evaluating management competence, and coordinate with the Department of Foreign Affairs in the negotiation of Air Service Agreements.

- **Devolution of Airport Development and Management** – In recognizing that Airports are economic hubs and are profitable, the creation of government Airport Authorities is encouraged. A clear example would be Manila International Airport Authority. ATO would then be merely in charge of determining airport compliance to ICAO SARPS.

4.3 Re-structuring Economic Regulation – Preparing Local Carriers

The second area which would require reform would be how the government is treating the Aviation industry. Here are some aspects that need some support to prepare Local Carriers

- Aviation Tax Reform – The primary care and push which may be granted to local airlines to prepare them for open skies would be a Tax Reform Agenda. This would require legislation. It must be considered that the nature of the type of people who avail of the services of Air Travel has changed. A tax reform if not a tax break would be helpful

- Access to Cheap Sources of Funding – Although a subsidy is not really helpful or encouraged, there may be some sources of cheap funding which the government may have (i.e. National Development Corporation has a China Fund worth US$2 Billion which until now has not yet been allocated).

4.4 Integrated Approach in Developing Tourism and Air Infrastructure

Since 1995, the Philippine tourism objective was to reach 4 million foreign tourist arrivals. In 1995, foreign tourist arrivals were at 1.8 million. More than ten years later the figure has only grown to 2.2 million foreign tourist arrivals.

It is not surprising that tourism has not reached the 4 million mark, considering that the government has not also made an integrated plan to at least double the capacity of its premiere gateway which is Manila. In 1995, the Manila airport had traffic of seven million passengers while it was built for a capacity of 4.5 million passengers per anum.

On the other hand, Thailand and Malaysia which envisioned an aggressive growth on tourism doubled the capacities of their primary gateways consistent with their tourism programs.

Integration of airport development into the Department of Tourism is not necessary, but a close and consistent coordination is what is required. Similar to the structures of Malaysia, Thailand and Singapore, a representative from Tourism is consulted and has an imprimatur on airport developments. Congressional Legislation is not required, an executive order mandating the participation and consultative approval of the Tourism Department will suffice for the purpose.

APPENDIX 1
FREEDOMS OF THE AIR

First Freedom of the Air - the right or privilege, in respect of scheduled international air services, granted by one State to another State or States to fly across its territory without landing (also known as a ***First Freedom Right***).

Second Freedom of the Air - the right or privilege, in respect of scheduled international air services, granted by one State to another State or States to land in its territory for non-traffic purposes (also known as a ***Second Freedom Right***).

Third Freedom of The Air - the right or privilege, in respect of scheduled international air services, granted by one State to another State to put down, in the territory of the first State, traffic coming from the home State of the carrier (also known as a ***Third Freedom Right***).

Fourth Freedom of The Air - the right or privilege, in respect of scheduled international air services, granted by one State to another State to take on, in the territory of the first State, traffic destined for the home State of the carrier (also known as a ***Fourth Freedom Right***).

Fifth Freedom of The Air - the right or privilege, in respect of scheduled international air services, granted by one State to another State to put down and to take on, in the territory of the first State, traffic coming from or destined to a third State (also known as a ***Fifth Freedom Right***).

ICAO characterizes all "freedoms" beyond the Fifth as "so-called" because only the first five "freedoms" have been officially recognized as such by international treaty.

Sixth Freedom of The Air - the right or privilege, in respect of scheduled international air services, of transporting, via the home State of the carrier, traffic moving between two other States (also known as a ***Sixth Freedom Right***). The so-called Sixth Freedom of the Air, unlike the first five freedoms, is not incorporated as such into any widely recognized air service agreements such as the "Five Freedoms Agreement".

Seventh Freedom of The Air - the right or privilege, in respect of scheduled international air services, granted by one State to another State, of transporting traffic between the territory of the granting State and any third State with no requirement to include on such operation any point in the territory of the recipient State, i.e. the service need not connect to or be an extension of any service to/from the home State of the carrier.

Eighth Freedom of The Air - the right or privilege, in respect of scheduled international air services, of transporting cabotage traffic between two points in the territory of the granting State on a service which originates or terminates in the home country of the foreign carrier or (in connection with the so-called Seventh Freedom of the Air) outside the territory of the granting State (also known as a ***Eighth Freedom Right*** or "**consecutive cabotage**").

Ninth Freedom of The Air - the right or privilege of transporting cabotage traffic of the granting State on a service performed entirely within the territory of the granting State (also known as a ***Ninth Freedom Right*** or ***"stand alone" cabotage***).

Source: *Manual on the Regulation of International Air Transport* (Doc 9626, Part 4)

APPENDIX 2

The main provisions of the 2002 SAM (Single Aviation Market – Australia & New Zealand) agreements are:

- Australian and New Zealand Airlines are able to operate unrestricted services across the Tasman and beyond to third countries as well as domestic services in each country.
- Australian and New Zealand are able to operate dedicated freight services to third countries using seventh freedom rights.
- All services will be operated to and from designated international airports (customs, immigration and quarantine restrictions are not affected by the agreement).
- Airlines will make commercial decisions on the number of services they operateand the destinations they serve. Government approval for airfares is not required.
- Domestic competition laws apply to the airlines of both parties.
- Australia and New Zealand mutually recognize air safety approvals.

Nine Areas of the Proposed ASEAN SAM:

1. Liberal criteria of airline **ownership and control**. There is a general consensus that the so-called "principal place of business" test is a more liberal approach than the traditional notion that ownership and control should lie in the nation or the state of designation. This issue was extensively discussed at the 2003 ICAO Liberalization Conference, and the conference made a clear recommendation that states should move to the "principal place of business test" (PoB) in both making and accepting designations. It is observed that states are sometimes for liberal in accepting PoB designations than they are in making them, or in writing the test into formal agreements.

   Several of the ASEAN states including Myanmar have PoB designation agreements. For example, the airline known as Myanmar International Airlines is itself seen to be controlled by Singapore interests even though it is domiciled in Myanmar.

   This concept should be adopted. It will facilitate industry consolidation and lead to a reduction in the need for multiple cross-border shareholding which lead to both confusion and increases in costs through more complex regulatory procedures and requirements.

2. Full Liberalization of Third, Fourth and Fifth Freedom **Traffic Rights** wholly within ASEAN. The low level of 5th Freedom operations conducted within ASEAN by ASEAN carriers indicates that there should be no problem in an unrestricted regime of 5th Freedom rights between ASEAN states. It is recognized that some concerns have been raised about the possible (and desirable) inclusion of Thailand into CLMV because of the disparities of economic and aviation industry size. However, such a situation, staged (if necessary) should lead to a development of traffic where none now exists, because there are no cabotage services. It is agreed that cabotage may be a step too far for ASEAN, however, it is observed that, like intra-ASEAN 5th freedom rights, there is unlikely to be much use of such a facility, even if it were to exist, largely because point to point and hub feeding flights are much more profitable than low frequency domestic services with the complexities of CIQ avoidance that cabotage flights have. The market prefers high frequency, quick turn around, domestic flights. The issue of ownership and control of a purely domestic airline impacts upon the cabotage question. It should e noted that Australia allows a 100% foreign ownership of a domestic airline, or thus "cabotage" by investment is possible.

   5th Freedom services with third countries are to be regulated by relevant air service agreements. The high level of 3rd country fifth freedom service within ASEAN generated by the bilateral processes of obtaining rights wholly or partially outside of ASEAN has meant that whilst consumers have a high level of choice, the airlines of ASEAN, on some routes, appear to be negative impacted.

3. **Capacity and Tariffs** will be decided by the airlines. The policy of having airlines decide capacity and tariffs should be supported. Governments in general are unable to enforce tariffs. However, where only two carriers serve a route, the tariffs should be set independently and not in concert.

4. Airlines may enter into **cooperative arrangements**. Whilst is principle allowing airlines to enter into cooperative arrangements is supported, a qualification needs to be added to the extent that arrangements may not be competitive and should not be encouraged where there only two carrier on a route. The existence of 5th and 6th Freedom competition may be very supportive of competition and may allow such arrangements to

be established. There may however be very thin routes where such arrangements are essential in order to maintain a consumer-friendly schedule and level of capacity. There is no "one size fits all" solution but care must be taken so as to avoid anti-competitive cartel-like outcomes.

5. Access to **ground handling** services will be on commercial basis. Commercial access to ground handling, including self handling, should be supported.

6. **State Aid** to national airlines will be removed. The removal of state aid is a difficult and complex issue. For example, how do you precisely define state aid? How can state aid be distinguished from injection of fresh capital? The ASEAN Secretariat ATWG should perhaps consider both the experience of the European Union in dealing with stat aid allegations against both Italy's Alitalia and Greece's Olympic Airways. In the former case, a negotiated settlement has been approved; in the latter, it is reported that Olympic Airways has received illegal state aid. There are important principles at stake, and the issue needs careful and thorough investigated. It is also noted that ICAO and the World Tourism Organization have recently published a study which sets out criteria for establishment of tourism development routes. This work should also be considered in the context of state aid.

   Whilst it is not possible to say that there should be no subsidies, any subsidy should be transparent and should not place competitors at a disadvantage.

7. A **safety net and safeguards** mechanism to ensure sound competition. Sound competition is desirable; however, how could it be achieved? Few ASEAN member countries (probably only Singapore) have competition policy legislation. It has been suggested than an industry-specific ASEAN wide regulator should be established. That would be a brave and difficult step to take.

8. **Common rules governing airline operations, airline liability, airline customer protection, air safety and security , slot allocation**: Authorization of all relevant legislation should be fully supported, bringing about certainty, and assisting in lowering costs. This, however, is not an easy process – considerable work will be required to establish what relevant legislation in each country would be, and how it might be harmonized across ASEAN. A specific consultancy would be required, as well as the support of a legal sub-committee of the Air Transport Working Group,

9. A **common war risk insurance scheme**: A common war risk insurance scheme is desirable, and the necessary background work to achieve it could be tied in to the legally focused consultancy sought for the "safety net and safeguards" agenda.