

**AGRIBUSINESS SYSTEM ASSISTANCE PROGRAM**  
**(492-0445)**

**PROGRAM ASSISTANCE APPROVAL DOCUMENT**

**USAID/Philippines**  
**September 1991**

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ABBREVIATIONS AND ACRONYMS

AAPP	Accelerated Agricultural Production Project
AGMARIS	Agricultural Marketing Information System (BAS)
A.O.	Administrative Order
ASAP	Agribusiness System Assistance Program
ASU	Agribusiness Support Unit (DA)
BAS	Bureau of Agricultural Statistics
BOI	Board of Investments
BOP	Balance of Payments
CARL	Comprehensive Agrarian Reform Law
CARP	Comprehensive Agrarian Reform Program
CITEM	Center for International Trade Expositions/Missions
COA	Commission on Audit
COP	Committee on Privatization
DA	Department of Agriculture
DAR	Department of Agrarian Reform
DBM	Department of Budget and Management
DENR	Department of Environment and Natural Resources
DOF	Department of Finance
DTI	Department of Trade and Industry
E.O.	Executive Order
GC	General Contractor
GNP	Gross National Product
GOCC	Government Owned or Controlled Corporation
GOP	Government of the Philippines
GVA	Gross Value Added
IMF	International Monetary Fund
LDAP	Local Development Assistance Program
MAI	Multilateral Assistance Initiative
MAP	Management Association of the Philippines
MARID	Market Information and Dissemination Program (PCCI)
NEDA	National Economic and Development Authority
NFA	National Food Authority
NGO	Non-Governmental Organization
NRMP	Natural Resources Management Program
NTB	Non-tariff Barrier
ONRAD	Office of Natural Resources, Agriculture and Decentralization
PAAD	Program Assistance Approval Document
PAIP	Program Assistance Initial Proposal
PBSP	Philippine Business for Social Progress
PCCI	Philippine Chamber of Commerce and Industry
PL-480	Public Law 480 Food Assistance Programs
PMS/PAD	Planning and Monitoring Service/Policy Analysis Division (DA)
PPD	Policy and Planning Division (ORAD)
R&D	Research and Development
SDP	Support for Development Program
USAID	U.S. Agency for International Development
VAT	Value Added Tax

## SUMMARY AND RECOMMENDATIONS

1. PROGRAM TITLE AND NUMBER: Agribusiness System Assistance Program (492-0445).
2. GRANTEE: The Government of the Philippines (GOP).
3. IMPLEMENTING AGENCY: The Department of Agriculture (DA).
4. FUNDING LEVEL AND TERMS: U.S. \$80 million grant from Economic Support Funds (ESF), with \$23.654 million to be obligated in FY 1991.
5. LIFE OF PROGRAM: September 1991 to September 30, 1996.
6. PROGRAM PURPOSE: To improve the policy environment for private investment in agribusiness activity, linked to a more efficient small farm production sub-sector.
7. PROGRAM DESCRIPTION: The program will provide \$80 million in grant funds over five years to support policy reform; related support services; and monitoring, evaluation and audit. The program is designed to provide \$55 million in performance-based disbursements for the implementation of specified policy changes; \$24.582 million to finance support services such as technical assistance, research and training to aid policy implementation; and \$418,000 for monitoring, evaluation and audit. Disbursements for program assistance are expected in three tranches, with the first tranche to be released in late 1991.
8. GRANTEE CONTRIBUTION: The GOP's contribution to the project will consist of an increased budget to the DA for agribusiness-related activities, as identified in the program's policy matrix. In addition, the GOP will provide logistical support for the technical services contractor employees to be located in the DA.
9. STATUTORY REQUIREMENTS: All statutory criteria have been met (Annex I).
10. RESOLUTION OF PROGRAM ISSUES: All program issues have been satisfactorily resolved; these are detailed in the Action Memorandum requesting Program Authorization.
11. RECOMMENDATION: Authorization of a grant of U.S. \$80 million, if negotiations do not significantly alter the Program in form or substance.
12. USAID/PHILIPPINES PROGRAM TEAM MEMBERS:

ONRAD:BPimm  
ONRAD:RDGarner  
ONRAD:LJensen  
OLA:LChiles

DRM:GMImhoff  
OFM:SDIama  
CSO:WEReynolds  
OPE:GDy-Liacco

AGENCY FOR INTERNATIONAL DEVELOPMENT  PROGRAM ASSISTANCE APPROVAL DOCUMENT (PAAD)		1. PAAD Number 492-0445	
		2. Country Philippines	
		3. Category Sector Assistance	
		4. Date August 1, 1991	
5. To Malcolm Butler Director, USAID/Philippines		6. OYB Change Number N/A	
7. From Barry K. Primm, ONRAD Gary M. Imhoff, DRM/DA		8. OYB Increase N/A  To be taken from:	
9. Approval Requested for Commitment of \$ 80,000,000		10. Appropriation Budget Plan Code ESF: \$80,000,000	
11. Type Funding <input type="checkbox"/> Loan <input checked="" type="checkbox"/> Grant	12. Local Currency Arrangement <input type="checkbox"/> Informal <input type="checkbox"/> Formal <input checked="" type="checkbox"/> None	13. Estimated Delivery Period Sept. 1991-Sept. 1996	14. Transaction Eligibility Date September 30, 1991
15. Commodities Financed  N/A			

16. Permitted Source U.S. and Philippines \$25,000,000	17. Estimated Source U.S. \$10,500,000
Limited T.W.	Industrialized Countries
Free World	Local 14,500,000
Cash \$55,000,000	Other

18. Summary Description

The development goal to which the Agribusiness System Assistance Program (ASAP) will contribute is sustained private sector-led growth in the agribusiness system. This is expected to lead to a more efficient agribusiness system with a significantly higher annual growth rate in value added. The program purpose is to improve the policy environment for private investment in agribusiness activity linked to a more efficient small farm production sub-sector.

ASAP will provide \$80 million in grant assistance to the Government of the Philippines. Of this total, approximately \$55 million will be disbursed in exchange for agreed upon policy changes. The remaining \$25 million will finance the anticipated support services including technical assistance, monitoring and evaluation needs of the program. The \$55 million in sector assistance will be disbursed in three tranches beginning in early FY 1992. The planned technical assistance, monitoring, evaluation and audit services will be provided through AID-direct contracts.

NOTE: The provisions of the payment verification policy regarding methods of implementation and financing, financial capability of recipients, and adequacy of audit coverage have been adequately addressed in this document.

*[Signature]*  
 J.C. Stanford, Controller

19. Clearances	Date	20. Action	
ONRAD: AHWahab	8/1/91	<input type="checkbox"/> APPROVED <input type="checkbox"/> DISAPPROVED  Authorized Signature: <i>[Signature]</i> Malcolm Butler Title: Director Date: AUG 30 1991	
OPE: PRDeuster	8/8/91		
OFM: JCStanford	8/12/91		
DRM: GHImhoff	8/15/91		
OD: RAJohnson	8/30/91		
OLA: LChiles	8/21/91		
DRM: JAPatterson	8/11/91		

## SECTION ONE

### THE SETTING

#### A. RECENT MACROECONOMIC PERFORMANCE

In the closing years of the Marcos Era, 1984-85, the Philippines experienced the most severe economic and financial crisis in its postwar history. GNP dropped by 6 percent in 1984 and 4 percent in 1985. Inflation accelerated to 50 percent and 23 percent in 1984 and 1985 respectively. In 1985, imports dropped by 23 percent and exports dropped by 8 percent. As a result of economic reforms begun in 1985 and continued in 1986 under the Aquino administration, 1986 showed modest growth and the economy experienced a sustained recovery over the 1986-1989 period before entering a period of reduced growth in 1990. Key macroeconomic indicators for the past five years are shown below.

TABLE 1: KEY MACROECONOMIC INDICATORS

<u>Category</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>
<u>Annual Percentage Change:</u>					
GNP	1.5	4.6	6.4	5.6	3.1
Agriculture	3.3	-1.0	3.6	4.3	2.2
Industry	-2.1	7.4	9.0	6.9	4.6
Imports	12.9	26.5	33.5	22.4	8.0
Exports	21.8	-1.3	15.9	11.7	6.0
Inflation	0.8	3.8	8.8	10.6	12.7
<u>Ratio to GDP:</u>					
Consolidated fiscal deficit	-4.8	-2.7	-3.1	-4.0	-5.2
Current account BOP deficit	3.1	-1.3	-1.1	-3.3	-5.8

Sources: World Bank (1990) and GGP (1991)

The decline in world prices for Philippine exports accompanied by price increases in oil and other imports are the major external causes of the economic slowdown. This was followed by the Middle East crisis in 1990 leading to further increases in oil prices. Internally, there has been a steady rise in domestically-financed GDP debt leading to rapidly increasing real interest rates. Certain domestic exogenous events have also had a negative impact on overall economic performance, specifically the drought in the winter of 1989-90, the coup attempt in December 1989, the earthquake in July 1990, and the major volcanic eruption in Luzon in June 1991.

These negative developments caused severe balance of payments and budgetary resource gaps, which are hampering the achievement of important GDP stabilization and structural adjustment objectives. Government policies have tended to aggravate the situation. Populist measures, such as the minimum wage increase in 1989, and consumer subsidies on petroleum products (just recently removed) had an important impact on inflation. Both the budget

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deficit and the current account balance of payments deficits are rising, and inflation is remaining in the double digits. High inflation caused by large budget deficits are resulting in high interest rates, which in turn are putting upward pressure on the exchange rate.

This overall situation, if not vigorously addressed by the GOP, has serious negative implications for the international competitiveness and medium-term prospects of the Philippine economy. The ability of the GOP to manage their overall economic situation will also condition the willingness of donors to extend aid and refinance debt.

## B. GOP DEVELOPMENT STRATEGY AND MEDIUM-TERM ECONOMIC PROSPECTS

The latest statement of GOP development strategy is the Progress Report on the Philippine Agenda for Sustained Growth and Development, dated January 1991. This document presents the GOP strategy and programs in terms of two overall objectives: increased economic efficiency/productivity and poverty alleviation. The main thrust of the strategy is to create an improved macroeconomic and regulatory climate for private sector-led growth. This includes all of the standard structural adjustment measures including:

1. a market-determined exchange rate;
2. reduced tariffs and non-tariff barriers;
3. reduced market distortions resulting from GOP regulations and various incentives for investment, industrialization and exports;
4. increased efficiency and effectiveness in the financial sector; and
5. sound monetary policies as reflected in low and manageable budget and balance of payments (BOP) deficits.

Measures carried out over the past five years have had some positive impact on the overall competitiveness of the Philippine economy, although not enough to prevent the country from falling behind with respect to its major competitors. Although the exchange rate is adjusted more frequently and promptly in response to market forces it is still heavily managed by the Central Bank. The average effective rate of import protection, including both tariffs and NTBs, dropped from 49 percent in 1985 to 36 percent in 1988, and additional reductions in tariffs and non-tariff barriers occurred in 1989 and 1990. A major overall reduction which was to have taken effect in September 1990 (Executive Order 413) will soon be reissued with revisions. A negative but temporary development with respect to import liberalization is the decision in January 1991 to add a 9 percent import surcharge as a revenue raising measure.

The GOP has also initiated changes recently in the investment incentive system to remove the biases against agriculture and small- and medium-sized enterprises, and convert the Board of Investments (BOI) from a regulatory to

an investment promotion body. Due to the complexity of the incentive system and the wide ranging political ramifications, it is uncertain when a complete overhaul of the system can be put into effect. Within the context of the existing system, steps have been taken to expedite investment approvals and facilitate foreign investments in selected industries. A related set of measures involves the privatization of government-owned or controlled corporations (GOCCs). GOCCs accounting for 15 percent of the total book value of GOCCs have been approved for privatization. Actual sales however have been delayed by legal problems, valuation work, and bureaucratic resistance.

At the same time that it is improving the policy framework for the private sector, the GOP proposes to improve efficiency/effectiveness in the public sector. At the overall level this involves improved revenue collection, strict controls on current expenditures, especially salaries, increased cost recovery in the corporate sector (electricity, oil, and water), and increased decentralization of government services. At the sectoral level, the GOP is undertaking new initiatives with respect to rice production, agro-industry in rural areas, transportation (shipping and air), telecommunications, and the management of natural resources.

With respect to its poverty alleviation objective, the GOP's major initiative is the Comprehensive Agrarian Reform Program (CARP). Associated with the transfer of land to small farmers, it encompasses a wide range of activities designed to increase farmer productivity and to strengthen linkages to viable markets. In addition to the CARP initiative, the GOP seeks to expand and increase the effectiveness of its ongoing social services in the areas of health, education, housing, and social welfare.

A key factor in the achievement of GOP development objectives is the availability of public sector resources. Between 1985 and 1989, a period of relatively rapid economic growth, government revenues increased from 11 percent of GNP to 16 percent. During this same period, non-interest government expenditures went from 11 percent of GNP to 12 percent, and the consolidated deficit remained at about 5 percent. Virtually all of the increased revenue effort went into servicing the public debt. The stabilization program proposed for the Multilateral Aid Initiative (MAI) calls for the budget deficit to drop from P36.6 billion in 1990 to P26.6 billion in 1991 and P0.2 billion in 1992. This will be achieved through greater revenue generation efforts and virtually no increase in non-interest government expenditures. In this regard, GOP debt service payments will continue to increase rapidly even after 1992.

Under these circumstances, the key to the success of the GOP's development strategy will be the economic stabilization program and measures aimed at increasing international competitiveness. This will translate directly into higher private sector-led growth. With little likelihood of increased government services in the short run, increased incomes resulting from private sector investment/growth are the only meaningful way to address the poverty alleviation objective. As increased economic activity leads to increased GOP revenues, increased household incomes will be accompanied by improvements in social service delivery aimed specifically at the poorest segments of the population.

There are strong indications that the GOP will carry out the key elements of the stabilization program recently negotiated with the IMF. These measures cannot be avoided if the country is to meet its short-term liquidity needs. Of greater concern at this time is whether the GOP will be politically able to proceed on schedule with the structural adjustment measures that are at the heart of the GOP development strategy and are critical to achieving sustained economic growth over the medium term. It is clear that there is a strong high-level commitment within the Government to carry out these measures. However, the accompanying disruptions have political costs that are particularly high during difficult economic times. In the Philippines, the situation is further exacerbated by the upcoming national elections. Several measures have already been postponed or abandoned, including E.O. 413 which would have lowered/rationalized the tariff regime. Thus, at the very time when structural adjustment measures are most urgently needed to regain the momentum of the late 1980s, there is a growing fear that the political will to carry them out may be lacking.

### C. THE USAID DEVELOPMENT ASSISTANCE STRATEGY AND PROGRAM

The overall goal of the USAID development assistance strategy is broad-based sustainable economic growth through active partnership of the private and public sectors in fostering open and efficient private sector markets. This goal is directly supportive of the GOP development strategy as pursued since the mid-1980s. The GOP is continuing to move in this direction with the support not only of the U.S. but also the other major bilateral & multilateral donors. In the context of this overall goal, USAID has five development objectives:

1. a policy and institutional framework stimulating market-based private sector growth;
2. open and competitive markets;
3. infrastructure that facilitates expanded private sector activity;
4. the efficient delivery of essential government services; and
5. effective and sustainable management of natural resources.

Three common and cross-cutting themes are applied in the pursuit of these objectives:

- Policy Dialogue. The key to the achievement of the above objectives is the GOP's own policies/programs. A.I.D. and other donors can only be supportive of programs that are initiated and carried out by the Philippine Government with their own resources. For this reason, the overall A.I.D. program is based on policy dialogue. USAID technical assistance is provided to support policy analysis, and non-project assistance is provided, when appropriate, in support of basic, far-reaching policy reforms.

- The Private Sector. The underlying premise of the USAID development strategy is that sustained broad-based economic growth must be private sector-led. This means that the USAID program is designed to provide maximum support to the private sector, and the private sector is seen as playing a key role in the achievement of USAID's overall goal as stated above.
- Decentralization. The USAID strategy reflects the view that when the provision of essential government services is decentralized, those services are provided more efficiently and are more responsive to the needs of the population. The need for decentralization is built into the design of the programs and projects that support the Mission's five development objectives.

The Agribusiness System Assistance Program (ASAP) consistent with the Mission's Agriculture and Natural Resources (ANR) Strategy and its proposed Private Sector Development Strategy. The overall goal of the former, which is administered by the Mission Office of Natural Resources, Agriculture and Decentralization (ONRAD), is to accelerate private sector-led economic growth and improve national food security through increased reliance on open market mechanisms, agribusiness development and participation, and financial and natural resource sustainability. The overall goal of the latter, which will be administered by the Private Enterprise Support Office (PESO), is to promote greater economic efficiency in all segments of the private sector enabling them to compete more effectively in open markets.

In addition to ASAP, the current ONRAD program includes the Local Development Assistance Program (LDAP) and the Natural Resource Management Program (NRMP). Two activities approaching completion are the Accelerated Agricultural Production Project (AAP) and the Agrarian Reform Assistance Program (ARSP). The Mission sees the ASAP, with its focus on market driven growth and increased value-added in agriculture, as the natural follow-on to past and existing USAID-funded programs and projects. As discussed in Section Three, ASAP is also seen as an important complementary activity to other Mission program/project initiatives in private sector development.

SECTION TWO

THE AGRIBUSINESS SYSTEM

A. DESCRIPTION

Most broadly defined, the agribusiness system encompasses agricultural production, all of the inputs/services that are used in on-farm production, and all of the processing, manufacturing, transportation and services that are involved in transforming raw agricultural produce into finished products for domestic consumption or export. Defined in this way, Philippine agribusiness is estimated to account for about 50 percent of GDP. The share of on-farm production in the agribusiness system declines as countries develop. In developed countries, on-farm production accounts for only a small part of total agribusiness activity. Table 2 shows that, in the Philippines, off-farm activities account for slightly more than half of agribusiness production.

TABLE 2: CONTRIBUTION OF AGRIBUSINESS TO GDP - 1989

Category	Percentage
Agriculture	23.5
Crops	13.4
Livestock	1.8
Poultry	2.3
Fish	4.6
Forest products	1.3
Agro-manufacturing	11.2
Fertilizer & pesticide manuf.	0.7
Elect., gas, water	0.7 a/
Transportation & commun.	2.5 b/
Trade	7.8 c/
Other services	3.1 d/
<b>Total Agribusiness</b>	<b>50.1</b>

a/ 30 percent of total  
b/ 50 percent of total  
c/ 40 percent of total  
d/ 15 percent of total

Source: Allen and Dy, 1990

The food manufacturing sector accounted for about 24 percent of total manufacturing in 1986, with cigarette, wood products, pulp and paper, and fertilizer production accounting for another 14 percent. Sugar, coconut, and vegetable oil production accounted for almost half of food manufacturing (GOP National Statistics Office, 1987).

The contribution of agribusiness to exports is summarized in Table 3. Fruit and vegetable exports consist mostly of pineapples and bananas, and most of the non-specified agro-based exports are marine products (prawns, tuna, and seaweed). It should be noted that these figures underestimate the contribution of agribusiness to foreign exchange earnings because agriculture based products have a very low import content. For example, the import content of electronics/garments, the two largest categories of manufactured exports, has been estimated at 56 percent and 80 percent, respectively (World Bank, 1990).

TABLE 3: 1989 PHILIPPINE EXPORT EARNINGS (\$ millions)

	1985	1989
<b><u>Agriculture Based Products:</u></b>		
Coconut products	459	541
Sugar products	185	213
Fruits and vegetables	136	319
Other agro-based products	<u>551</u>	<u>454</u>
Sub-total	1,330	1,427
<b><u>Manufactures:</u></b>		
Electronics	1,056	1,751
Garments	623	1,575
Processed foods and beverages	106	206
Other manufactures	<u>980</u>	<u>1,660</u>
Subtotal	2,765	5,192
<b><u>Other Exports</u></b>	<b><u>534</u></b>	<b><u>1,202</u></b>
<b>Total Exports</b>	<b>4,629</b>	<b>7,821</b>

Source: World Bank, 1990.

A measure of the economic importance of the agribusiness system is its linkages to the rest of the economy. These can be "backward" linkages through inputs that go into production or "forward" linkages through further transformation, transportation and other services needed before the products concerned reach final domestic or export markets. NEDA's 1983 input-output model shows that the food-feed processing and livestock-poultry subsectors have some of the strongest linkages to the rest of the economy.<sup>1</sup> Most agricultural production feeds into these subsectors, which means that an efficient, market-oriented food-feed processing and livestock-poultry subsectors lead directly to demand-driven growth in on-farm production. Both subsectors have

<sup>1</sup> Because the structure of economies change slowly over time, the 1983 model is still generally representative of the national economy. An analysis of the I-O model to identify the inter-industry linkages of Agribusiness to other sectors was carried out by Dr. Larry Morgan of Chemonics Intl. and was presented in Annex C of the PAIP.

strong backward/forward linkages to the manufacturing and service sectors. There is also a strong backward link to the household sector in the form of salaries that are paid to employees.

An additional consideration is that increased activity in either subsector and the increased activity resulting from backward/forward linkages generates strong demand for domestic goods/services and relatively low demand for imports. Both food/feed processing and agricultural production have extremely low import content. Also, the consumption patterns of households in agriculture and related service sectors who earn more as a result of growth in food, feed, fruit and vegetable production/processing have a lower import content than their counterparts in other sectors. This combination of factors indicates that development activities focussed on the food/feed processing sector are one of the most effective ways to achieve broad-based growth in the Philippines.

## B. RECENT PERFORMANCE

The Philippines experienced exceptionally strong sector-wide agricultural growth during the 1970s. Growth was related to the introduction of green revolution technologies combined with high producer prices and substantial subsidies on modern agricultural inputs. The new technologies brought increased yields and the high returns to agriculture resulted in increased area planted for almost all major crops. Food prices were at favorable levels relative to the rest of the economy and generally kept pace with inflation during this period.

The strong agricultural performance had a dramatic impact on living conditions and overall economic performance. Per capita food consumption was 18.5 percent higher in 1980 than in 1970. Food energy in the average diet increased by about 10 percent. The volume of agricultural exports increased by more than 50 percent in constant prices while agricultural imports increased by about 13 percent.

Agriculture growth began tapering off in the late 1970s and trended slightly downward prior to a sharp drop as a result of the drought in 1983. There was some post drought recovery, but as can be seen from Table 4, the 1980s were a period of slow growth for agriculture. The difference was particularly striking for crops which grew by only 1.5 percent per year in the 1980s compared to 6.9 percent per year in the 1970s. Although part of the reason was poor growing conditions, the urban-biased economic policies of the 1970s, including price ceilings on food, eventually reduced the returns to agriculture. This led inevitably to reduced allocation of capital/labor to the sector. The strongest performance was in livestock and poultry in response to strong urban demand and increasing low-cost feed supplies, mostly corn.

The strong export performers during the 1970s were sugar, fresh pineapples and pineapple concentrate, fresh bananas, and prawns. In the 1980s the only strong performers were coconut oil, preserved tuna, and seaweed. Sugar exports peaked in 1975, then dropped sharply and steadily until the recent strengthening in 1990 and 1991. Other declining agricultural exports include coconut products, tobacco products, and logs and lumber. Overall,

TABLE 4: ANNUAL GROWTH RATES IN AGRICULTURAL GROSS VALUE ADDED

Category	-----1980s-----			
	1970s	Early	Late	Whole
Crops:				
Palay	4.3	0.4	2.8	2.0
Corn	6.2	0.1	5.5	3.6
Coconut	6.3	-4.8	8.7	3.2
Sugarcane	4.6	-1.3	-6.7	-6.8
Banana	0.0	4.6	-1.5	1.7
Other	14.2	3.9	0.3	1.8
Sub-Total	6.9	1.5	1.5	1.5
Livestock:				
Poultry	0.5	3.0	6.6	4.2
Fish	7.5	13.7	5.5	7.8
	4.4	3.4	3.1	2.7
TOTAL AGRIC.	5.9	3.0	2.6	2.6

Source: Allen and Dy, 1990.

agriculture based products have not contributed significantly to growth in Philippine exports for some time, although, net of imported intermediate goods, they continue to be the major foreign exchange earner.

Approximately 75 percent of agricultural production in the Philippines is for the domestic market. That market is growing at the population growth rate plus growth in per capita incomes. This indicates growth in domestic demand of about 3.5 to 4 percent per year with somewhat faster growth for the income elastic goods, e.g., livestock products, selected fish products and fruits and vegetables.

The export situation is even more complex. Markets are declining for many of the Philippines traditional agriculture-based exports. World demand for coconut products is declining. Prospects for coffee/cocoa are not promising because of competition from neighboring countries and abundant world market supplies. Exports of forest products are expected to virtually disappear because of the severe denuding of Philippine forests. Sugar exports will continue their downward trend, mainly because of low productivity combined with strong domestic demand. The situation is more promising for bananas and pineapples. The Japanese markets seem to be saturated, but new markets may be opening up in South Korea, Singapore, and Hong Kong. (Allen and Dy, 1990).

There is a growing world market for fruits and vegetables, both fresh and processed, but opportunities are commodity and country-specific, requiring constant efforts to identify and develop market niches. Constant efforts are also needed to maintain or increase existing market shares for the country's traditional agricultural exports under conditions of stagnant or declining markets.

### C. CONSTRAINTS TO AGRIBUSINESS GROWTH

The potential for agribusiness to increase farm and off-farm employment and incomes, expand rural markets for agricultural and industrial goods and services, and promote broad-based and sustainable economic growth, will remain largely unfulfilled in the absence of a policy framework that fosters open markets, economic efficiency and international competitiveness. Also, agribusiness will not expand rapidly unless there is improved vertical integration and/or coordination within the agribusiness system and expanded support for infrastructure and technology development and transfer. The major constraints to private sector agribusiness growth include the following:

#### 1. Biased Price and Investment Incentives

The investment incentive system in the Philippines has traditionally favored capital-intensive urban-based manufacturing. This not only draws scarce capital funds away from agriculture, but some of the incentives increase the costs of production and the processing/transport of agricultural products. Although progress is being made overall in removing these biases, many remain that negatively impact on private sector agribusiness investment. The most important are overvalued locally-produced agricultural commodities and undervalued agricultural imports brought about by an overvalued peso, a higher level of import protection for urban manufacturers than for agricultural producers or rural-based small and medium agribusinesses, and the apparent misapplication of certain GOP taxes on agro-processors.

##### a. Exchange Rate Policy

A necessary condition for an internationally competitive Philippine agribusiness sector is an exchange rate that is market determined or, failing that, purposefully undervalued. Unfortunately, the long-time policy of the GOP has been to maintain a stable exchange rate as part of an import substitution-based development strategy. Despite public announcements since the mid-1970s to make the economy more export oriented, there is still a policy of trying to maintain a stable exchange rate in the face of inflationary increases in aggregate spending. As a result, the exchange rate tends to be constantly overvalued.

If the exchange rate were to be determined by the market, agri-based imports would become more expensive and would be substituted for by locally-made products, and Philippine agri-based exports would be more competitive on world markets. On the other hand, most key import substitution industries would argue for a higher level of protection because their imported raw materials and intermediate goods would become more expensive.

##### b. Trade Policy

Beginning in 1981, the GOP has taken measures to reduce the level of import protection as part of its structural adjustment program to increase the efficiency of the Philippine economy and improve its international competitiveness. In 1981, the average tariff rate was cut from 48 percent down to 28 percent. Since 1982, NTBs were removed on over 2,000 products.

For the agribusiness system, the main trade policy issue is that there is a strong anti-agriculture bias in the tariff structure. Prior to 1981, the average rates of protection for agricultural and manufactured goods were 9 percent and 44 percent, respectively. Since 1981, the reduced levels of protection have been applied more to agricultural than to non-agricultural goods. Most importable agricultural goods are in the 0 to 10 percent tariff category while most manufactures are in the 40 to 50 percent category. The result is that the anti-agriculture biases are even stronger now than they were in the early 1980s.

The latest tariff reform measure is E.O. 413 which was to have taken effect in September 1990. The main purpose of E.O. 413 is to reduce the overall rate of tariff protection. It also reduces the range of tariffs from the existing 0 to 50 percent, to a narrower range of 3 to 30 percent. While raw materials and semi-processed goods continue to be accorded the lowest protection rates (between 3 and 10 percent), the difference in protection for agriculture-based products relative to manufactures is significantly reduced because the maximum rate is lowered by 20 percent. The net effect of E.O. 413 is to increase profitability and investments in agriculture and agribusiness relative to non-agriculture based manufacturing.

At present, the issuance of a revised E.O. 413 is expected. Although the final decision on E.O. 413 has important implications for the agribusiness system, the decision will be made in the context of macroeconomic objectives and the GOP's structural adjustment program. An important succeeding step is a proposal to eliminate most non-tariff barriers and replace them with tariffs. This would have the effect of substantially reducing the effective protection rate on hundreds of manufactured goods. The policy dialogue between donors and the GOP on these matters is taking place under the overall umbrella of the IMF stabilization program and the Multilateral Assistance Initiative.

In the meantime, the GOP has reduced tariffs on agricultural goods and transportation equipment and spare parts under National Emergency Memorandum Order No. 8. This is a temporary measure that will become permanent only when the revised E.O. 413 goes into effect. These reduced tariffs will result in lower production costs for certain agricultural and agribusiness activities, but the overall effect on the agribusiness system is lower than if the overall anti-agriculture trade bias were to be corrected. Moreover, implementation of E.O. 413 in its current form would actually increase disincentives to private sector investment in the feed-livestock industry by enacting higher duties on live feeder animals than on imports of processed meat products, maintaining quotas on imports of feed cattle and continuing the existing high tariff levels on imports of other key inputs for livestock production that are not locally available in adequate quality or quantity.

### c. The Value Added Tax (VAT) on Agro-Processors

The GOP introduced a 10 percent VAT on January 1, 1988 in a comprehensive way. The tax is equal to ten percent tax on the total value of products sold minus the ten percent tax that was previously paid by the producers of the

inputs that went into the products sold. When properly implemented the tax returns of all of the businesses subject to the tax provide an auditable means of assuring that all VATs have been paid.

The issue for agribusinesses is that primary products, including agricultural products, are exempt from the VAT. This means that when agro-processors calculate their VAT, they are unable to claim credit for the VAT paid on their inputs, because the tax was not paid. The result is that agro-processors pay the VAT on agricultural products as well as on their value added. Consequently, the average effective VAT rate on agroprocessing amounts to 22 percent instead of the intended ten percent.

There are two main objections to correcting this problem. The first is that it would reduce tax revenues thereby aggravating the country's budget deficit problems. Taxing agro-processors is seen by DOF as an inexpensive way of collecting taxes from the primary sector. The second is that the VAT is experiencing implementation problems, and there is resistance to complicating the process further by starting to change the rules before the existing ones are in place and running well. Nonetheless, there is currently a bill in committee in the lower house to remove the requirement that agro-processors pay the VAT on primary products.

The key policy question is the reason for the VAT exemption. Is it because the tax would be too difficult to collect or is it because the GOP wishes to reduce the tax burden on primary producers for social or political reasons. If the latter, the case for reducing the VAT on agro-processors is strong. If the former, the issue then becomes whether or not the processor is able to pass the tax backward to the farmer. The analysis to date seems to indicate that the agro-processor absorbs most of the cost of this tax. If this is the case, the tax constitutes an additional cost for the agro-processor and is a disincentive to increased value added in the agribusiness system.

## 2. Restrictions on Open Markets

The numerous GOP interventions/controls in the agribusiness system have the effect of increasing production costs and discouraging private investment. These include inappropriate GOP interventions in grain and agricultural asset/input markets; price and regulatory control of the transport sector (particularly interisland shipping); and licensing requirements that restrict new investments and reduce competition. More specifically, the role of the GOP's National Food Authority (NFA) in corn marketing and imports; regulations of the Comprehensive Agrarian Reform Program (CARP) that have virtually destroyed the collateral value of agricultural land; the regulation of interisland transport in ways that increase the costs of shipping agricultural products; and the unfair advantage/influence of other parastatals have created major entry/exit barriers and other disincentives to private sector agribusiness investment, particularly in the feed-livestock and fruit-vegetable sectors.

### a. Corn Marketing Policy

Of the 73 provinces in the Philippines, only 19 produce corn on a significant basis. Of the 19 corn growing areas, only six provinces are

consistently classified by the GOP as "surplus" (i.e., producing more than they consume) with the remaining seven being "marginal or deficit." These surplus corn growing areas include the provinces of: Lanao del Sur, Maguindanao, Bukidnon and North & South Cotabato, all of which are on the island of Mindanao, and finally Isabela in Luzon. These six provinces have consistently accounted for 60 percent of the nation's annual corn production. Although white corn is a staple food for a small portion of the population, about two-thirds of the corn produced in the Philippines is used for animal feed.

Corn is one of the crops covered by the GOP's grain stabilization program. The objectives of the program are to assure adequate supplies of affordable staple grains for the population, support minimum farmgate prices for farmers, and maintain buffer stocks for years of shortages. The problem is that the National Food Authority (NFA), which is responsible for administering the program, constantly lacks the resources necessary to guarantee minimum prices and maintain buffer stocks. Consequently, NFA is not able to achieve its grain stabilization objectives despite massive GOP subsidies to cover its operating losses.

The corn market is characterized by relatively steady demand from feedmillers and hog and poultry producers, but there are sharp seasonal fluctuations in supply. One important NFA role in this market is to make recommendations on the issuance of corn import licenses. There is strong pressure from hog and poultry producers to allow imports during the lean months. The DA usually allows these imports. But delays in the approval process and in shipping often result in corn imports arriving when they are least needed. Under these circumstances, there is an ongoing demand from feedmillers for the complete liberalization of corn imports.

A number of changes are required before corn imports can be liberalized. The objective should be to install a domestic production/marketing system that assures a steady supply of high quality corn at competitive prices. The main reasons why this is not now possible are: 1) the lack of private sector shelling, drying and storage facilities; 2) high transportation cost from the production area to the feedmills; and 3) a price system that does not differentiate adequately between low and high quality corn.

A major obstacle to private sector investment in corn drying, shelling and storage facilities is the involvement of NFA in marketing. The private sector can never be assured that the NFA will not enter the market and pay a higher farmgate price or sell to mills at below market prices. For corn, the main political concern is to provide support for producer prices. The task at hand is for the GOP to convince the farmers that a well functioning private sector marketing system will do more to stabilize prices than a chronically underfunded NFA.

The GOP has already begun moving in this direction. The DA plans to begin the process by undertaking programs to encourage increased private sector investment and participation in corn processing/trading and eventually eliminating the need for NFA participation in corn marketing. One important part of this effort will be for the hog and poultry producers to experiment with contract relationships that provide price incentives to farmers and, on

the other hand, traders and livestock producers with consistently high quality corn. This has started on a very small scale under the auspices of PCCI.

#### b. The Cost of Inter-island Shipping

The nation's inefficient interisland shipping industry and its high rate structure are a major constraint to agribusiness development in general, and for the feed-livestock complex in particular. Port access and the high port charges are another major factor cited by private agribusiness firms and groups for increasing shipping costs. The inefficiencies stem from antiquated equipment and regulations/practices relating to port charges. The health of the interisland shipping industry has also been impaired by restrictions on the import of ships and spare parts.

Until recently, agricultural products were subject to "basic class" rates, which are only 40 to 55 percent of Class C rates. As a result, these products had the lowest priority in the allocation of shipping space. Following the Presidential Task Force Study on Inter-island Shipping (which was partially financed by USAID), shipping rates for agricultural products have been upgraded to Class C equivalent. Pursuant to the same study, imports of ships and spare parts were temporarily liberalized under Emergency Memorandum No. 8. The next step is to codify the new tariff and NTB structure and liberalize further as necessary. Other significant recommendations of the Task Force Study, which are yet to be implemented, include: partial deregulation of the rate structure, periodical update of the basis for fare determination, deregulate entry into particular routes, demonopolize port cargo handling services, rationalize cargo handling rates and accelerate the privatization of ports.

#### c. The Comprehensive Agrarian Reform Law (CARL)

Regulations associated with the implementation of CARL have created great uncertainties in private sector. These uncertainties have essentially frozen private investment in agriculture and agribusiness.

The first is the lack of a clear policy on converting agricultural lands to other uses. Present procedures call for all changes in land use to be approved by the DAR. The main problem is that there are few guidelines for approving requests. The resulting long delays in approvals have had a negative effect on new agro-industrial investment. These investments create jobs and increase demand for agricultural products. The administrative order covering changes in land use needs to be rewritten to expedite the decision-making process. Both DAR and DA agree that this is necessary.

A second issue is that agricultural lands can no longer be used as collateral for loans. In order to prevent the reconsolidation of these lands into large holdings, their resale is prohibited without DAR approval. This renders the land useless as collateral for loans from financial institutions. Land is usually the only asset that small farmers can use as loan collateral. Restoration of the collateral value of agricultural land brought about through a functioning land market is a necessary condition to continued growth and development of the sector,

#### d. Government-Owned and Controlled Corporations (GOCCs)

The GOCC privatization program is underway in the agribusiness system as in other sectors of the economy, and is facing the same delays. These are mainly due to the difficulty of selling the corporations at prices set by the GOP COA. In the agribusiness system, six corporations have been sold, two have been turned over to the Asset Privatization Trust for negotiated sale and nine remain to be privatized. The latter includes the: Food Terminal, Inc., National Sugar Refineries Corp., So. Philippines Grain Complex, No. Philippine Grains Complex, Bicol Seeds, Inc., Republic Transport and Shipyard Corp., Animal Industry Vaccine Laboratory and Iloilo Thermal Plant. In addition, the GOP continues to operate (at a major loss) the Philippine Phosphate, Inc. (PhilPhos) which is the country's major phosphate fertilizer plant/supplier.

With the exception of PhilPhos and the NFA, the other nine corporations are not having a significant impact on the private agribusiness system, but they continue to drain the GOP of budgetary resources. The GOP agrees that the privatization process needs to be accelerated. For these nine parastatals the issue is being addressed in the context of efforts to control government spending and reduce the consolidated budgetary deficit and is not included in the ASAP policy agenda. However, given an operating loss of \$230 million last year (the largest of all GOCCs), PhilPhos is a prime target for divestiture.

#### 3. Inadequate Transport/Communications Infrastructure

The main constraint is transportation, especially the lack of rural roads. This has a particularly negative impact on perishable goods like fruits and vegetables which must be transported and processed quickly to avoid spoilage. A second, but at times critical constraint is the lack of communications. The poor infrastructure increases costs, contributes to unreliable access to and movement of commodities (inputs & outputs), and frequently prevents timely response to new opportunities or changing market conditions. The lack of roads, ports and communications is a major disincentive to private sector investment grain storage and handling facilities in growing areas as well as near ports.

#### 4. Inadequate Rural Financial Systems

Despite numerous donor interventions in the past, credit continues to not be readily available to small/medium scale enterprises in the rural areas. Production credit for small farmers is available for some crops in some places, but medium or long-term credit for permanent crops, livestock or farm facilities is minimal. Clear land titles, which are extremely difficult to acquire since CARL, are usually required for collateral.

#### 5. Weak Vertical Market Linkages

The lack of market linkages shows up in different ways. First, there are weak links between agribusinesses and small farmers, mainly because, prior to the CARL, major Philippine agribusinesses obtained their agricultural raw materials from large landholdings. Second, Philippine agribusinesses have difficulty obtaining access to the agricultural and agro-processing technol-

ogies that they need to supply domestic markets efficiently and compete successfully in export markets. In most cases required technology exists, but local firms need assistance to link up with foreign firms which could provide the technologies, as well as support in adaptive research, through joint ventures or licensing arrangements.

Third, Philippine agribusinesses lack marketing knowledge and expertise. This prevents them from first identifying potential markets, then developing them. A related problem is the general lack of basic market information, especially current data on market conditions for specific commodities. In short, effective linkages in the agribusiness system are lacking from farm production through to final markets. The private and public sector can both play an important role in creating/strengthening these linkages, particularly in providing international market data as well as data on local, regional and national markets. Steps have only recently been taken to address the former under the Private Investment Trade Opportunities - Philippines Project (PITO-P) and the latter under USAID's AAPP, and there is an urgent need for continued donor support.

#### 6. GOP Budget Support for Agribusiness Development

The main issue of budget support for agribusiness development is expenditures on rural infrastructure. This is recognized as one of the major constraints to sustained growth and international competitiveness for the agribusiness system. Other budget support issues include expenditures on agricultural technology development and transfer and programs to increase the availability of credit in rural areas. The GOP is currently facing severe constraints and new initiatives that require large increases in expenditures are extremely unlikely. However, relatively small increases in expenditures in such areas as data collection, analysis and dissemination will pay very large dividends in terms of more knowledgeable and sustainable private sector investment in agribusiness consistent with the nation's comparative advantage in agriculture.

Any reduction in the above constraints would increase the ability of Philippine agribusiness to respond to domestic and, to a lesser extent, foreign market opportunities. To become fully competitive internationally, all of these constraints need to be addressed to the fullest extent possible. The objective of policy reforms and programs in support of agribusiness should be to level the playing field with respect to the Philippines' major competitors: Thailand, Malaysia, and Indonesia. The most obvious and direct impact will be sustained long-term growth in agriculture-based exports. A less obvious, but perhaps economically more important, result will be a more efficient agribusiness system able to provide larger quantities of lower cost, higher quality processed agricultural products for the domestic market.

### SECTION THREE

#### ASSISTANCE RATIONALE AND COORDINATION

##### A. SELECTION OF THE AGRIBUSINESS SYSTEM

The analysis in the previous section identifies the agribusiness system as accounting for over half of the Philippine GDP. The system has strong comparative advantages as evidenced by the low level of trade protection, especially the negative rate of protection of agricultural exportables. Also, the NEDA input-output (I-O) model of the Philippine economy demonstrates that the agribusiness system has strong linkages to the rest of the economy, so that growth in this system causes increased production and employment in other sectors. The strongest linkages with the rest of the economy are in the feed-food processing and livestock-poultry sub-sectors. As noted in the previous section, the I-O model also shows that most agribusiness sub-sectors have a relatively low import content which means that primary and intermediate goods are purchased domestically, not imported from abroad.

The system is also of critical importance for broad-based development. Agricultural production and agro-processing are labor intensive. More important, it is through agricultural production and value added in rural based processing activities that incomes and employment can be increased in the rural areas, where 60 percent of the population resides. The rural population moreover contains 80 percent of the Philippine households that fall below the GOP's poverty line.

The particular ASAP focus will be on agro-processing and agricultural marketing. Sustained increases in small farmer production will be possible only when their increased production is demand driven. As agro-processors and other buyers of agricultural products become responsive to market forces they will generate the demand for the marketable surpluses of small farmers.

##### B. CONSTRAINTS TO BE ADDRESSED

Of the constraints discussed in the previous section, exchange rate policy and transport/communications infrastructure will not be addressed by ASAP. The first is being addressed by macroeconomic reform programs of the multilaterals and USAID's Support for Development Program. The second is being addressed through GOP and donor-funded infrastructure investment projects. The issue of sustained increases in GOP expenditures on rural infrastructure cannot be effectively addressed until the macroeconomic structural adjustments are completed and the GOP budget deficits are at a more manageable level. Regarding trade policy, ASAP will focus only on those tariffs and non-tariff barriers affecting selected subsectors of agribusiness such as the feed-livestock complex. Broad based (multisectoral) trade policy reform will be pursued by USAID and other donors under the context of the MAI.

Three sets of constraints to agribusiness growth will be addressed under ASAP:

1. Restrictions on competition and open markets, especially those that are specific to agribusiness. The effect of these restrictions is to increase production costs and reduce incentives to invest in agricultural production, marketing and processing. The areas of concern include: GOP involvement in agricultural marketing, CARP implementation, and tax and investment regulations that are more onerous to agribusiness than to other sectors. Removing these constraints will increase profitability in agribusiness, leading to increased investment and increased incomes/employment.

2. The lack of government supporting services. The DA budget has been declining in real terms and as a percent of the total GOP budget since the mid-1980s. As a result, the Department has been unable to provide critical services in the areas of data gathering, policy analysis and advocacy, technology development and transfer, and market development. Some of these services were supported and strengthened under the USAID-funded AAPP, but much of what was gained is now threatened because of the lack of GOP budgetary support. ASAP will continue to support some of these services, but only in the context of an ongoing policy dialogue aimed at identifying ways of assuring sustainable GOP budgetary support.

3. The lack of vertical market linkages. This constraint is closely related to important structural changes that are currently occurring in the agribusiness system and must be continued if sustained rapid sector growth is to be achieved. At present, the agribusiness system is dominated by large firms in the traditional, but stagnant, coconut and sugar subsectors, and in the highly protected food and feed processing sub-sector producing for the domestic market. Many of these agribusinesses are not internationally competitive and are surviving largely either because their productive base has been in the family for generations or they are benefitting from government protection against foreign and, in some cases, domestic competition.

The remainder of the system is made up of small- and medium-sized entrepreneurs and, more recently, agricultural enterprises owned and managed by farmer groups. This segment of the agribusiness system has received little protection from the government and their survival/growth has occurred largely in an open market environment. Growth strategies of this group are based on competition and efficiency rather than on finding ways of obtaining special treatment from the government. Therefore, this group is most responsive to, and will benefit the most from, open market policy reforms. However, in addition to facing all the same constraints as the larger firms, this segment is also hampered by non-policy constraints which consists of weak marketing linkages and expertise, from the primary producer through to the final consumer.

## C. COORDINATION

### 1. USAID

The program and support services components of ASAP will build upon, reinforce and/or be complemented by the planned and ongoing program/project portfolios of the Mission's Office of the Program Economist (OPE) and the Private Enterprise Support Office (PESO) as discussed below.

a. **Private Enterprise Policy Support (PEPS) Program** -- PEPS is a proposed multi-year balance of payments (BOP) program supporting the implementation of significant GOP policy reforms essential to private sector led sustainable growth. The first tranche will be predicated on the GOP's attaining by a specified date, investment liberalization through the recently signed Foreign Investments Law and issuance of its implementing rules and regulations (IRRs); or tariff reduction and restructuring through issuance of a revised Executive Order No. 413. A second tranche of the same amount will be provided for GOP fulfillment of the remaining policy action also by a certain date. As the Foreign Investments Law has just been signed and the IRRs are being drafted which are expected to significantly liberalize the foreign investment/equity policy environment, ASAP is advantageously positioned to expand private investment in agribusiness by addressing sector specific policy constraints, supporting joint ventures between U.S. and Philippine agribusiness firms, and encouraging vertical integration between end markets, agroprocessors and small farmers (particularly CARP beneficiaries). To complement the overall restructuring/simplification of the tariff structure, ASAP will focus on tariff reductions and the elimination of quotas on critical inputs to the feed-livestock sector which are not available locally in sufficient quantity or quality.

b. **Support for Development Program (SDP) II** -- Also a multi-year BOP program, the proposed objective of SDP II is to remove policy constraints to increased export competitiveness of the Philippines in areas of comparative advantage. Policy areas under SDP II include foreign exchange market liberalization, access to inputs at world prices through further reform of the trade regime, efficient provision of interisland shipping services and public and private sector financial resource mobilization. Policy reforms leading to competitive pricing for exports and their inputs will complement ASAP initiatives in improving production/investment incentives with reduced regulation and elimination of tax biases against agribusiness, and sustained private sector investment in grain trading. For interisland shipping, SDP II and ASAP will complement each other as the former will focus on the deregulation of rate and route franchising while the latter targets the demonopolization of cargo handling services at ports. SDP II's planned support for financial resource mobilization will complement ASAP initiatives in facilitating private agribusiness planning and investment (through reduced uncertainty about CARL implementation), privatization of GOP fertilizer production facilities, and adequate DA support for the agribusiness system.

c. **Privatization Project (PP)** -- The ongoing privatization project is in support of the GOP's efforts on divestiture of selected government owned and controlled corporations (GOCCs), and of assets acquired by government institutions as a result of default on loans. Primarily, the project supports technical assistance in the development of company specific privatization strategies and implementation of privatization activities. In this regard, the performance based disbursements of ASAP to hasten the divestiture of PHILPHOS are directly complementary to the purpose and activities of PP. For example, the analysis to identify viable alternatives for privatizing PHILPHOS will be financed by ...

d. Pre-Investment Facility (PIF) -- The purpose of PIF is to assist the private sector in developing and implementing high priority development projects outside of the National Capital Region (NCR) using resources from the Philippine Assistance Program (PAP/MAI). PIF funds are available on a cost sharing basis to private sector firms for conducting feasibility studies to determine the viability of a potential investment is expected to be a major input which will be tapped by small/medium sized agribusiness entrepreneurs. The results of such studies can be incorporated into private sector proposals for cost sharing arrangements under ASAP to carry out applied research and/or organizing and training small farmers as reliable raw material suppliers.

e. Private Investment & Trade Opportunities -- Philippines (PITO-P) Project -- The purpose of PITO-P is to stimulate trade between the Philippines and the U.S. through provision of: trade and investment promotion services, analyses of policies/regulations facing Philippine traders and investors, and related training and technical assistance. While PITO-P focuses on direct trading (exports/imports) by Philippine and U.S. firms, ASAP will focus on the forging of joint agroprocessing ventures not necessarily focused on exports. In this regard, it's anticipated that ASAP activities will augment the private sector demand (clientele) for the regional trade brokerage service centers that PITO-P will establish in Manila, Cebu, and Davao. Conversely, PITO-P's promotional assistance will facilitate the identification of potential areas for joint ventures under ASAP.

## 2. Other Donors

Aside from A.I.D., there are other bilateral/multilateral agencies providing assistance to the agriculture sector in the Philippines. These include the ADB, the IBRD, the European Economic Community (EEC), the United Nations Development Programme (UNDP) and the governments of Australia, Canada, Germany, Japan, Netherlands, New Zealand, and the United Kingdom. A detailed description of the activities of each donor in this sector was provided in the PAIP and is still relevant at this time. That description demonstrated that other donor activities in agriculture have a specific commodity group or subsector focus. Donor initiatives in the industrial sector, on the other hand, have been generic in nature and have not focused, per se, on agribusiness as a special development topic. It is concluded that ASAP will not duplicate, or undermine the progress of, the planned/ongoing donor activities in agriculture and in most cases will be complementary.

Regarding the future, the Mission will continue to maintain its almost constant communication/coordination with the other donors on major policy issues such as private sector investment, open markets and trade reform. This has been necessitated by USAID's already heavy reliance on programmatic modes of assistance predicated on performance based disbursements for major policy reforms in other sectors of the economy as well as at the macroeconomic level. As discussed in the Support Services Component of Section Four, ASAP will increase overall coordination of national development efforts with the private sector by financing its involvement/advocacy in establishing GOP and donor priorities in such areas as infrastructure affecting agribusiness, privatization of GOCCs, decentralization, etc.

## SECTION FOUR

### PROGRAM DESCRIPTION

#### A. GOAL AND PURPOSE

The development goal to which ASAP will contribute is: sustained private sector-led growth in the agribusiness system. This is expected to lead to a more efficient agribusiness system with a significantly higher annual growth rate in value added. Given the strong need for policy reform and structural adjustment within the system, non-project assistance in support of policy reform has been identified as the appropriate assistance modality. The program purpose is to: improve the policy environment for private investment in agribusiness activity linked to a more efficient small farm production sub-sector.

The policy reforms introduced under ASAP will be complemented and reinforced by a Support Services Component consisting of two elements. The first will develop private/public sector advocacy for open market policy reforms, to identify new policy reforms for introduction in the out-years of the program, as well as to monitor the impact of recently introduced reforms. The second will increase the responsiveness of the private sector, particularly small- and medium-sized firms, to the improved agribusiness policy environment and increase the efficiency of the small farm production subsector through improved vertical coordination and integration.

It should be recognized that the second element of the Support Services Component does not directly link with the ASAP policy reform efforts envisioned. It was felt, however, that the design and implementation of ASAP presented an opportunity to encourage private sector participation in stimulating agribusiness investment - an opportunity which could not be overlooked. The indirect links to reinforcing the policy reform efforts through the increased responsiveness of small- and medium-sized firms would argue for its inclusion into the overall program. The program would have an "economic barometer" to gauge the impact of the policy reforms enacted. However, the second element will increase the monitoring and administrative burden to the Mission in the implementation of ASAP. But that burden, when evaluated against the time and effort required in designing a complementary project to carry out these planned interventions appears justified at this time.

The policy reform and the support services components of ASAP are a direct response to the broad A.I.D. initiatives in private sector development and democratic pluralism; and more specifically to the Mission's Agriculture and Natural Resources (ANR) Strategy, Private Sector Development Strategy, and the Philippine Assistance Strategy Statement (PASS).

By the end of the program:

1. The NFA role in grain trading (particularly the procurement, storage and distribution of corn) will be reduced; and the GOP corn import policy reformed to promote efficiency in the domestic feed-livestock sector.

2. Explicit CARL implementation guidelines/schedule issued to facilitate the conversion of agricultural land to other economic uses; private sector planning of agribusiness investments; and the restoration of the collateral of agricultural land for medium-term agricultural loans.
3. PhilPhos, the major supplier of phosphatic fertilizers, will have been privatized. If no private sector buyers can be found, then the assets will be transferred to the GOP's Asset Privatization Trust (APT) for final disposition.
4. Retail price ceilings on rice, pork and chicken will have been removed and will not be reimposed except in areas suffering from a natural disaster.
5. GOP over-regulation of private sector investment in agribusiness will have been reduced (e.g., the hectareage limits on bananas produced for export).
6. Increased efficiency in the interisland transport of agricultural products resulting from the demonopolization of cargo handling services in the major ports.
7. The GOP will have increased its budget allocation by P69 million in real terms over 1991 for DA programs in support of the agribusiness system, including data gathering, policy analysis, technology development and transfer, and market development.
8. The technical capability of the BAS and PAD in DA to analyze policy issues affecting agribusiness will have been strengthened, and the DA will have used the analyses to influence the policy making process as it affects agribusiness.
9. A total of 15 agribusiness trade associations and other private sector groups will have a strengthened policy analysis/dialogue capacity and will be strongly advocating key GOP policy reforms that support private sector led agribusiness growth.
10. Growth in agribusiness will have become more broad-based and sustainable as 100 agro-processors benefit from stronger linkages with agricultural producers, sources of technology, and consumer markets.

These EOPS indicators are based on the assumption that all external factors remain equal. The large number of external variables that can affect agribusiness performance (e.g., weather, macroeconomic policy environment, world market conditions) will make it difficult to measure the changes attributable to ASAP. An early task of the general contractor will be to develop an et ceteris paribus methodology for evaluating ASAP's impact, and establishing the required baseline data, on the indicators of purpose achievement.

## B. THE POLICY REFORM COMPONENT

This component of ASAP will improve the agribusiness investment environment through increased competition, open markets, removal of key impediments to vertical coordination/integration, and expanded GOP support services for the private sector. The specific objectives and the indicators of change in the agribusiness environment are described below and summarized in Table 5.

### 1. Establish a policy environment conducive to sustained private sector investment in grain trading; particularly for corn.

The first action is to reduce and gradually eliminate NFA participation in domestic corn marketing. At present, NFA sporadically purchases from farmers at above market prices and sells to feedmills and integrators at below market prices. Its interventions are unpredictable, so that the private sector can never be assured that trading margins will be sufficient to cover storage, transport and other marketing costs. The result is that the corn marketing system is undependable and inefficient.

Prior to the first tranche, NFA Council (made up of representatives of DTI, DOF, NEDA, DBM and chaired by the DA Secretary) and the affected provincial governor will approve/endorse a plan to terminate NFA grain trading in at least one corn surplus province. Prior to the second tranche the NFA will have terminated corn trading in at least three corn surplus provinces, and by the end of the program a policy will be in place privatizing NFA corn marketing operations in all corn surplus provinces.

The second, and more important, set of actions has to do with more strongly linking the domestic feed-livestock sector to the world market. Present domestic corn prices are significantly higher than world prices, but the corn producers are protected through import quotas. The application of the quotas is arbitrary and is based on competing requests from feed users to allow imports and from corn producers to ban imports. When imports are allowed, windfall profits from low cost imports accrue to feed users. These conditions are not conducive to international competitiveness in either the corn or livestock sub-sectors.

Prior to the first tranche, the GOP will agree to a scope of work (SOW) for analyzing options for increasing the international competitiveness of the feed and livestock sub-sector. This will build upon the body of ongoing analysis already being carried out under AAPP on the same subsector and national food security. The analysis will define a market-based policy reform package that assures trading margins are wide enough to cover the costs of private sector procurement, storage, transport and processing. Replacement of import quotas with a variable import levy could be used as a transitional step to keep the delivered cost of feed in line with border prices. This policy package will be put into effect prior to the third tranche.

### 2. Remove uncertainty surrounding CARL implementation to facilitate private sector agribusiness planning and investment

Uncertainties related to the implementation of CARL has brought investments in agricultural areas to a virtual halt. Three areas of

uncertainty are to be clarified under ASAP. The first is the status of lands used for livestock production. This issue was brought before the Supreme Court which ruled in late January 1991 that livestock lands are not subject to redistribution under CARL.

The second issue concerns the use of agricultural land as collateral for loans. Under CARL, agricultural land cannot be transferred without DAR approval. A mechanism administered by the Land Bank has been established to assure that agricultural land can be used as collateral for loans, but lending institutions remain unwilling to accept land subject to CARL as collateral. Prior to the second tranche, DA and DAR will approve a scope of work to study options for restoring the collateral value of agricultural lands. The findings of the study will be put into effect prior to the third tranche.

The third issue deals with the conversion of agricultural lands to non-agricultural uses. DAR and DA are actively working on a new administrative order dealing with this issue. A new administrative order (AO) will be issued prior to the second tranche clarifying and expediting the procedure for obtaining approval for land use conversions.

The fourth is the reduced collateral value of agricultural land. One important cause of reduced credit and lower private agribusiness investment is the uncertain status of lands covered by CARL. Banks are unwilling to accept land as collateral when its status is likely to be unclarified for many years. A scope of work for establishing clear guidelines/schedule for the acquisition and transfer of productive lands will be approved before the first tranche and its recommendations will be implemented by the third tranche.

### 3. Privatize GOP fertilizer production facilities

Prior to the first tranche, the GOP will have completed a review of alternative schemes for disposing of its shares in PHILPHOS, the major producer/supplier of phosphatic fertilizers. PHILPHOS operations currently under review by a DTI, COA, and private sector task force. APT and COP have initiated a valuation of its assets. PHILPHOS will have been put into vendible form prior to the second tranche, and the assets will either have been sold or transferred to APT before the third tranche. This is the last remaining GOCC having a significant negative impact on private agribusiness.

### 4. Remove excessive GOP regulation of private agribusiness and eliminate the tax bias against the sector.

Retail price controls on rice, pork and chicken will be removed prior to the first tranche. This action was covered in Executive Order (EO) 451 issued in April 1991. A major factor leading to this decision was the support provided by AAPP for improved statistics and economic analysis on domestic rice stocks, animal numbers, and grain/meat consumption.

In the area of fruit and vegetables, the country has a strong comparative advantage in the production of bananas. Approximately 25 percent of the annual production is exported, mostly to Japan. Despite the ability to substantially increase production, the Philippine private sector has been

unable to exploit the recently opened Korean market for bananas because GOP rules/regulations limit the area planted to bananas for export to 25,000 hectares. Prior to the second ASAP tranche, congressional approval will have been obtained to remove this area limitation.

Finally, GOP will hold public hearings on removing over-regulation of; and GOP competition with, the private agribusiness system. These hearings will be followed by studies of issues raised. Prior to the third tranche, the GOP will implement mutually agreed upon private sector recommendations for reducing over-regulation and government competition.

With respect to tax biases, one of the taxes to be studied is the requirement that agro-processors pay the value added tax on primary agricultural products that they purchase. Agricultural products that are sold directly to consumers or are processed by cottage industries in the informal sector do not pay the value added tax, thereby putting agro-processors in the formal sector at a significant competitive disadvantage. The decision whether to remove this tax will be made in the context of the overall anti-agribusiness bias in the tax system. In this regard, a scope of work for a study of existing biases will be approved prior to the first tranche and completed prior to the second tranche. Implementation of the recommendations will have been completed before the third tranche.

5. Establish an efficient interisland shipping industry for the movement of agricultural commodities.

Until recently, a major constraint to the movement of agricultural goods was the rate structure that gave agricultural products a low priority in the allocation of shipping space. This has now been resolved with the decontrol of shipping rates for cargo. A remaining issue is the high cost of cargo handling due to lack of competition at port. Under ASAP, cargo handling in the major ports (throughput of over 300,000 MT per year) will be privatized and demonopolized. Prior to the first tranche, the Philippine Port Authority (PPA) will conduct an open bidding of cargo handling franchises for at least two firms at one or more major ports. Prior to the second tranche, PPA will demonopolize cargo handling services at 10 or more major ports. Prior to the third tranche, cargo handling in the remaining major ports, including in Manila, will have been demonopolized.

6. Ensure adequate access of the feed-livestock sector to inputs unavailable domestically in sufficient quantity or quality.

There are several livestock inputs with effective rates of protection that are higher than the protection on the finished meat products. This constitutes a disincentive to value added in the livestock and meat processing industry. Prior to the first tranche, the import duty on: soybean meal (SBM) will be dropped from 10 to 3 percent, veterinary medicine and animal biologics from 20 to 10 percent, and feeder cattle from 30 (under E.O. 413) to 10 percent. Prior to the second tranche, procedures for importing feeder cattle will be liberalized, such as the removal of the minimum import license size of 800 animals and the import quota of 4,800 head per month.

TABLE 5

AGRIBUSINESS SYSTEM ASSISTANCE PROGRAM  
INDICATORS OF CHANGE IN THE AGRIBUSINESS INVESTMENT ENVIRONMENT

Objectives	P E R F O R M A N C E I N D I C A T O R S		
	Disbursement 1	Disbursement 2	Disbursement 3
A policy environment conducive to sustained private sector investment in grain trading.	A program developed to privatize NFA corn trading operations in at least one corn surplus area (NFA).		
	A program approved to privatize NFA's corn trading operations in at least one (1) corn surplus area (DA MANCOM).	NFA corn trading operations privatized in at least one (1) corn surplus area (NFA).	NFA corn trading operations privatized in two (2) more corn surplus areas (NFA).
	Implementation plan of the privatization program described above approved (NFA Council).		
	An agreement covering activities related to the privatization program for at least one (1) corn surplus area signed by the DA/NFA and private sector representatives (DA/NFA).	Agreements covering activities related to the privatization program for two (2) more corn surplus areas signed by the DA/NFA and private sector representatives.	Agreements covering activities related to the privatization program for two (?) more corn surplus areas signed by the DA/NFA and private sector representatives.
		Dialogues held between the DA/NFA and representatives of corn producers and corn consumers to arrive at a set of corn prices for at least one (1) cropping season (DA/NFA).	A mechanism established and operating for private sector-DA/NFA consultations on corn prices (DA/NFA).

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TABLE 5 (cont)

Objectives	P E R F O R M A N C E I N D I C A T O R S		
	Disbursement 1	Disbursement 2	Disbursement 3
<p>The policies on agricultural land use clarified to facilitate private agribusiness planning and investment.</p>	<p>The legal status under CARL of land utilized for commercial poultry and livestock production clarified.</p>		
	<p>A policy statement on agricultural land use drafted by a Multi-sectoral Task force (DA).</p>		
	<p>Policy statement on agricultural land use issued (DA).</p>		
	<p>Public consultations and hearings completed on agricultural land use policy statement and on DA's AO on the issuance of Certificates of Eligibility for Conversion (CEC) (DA).</p>	<p>AO issued specifying procedures for timely issuance or non-issuance of CEC to convert agricultural land to non-agricultural use (DA).</p>	
	<p>SOW for study of options to improve collateral value of agricultural lands agreed upon (DA/DAR).</p>	<p>Study completed and public hearings held on recommendations (DA/DAR).</p>	<p>Based upon public hearings, recommendations to improve collateral value of agricultural lands agreed and acted upon (DA/DA's).</p>

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TABLE 5 (cont)

Objectives	Disburse-	P E R F O R M A N C E I N D I C A T O R S	
		Disbursement 2	Disbursement 3
Domestic fertilizer prices more competitive with international suppliers.	Five (5) percent ... off on non-phosphatic fertilizers eliminated.	Philphos study completed (NDC).	Study recommendations acted upon (NDC).
Reduce excessive government regulation of private agribusiness and tax bias against the sector.	By executive issuance chicken, rice and pork retail price ceilings removed.*  Set of analyses initiated by DA to determine the effect of taxes/regulations on private sector agribusiness including banana hectareage restriction, cattle quotas, etc.	Public hearings held on recommendations (DA).	Based upon public hearings, recommendations agreed and acted upon (DA).
Adequate interisland transport services for agricultural commodities.	Improved competition in cargo handling in five (5) ports with at least 300,000 MT/YR thruput, provided there are no legal impediments which remain unresolved despite action by the Grantee (PPA).	Improved competition in cargo handling in three (3) ports with at least 300,000 MT/YR thruput, provided there are no legal impediments which remain unresolved despite action by the Grantee (PPA).	Improved competition in cargo handling at two (2) ports of: Manila North and South Harbors, Batangas and Cebu, provided there are no legal impediments which remain unresolved despite action by the Grantee (PPA).

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TABLE 5 (cont)

Objectives	P E R F O R M A N C E I N D I C A T O R S		
	Disbursement 1	Disbursement 2	Disbursement 3
	Agreement to study interisland agro-transport issues (DA).	Study initiated and public hearings held (DA).	Based upon public hearings, recommendations agreed and acted upon (DA).
Improved access of feed-livestock sector to inputs unavailable domestically in sufficient quantity/quality.	EO issued to lower tariff on defatted SBM to 10%; and vet medicine, feeder and breeder cattle, and animal biologics to 3%.		
Adequate DA support services for the agribusiness system.	DA CY92 budget proposal submitted to DBM, and CY92 budget submitted to Congress by DBM for these services is P69 million above CY91 level.	DA CY93 budget submitted to DBM, and CY93 budget submitted to Congress by DBM for these services is expected to at least maintain in real terms the CY92 level.	DA CY94 budget submitted to DBM, and CY94 budget submitted to Congress by DBM for these services is expected to at least maintain in real terms the CY92 level.

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Note: ag. = agriculture, AO = Admin. Order, APT = Asset Privatization Trust, CARL = Comprehensive Agrarian Reform Law, CEC = Certificate of Eligibility for Conversion, CY = GOP fiscal year, DA = Dept. of Ag., DAR = Dept. of Agrarian Reform, DBM = Department of Budget and Management, EO = Executive Order, MANCOM = DA Management Committee, MT/YR = Metric Tons Per Year, NDC = National Development Corporation, NFA = National Food Authority, PhilPhos = Philippine Phosphate Corp., PPA = Philippine Ports Authority, SBM = Soybean meal, SOW = Scope of Work, vet. = veterinary, \* = will not be reimposed with the possible exception of periods during which areas are officially declared to be under a state of emergency. Agencies or departments shown within parentheses will take the lead in implementing the specific action.

## **7. Adequate DA support services for the agribusiness system**

Important programs related to data gathering, policy analysis/advocacy and market development were started under AAPP and need to be internalized (absorbed) into the DA's recurrent budget. These programs will begin to be incorporated into the DA recurrent budget in PFY 1992. Prior to the second tranche, a budgetary increase of P 69 million above that of PFY 1992 for DA will be submitted for congressional approval to assume expanded financial support of programs previously funded under AAPP and ASAP. The budgets submitted to the Philippine Congress for PFYs 1993 and 1994 will be expected to at least maintain in real terms the PFY 1992 level for the same services.

### **C. SUPPORT SERVICES COMPONENT**

The support services component introduces activities that will directly impact upon private sector firms and support the policy reforms initiated under the program component of ASAP. As discussed in Section 3, its objectives are to: mobilize/increase the effectivity of private sector-led policy analysis/advocacy in the areas identified above, seek new private sector solutions to mitigate selected non-policy constraints to agribusiness, and increase the responsiveness of the private sector to a liberalized policy environment for agribusiness investment. The support services component of ASAP will be categorized into two major sets of activities:

- policy analysis, formulation, and advocacy; and
- market development.

The first set of activities obviously responds to the need to strengthen the policy formulation process as it relates to agribusiness. Efforts in policy analysis, formulation and advocacy will be aimed at building the public and private sector support required for the implementation of needed reforms, monitoring the impact of ASAP sponsored policy reforms, and identifying and specifying new reforms to be introduced in the out-years of the program. This will require direct assistance to the private sector to improve its policy analysis/advocacy process as well as to the GOA's Department of Agriculture (DA) for the same purpose.

The market development activities are aimed at improving the ability of the private sector to respond more quickly and effectively to the improved agribusiness investment environment, to accelerate the needed restructuring of the agribusiness system, and to increase the vertical integration and coordination of small- and medium-sized agribusiness firms with producers and end markets. Because small- and medium-sized firms are the most likely to respond to, and benefit from, the proposed policy reforms, strengthening the vertical integration/coordination of this segment of the agribusiness system will lead to a more efficient small farm production subsector which is an explicit part of the program purpose.

As discussed in detail in Annex E, support activities will include both long and short-term technical assistance as well as workshops, conferences, seminars, observation tours and long/short-term training. A general contractor will be hired to carry out many of the activities under the support

services component (see Section 6, Implementation Plan). As needed the firm will sub-contract to other private sector firms and institutions to implement the various component activities. Also, grants will be made to local non-profit organizations. Some of these grantees may in turn make subgrants to other private trade and industry associations, regional chambers of commerce, universities and colleges, and other NGOs to conduct policy analysis and advocacy, as well as market development activities.

### 1. Policy Analysis, Formulation and Advocacy

The first priority of the support services component is to mobilize the private agribusiness community and GOP capacity for: data collection and policy analysis, planning, formulation and advocacy; and identification of environmental and/or social issues related to the proposed policy reforms.

Data collection and economic studies will constitute a major part of this effort as effective policy formulation and implementation is a continuous process that must be responsive to changes in domestic/external conditions. As good factual data is essential for policy analysis, as well as for policy reform implementation and monitoring, assistance will be given to improve both private and public sector data collection, analysis, and dissemination. This will include, for instance, the adoption/expansion of the Agricultural Marketing Information System (AGMARIS) which is in the final stages of design under AAPP. AGMARIS will improve private sector utilization of, and linkages with, existing GOP institutions, especially DA's Bureau of Agricultural Statistics (BAS), in establishing a more sustainable/relevant information system for private agribusiness as well as for policy analysts/makers.

Equally important, however, is support for the advocacy of various private sector groups for implementing policy reforms. Although the performance-based disbursements are an incentive for the GOP to enact policy reforms, building a local private sector constituency to support GOP implementation of, and monitor its adherence to, policy reform is critical to the long-term success of ASAP. Fostering private sector groups' active participation in policy research/advocacy will moreover lead to identification of additional future reforms which may become necessary in attaining ASAP's overall purpose.

Because the agribusiness system is affected by issues of an industrial, trade and environmental nature, there is a need to strengthen the linkages among the responsible departments (e.g., DTI, DAR and DENR) with the executive and congressional branches of the GOP on the subject of agribusiness development. Besides workshops, seminars and consultations, the support services component will provide, at the request of the DA, technical assistance and training specific to the agribusiness policy concerns of the Philippine Congress, DTI, DAR and DENR. This will facilitate the passage of environmentally sound legislation needed for structural adjustment of the sector; promote nationwide advocacy for new open market policy reforms that will benefit the agribusiness system; and strengthen the working relationship between the private sector agribusiness groups, the DA and other concerned GOP agencies, and the Philippine congress.

This element will also support increased private sector involvement in establishing GOP priorities in such areas as infrastructure affecting

agribusiness. This includes the location, phasing in, and potential environmental impact of infrastructure investments in roads, shipping, ports, transportation, communication, power and irrigation. Assistance will also be provided to private sector groups for: organizing information services to other concerned private sector groups on policy issues, monitoring and coordinating the implementation of GOP policies affecting agribusiness, and addressing other issues such as the environment.

Funding will be made available to selected grantees to administer sub-grants to other private sector groups such as Chambers of Commerce and Industry, trade and commodity associations, academe, etc. It is expected that ASAP funds will be granted to at least 15 private sector groups and four regional universities to become involved in policy related activities. Grant funds will finance data collection, research studies, analysis, workshops and seminars to present research findings, and other advocacy activities as needed. In order to strengthen the capacity of these groups to carry out these functions, funds may be used for staff hiring, training, technical assistance and commodities. The general contractor hired under this program will provide technical assistance and training to grantees in USAID grant regulations and responsibilities, as well as technical areas related to policy analysis, advocacy and related environmental issues.

## 2. Market Development

The activities of this sub-component will increase the responsiveness of the private sector to a liberalized policy environment for agribusiness investment and increase the level of vertical integration and coordination within the agribusiness system. Towards this end, ASAP assistance will focus on following non-policy constraints to agribusiness investment: weak linkages between farmers and agribusiness firms; lack of access to agro-processing technologies; and lack of marketing knowledge/expertise. These constraints were identified by the PAAD analyses and private sector feedback obtained from a series of meetings with agribusiness representatives from the Philippine Chamber of Commerce, the Management Association of the Philippines and the American Chamber of Commerce in Manila. The following ASAP funded activities are designed to address these three constraints.

### a. Creating and Strengthening Market Linkages between Agribusiness and Primary Producers.

As an alternative to public supported extension services and to offset part of the associated costs and risks, ASAP funds will be matched with contributions from private businesses to organize and/or train farmer groups to respond to market driven demand for agricultural produce. In particular, U.S./Philippine joint ventures will be a major target group. Firms may provide these services themselves or may chose to hire an NGO or other independent training organization. Through the general contractor, cost sharing mechanisms will be established, for instance, to offset the risks associated with private agribusinesses dealing with and/or organizing and training CARP beneficiaries. The mechanism will allow firms or farmer groups to submit proposals for a cost sharing arrangement for up to three years. The proposals would be reviewed by the general contractor and then ranked according to technical and business merit for ASAP funding consideration.

## **b. Increased Private Sector Access to Agroprocessing Technologies**

In numerous fora, local and U.S. agribusiness firms operating in the Philippines have repeatedly stated the need to identify/adopt appropriate technologies, particularly in fruit/vegetable processing, in order to exploit a domestic or export market opportunity. Cost sharing mechanisms similar to those mentioned above will be established under ASAP to increase private sector access to improved technologies in processing, packaging, etc. and as needed to carry out applied research. Through this mechanism the general contractor and/or grantees will assist private agribusinesses in identifying sources of non-proprietary information and technology and provide technical assistance for technology transfer/adaptation. Program funds will also be used to partially finance travel of agribusiness representatives to view the operation of the technology and/or be trained in its usage.

## **c. Improved Marketing Knowledge and Expertise**

1. **More Timely Market Data Collection and Dissemination:** This component will support the adoption and expansion of the Philippine Chamber of Commerce and Industry's (PCCI) newly introduced Marketing Information Dissemination (MARID) system which has already demonstrated the feasibility of private sector data collection, analysis and dissemination of market information. ASAP support will further develop MARID's capability to carry out timely market analysis and enable PCCI to provide market advisory services on a national, regional and subregional level.

11. **Increased number of joint ventures initiated:** Through the general contractor and/or grantees, ASAP resources will encourage joint agribusiness ventures between U.S. and Philippine private sector firms. This subcomponent will promote private sector market development through the provision of funding for the conduct, and participation of concerned farmer groups and local and U.S. agribusinessmen, in trade fairs and exhibitions. Besides promoting Philippine agribusiness products locally and abroad and widening the domestic marketing cycle, such activities will open up opportunities for new foreign capital agribusiness investment and create even more opportunities for farmers who can be tapped as raw material suppliers.

## **D. MONITORING, EVALUATION AND AUDIT COMPONENT**

Program implementation will be the responsibility of the USAID Office of Natural Resources, Agriculture and Decentralization (ONRAD). In consultation with other USAID Offices, ONRAD will provide routine monitoring of GOP policy reform implementation as well as implementation of ASAP's support services component; including adherence to the implementation schedule, management and monitoring of technical assistance, progress reviews, and evaluations.

To the extent possible/feasible the monitoring and impact evaluations of the market development element of the Support Services Component will be disaggregated to include some characterization of the environmental components of the various systems it is impacting upon through enterprise level interventions (the farm or factory and their input and waste streams). Per Annex F, this will not require separate ASAP studies but will be made integral

to periodic program monitoring or in applied research and extension activities, including those organized by participating agribusiness firms themselves.

## 1. Monitoring

### a. Outputs/Inputs

The monitoring of program implementation will focus on the policy reform and support services components. For policy reform implementation, the outputs to be monitored will be the actions called for in the policy reform matrix. For the policy analysis and advocacy activities carried out by grantees, output targets will be set annually by AID/GOP and the General Contractor (GC) along with selected Grantees and presented in the form of a workplan. Annual output targets for the market development sub-component will be set by the GC and selected Grantees in consultation with the DTI, DA and USAID, and submitted to USAID/ONRAD in annual workplans.

The first workplans will be submitted to USAID within one month of the GC's arrival and the signing of a grants between USAID and grantees. The workplans will specify output-level objectives for the year and the schedule of actions needed to achieve them. The objectives will cover: 1) policy reforms, 2) institutional strengthening in both the private/public sectors, 3) actions to address specific market development objectives, and 4) the status of any related environmental and Women in Development (WID) issues.

The GC and the Grantees will prepare Annual Reports which will discuss achievements/shortfalls with respect to the workplan, measure progress in achieving an improved policy environment, assess the impact of market development activities and propose targets for the following year. Reasons for shortfalls will be discussed and recommendations will be made for corrective actions, including the possible redesign of certain activities or restatement of objectives. The Annual Reports will be reviewed jointly by USAID and the DA. Corrective actions will be agreed on as appropriate, and the next year's targets will be set and approved by USAID/DA.

### b. Financial

Prior to the release of the second and subsequent performance-based disbursements, the GOP through the Central Bank of the Philippines (CB), shall submit to USAID periodic reports on the utilization of the special ASAP dollar account. The periodic reports of a program-funded financial monitor may form part of ASAP's reporting requirements. The financial monitor may cover GOP budget allocation as part of the policy reform agenda and the special dollar accounts, and disbursements from the different elements of the support services component.

## 2. Evaluation

The Parties to the Agreement will establish an evaluation program. As part of this program, assessments will be conducted prior to the release of each tranche. These assessments will review progress made toward meeting the

policy reform indicators. Further, assessments will be conducted on an ad hoc basis to determine the effectiveness of selected actions planned to encourage policy analysis/advocacy and market development.

Program impact will be evaluated at both the goal/purpose levels. Regarding ASAP's overall goal of sustained economic growth based on increased growth in the agribusiness system, the key measures of goal achievement will be: investment, production of major agri-based products, on and off-farm employment, and exports. The specific purpose level indicators of an improved policy environment for private investment in agribusiness activity linked to a more efficient small farm production sub-sector include:

- an improved economic and regulatory policy framework as provided for in the ASAP policy matrix;
- stronger and more active institutions in the private agribusiness system as measured by successful private sector policy advocacy initiatives; and
- more effective government supporting services in the context of a stronger agribusiness-government partnership having led to successful joint efforts in market development.

Information on each of these indicators will be gathered by the GC and included in the ASAP annual reports. The GC will include a Monitoring and Evaluation Unit (MEU) under the supervision of the senior policy advisor. The unit will be responsible for developing base line data, monitoring program implementation and measuring the impact of ASAP policy reforms and project activities on agribusiness performance. One of the first activities of the GC will be to collect relevant base line information, and develop a program for assessing any changes wrought by agribusiness development on women. The MEU will have a local staff to gather and assemble the data and produce periodic reports for ASAP management.

The MEU will develop a cost-effective methodology for gathering data on the measures of goal achievement, using sampling and rapid reconnaissance techniques, then relating changes in these indicators to ASAP-supported reforms and support services activities. More specifically, an information system will be set up that will link desired changes in agribusiness performance to each of the purpose-level indicators of improved environment. The objective will be to document as well as possible the relationship between the ASAP measures to improve the environment for private sector-led growth and the performance of the agribusiness system. Regarding MID issues, the MEU will establish a gender disaggregated employment impact monitoring system during the first phase of implementation.<sup>2</sup>

There will be two external ASAP evaluations planned. The first evaluation, scheduled for YEAR 3 of the program, will concentrate on ASAP impact at the purpose level, i.e., the impact on the policy environment for private sector-led agribusiness growth. By the third year, it is unlikely that the ASAP reforms and activities will have had much impact on investment, production, or employment. It will, therefore be too soon to measure changes

in goal-level indicators that would be attributable to ASAP. The first evaluation will recommend changes in program design and priorities, if appropriate. The evaluation will also assess the performance of selected Grantees, the GC, DA, DTI, and other organizations involved in program implementation.

The second external evaluation will be at the end of the program and will focus on both the policy environment for private agribusiness investment and agribusiness performance, including production, employment, investments and exports. Its purpose will be to measure the lasting impact of ASAP and draw lessons on how donors and government can most effectively support agribusiness development. One particular issue to be addressed by this evaluation will be the relative roles of policy reforms and support service activities in improving the environment for private agribusiness. Another will be the usefulness and advisability of addressing selected constraints to agribusiness growth in the absence of assurances that other, more critical, constraints will also be addressed.

### 3. Audit Arrangements

The services of independent public accounting firms may be procured by the A.I.D. Inspector General for Audit to conduct non-federal audits of program disbursements, including procedural reviews or surveys. The purpose of the audit examination is to identify/report any issues or problems that may adversely affect the orderly progress and achievement of program objectives.

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2 Per the recommendations of "A Preliminary Report on Gender Issues at the Program Assistance Identification Paper Stage of Agritusiness Sector Assistance Program", prepared by Ernst & Young for USAID and PPC/HID under AID/H's Private Sector Enterprise Development Support Project II, Oct. 1990.

## SECTION FIVE

### PROGRAM COSTS AND FINANCIAL PLAN

#### A. COST ESTIMATES AND FINANCIAL PLAN

ASAP will provide approximately \$80 million in grant funds to the GOP over the five-year life of the program, subject to the availability of funds. Approximately \$55 million dollars of program assistance is being provided in support of specific policy reforms related to agribusiness development; \$24.6 million will be allocated for support services (policy analysis, formulation and advocacy, and market development); and \$0.4 million will be made available to cover the costs of monitoring, evaluation and non-federal audit. Table 6 shows the program's summary cost estimates and financial plan.

As the \$55 million program component of ASAP provides BOP support for implementation of policy reform, there is no need for peso generation or reflows. The estimated \$24.6 million identified for the support services component will finance an AID-direct contract with a U.S. organization to provide long- and short-term advisory services in policy analysis and advocacy; grants for policy analysis and advocacy identified by the private sector and the GOP; farmer training and organization; domestic and international market development; and operating costs of the grantees.

An additional \$0.4 million has been set aside for monitoring, evaluation reviews, and non-federal audits. If necessary, the program will fund the services of a financial monitor to assist in the monitoring of the program and generation of required reports. Approximately \$25,000 has been set aside for this purpose. Any unused funds set aside for the above activities will be used to supplement the Program component.

A summary of planned obligations and expenditures for each year is shown in Table 7. Details of the planned expenditures for each element are in Table 8. Table 9 presents planned expenditures by local/foreign currency costs.

#### B. PROGRAM DISBURSEMENTS AND CONTROLS

##### 1. Dollars

##### a. Disbursement by A.I.D.

Upon completion of agreed upon policy actions or attainment of results and legal, administrative and other conditions precedent to disbursement of dollars to the GOP, A.I.D. will disburse in three tranches for deposit in the separate account or accounts with the bank or banks specified by the GOP. Disbursement will be effected through the electronic funds transfer system.

##### b. The ASAP Dollar Special Account

The separate bank accounts into which disbursed dollars are deposited will be referred to collectively as the "ASAP Dollar Special Account". Funds

TABLE 6. Summary Cost Estimates and Financial Plan  
(In \$'000)

PROGRAM ELEMENTS	A. I. D. GRANT		
	FY Current Oblig.	Future Years Oblig.	Total Costs
1. Policy Reform Component	15,000	40,000	55,000
2. Support Services Component	8,654	15,928	24,582
2.A. Policy Analysis, Formulation & Advocacy	4,100	8,045	12,145
2.A.1. Private Sector Policy Analysis and Advocacy	2,500	4,167	6,667
2.A.2. Government Policy Analysis & Advocacy	400	2,104	2,504
2.A.3. BAS Market Data Gathering & Dissemination (AGMARIS)	1,200	1,774	2,974
2.B. Market Development	4,554	7,883	12,437
2.B.1. International Market Development	1,700	2,946	4,646
2.B.2. Domestic Market Development	1,154	3,773	4,927
2.B.3. Joint Ventures	1,700	1,164	2,864
3. Monitoring, Evaluation and Audit	0	418	418
<b>PROGRAM TOTAL</b>	<b>23,654</b>	<b>58,346</b>	<b>80,000</b>

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Table 7. Summary of Planned Annual Obligations and Expenditures  
(In \$'000)

	FISCAL YEAR						GRAND TOTAL
	1991	1992	1993	1994	1995	1996	
<b>LOP Funding</b>							<b>80,000</b>
<b>Planned Obligations</b>	20,403	27,000	18,000	6,000	5,000	3,597	80,000
<b>Planned Expenditures</b>		19,966	24,493	25,065	5,005	5,471	80,000
<b>Projected Mortgage (LOP - Cumulative Obligations)</b>	59,597	32,597	14,597	8,597	3,597	0	
<b>Mortgage / LOP</b>	74%	41%	18%	11%	4%	0%	
<b>Projected Pipeline (Cum. Obligations - Cum. Expenditures)</b>	20,403	27,437	20,944	1,879	1,874	0	
<b>Pipeline / Obligations</b>	100%	58%	32%	3%	2%	0%	

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**TABLE 8. Planned Expenditures by Fiscal Year and Program Component  
(in \$'000)**

PROGRAM ELEMENTS	FISCAL YEAR					TOTAL
	1992	1993	1994	1995	1996	
1. Policy Reform Component	15,000	20,000	20,000	0	0	55,000
2. Support Services Component	4,966	4,493	4,857	5,005	5,261	24,582
2.A. Policy Analysis, Formulation & Advocacy	2,767	2,222	2,401	2,355	2,400	12,145
2.A.1. Private Sector Policy Analysis and Advocacy	1,105	1,193	1,289	1,391	1,502	6,480
2.A.2. Government Policy Analysis & Advocacy	458	443	478	516	558	2,453
2.A.3. BAS Market Data Gathering & Dissemination (AGMARIS)	1,204	586	634	448	340	3,212
2.B. Market Development	2,199	2,271	2,456	2,650	2,861	12,437
2.B.1. International Market Development	847	845	913	985	1,065	4,655
2.B.2. Domestic Market Development	837	904	978	1,056	1,140	4,915
2.B.3. Joint Ventures	515	522	565	609	656	2,867
3. Monitoring, Evaluation and Audit	0	0	208	0	210	418
<b>PROGRAM TOTAL</b>	<b>19,966</b>	<b>24,493</b>	<b>25,085</b>	<b>5,005</b>	<b>5,471</b>	<b>80,000</b>

Table 9. Planned Annual Expenditures by Local Currency and Dollars  
(In \$'000)

PROGRAM ELEMENTS	FY 1992			FY 1993			FY 1994			FY 1995			FY 1996			GRAND TOTAL		
	LC	FX	Subtotal	LC	FX	Subtotal	LC	FX	Subtotal	LC	FX	Subtotal	LC	FX	Subtotal	LC	FX	USAID
1. Policy Reform Component		15,000	15,000		20,000	20,000		20,000	20,000			0			0	0	65,000	65,000
2. Support Services Component	2,505	2,481	4,986	2,632	1,600	4,403	2,848	2,009	4,857	3,018	1,987	5,005	3,113	2,148	5,281	14,117	10,485	24,582
2.A. Policy Analysis, Formulation & Advocacy	1,432	1,335	2,767	1,482	740	2,222	1,802	790	2,401	1,873	882	2,355	1,883	737	2,400	7,852	4,293	12,145
2.A.1. Private Sector Policy Analysis and Advocacy	829	278	1,107	875	298	1,193	987	322	1,289	1,043	348	1,391	1,128	378	1,502	4,860	1,820	6,480
2.A.2. Government Policy Analysis & Advocacy	158	303	454	157	284	443	169	309	478	182	304	518	197	381	558	860	1,593	2,453
2.A.3. SAS Market Data Gathering & Dissemination (ARMAPS)	448	758	1,201	430	158	588	486	188	634	448	0	448	340	0	340	2,132	1,080	3,212
2.B. Market Development	1,073	1,128	2,199	1,151	1,120	2,271	1,248	1,218	2,458	1,345	1,305	2,890	1,450	1,411	2,981	8,285	8,172	12,437
2.B.1. International Market Development	58	791	847	59	784	845	84	849	913	89	918	985	74	991	1,085	322	4,333	4,855
2.B.2. Domestic Market Development	871	188	837	725	177	904	784	194	978	847	208	1,058	914	228	1,140	3,941	974	4,915
2.B.3. Joint Ventures	348	188	516	367	159	522	398	187	585	429	180	609	482	194	658	2,002	865	2,867
3. Marketing, Evaluation and Audit	0	0	0	0	0	0	84	124	208	0	0	0	84	128	210	188	250	418
<b>PROGRAM TOTAL</b>	<b>2,805</b>	<b>17,481</b>	<b>19,984</b>	<b>2,832</b>	<b>21,880</b>	<b>24,483</b>	<b>2,932</b>	<b>22,133</b>	<b>25,085</b>	<b>3,018</b>	<b>1,987</b>	<b>5,005</b>	<b>3,197</b>	<b>2,274</b>	<b>5,471</b>	<b>14,285</b>	<b>85,715</b>	<b>88,000</b>

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deposited in this Account will not be commingled with funds from any other source. The Account will include and will be credited for any interest earned from funds held in this Account and any GOP refunds for unacceptable disbursements from the Account including interest on such GOP refunds. The Account will be used for the payment of official debt obligation including official non-military debt obligations of the GOP to the USG, IBRD, IMF and ADB in accordance with mutually agreed upon implementation plans for ASAP or for such other purposes as A.I.D. may agree to in writing. The GOP will disburse dollars in the ASAP Dollar Special Account in accordance with the Dollar Implementation Plan. All dollar disbursements will be drawn directly from the Account and paid directly to the payees listed in the implementation plan for the amounts specified on the given due dates.

## 2. GOP Counterpart Contribution

Since this program is funded under ESF, a host country 25% contribution is not required by Section 110 of the FAA. Therefore, USAID will not require counterpart contribution reports nor track counterpart. However, the program does require the GOP to provide budgetary support for GOP agribusiness services, through a provision in the policy matrix which USAID believes is important for program success.

## C. FINANCIAL REPORTING AND MONITORING SYSTEMS

ASAP financial implementation will be monitored through GOP/Private Sector periodic financial reports, duly certified by the Agency Accountant. In addition, reports, reviews and assessments of a financial monitor may form part of the reporting requirements for this program. These reports will contain at least the following information:

1. ASAP Dollar Special Account: Quarterly and annual reports for ASAP Dollar Special Account will detail each disbursement from the dollar special account with specification for each disbursement of the payee and the amount and date of payment, together with a certification that the GOP has obtained and is maintaining documentation for each disbursement. Quarterly reports for the program component will be due by the end of the following quarter for which disbursement was realized. Annual reports for the program component will be due no later than September 30 of the next calendar year, or on any other date stipulated by A.I.D. These reports will contain, at a minimum, the following information: evidence satisfactory to AID that the agreed upon payments to US official debt or to multilateral institutions have been or are being made from the Dollar Special Account prior to disbursement of the subsequent tranches of dollars.

2. GOP Financial Reports for the Projectized Components: Quarterly financial reports for the program's projectized components implemented by the GOP will include financial data for each quarter as well as cumulative since inception data showing the current financial status of each project element.

3. ASAP Private Sector Financial Reports for the Projectized Components: Quarterly financial reports for the program's projectized components implemented by the Private Sector (PVOs, NGOs and other private institutions) will include financial data for each quarter as well as cumulative since inception data showing the current financial status of each project element.

4. Other Financial Reports: This refers to reports on financial reviews and/or assessments conducted either by OFM financial analysts or independent consultants which may be used to complement the above stated reports.

#### D. METHOD OF IMPLEMENTATION AND FINANCING

Table 10 below summarizes the methods of implementation and financing that will be utilized under the program:

TABLE 10: IMPLEMENTATION AND FINANCING METHODS

Program Element	Method of Implementation	Method of Financing	Amount (\$'000)
1. Policy Reform	Tranche Release	Direct Payment (Electronic Funds Transfer)	\$55,000
2. Support Services	AID Direct Contract	Direct Payment Direct Reimbursement	10,135
	AID Direct Grants and/or Cooperative Agreements.	Direct Payment	14,447
3. Monitoring, evaluation and audit	AID Direct Contracts IOC or 8(a) Contracts	Direct Payment	<u>418</u>
4. TOTAL			<u>\$80,000</u>

#### E. RECURRENT COSTS

The procurement of a limited amount of commodities (i.e., computer hardware, software and other office equipment included under the GC's contract) will necessitate a recurrent cost obligation in the form of maintenance expenses to the GOP participating agencies. However, it is anticipated that, given the small amount of funds to be budgeted for these items, these costs can be provided through the regular GOP budgetary process.

**F. AUDITS**

Primary responsibility for audits of AID-financed projects lies with the Regional Inspector General for Audit (RIG/A). However, an external auditing firm may be contracted for this purpose. In the event external audit services are used, \$50,000 has been budgeted for non-federal audit services for the mid-point and final audit reviews. It is anticipated that these reviews will cover the financial and compliance aspects of the program.

## SECTION SIX

### IMPLEMENTATION PLAN

#### A. PROGRAM MANAGEMENT

##### 1. Overview

The four major participants in program implementation and monitoring: USAID, the GOP, GC and private sector organizations will coordinate closely at all stages of the program. Collaboration is essential because each will have a related role to play as dictated by agreements and contracts which govern their relationships. Therefore, a coordinated mechanism, such as regular meetings to assess progress, identify and address constraints, will be adopted. Within this collaborative framework, the roles of the four major participants are discussed below.

##### 2. USAID

Overall, ASAP will be managed on a day-to-day basis by USAID's Office of Natural Resources, Agriculture and Decentralization (ONRAD). The Chief of the Agriculture, Policy and Planning Division (APPD), or his/her designee, will be the ASAP program officer. The ASAP program officer will be assisted by foreign service national (FSN) program specialists and will carry out all pre-obligation actions, and be directly responsible for monitoring program progress, contractor and grantee performance and the administration of centrally funded activities financed under ASAP.

Other USAID offices, including the offices of Development Resources Management (DRM), Financial Management (OFM), Contract Services (CSO), the Program Economist (OPE), Private Enterprise Support (PESO) and the Legal Advisor, will constitute a program team and will be called upon as needed to assist with implementation issues. The ASAP program team, chaired by ONRAD, will also periodically review program progress by tracking achievements, identify and recommend actions to remedy gaps and slippage, facilitate documentation of conditions precedent (CPs) or other program milestones and review contractor/grantee monitoring reports. In addition, OFM will review and authorize all payments made under the program and CSO will execute all planned contracts and grants envisioned under ASAP.

##### 3. The GOP

The ASAP reform agenda involves the direct input of several GOP departments, many ad hoc committees and, in those cases where there exists a legislative requirement, the Philippine Congress. The primary GOP counterpart will be the DA, specifically the Office of the Undersecretary for Policy and Planning (PMS/PAD). DA will have primary responsibility for monitoring the program progress and providing reports to USAID. It is envisioned that the Department of Finance (DOF) and the National Economic and Development Authority (NEDA) will provide coordinative support to the program. Besides DA, DOF and NEDA, other key GOP Departments include Trade and Industry;

**Agrarian Reform; Budget and Management; and Transportation & Communications.**  
The main activities to be implemented by the GOP include:

- data gathering and dissemination, by the Bureau of Agricultural Statistics (BAS);
- studies and other actions related to the implementation of ASAP policy reforms, and ongoing policy studies for decision making and advocacy, by PMS/PAD; and
- trade missions and other market development activities by the Center for International Trade and Expositions/Missions (CITEM) and other DTI implementing units and, to a lesser extent, the DA agribusiness group.

#### **4. Private Sector Organizations**

The Philippine private sector will have the primary responsibility for implementing policy analysis and advocacy funded under ASAP. It is envisioned that between five and seven grants will be executed with trade associations, academic institutions and NGOs for policy analysis and advocacy. The key private sector organizations, and their roles are:

##### **a. Trade Associations**

The two major broad based organizations who have been most influential in policy formulation/advocacy as it affects agribusiness are the Philippine Chamber of Commerce and Industry (PCCI) and the Management Association of the Philippines (MAP). PCCI and MAP will work with industry-level trade associations, as well as regional private sector organizations. Some of these are listed in the program description. The main objective will be to strengthen these organizations to 1) become effective advocates for policy reforms in support of their members, and 2) gather/disseminate production, market and other data needed by their members to make investment decisions and take advantage of market opportunities.

##### **b. Private Consulting Firms and Agribusinesses**

For market studies/development initiatives, applied agricultural research, and organizing/training farmers as reliable suppliers of produce, the most appropriate implementing organization will often be the interested agribusinesses themselves (including processors, traders and wholesalers) or specialized private sector consulting firms. Activities of this type will generally be supported by ASAP on a matching fund basis. The short-term objective will be to share the risks/costs of moving into new markets or undertaking new endeavors. The longer term objective will be to identify models of GOP and private sector partnership that can be continued after the end of the program.

##### **c. Non-Government Organizations and Academic Institutions**

A number of NGOs will be involved in training farmers to work with agribusinesses under subgrant arrangements. Others, e.g., the Center for

Research and Communications (CRC) have the expertise to carry out policy and market studies. Based upon experience gained under AAPP, the key cooperating academic institutions are expected to include the University of the Philippines, Asian Institute of Management (AIM), and Xavier University in Mindanao.

## 5. GC

As approved by USAID, day-to-day management responsibilities with regard to the implementation of the support services component will reside with a GC under contract to USAID, and an ASAP special assistant, assigned to the office of the DA Undersecretary for Policy and Planning. The implementing units and their roles and responsibilities are described below.

The GC will have three areas of responsibility. The first is to provide technical assistance in policy analysis to the DA and the private sector grantees referred to above. This includes monitoring and conducting policy dialogue with the GOP on matters related to the policy reform program supported by the program assistance component.

The second, and larger, task will be to implement most of the ASAP market development activities. This will include market development activities in the regions, the organizing, with CITEM, of trade fairs and missions, and organizing investment missions leading to joint U.S. Philippine ventures. The GC will also be required to have an office in the U.S. to backstop market and investment promotion activities.

The third area of GC responsibility will be to provide technical assistance to monitor the environmental impact of the program with particular emphasis on the enterprise level interventions proposed in the Market Development element of the Support Services Component.

## 6. AID/H Assistance

To the extent feasible, the program will use the services of a number of centrally funded projects, in particular those dealing with policy analysis and market support.

### a. The APAP Buy-In

The Agricultural Policy Assistance Project (APAP) is an AID/H contract to provide agricultural policy services using Mission funds. The key implementing organizations are HIID, IFPRI, and Abt Associates. APAP was used effectively to provide policy analysis services to DA under AAPP. This arrangement may continue under ASAP.

### b. The AMIS Buy-In

The Agricultural Marketing Improvement Support (AMIS) project is similar to APAP and was utilized under AAPP to initiate the AGMARIS program. The AGMARIS arrangement will continue under ASAP.

## B. REPORTING AND COORDINATION

### 1. Reports

There will be three basic types of reports required under ASAP: reports dealing with assessments of policy reforms undertaken, reports on implementation progress realized under the support services component, and financial reports focussing on the tracking of US dollars disbursed under the program.

The GC and the Grantees will submit annual workplans to USAID for approval, as well as annual reports specifying accomplishments. In addition, the GC and each Grantee shall, separately, provide semi-annual progress reports to USAID and the DA. These reports shall include an assessment of progress to date, objectives for the next reporting period, status of personnel, problems in meeting objectives, identifying and defining new agribusiness policy reforms for GOP and USAID consideration, and recommendations for actions to be taken. Regular USAID Quarterly Progress Status Reports (QPSRs) on the progress of the program shall be provided by USAID to the GC, Grantees and the DA. In addition, USAID will distribute all completed/approved policy analyses, reports and studies financed under ASAP to appropriate GOP entities, the GC and appropriate Grantees.

Prior to anticipated tranche releases, the DA shall prepare reports related to progress in meeting policy reform indicators. At a minimum, these reports will be submitted at least three months prior to the time at which the disbursement of funds is desired by the GOP. These reports will be reviewed by the USAID program team in conjunction with the DA to ascertain which benchmarks have been met; the reasons why any benchmarks have not been met; joint recommendations; and any modifications in the program, if needed. If required, a Mission Review would be held to consider the release, the possible size of the release and overall program status.

Although designed to minimize administrative effort, the reporting requirements, as outlined above, will require the DA to assume an additional reporting responsibility, however, it is believed that this requirement should not be an undue administrative burden to the DA at this time. Financial monitoring and reporting systems are reflected in Section Five.

### 2. Coordination

The GC, along with USAID, the DA/DOF/NEDA and selected Grantees shall convene quarterly progress reviews where issues related to program progress and coordination will be discussed. Further, regular meetings to discuss program progress and focus will be scheduled between the DA, the GC and appropriate Grantees. Meetings with other GOP concerned entities will be scheduled on an "as needed" basis during implementation.

## C. CONTRACTING AND PROCUREMENT

### 1. General

There will be several procurement actions to be undertaken in connection with this proposed program dealing with technical services procurement in the

implementation/evaluation of ASAP. Procurement of the general contract will follow standard AID competitive contracting procedures. All contracting and grant actions will be undertaken by the Mission Contract Services Office.

## 2. Buy America

Within the ASAP Support Services Component, approximately 56 percent of the funding will be in the form of local currency to finance the expected technical assistance, training and commodities to be procured locally. The remaining \$11 million will finance technical assistance and limited training/commodities sourced from the U.S. Much of the technical assistance to be procured locally relates to the analysis of the Philippine private sector policy environment, local market data gathering, domestic market development and encouragement of U.S./Filipino joint ventures. By its nature therefore, these technical service needs are best met by local consultants who are inherently more aware of the Filipino marketplace and its distinctive characteristics. Most of the expected training under ASAP will be locally-based. Again, given the perspective and anticipated profiles of the participants (farmers, local entrepreneurs), it is believed that these services can best be provided by local sources which are familiar with training techniques and programs that are appropriate and achieve desired results.

Of the \$14.5 million identified for local procurement, less than \$2 million will finance commodities. The limited commodities envisioned under the ASAP program will basically be in the form of computer hardware/software needed for data gathering and analysis. Although such hardware/software is available from the U.S., the need for servicing and maintenance is paramount. As U.S. computer manufacturers have not as yet established a reliable maintenance capability in the Philippines, the computers and related software will be procured locally. Waivers to authorize other than U. S. procurement of goods and services will be documented and approved as appropriate during the life of the Program.

## 3. Technical Service

A significant portion of program technical assistance (long- and short-term), as well as training, will be procured under one direct AID contract to be signed with a firm or institution of U.S. source and origin, with possible joint ventures with U.S. and/or Philippine firm(s). This approach would provide continuity to the program process and minimize USAID staff time required for contract administration. Also, it is envisioned that a "cluster" concept will be used to minimize the number and administrative burden of grants under the program. Tasks to be performed by NGOs will be clustered into identifiable, related activities which should not strain the administrative capabilities of the selected NGOs.

Buy-ins to centrally funded projects will be executed through the issuance of PIO/Ts initiated by the ASAP program officer, cleared by appropriate USAID offices and bilaterally approved. Technical services related to the evaluation of the program will be procured either by means of personal services contracts, 8(a) contracting, or through an Indefinite Quantity Contractor (IQC) mechanism.

Finally, there may be need to procure financial review services. These services would be needed in the monitoring of financial disbursements made under the program. It is anticipated that these services would be contracted locally and cost approximately \$25,000.

## SECTION SEVEN

### SUMMARY OF ANALYSES

#### A. ECONOMIC ANALYSIS

The economic analysis, as detailed in Annex D, consists of: an analysis of selected ASAP policy measures having the greatest potential impact on the agribusiness system, including growth in investment/production, and net impact on the overall economy using a general equilibrium model; a cost benefit analysis relating benefits attributable to ASAP to the program cost; and a sensitivity analysis to measure the impact on the IRR should the benefits deviate from the projected levels.

##### 1. Economic Benefits

Since the ASAP measures do not have a direct impact on production the way a production project would, it is not possible to make definitive projections of economic benefits. Most of the measures have the effect of increasing the economic incentives to invest in the agribusiness system by removing policy-based market distortions. How the private sector responds to these increased incentives depends on the overall investment climate as well as developments within specific sectors. Investment and production increases are therefore necessarily based on hypothetical assumptions.

Increased investment in agribusiness generates two types of economic benefits: 1) a reallocation of the economy's resources from less efficient to more efficient sectors, resulting in a net increase in total Gross Value Added (GVA), and 2) an increase in the productivity of land/labor in agribusiness as a result of technology enhancing investments. The first type of benefit is measured using a general equilibrium model. The second requires an understanding of how the private sector will respond at the sub-sector level, based on an analysis of the sub-sectors involved. Based upon available data and analyses, the following estimates the benefits expected from the ASAP measures which are expected to have the greatest impact on the sector.

##### a. Eliminate GOP interventions that discourage private sector investments in corn production and trading.

The problems facing the corn-livestock complex can be broadly summarized as a lack of vertical coordination. As a result, farmers, feedmillers, and livestock producers face great uncertainty in ascertaining the potential returns to corn production, storage, processing and livestock production. Vertical coordination is difficult because, on one hand, the domestic availability (supply) of the primary feed input (corn) for livestock producers is seasonal in nature and very susceptible to random weather factors whereas the consumption of meat and meat products follows a relatively stable pattern through the year. Corn prices tend to fluctuate, being high particularly in the first quarter and low in the third quarter of the year.

This problem in turn discourages investments in the industry. Farmers lack the profit incentive to improve farm yield through better technology and

post-harvest handling. On the part of users, livestock production fails to grow up to its full potential because of the risk that the supply of corn may be inadequate for their requirements. The country is in a chicken-egg situation: corn farmers do not grow as much corn as the market could absorb because of possible losses and livestock producers do not raise the animal numbers that corn producers could support.

The problem is further complicated by NFA participation in the marketing system. As far as promoting a cost-effective stabilization program in corn is concerned, the NFA is a bad form of government assistance for the following reasons. First, its operations are subsidized, private storage is not, and it cannot obtain enough resources from the Congress to carry out its task effectively. Second, it does not have a comparative advantage over the private sector in storing corn. Third, its decisions on timing, volume and prices for the procurement/release of the commodity are highly unpredictable and undermine private sector incentives to investment in corn trading (especially storage).

Other important factors are the high transport cost for corn from farmers to livestock producers users and a restrictive corn import policy. The former problem is complicated, involving the lack of basic infrastructure facilities in the rural areas, vessel inadequacy, relatively non-competitive interisland shipping sector and cargo handling service sector in the country's ports. The latter deals with the GOP's licensing of corn in order to promote domestic corn production. Analysis points out however that the way this policy is implemented is too susceptible to political lobbying every year from both sides of the issue. It is not uncommon to hear that the lobbying process ends up hurting the corn and livestock industry more than promoting the farm sector.

The proposed reforms of ASAP to address problems in the corn-livestock sector consist of the following: eliminating or greatly reducing the NFA role in corn trading; implementing a price band scheme for stabilizing domestic corn supply/prices as a transitional step towards an open market; and reducing the transportation cost by demonopolizing cargo handling services in public ports.

The price band mechanism will encourage private storage, defended primarily by imports or exports, as the case may be, rather than public sector buffer stocking activities, and reflect an equitable sharing of the burden of the temporarily high transportation cost as a result of the lack of fundamental public infrastructure in the Philippines.

The thrust of these interventions is to encourage the private sector to go into corn trading, particularly storage. The present set of policies results in the following pattern of feed use of corn in the country. Fifty five percent of the total feed use occurs in the period from July-December based on the data from 1987 to 1989 or this pattern can be represented by a standard deviation of feed use through the two semesters equal to .05. This need not be since the pattern of meat demand through the year is fairly stable. Corn storage helps in making an otherwise seasonal supply conform more to the pattern of use of meat products.

Our analysis of the benefits of the proposed reforms starts out with a target of narrowing down the disparity in corn use through the year from 55

percent during the July-December season to 53 percent during the same period. This requires that an additional 90,000 MT of corn will have to be stored for release in the first semester of the calendar year. With this additional demand during main harvest period, farmgate corn prices will go up by about 5 percent. Using Intal and Power's corn supply elasticity of .3, corn output will go up by 1.62 percent per year. The demand elasticity is assumed to be 1. The 90,000 MT will help reduce the upward fluctuation in corn prices during the lean months and encourage livestock producers to increase their use of corn during these months.

The three year average of the country's annual corn production was 4.48 million MTs. There are two measures of benefits depending upon where the resources used to grow the additional corn is coming from. Under the first assumption which states these resources come from other sectors in the economy, then the benefit to the economy of these specific reforms is equal to \$7.66 million. Under the second assumption which states that these were otherwise unemployed resources, then the total benefit to the economy is estimated at about \$11 million per year.

b. Exempt land used for livestock production from CARL.

The application of CARL to livestock production would have required that land holdings used for livestock would have had to be divided into parcels of less than five hectares. The major impact of this measure would have been on hog raisers which had average holdings of 15 hectares. The consensus of the industry was that economies of scale require land holdings of over five hectares. Some hog raisers would have discontinued operations and many would have experienced increased costs and reduced earnings. Several major investments were in fact canceled immediately after CARL came into effect. The policy dialogue on the issue resulted in a broad consensus that the livestock industry, with the exceptions of extensive and large scale cattle grazing operations on haciendas or public lands, should be exempted. For political reasons, however, the private sector was obliged to take the lead in advocating for the exemption. The end result was a recent Supreme Court decision that the livestock industry is exempt from CARL.

The benefits of this measure are difficult to quantify, but industry representatives and outside observers have maintained that pork production could have declined by 10 to 20 percent if livestock lands had been subject to CARL, and some adverse effects would also have been felt in the poultry industry. If it is assumed that the impact of the law would have been to reduce hog production by 10 percent in the short run and reduced the long-term growth rate by 1 percent due to lost economies of scale, the annual loss of hog production would have amounted to at least P300 million (\$11 million). The net loss to the economy would have been less than this because of the transfer of productive resources to other economic sectors.

An alternative measure of benefits is the impact of not imposing the tax associated with the CARL provisions. If livestock holdings had been subject to CARL, the owners would have had to pay 3 percent of gross earnings and 10 percent of profits to their workers during the 10-year grace period. Using the general equilibrium model, the estimated cost of this tax to the economy

would have been P240 million (\$8 million) per year. Since it is reasonable to expect that this scheme will be imperfectly enforced, the rates were halved. Consequently, only 25 percent (or \$2 million/year) of the estimated cost of the tax to the economy were used in calculating the IRR for ASAP.

c. Establish a means of restoring the collateral value of agricultural land under CARL.

The CARL is likely to have a major impact on agricultural credit for many years unless concrete action is taken to address the land collateral issue in the near future. At present, the loss of collateral value is caused mainly by the uncertainty related to the transfer of holdings of over five hectares from their present owners to tenant farmers and employees. This process will be fraught with uncertainty as long as the DAR does not have the resources to purchase the lands and does not establish a clear schedule for the transfer of the lands. Under these circumstances, lending institutions are unwilling to accept these larger holdings as collateral.

Even after this issue is resolved, the value of land as collateral will be greatly diminished under present CARL provisions. The first reason is that land under default can only be sold to DAR at a value determined by DAR and subject to the availability of funds. Experience with DAR thus far has convinced lending institutions that agricultural land is no longer suitable collateral for loans. The second reason is that many of the land holdings over five hectares are under plantation crops and their value will be retained only if the smaller holdings are subject to the same central management that made the larger holding viable. There is little indication at this time that the new owners of these five hectare parcels have the management ability to maintain the value of these lands and even if they do some system needs to be in place to assure that subsequent owners will maintain the necessary continuity.

Annex D contains an impact analysis of the loss of collateral value of agricultural land on credit availability for the sector. This analysis focuses only on the loss of collateral value. At present, credit to agriculture is at a virtual standstill, not only because of the collateral issue but also because owners of holdings of over five hectares have been unwilling to invest until the many uncertainties related to CARL have been resolved.

The analysis shows that the loss of collateral value alone, other things remaining equal, will result in a permanent reduction of 10 percent in the amount of credit provided for agricultural production. This does not count credit that would have been provided for associated activities such as the handling/processing of agricultural products. This loss of credit amounts to P3.5 billion per year. Using a general equilibrium model for the Philippine economy, the analysis shows that the production losses in the agriculture sector are accompanied by increases in other sectors as credit funds are reallocated, but that the net effect on the economy is to reduce total economic value added by P2 billion (\$70 million) per year.

The after effects of CARL are extremely complicated and it will take many years before the collateral value of agricultural land is fully recovered. A

reasonable target for the ASAP time frame is to recover 50 percent of the value of those holdings that had been over five hectares, yielding economic benefits of \$35 million per year. Of this benefit stream only 20 percent will be utilized in the calculation of the economic benefits derived from ASAP.

#### d. Removal of Banana Hectareage Limitation

The area devoted to banana production for export continues to be limited by the GOP. Under Letter of Instruction (LOI) No. 58 in 1973 the limit was set at 21,000 ha. and was subsequently increased to 25,000 ha. by LOI No. 790. Since these regulations were instituted, the Philippine share in the world export market has been steadily declining. Table 21 in Annex D shows that during the period 1980-90 the Philippine share of the world export market for bananas dropped from 13.4 to 9.4 percent. Moreover, the situation seems to be worsening given the apparent inability of Philippine producers to take advantage of the recently opened Korean market for bananas. Given the large investments in banana production in Indonesia, the Philippine comparative advantage in the area (it is still the largest exporter of bananas in the Asia region) may be effectively challenged.

According to private sector representatives of the banana industry, the regulation limiting the area devoted to banana export production hinders the country's ability to respond to new export market opportunities as recently demonstrated by the removal of restrictions to the import of tropical fruit. While the Philippines has a comparative advantage in transportation over other exporting countries in the Korean market, it is likely that the country will lose this new market opportunity unless the hectareage limitations are removed.

Lifting the hectareage limitation will provide the private sector the required flexibility to respond to changes in the export market for bananas and allow the Philippines to at least defend its ten year average world market share of 11 percent. To determine how much the country will gain from such a development, the world exports of bananas were projected for a five year period using a simple regression method. The additional revenues which the country gets every year are in the range of \$73-\$6 million. If the additional area used for banana exports simply comes from the current area used to produce bananas for domestic consumption (i.e., the production is at no expense to other sectors in the economy) then the additional revenues would constitute a net benefit to the entire economy.

Only ten percent of the benefits are claimed for purposes of this analysis in consideration of the possible opportunity cost of the additional hectareage used to sustain the country's targetted market share. Another reason is that the forecasting model does not take into consideration the possible recessions in the economies of the developed countries which will have a negative impact on their demand for tropical fruit (bananas). Given other factors that may come into play over time that the forecasting model does not adjust for, only five years of benefits (starting in 1992) are claimed as being attributable to ASAP. Per Table 26 in Annex D, the annual benefit stream would be \$7, \$8, \$8, \$9 and \$10 million, respectively.

**e. Strengthen market linkages within the agribusiness system.**

The main agribusiness subsectors that could be affected by this action are:

i. The traditional crops: rice, coconuts, and sugar, and less important plantation crops such as coffee, rubber and cacao. These have been grown in the Philippines for generations and have been stagnant or declining for some time. World demand for these products is growing at a very slow rate. If growth occurs, it will only be when the Philippine economy becomes internationally competitive and the long-term environment is conducive to major investments in agriculture. Given, the country's overvalued exchange rate, CARP, and the poor state of rural infrastructure, this will not be in the near future. In any event, these industries are well established in this region of the world and are not constrained by weak market linkages.

ii. Recently developed export products: pineapples, bananas, prawns, and tuna. The production, processing and marketing of these products is in the hands of large multinational and domestic agribusinesses that are vertically integrated. These sub-sectors of the agribusiness system will respond to the improved policy environment without market development assistance from government or donors.

iii. The import-substitution agro-processing sector: This sector is dominated by large family-owned agribusinesses benefitting from high rates of protection from import competition. A large part of this sector, notably dairy products and flour milling, utilizes imported agricultural products and is therefore not closely linked to domestic agriculture. However, most of the agro-processing industry is based on domestic agricultural products, including rice, refined sugar, cigarettes, pork and poultry products, fruit purees, and cooking oil. The large, established agro-processors do not need market development support but the small- and medium-sized enterprises do.

iv. The rest of the agribusiness system: This includes a wide range of products in the fruit, vegetable, fiber, and fishing sectors. Much of the production, processing and marketing of these products occurs in the informal sector, but the processing and marketing activities for domestic and export markets is not insignificant.

It can be expected that the benefits of ASAP market development activities will be concentrated in the last two categories of agribusinesses. The focus will be on agro-processing for domestic and export markets. The initial impact is likely to be on the domestic markets. Much of the fruit, vegetables and fish consumed in the Philippines is sold fresh to consumers. A marketing effort is needed to determine how to go about increasing demand for higher quality products requiring value added processing.

These efforts on the domestic front will be accompanied by the identification of export markets for processed agricultural goods. Increases in exports would start from a very small base but could increase at a rapid rate if the right joint ventures could be established. The key is international competitiveness. Virtually all of what can be produced in the Philippines can also be produced in other countries. Exports from the Philippines will increase only if they are competitive on the world market.

Small market niches may be identified in the short run, but in the long run growth will have to be based on an efficient domestic agroprocessing industry. This will be achieved by gradually reducing protection on production for the domestic market. As the domestic industry is forced to become internationally competitive due to competition from imports, its ability to export increases. When the industry becomes export-driven, sustained high growth rates should be possible. The domestic market alone will not be able to sustain more than a four percent growth rate over the long-run.

For purposes of this analysis, it is assumed that ASAP market development efforts will result in 100 new or expanded ventures in agro-processing involving an average of \$1 million in new investment per venture. Assuming a 20 percent rate of return on these investments and an opportunity cost of capital of 15 percent, the annual benefits would be \$5 million per year starting in the sixth year when the full impact of the market development measures is felt.

## 2. Cost-Benefit Analysis

The basic cost-benefit calculation is presented in Table 11. The cost figures attribute ASAP's policy-related costs, i.e., program assistance (\$50 million) plus policy formulation assistance to the public and private sectors (\$15 million). The total cost stream is \$65 million. The remaining \$15 million is for transactional assistance to the private sector. The benefits of this component occur through increased production resulting from ASAP market development interventions.

The benefits resulting from the policy reforms are based on the economic analysis presented in Annex D, and summarized on the next page. The assumptions regarding the share of benefits attributable to ASAP support are shown at the bottom of Table 11. The benefit stream assumes that ASAP will have its greatest influence on measures related to corn marketing and banana export and will be only one of several factors affecting CARL. Based on the economic analysis and these assumptions the ASAP IRR is estimated to be 23 percent over a fifteen year period. For the \$15 million transactional market development assistance to the private sector component, the assumptions discussed above yields an IRR of 24 percent.

It bears restating that most of the benefits attributable to these selected policy reforms are calculated using a general equilibrium model of the Philippine economy. Benefits identified by this model are due entirely to a reallocation of resources from relatively inefficient sectors to relatively efficient sectors in response to changing market signals. The model assumes no net increase in investment and no change in the productivity of factors of production in the sectors to which resources are reallocated.

The above approach to the economic analysis has been taken to provide a conservative estimate of benefits. It can be safely assumed that increased investments into the agribusiness system will result in productivity increases at the sub-sector level over and above the benefits of simple resource reallocations. The benefits of these productivity increases very likely outweigh the benefits identified by the general equilibrium model. The reason

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they are not included here is that there is a lack of data on production systems and productivity at the sub-sector level. As productivity data is generated for the corn, livestock, fruits and vegetables sub-sectors under ASAP, better estimates of these benefits should become possible.

Table 11: ASAP Internal Rate of Return (\$ millions)<sup>1</sup>

Year	Costs	Benefits		Corn Marketing	CARL		Banana <sup>4</sup> Exports
		Total	Net		Livestock <sup>2</sup>	Collateral <sup>3</sup>	
1992	23	1.6	-21.4		1.6		
93	23	7.4	-15.6		1.6		5.8
94	13	8.2	- 4.8		1.6		6.6
95	3	8.2	- 5.2		1.6		6.6
96	3	21.4	18.4	6.6	1.6	5.8	7.4
97		22.2	22.2	6.6	1.6	5.8	8.2
98		14	14	6.6	1.6	5.8	
99		14	14	6.6	1.6	5.8	
2000		14	14	6.6	1.6	5.8	
01		14	14	6.6	1.6	5.8	
02		14	14	6.6	1.6	5.8	
03		14	14	6.6	1.6	5.8	
04		14	14	6.6	1.6	5.8	
05		14	14	6.6	1.6	5.8	
06		14	14	6.6	1.6	5.8	

IRR = 23%

- <sup>1</sup> Benefits adjusted for shadow price of FX by multiplying benefits with the factor (28/34). SER = 34.
- <sup>2</sup> Twenty-five percent of the benefits from CARL exemption.
- <sup>3</sup> Twenty percent of the benefits from restoration of collateral value of agricultural land to 50 percent of pre-CARL level.
- <sup>4</sup> Ten percent of benefits from removal of the limitation on hectareage devoted to banana export production.

### 3. Sensitivity

The sensitivity analysis will consider two alternatives to the basic cost-benefit calculation presented above. The first recognizes that the percentage of benefits from the policy reforms attributable to ASAP is subjective. The benefit stream is therefore cut by 75 percent below the base calculation presented in Table 11. This is to take account of the possibility that the policy formulation process supported by ASAP could have been less of a factor in some of the reforms than is assumed in the base calculations. Making this adjustment yields an IRR of 15 percent for the full 15 year period.

The second alternative is to increase the impact of ASAP on key reforms by increasing the size of the program. This increases both the cost and benefit streams. It is arguable that the benefits of three measures alone: increased private sector investment in corn marketing (benefits of \$8 million per year), the return of the collateral value of agricultural lands to one half of pre-CARL levels (benefits of \$35 million per year) and removal of the

hectareage limitations on banana production for export (\$73-96 million per year); would justify a much larger level of program assistance. For example, if all of the benefits from these measures were attributed to a \$200 million ASAP (disbursed in two tranches under the program component), the IRR would jump to 38 percent.

## B. SUSTAINABILITY ANALYSIS

Questions regarding the long-term sustainability of the improved environment for private agribusiness growth that will result from ASAP interventions focus in main on the financial feasibility issue. The analysis is best presented in terms of each aspect of the improved environment: an improved policy framework as provided for in the ASAP policy reform agenda; the increased capacity in government and the private agribusiness sector for policy analysis/advocacy; and a more effective GOP-private sector partnership in support of agribusiness growth and development.

### 1. An Improved Policy Framework

By the end of the program, it is intended that all of the policy reforms called for in the ASAP policy reform agenda will have been carried out. The financial feasibility issue is whether the cost of these reforms to the GOP are adequately provided for in the ASAP design. Several measures have revenue implications.

The ASAP policy reforms for reducing the NFA role in corn trading will lead to a reduction in GOP subsidies to NFA. The key reform will be a wider price stabilization band, meaning that the NFA will buy corn at a lower support price and sell the corn at a higher wholesale price than is now the case. This will result in sharply reduced NFA corn marketing losses which must be covered by the GOP. If these reforms are also applied to rice, the budget savings will be even greater. The largest savings from reduced subsidies will come from the privatization of PHILPHOS. These savings alone will assure that the net impact of ASAP-supported policy reforms will be significantly positive.

A second potentially revenue reducing measure is the reduction of tariffs on imported inputs for livestock production and meat processing. The financial analysis shows this not to be a problem. The purpose of existing tariffs and NTBs on these products is to protect domestic industry, not generate revenue. Consequently, imports are currently very low. Removing the protective tariffs and NTBs would increase imports of these products which would still be subject to the basic revenue generating import tax (currently 10 percent ad valorem but scheduled to drop to 3 percent). The net result would likely be an increase in budget revenues.

The policy reforms related to CARP and inter-island shipping involve government regulations that have little or no revenue or expenditure implications. Policy studies associated with the implementation of these reforms will be funded directly out of the ASAP budget and will not constitute a financial burden for the GOP.

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The present ASAP design calls for completion of a study of the tax bias against the sector prior to the disbursement of the second tranche and the implementation of the study recommendations before the third tranche is disbursed. Among other things, the study may confirm private sector complaints that application of VAT to agro-processors in a manner that results in an effective tax rate of 22 percent rather than 10 percent is an unintended distortion and leads to a misallocation of investment resources away from agribusiness into other less efficient sectors. If so, there would be a need to reduce the VAT rate on agro-processors to remove the unintended distortion.

Of all potential ASAP reforms, a possible reduction in the VAT on agro-processors would have the most negative affect on GOP tax revenues. The economic analysis (Annex D) concludes that the annual revenue loss from this measure could reach \$20 million. Ideally, the measure would be enacted as part of an overall VAT revision aimed at expanding the tax base, improving collection efficiency, and removing economic distortions. The need for a comprehensive revision of this type has been identified in several GOP and donor studies. In this context, the revenue loss from the reduced tax on agro-processors would be more than compensated for by the increased taxes from other measures.

## 2. Increased Capacity for Policy Analysis and Advocacy

ASAP will increase policy analysis capacity in both the government and private sectors. In the GOP the focus will be on strengthening BAS data gathering and increasing policy analysis capacity in PMS/PAD. The annual operating costs of the increased activity are estimated at about \$1 million for BAS and \$500,000 for PMS/PAD. These are very small amounts relative to the total DA budget, but traditionally, policy analysis has been assigned a low priority in DBM and the Congressional appropriation committees. The policy dialogue between USAID and DA on this issue has been ongoing since the start of the AAPP. There is support for increased funding of these activities at the highest levels of DA, and concrete measures have been included in the ASAP policy reform agenda. The disbursement of ASAP program assistance will be linked to increased GOP funding for policy analysis in DA.

ASAP will also support policy analysis and advocacy activities in the private sector (approx. \$1 million per year for the entire agribusiness system). For these activities to be continued, they will have to be supported largely by private agribusinesses. The level of effort that will be initiated by ASAP is easily sustainable by the private sector, if the results are perceived as meeting their needs. The issues to be addressed under ASAP will be identified by the private sector, and the studies will be at least partly funded by private businesses or private sector trade associations from the outset. The ASAP share will decline gradually over the life of the program to help assure that what is funded reflects the priorities of those who will be required to continue them after the program is completed.

## 3. A More Effective Government-Private Sector Partnership

ASAP will support the strengthening of four government services that are important to this partnership: market data generation/dissemination,

technology development and transfer, farmer training and organization, and market development.

The first, market data generation/dissemination, is an ongoing GOP program. It has been strengthened under the AGHARIS component of AAPP, but suffers from underfunding. BAS is recognized to be seriously underfunded with the result that the Philippines has an inadequate agricultural data base. BAS's priorities are necessarily the country's major crops -- rice, corn, coconuts, and sugar -- and the focus is on production. ASAP will fund a major portion of the market data gathering/dissemination activity during the early years of the program. This will yield concrete benefits for the private agribusiness system, but the activity will not be sustainable if it is not incorporated into the GOP-funded BAS recurrent budget. A top-level policy decision will be needed before the end of ASAP recognizing agribusiness's needs for market data as a high BAS priority. For this to happen, the data generated under ASAP will have to be demonstrably valuable to private agribusiness and will have to be effectively advocated for by the private agribusiness system itself.

The remaining three services are subsidies to the private agribusiness system. As such they should be administered by an Agribusiness Support Unit in DA or, alternatively, by DTI. Support for technology access is the least expensive in terms of recurrent costs. Basic agricultural research is an ongoing GOP program. The activity supported under ASAP consists mostly of the adaptation of existing technology by individual agribusinesses. This adaptation is largely funded by private businesses. Government subsidies are needed for new initiatives that entail higher costs and more risk than can normally be expected from these businesses. Financial constraints are not likely to be a major factor in the continuation of the service.

The farmer organization activity will train and organize about 10,000 farmers over the life of the program. The new agribusiness ventures that will result from this effort will justify the expense, but there will be continuing need to provide similar training to millions of other small farmers. This need has large expenditure implications. As private agribusinesses become familiar with the process of training and organizing small farmers to become viable commercial entities and dependable business partners (suppliers), it is expected that an increasing portion of the costs will be borne by them. The key is that subsidy support for such activities be provided to private agribusinesses rather than through the regular public agricultural extension service. The former has the strongest interest in making the enterprise financially sustainable and entails much lower recurrent costs.

The market development activity will be ASAP-funded for the five years of the program. This is seen as a high priority by the DA and DTI and will continue at some level after the end of the program. The funding requirements will vary, depending on the priority given to market development in the budget setting process. The ASAP objective is to demonstrate cost-effective models for joint private sector-government initiatives. The level of effort following the end of ASAP will depend on the results of ASAP funded efforts, GOP budget constraints, and DA and DTI priorities.

### C. INSTITUTIONAL ANALYSIS

Institutional feasibility issues, both in the public and private sector, affect ASAP implementation as well as the sustainability of ASAP benefits.

#### 1. Government

One important issue is the technical capacity of the implementing units. Most of the ASAP activities in the public sector will be implemented in DA: policy analysis and advocacy in PMS/PAD; data gathering/dissemination in BAS, and market development activities in the Agribusiness Support Unit (ASU). Each of these units has received support under AAPP. The strongest in terms of technical expertise is BAS. Its main constraint is the lack of personnel and equipment for data processing and dissemination. It must, therefore, concentrate on the priority concerns of DA, which are the country's main crops, especially rice, corn, and coconut. With financial support from ASAP, BAS will be able to hire staff and purchase the equipment needed to carry out the intended activities.

PAD and ASI, however, have serious implementation constraints due to a chronic shortage of policy analysis and market development expertise. Neither of these units has been institutionalized after several years of AAPP support. The country is lacking expertise in both these areas. Policy analysis capacity tends to be concentrated in the universities, while market development capacity is in the private sector. The best approach to this problem is to keep both organizations lean. The DA should have a small staff of high quality people who manage activities contracted out to academia and the private sector. Routine monitoring activities needed for DA decision making will be carried out by DA staff in these two units, but these activities will not have the analytical content needed for high level policy formulation.

The other key institutional issue is how much impact increased policy analysis and advocacy capacity in DA can be expected to have on policies affecting the agribusiness system. The discussion of policy issues in Section Four shows that most of the major issues are the primary responsibility of departments other than DA. The departments whose activities most directly affect agribusiness are: DA, DAR, DTI, and DENR. In addition, DOF, DBM, DOTC, and NEDA deal with matters that can significantly affect the agribusiness system. Of these departments, DA has the strongest commitment to promoting agribusiness growth. DTI is responsible for industry regulation and incentives, across the board; DAR is responsible for social equity concerns; and DENR is responsible for resource conservation.

There will always be competing objectives in policy formulation. Even if private sector agribusiness growth is now seen as a priority concern by many, in the final analysis, each department has its own constituency and mandate. Further, there is no interagency mechanism at present to coordinate issues related to agribusiness, and it does not appear that there is support for such a mechanism, except in the DA. The DA is only one voice but, over the long run, is the department with the strongest commitment to promoting agribusiness growth. If the DA cannot advocate effectively for agribusiness, it is unlikely that GOP policies will adequately reflect the concerns of that system.

It must be recognized, however, that the most that can be expected from ASAP policy analysis and advocacy activities is that agribusiness concerns will be given their proper weight in the GOP policy formulation process.

## 2. The Private Sector

The key institutional issue in the private sector has to do with the trade associations. A major ASAP objective is to strengthen trade associations to gather and disseminate data and provide policy analysis and advocacy support for agribusiness. Based on experience gained in AAPP implementation, PCCI and MAP have the strongest track records in pursuing agribusiness policy reform and are the organizations that ASAP expects to work with most closely. They have commissioned important policy studies, and lobby effectively on behalf of the private sector. These organizations, however, have limited capacity, so they tend to concentrate on the most important issues at any given time. For example, over the past year, CARL implementation has been a major area of concern. There is also no assurance that the position of these organizations will reflect agribusiness interests. The lack of progress on E.O. 413, which affects highly protected, urban-based manufacturers, is an example.

The situation is even more problematic at the industry level. Most of the industry trade organizations have not been effective in gathering and disseminating data to their members, and most do not have the funds to commission studies of policy issues affecting their industries. A related issue is the level of interest in receiving these services among agribusinesses. In designing ASAP it was recognized that expressions of interest are not the same as commitments to continue ASAP-initiated activities after the end of the program.

An important assumption for ASAP is that by concentrating data collection and analysis efforts mainly in the feed-livestock and fruit-vegetable sectors, and combining these activities with complementary policy advocacy and market development initiatives over a five year period, their value will be sufficiently demonstrated to assure their continuation. A key requirement here is that the private sector be involved as much as possible in the identification/implementation of the activities, so that by the end of the program these activities are seen as their own and not simply something conceived of and funded by government. Through numerous meetings and review of pertinent documents, Philippine and American businessmen have made inputs into the design of ASAP activities from the outset and joint private sector-ASAP funding of activities will be phased in as rapidly as possible during program implementation.

A more implementation-related issue is the availability of data gathering, market analysis, and policy analysis capacity in the private sector. ASAP aims at significantly increasing the level of effort in these areas over the next five years. The magnitude of the problem is reduced by focussing on only two sectors. It is also likely that, at least initially, ASAP activities will be concentrated in two or three regions. Several highly qualified academic institutions, NGOs, and private sector consulting firms have been identified and have expressed interest in carrying out ASAP-funded activities. It is unclear, however, how much excess capacity these institutions have. The ASAP

general contractor and USAID program managers will have to be aware of possible absorptive capacity problems, especially with respect to policy and market analysis.

#### D. ENVIRONMENTAL ANALYSIS

##### 1. Priority Issues for ASAP

The environmental analysis, presented in Annex F, identified four major environmental and natural resource issues of concern for ASAP.

a. Land use/area or spacial planning, along with good resource maps and databases by sub-region. For the most part, these needs will be addressed by USAID's LDAP Project and within ASAP through discussions with the GOP on the implementation of its CARL program. In this regard, the General Contractor should have the capability to respond to requests for technical guidance on environmental aspects of agroprocessing operations, e.g. siting of plants (groundwater or waste disposal impacts, etc.) and other related concerns.

b. Farmer-lead research on sustainable forms of intensification of upland mixed agro-ecosystems, preferably on rainfed lands. This is addressed directly by the program design, in which agribusinesses will work directly with farmers on agronomy/processing requirements for specific commodities. As part of its normal program monitoring, USAID (or the GC) will review periodically such agribusiness guidance for its environmental or socio-economic sustainability.

c. Agro-processing plant environmental audits. Technical assistance in carrying out such audits is available through the World Environment Center (WEC), with which the Asia Bureau has a cooperative agreement, presently. Opportunities for linking up with the WEC should be explored during program implementation for this purpose.

d. Development of effective environmental policy analysis, technical guidance and management units in DENR, DA and DTI to deal specifically with ASAP concerns. As noted above, many of the proposed changes/improvements in database management, extension, etc., in these departments, will entail and/or benefit from inclusion of environmental variables and issues.

##### 2. Scope of USAID Action in the Framework of ASAP

The principal environmental/resource management role of USAID in relation to this program will be to monitor economic policy reforms in the GOP and how these reforms relate to the development of the sector. Although the PAAD has identified a number of critical structural/regulatory barriers to development of this sector, it is reasonable to assume that other, as yet not clearly known barriers (or opportunities) may arise during the course of the program which will need to be considered. Thus the program implementation plan must be a flexible one and that the monitoring elements of the Support Services Component will be proactive and visible from the start of the program. This is especially relevant to the natural resources sector, given the intimate connection with environmental impact of agribusiness activities.

A second mandatory role for the USAID Mission and the ASAP Program (as represented by the MEO, in this case) is to continue to monitor carefully the use of pesticides and other hazardous agro-chemicals (herbicides, fungicides, etc.) as specified in Section 216.3 (10) (b) of 22 CFR 216 (A.I.D. Environmental Procedures) since the proposed intensification of commercial agricultural production, storage and distribution in densely populated areas poses a potentially serious health/pollution problem. Similarly, opportunities for incorporating known integrated pest management (IPM) techniques in applied research or technology dissemination efforts should be taken up.

ASAP primarily focuses on policy reform with a secondary consideration being support services for agribusiness. The program will consequently maintain a close coordination consultative role, not only with other relevant Mission programs/projects but also with other donor activities. Other relevant Mission activities include the NRHP, LDAP, the Mindanao Development Project (MDP), Local Government Infrastructure Fund (LGIF), Philippines Capital Infrastructure Project, the Pre-Investment Facility (PIF) Project, and the Private Investment & Trade Opportunities - Philippines (PITO-P) Project

With regard to the concerns raised in the environmental analysis (Annex F), two components of the ASAP program will be used for USAID environmental action. These are the Support Services Component and the Monitoring & Evaluation Component. The following will be integrated directly into the proposed program rather than as stand alone measures. This will ensure compliance with the intent of A.I.D.'s environmental procedures which are for them to be integrated into planning, design and monitoring.

### 3. Technical Assistance

Most of the following takes the form of technical assistance and research recommendations. The environmental analysis does not attempt to specify, in detail, the implementation arrangements which might be used.

a. ASAP contains a strong effort to remove licensing and permit restrictions on agribusiness subsectors which unnecessarily limit private sector entry or exit and/or protect parastatals or private monopolies and oligopolies. In this respect, the General Contractor and Grantees will work with DENR's Environmental Management Bureau to review their environmental licensing procedures (EIS and ECC) with respect to agribusinesses so that appropriate standards and realistic certification requirements are developed which reflect the nature, scale and scope of potential resource and environmental impacts and which serve to enhance resource and plant efficiency rather than act as a disincentive to investment. Ideally, this review process be in the form of government-industry dialogue and be located in the appropriate line agency (DA or DTI). Under present GOP arrangements, however, this is not yet the case. This could be the focus of further policy dialogue and institutional development, though probably not directly through ASAP.

b. Even though ASAP is not financing plant construction or equipment, as conditions warrant or opportunities arise, the General Contractor will take advantage of the special expertise of the World Environment Center (WEC), an American PVO which provides high-level industrial expertise on a pro bono basis to Third World industries. WEC is especially good at waste minimiz-

ation and pollution prevention programs utilizing plant audits, specialized training and short-term technical assistance. These services may be accessed directly by ASAP, the General Contractor or may be included in the design of the forthcoming Urban/Industrial Environmental Management Project.

c. DA lacks expertise in integrated pest management, poly-cultural cropping systems, farmer-lead research and other areas. This is because horticultural management, for example, often demands greater farmer management inputs and sophistication than does much cereal production. While at least some of the proposed fruit-vegetable sub-sectors are well-known to Filipino farmers, the demands for quality/sustained production will require substantial technology transfer to small producers. Much of this will be addressed through private, NGO and public sector research with participating farmers under ASAP. The General Contractor will, nevertheless, monitor technology development/transfer financed under ASAP to ensure that environmentally sustainable technologies and support systems are tested/transferred.

d. Given the focus on cost-sharing in the implementation of selected components of private sector enterprise proposals, technical assistance will also be made available under ASAP for identifying environmental measures which require relatively low capital and operating costs, reduce contingent liability risks, require relatively little sophisticated training and which could improve resource productivity, including plant profitability. As noted above, for many industries, such economies can be obtained through smart plant design (e.g. the reuse of process water, location of waste facilities, etc.) and housekeeping and other management measures.

As the need arises, ASAP assistance will provide information via publications and manuals, and the sponsoring of short-term environmental training courses for selected personnel of industries by subsector or other relevant criteria. Opportunities for environmental intervention that lie in the selection of proposals which reduce input burdens (e.g. artificial fertilizers and pesticides) or promote sustainable forms of intensification will be pursued. Finally, ASAP will monitor the effects of the reforms it is introducing and that would include monitoring/evaluating the impact of the program on various components of the agribusiness sectors, farmers, processors, marketers, etc.

#### 4. Special Studies and Research

Some evidence exists which suggests that the initial impact of the CARL on ag. productivity and sustainable intensification has been somewhat negative, due partly to sub-optimal landholding size, particularly in the uplands. Further access to needed inputs and markets will require some degree of resource pooling and group organization, as has been the case in most other countries. In this respect, the Monitoring and Evaluation Component will collect sample survey data required to conduct a "before and after" study of participating farmers to determine whether vertical integration, brought about by ASAP, actually improved the livelihood of participating farmer groups on a sustainable and environmentally sound basis and whether other kinds of reforms or support services were needed as well.

## 5. Training

Under the proposed procedures for accepting proposals for cost sharing, described in this PAAD, ASAP would share the costs of applied research and/or farmer organization/training costs of acceptable proposals. Many proposals will probably not entail any investments in major agroprocessing facilities. For those that do, applied research and selection of agroprocessing technology will include those technologies/processes which result in minimal or reduced waste discharges and have relatively safe operations. Other training support could then focus on plant "housekeeping" and other resource-saving, pollution avoiding management (and cost saving) measures.

## E. SOCIAL SOUNDNESS ANALYSIS

This section summarizes the major findings and conclusions of the analyses on social soundness and gender-related issues for the Agribusiness System Assistance Program. A summary of the gender-related concerns study is attached as Annex G. Complete copies of these reports are available from ONRAD.

### 1. Beneficiaries

The Philippine agribusiness environment has been shaped by six major agriculture-based economic groups, each of which can fit into any of three categories: commercial/corporate agribusiness; entrepreneurial agribusiness; and cooperative agribusiness. These economic groups may be considered the primary beneficiaries of the proposed program.

The first category includes transnational corporations, large local agribusiness processors and integrators, and the hacenderos who own large agricultural estates. Entrepreneurial agribusiness refers to small and medium-sized agribusiness entrepreneurs. Cooperative agribusiness includes small farm workers or producers who work formally or informally as a group according to cooperative principles.

The presence and collective activities of these groups have made agribusiness not only viable and profitable, but a vital component of the country's economy and cultural life. Agribusiness plays an important role in the country's proximate and medium-term economic outlook, despite past government policy which can be characterized as biased in favor of industry. Thus, any improvement in the policy environment surrounding the sector will indirectly benefit the people directly dependent on the sector for their livelihood.

### 2. Socio-Political Acceptability of Proposed Interventions

The GOP's major concerns for livelihood generation, poverty alleviation, and countryside development make the proposed interventions highly feasible, as well as timely and desirable. Among the major factors particularly conducive to ASAP are the proven resiliency of small and medium-scale entrepreneurs and the optimistic stance of big business, despite a recent series of natural and man-made disasters; the restoration and strengthening of democratic institutions, as evidenced by the rapid growth and vitality of development-oriented NGOs and people's organizations; the GOP's thrust toward

decentralization and privatization; increased technical and credit support to farmers' groups, rural cooperatives, and consumers; a broad multi-sectoral sensitivity toward gender-related issues; and finally, government's willingness and ability to listen and respond in due time.

Factors that might delay but not impede ASAP implementation are the slow and inefficient bureaucracy; overlapping functions of GOP agencies involved in ASAP implementation and the inherent difficulties of coordination; the stereotype of agribusiness as being "big business," whose interests are not congenial to small and medium-sized entrepreneurs; the vestiges of past government policies that are biased in favor of industry; and undue governmental intervention in rice, corn, feeds and livestock industries.

On the whole, the analysis shows that factors favoring ASAP implementation outweigh the negative factors, thus making specific interventions feasible.

### 3. Feasibility of Proposed Interventions

The following assertions, in particular, can be made with some degree of confidence:

- The ASAP proposal to gradually shift corn trading into a largely private undertaking will meet with minimal resistance, considering not only the limited capability of the National Food Authority (NFA) but also the GOP's privatization policy, which encompasses government assets as well as functions. If the first two years' phased privatization of corn trading meets with moderate success, then the eventual expansion of private sector participation in corn trading can be realized within the life of the ASAP program.
- Improving the access of the feed-livestock industry to key inputs not adequately available locally by modifying the tariff schedule will be most feasible, due to current multisectoral clamor to reduce or remove the 9% import levy and due to the serious plight of the cattle industry, which is experiencing an acute shortage of breeder stock.
- In line with the overall effort to upgrade the feed-livestock industry, two interrelated ASAP objectives are deemed feasible, namely, to study ways of linking sector prices to the world market and to enhance access of the private sector to interisland shipping for the movement of farm products.
- Because of their potential impact on other sectors, two areas are being proposed for study by ASAP, namely, the barriers to entry/exit in selected agribusiness subsectors by the private sector, and how to remove the tax bias against agribusiness. These proposed studies to improve the investment climate of agribusiness have a high degree of feasibility and acceptability because both GOP and the private sector recognize the existence of these problems.
- A current concern with proximate consequences on private sector investment in agribusiness is the issuance of clear guidelines and procedures for land conversion or transfer under the GOP's agrarian reform program. As this issue is a priority concern of the Department of Agrarian Reform (DAR), the ASAP objective for the early issuance of

a clear formula for land conversion or acquisition for agribusiness purposes, particularly in the processing subsector, is highly feasible. A related issue that may require further study, however, is for the GOP to identify options on the restoration of the collateral value of agricultural lands under the Comprehensive Agrarian Reform Law (CARL).

- \* DA has repeatedly expressed the importance of improving its capability in data collection, policy analysis and advocacy, technological development and extension, and market development. Thus, the ASAP objective to appreciably increase budgetary outlay for these functions over ASAP's three-year program life will generally find strong support.

#### **4. Potential Implementation Constraints**

No major difficulty or obstacle is foreseen in the implementation of the ASAP strategy and objectives. The two main GOP agencies involved in ASAP implementation, DA and the Department of Trade and Industry (DTI), have both the mandate and organizational capability, especially regional mechanisms, to push ASAP objectives. Moreover, the top management (i.e., Secretary and Undersecretary levels) of both agencies have people who share similar educational and occupational backgrounds (in the private sector).

The private sector (especially the Philippine Chamber of Commerce and the Industry and Management Association of the Philippines) and NGOs also have the organizational capability and networks in almost all regions of the country to significantly assist the GOP in pursuing ASAP goals.

#### **5. The Role of Women in Agribusiness**

With the formulation in 1989 of a parallel Philippine Development Plan for Women (PDPH), public awareness of gender issues and concerns has been raised. Thus, the traditional male bias of agriculture and agribusiness has been identified and analyzed. Women's concerns are gradually being integrated into the development process, and the participation of women in the planning and implementation of programs is being enhanced. For ASAP to contribute to gender equality, the design must include women's participation in the different phases of the program as planners, implementers and beneficiaries.

#### **6. Extraneous Factors Affecting the Program**

The outcomes of other events now unfolding that may affect ASAP implementation include: the RP-US treaty agreement beyond 1991; the 1992 presidential elections; and the country's political stability, both actual and perceived. The outcomes of these three situations will greatly determine the investment climate for agribusiness, as well as for other sectors of the economy. Recent developments in these areas tend to indicate that current and foreseeable conditions for ASAP implementation are quite auspicious.

#### **7. Social Soundness Statement**

Current conditions and on-going trends as reflected in the incumbent administration's policy tend to firmly support this report's conclusion that the overall outlook for agribusiness in general, and ASAP in particular, is not only favorable, but very promising under certain conditions.

## SECTION EIGHT

### CONDITIONS PRECEDENT, COVENANTS, WAIVERS AND STATUS OF NEGOTIATIONS

#### A. CONDITIONS PRECEDENT TO DISBURSEMENTS

##### 1. First Dollar Disbursement

Except as A.I.D. may otherwise agree in writing, prior to any disbursement or the issuance of any documentation pursuant to which disbursement will be made, the Cooperating Country shall furnish, in form and substance satisfactory to A.I.D.:

a. receipt of counsel acceptable to A.I.D. that this Agreement has been duly authorized or ratified by, and executed on behalf of, the Grantee and that it constitutes a valid and legally binding obligation of the Grantee in accordance with its terms and

b. a statement identifying the various agencies and offices of the Cooperating Country responsible for implementation of the Program and designating individuals in each such agency or office responsible for coordinating Program components.

##### 2. Each Dollar Disbursement

Prior to each dollar disbursement from the ASAP Dollar Special Account, the GOP will, except as A.I.D. may otherwise agree in writing, furnish to A.I.D., in form and substance satisfactory to A.I.D., evidence that:

a. The GOP is in substantial compliance with all of the terms and conditions of the Grant;

b. a schedule of payments, identifying payees, amounts and due dates proposed to be made by the GOP using dollars and any interest earned on funds held in the ASAP Dollar Special Account;

c. a statement of the name, branch and U.S. Federal Reserve Bank Branch number of each bank with which the dollars are to be disbursed; and

d. evidence that payments in connection with any prior disbursement of U.S. dollars have been made from the ASAP Dollar Special Account.

#### B. COVENANTS

The Cooperating Country shall covenant that it shall ensure that each agency and office of the Cooperating Country responsible for carrying out the Program will cooperate to the maximum extent possible with the Department of Agriculture in carrying out the Program.

Along with the general covenants covering taxation, refunds, publicity, communications, termination and representatives, the Parties agree on the

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importance of periodic consultations to discuss progress under the Program and agree to meet whenever either Party considers consultation with the other necessary with respect to the program.

#### C. SPECIAL COVENANTS

Program Evaluation. The Parties agree to establish an evaluation program as part of the Program. Except as the Parties otherwise agree in writing, the program will include, during the implementation of the Program and at one or more points thereafter:

1. Evaluation of progress toward attainment of the objectives of the Program;
2. Identification and evaluation of problem areas or constraints which may inhibit such attainment;
3. Assessment of how such information may be used to help overcome such problems; and
4. Evaluation, to the degree feasible, of the overall development impact of the Program.

#### D. WAIVERS

Except with relevance to "Buy America" requirements as outlined earlier, at this time it is not anticipated that waiver(s) are required under the program.

#### E. NEGOTIATING STATUS

The above conditions and covenants have been discussed with and agreed upon by the Department of Agriculture. During Program Agreement negotiations, the USAID representatives will incorporate into the Agreement, appropriate language to cover their terms and conditions.

**ANNEX A**  
**GOP LETTER OF REQUEST**



In anticipation of the proposed Program's significant contribution to the attainment of the objectives of the Philippine Agricultural Development Plan, the GOP would highly appreciate USAID's favorable consideration of this request for grant assistance.

Thank you and best regards.

Very truly yours,



CAYBTANO W. PADERANGA, JR.  
Secretary of Socio-Economic Planning  
and Director-General

cc: Secretary Senen C. Bacani, DA  
Secretary Jesus P. Estanislao, DOF  
Undersecretary Bruce Tolentino, DA  
Undersecretary Roneo Bernardo, DOF

**ANNEX B**

**PAIP APPROVAL, PAAD GUIDANCE AND  
REDELEGATION OF AUTHORITY CABLES**

27

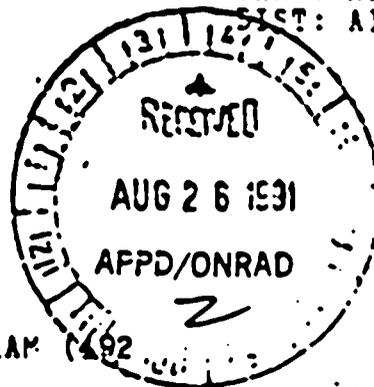
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FOR USAID

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TAGS:

SUBJECT: AGRIBUSINESS SYSTEM ASSISTANCE PROGRAM (492  
0445) POLICY MATRIX APPROVAL

REF: ...STATE 111141

1. AA/APRE APPROVES THE POLICY MATRIX FOR THE AGRIBUSINESS SYSTEM ASSISTANCE PROGRAM. COMMENTS WERE PROVIDED TO B. PRIMM DURING HIS RECENT TDY BY APRE/DR AND APRE/FPM.

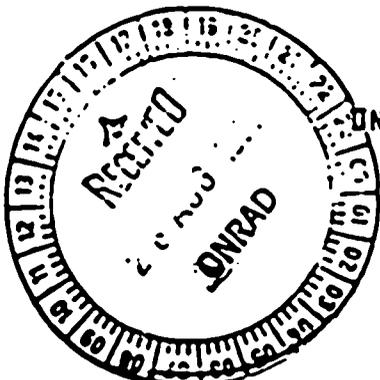
2. POLICYBASED ASSISTANCE IS AN INTEGRAL AND INCREASINGLY LARGE PART OF USAID/PHILIPPINES PROGRAM. REITZEL, PARA. 2A, REQUESTED AN APPRAISAL OF SUCH PROGRAM ASSISTANCE AND ITS EFFECTIVENESS SINCE 1986. THEREFORE, WE PROPOSE THAT A REVIEW TEAM OF 2<sup>+</sup> SENIOR STAFF FROM THE BUREAU VISIT MANILA IN NOV./DEC. THE PURPOSE OF THE VISIT WOULD BE TO REVIEW PROGRESS TO DATE WITH THE ON-GOING MISSION POLICY AGENDA, AGREE ON A GENERAL DIRECTION AND SCOPE FOR FUTURE POLICY REFORM ASSISTANCE, AND DECIDE ON THE FUTURE ROLE OF AID/W IN REVIEWING/APPROVING POLICY REFORM AGENDAS. REQUEST STATUS OF APPRAISAL AND ITS RECOMMENDATIONS. ALSO OF INTEREST TO THE TEAM WILL BE EFFORTS AND PROGRESS TO LIBERALIZE THE EXCHANGE RATE.

3. WE BELIEVE THIS WOULD BE A BETTER WAY TO WORK TOGETHER TEAM TRYING TO REVIEW EACH POLICY MATRIX SEPARATELY WITHOUT A CLEAR PICTURE OF HOW THE PIECES FIT TOGETHER. IT IS ALSO IMPORTANT FOR US TO GET A SENSE OF THE REALITIES AND ISSUES IN THE FIELD, AND TO SHARE WITH YOU SOME OF OUR VIEWS AND CONCERNS. LET US KNOW IF THE IDEA AND THE APPROXIMATE TIMING ARE WORKABLE. EAGLEBurger

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TAGS:

SUBJECT: AGRIBUSINESS SYSTEM ASSISTANCE PROGRAM (ASAP)  
(492-0445) - FAIP APPROVAL

1. SUMMARY/DECISION: AA/ZNS APPROVES THE PROGRAM ASSISTANCE INITIAL PROPOSAL (PAIP) FOR DOLS 83 MILLION LIFE OF PROGRAM EST FUNDING OF THE ASAP PROGRAM AND DELEGATES AUTHORITY TO THE DIRECTOR, USAID/PHILIPPINES TO AUTHORIZE THE PROGRAM. PRIOR TO OBLIGATION, THE MISSION SHOULD ADVISE ZNS BUREAU OF THE ASAP POLICY PERFORM AGENDA AND BENCHMARKS AND PROVIDE THE PROGRAM ASSISTANCE APPRAISAL OUTLINED BELOW. END SUMMARY.

2. BUREAU REVIEW: THE ZNS BUREAU PROJECT REVIEW COMMITTEE (PRC) REVIEWED THE PAIP FEBRUARY 11. WE AGREED WITH THE PAIP THAT REFORMS TO ENCOURAGE AGRIBUSINESS DEVELOPMENT ARE VITALLY NEEDED. OUR ISSUES WERE: WHETHER WE CAN DEFEND THE EFFECTIVENESS OF RECENT PROGRAM ASSISTANCE; AND HOW AN EFFECTIVE POLICY AGENDA CAN BE DESIGNED FOR THIS SECTOR. WE ALSO APPROVED ZNS/TR GUIDANCE FOR PAIP DESIGN.

A. EFFECTIVENESS OF PROGRAM ASSISTANCE: MUCH OF

OUR ASSISTANCE TO THE PHILIPPINES SINCE 1986 HAS BEEN POLICY REFORM RELATED PROGRAM ASSISTANCE AND THREE PLANNED FY 1991 NEW STARTS ARE IN THIS MODE. WE MAY BE ASKED TO SHOW THE BENEFITS OF RECENT PROGRAM ASSISTANCE WHEN SENDING FORWARD CONGRESSIONAL NOTIFICATIONS (CN'S) FOR THIS YEAR'S CROP.

WE ARE ALSO CONCERNED THAT ECONOMIC SETBACKS SINCE THE DECEMBER 1989 COUP ATTEMPT AND THE APPROACH OF THE 1992 ELECTIONS LOWER THE PROSPECTS FOR ACHIEVING FURTHER REFORMS.

WE UNDERSTAND AN EVALUATION OF THE SUPPORT FOR DEVELOPMENT PROGRAM (SDP) IS TO START SOON AND THAT THE MISSION IS STUDYING WAYS TO MEASURE PROGRAM ASSISTANCE IMPACTS. BASED ON AVAILABLE INFORMATION AND ANALYSIS WHEN YOU ASK FOR A CONGRESSIONAL NOTIFICATION OR CONCURRENCE IN THE POLICY AGENDA FOR ASAP, WE ASK THAT YOU SEND US AN APPRAISAL OF THE EFFECTIVENESS OF PROGRAM.

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ASSISTANCE SINCE 1986. THIS APPRAISAL SHOULD PRESENT A RATIONALE FOR EXPECTING THE PROPOSED ASAP REFORMS TO BE EFFECTIVE IN THE CURRENT CLIMATE.

- 5. ASAP POLICY AGENDA: THE PAIP MENU OF POSSIBLE REFORMS (PAGES 17-19) RANGES WIDELY. SOME REFORMS WOULD SEEM TO HAVE MACROECONOMIC SCOPE OR TO APPLY TO OTHER SECTORS AS WELL AS AGRIBUSINESS, OTHERS ARE MORE FOCUSED. SOME ITEMS ARE UNDER THE DEPARTMENT OF AGRICULTURE'S CONTROL BUT MANY ARE NOT.

THE PRC DEBATED THE MERITS OF LEAVING REFORMS WITH MACROECONOMIC OR MULTISECTORAL SCOPE TO SDP II OR THE PRIVATE ENTERPRISE POLICY SUPPORT PROGRAM (PEDS). WE RECOGNIZE, HOWEVER, THAT THERE ARE TAX, TARIFF, INTER-ISLAND SHIPPING AND OTHER POLICIES OF GENERAL IMPACT WHICH ARE MAJOR CONSTRAINTS ON AGRIBUSINESS DEVELOPMENT. THEY ARE ALSO THE HARDER POLICIES TO REFORM. IN PARTICULAR, WE QUESTION WHETHER WE CAN BE EFFECTIVE IN THE AGRARIAN REFORM AREA.

WE CONCLUDED THAT ASAP SHOULD FOCUS ITS REFORM AGENDA ON A FEW SECTOR-SPECIFIC REFORMS WITH LIMITED, BUT ACHIEVABLE, OBJECTIVES. THIS FOCUS IS PREFERABLE TO AN OVER AMBITIOUS AGENDA WHICH WOULD RUN INTO MAJOR RESISTANCE OR WHICH MIGHT NOT BE IMPLEMENTED EFFECTIVELY.

WE LEAVE IT TO THE PAAD DESIGN PROCESS TO DETERMINE A REFORM AGENDA WHICH TAKES INTO ACCOUNT THESE ISSUES AND THOSE THE PAIP ITSELF IDENTIFIES (PAGES 36-37).

- 6. DESIGN GUIDANCE: THE PRC CONCLUDED THAT THE ISSUES PAPER PROVIDED BY ENE/TR SHOULD BE TRANSMITTED TO THE MISSION FOR PROGRAM DESIGN GUIDANCE AS STATED IN THE RECOMMENDATIONS OF THAT PAPER.

IN BRIEF, THE PAAD SHOULD TAKE FULL ADVANTAGE OF RELATED DEVELOPMENT ACTIVITIES IN AGRICULTURE PRODUCTION PROJECTS; THE DEMAND ANALYSIS MUST BE CAREFULLY CONSTRUCTED IN LIGHT OF THE ECONOMIC DOWNTURN; AND THE POLICY AGENDA SHOULD BE FORMULATED FOR MONITORING. THE VERTICAL INTEGRATION OF PRODUCTION COMPONENT SHOULD HELP PROVIDE A LEGAL FRAMEWORK FOR AGRIBUSINESSES TO CONTRACT DIRECTLY WITH FARMERS, AND SHOULD USE CARE IN DEVELOPING THE COOPERATIVE OR FARMER GROUP APPROACH. (THE PAAD DESIGN SHOULD INCLUDE CONSULTATIONS WITH THE PRIVATE SECTOR.)

4. ENVIRONMENT: WE RECOMMEND THAT THE INITIAL

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ASSISTANCE SINCE 1986. THIS APPRAISAL SHOULD PRESENT A RATIONALE FOR EXPECTING THE PROPOSED ASAP REFORMS TO BE EFFECTIVE IN THE CURRENT CLIMATE.

- 5. ASAP POLICY AGENDA: THE PAIP MENU OF POSSIBLE REFORMS (PAGES 17-19) RANGES WIDELY. SOME REFORMS WOULD SEEM TO HAVE MACROECONOMIC SCOPE OR TO APPLY TO OTHER SECTORS AS WELL AS AGRIBUSINESS, OTHERS ARE MORE FOCUSED. SOME ITEMS ARE UNDER THE DEPARTMENT OF AGRICULTURE'S CONTROL BUT MANY ARE NOT.

THE PRC DEBATED THE MERITS OF LEAVING REFORMS WITH MACROECONOMIC OR MULTISECTORAL SCOPE TO SDP II OR THE PRIVATE ENTERPRISE POLICY SUPPORT PROGRAM (PEDS). WE RECOGNIZE, HOWEVER, THAT THERE ARE TAX, TARIFF, INTER-ISLAND SHIPPING AND OTHER POLICIES OF GENERAL IMPACT WHICH ARE MAJOR CONSTRAINTS ON AGRIBUSINESS DEVELOPMENT. THEY ARE ALSO THE HARDER POLICIES TO REFORM. IN PARTICULAR, WE QUESTION WHETHER WE CAN BE EFFECTIVE IN THE AGRARIAN REFORM AREA.

WE CONCLUDED THAT ASAP SHOULD FOCUS ITS REFORM AGENDA ON A FEW SECTOR-SPECIFIC REFORMS WITH LIMITED, BUT ACHIEVABLE, OBJECTIVES. THIS FOCUS IS PREFERABLE TO AN OVER AMBITIOUS AGENDA WHICH WOULD RUN INTO MAJOR RESISTANCE OR WHICH MIGHT NOT BE IMPLEMENTED EFFECTIVELY.

WE LEAVE IT TO THE PAAD DESIGN PROCESS TO DETERMINE A REFORM AGENDA WHICH TAKES INTO ACCOUNT THESE ISSUES AND THOSE THE PAIP ITSELF IDENTIFIES (PAGES 36-37).

- 3. DESIGN GUIDANCE: THE PRC CONCLUDED THAT THE ISSUES PAPER PROVIDED BY ENE/TR SHOULD BE TRANSMITTED TO THE MISSION FOR PROGRAM DESIGN GUIDANCE AS STATED IN THE RECOMMENDATIONS OF THAT PAPER.

IN BRIEF, THE PAAD SHOULD TAKE FULL ADVANTAGE OF RELATED DEVELOPMENT ACTIVITIES IN AGRICULTURE PRODUCTION PROJECTS; THE DEMAND ANALYSIS MUST BE CAREFULLY CONSTRUCTED IN LIGHT OF THE ECONOMIC DOWNTURN; AND THE POLICY AGENDA SHOULD BE FORMULATED FOR MONITORING. THE VERTICAL INTEGRATION OF PRODUCTION COMPONENT SHOULD HELP PROVIDE A LEGAL FRAMEWORK FOR AGRIBUSINESSES TO CONTRACT DIRECTLY WITH FARMERS, AND SHOULD USE CARE IN DEVELOPING THE COOPERATIVE OR FARMER GROUP APPROACH. (THE PAAD DESIGN SHOULD INCLUDE CONSULTATIONS WITH THE PRIVATE SECTOR.)

4. ENVIRONMENT: WE RECOMMEND THAT THE INITIAL

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ENVIRONMENTAL EXAMINATION (IEE) BE MODIFIED TO ADD A PARAGRAPH UNDER SECTION B "RECOMMENDED ENVIRONMENTAL ACTION" TO RECOMMEND THAT A SECTOR ENVIRONMENTAL REVIEW BE ADDED TO THE PAAD TO SUMMARIZE THE POTENTIAL ENVIRONMENTAL AND RESOURCE MANAGEMENT IMPACTS RESULTING FROM INVESTMENTS IN INTENSIFICATION, SPECIALIZATION, PROCESSING TRANSPORT AND STORAGE, ETC. STIMULATED BY THE POLICY REFORMS THE PROGRAM WOULD SUPPORT IN THE TWO SUB-SECTORS. SIMILAR ENVIRONMENTAL REVIEW ANNEXES HAVE BEEN PREPARED FOR AGRIBUSINESS SECTOR ASSISTANCE ACTIVITIES IN MOROCCO AND TUNISIA. SUGGESTIONS FOR THIS REVIEW HAVE BEEN FAYED TO THE MISSION. WITH THIS CHANGE, THE BUREAU ENVIRONMENTAL COORDINATOR COULD APPROVE THE IEE.

5. "WOMEN" IN DEVELOPMENT (WID): AID/W IS PLEASED WITH MISSION PROGRESS AND PLANS TO INTEGRATE GENDER ISSUES APPROPRIATELY INTO THE ASAP DESIGN. PLEASE INFORM PFC/WID, TULIN PULLEY; WHAT IS THE APPROXIMATE TIMING (AND DURATION OF) YOUR TECHNICAL ASSISTANCE NEEDS ON THE PAAD DESIGN.

6. GRAY AMENDMENT: WE COMMEND THE PAIP INITIATIVE IN SEEKING OPPORTUNITIES FOR GRAY AMENDMENT PROCUREMENT.

WE HAVE SENT THE MISSION CAPABILITY STATEMENTS OF POSSIBLE SECTION B(A) CONTRACTORS. BAKER

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MISSION RESPONSE TO AID/W PAAD DESIGN GUIDANCE AS CONTAINED  
IN PAIP APPROVAL CABLE STATE 111141 DATED 8 APRIL 1991.

1. Per the 1st phrase of the 2nd sentence of paragraph 3.C. quote: ....the PAAD should take full advantage of related development activities in agricultural production projects.... :unquote.

Experiences with past/ongoing ag. production projects were thoroughly reviewed in the design of ASAP. The major lesson learned is that project interventions rarely have a major impact if the macroeconomic and sectoral policy environment is biased against private sector led economic growth. With the advent of the Aquino government and with support from the donors, many of the macro policy constraints are gradually being addressed. ASAP can be expected to have a substantially larger impact than earlier ag. production initiatives because it complements an improved macroeconomic policy environment with a) sector level policy reforms favoring open markets and private investment; and b) support services will reduce the time lag normally associated with obtaining a private sector response (in terms of investment) to the new sector policy environment.

2. Per the 2nd phrase of the 2nd sentence of paragraph 3.C. quote: ....the demand analysis (SIC: for the selected subsectors) must be carefully constructed in light of the economic downturn.... :unquote.

As a vehicle for pursuing policy reform, ASAP will not have a direct impact on production levels or on the costs of production as would a regular production project. Rather, ASAP interventions will increase the economic incentives to invest in the agribusiness system by removing policy-based market distortions. The increased investment in agribusiness generates two types of benefits: 1) a reallocation of the economy's resources from less efficient to more efficient sectors, resulting in a net increase in GVA; and 2) an increase in the productivity of land/labor in agribusiness (supply) as a result of technology enhancing investments and growing income-consumption levels (demand).

The second type of benefits require an in depth understanding of how the private sector will respond at the subsector level, of which the demand analysis is a key component. Unfortunately, the dearth of time series and cross sectional data on the domestic feed-livestock and fruit-vegetable subsectors makes it impossible at this time to carry out an independent and more rigorous demand analysis. The demand estimates for calculating the economic benefits were consequently based upon existing data and the best available analyses (please refer to the bibliography for Annex D) which can be provided for review upon request. In this regard, it should be noted that one of the specific objectives of the Support Services Component is to address this data constraint.

However, thru the use of a general equilibrium model of the Philippine economy (described in Appendix A of Annex D) it was discovered that the first type of benefits can more than justify implementation of ASAP. Benefits identified by this mode are due entirely to a reallocation of resources from relatively inefficient sectors to relatively efficient sectors in response to changing market signals. The model assumes no net increase in investment and no change in the productivity of factors of production in the sectors to which resources are allocated. Thus the validity of the demand analysis for the selected subsectors is of lesser concern in justifying ASAP.

Moreover, the current/anticipated weakness of the Philippine economy, stagnating consumer purchasing power, and the consequent retarding effect on the growth in demand for meat and fruit-vegetables mentioned in the PAIP approval is viewed as a temporary (short term) phenomena. The impact of ASAP on production/productivity in the affected subsectors would only come into effect in the mid-term after the economy has recovered, per capita purchasing power begins to grow rapidly once again, and the well documented tendency for households with increasing incomes to increase the amount of meat, fruit and vegetables in their diets relative to cereals reasserts itself.

3. Per the 3rd phrase of the 2nd sentence of paragraph 3.C. quote: .... the policy agenda should be formulated for monitoring. :unquote.

The policy reform objectives for ASAP are: a policy environment conducive to sustained private sector investment in grain trading, removal of the uncertainty surrounding implementation the Comprehensive Agrarian Reform Law to facilitate private sector agribusiness planning/investment, privatization of GOP fertilizer production facilities, removal of excessive GOP regulation of private sector agribusiness and the tax bias against the sector, an efficient interisland shipping industry for the movement of ag. commodities, adequate access of the feed-livestock sector to inputs unavailable domestically in sufficient quantity/quality, and adequate Department of Agriculture support for the agribusiness system.

The indicators of change in the agribusiness investment environment as presented in Table 5 of the PAAD are specifically formulated for monitoring under the support services and monitoring/evaluation components of the program. These indicators are listed as benchmarks that must be met for each of ASAP's three tranches.

4. Per the 3rd sentence of paragraph 3.C. quote: The vertical integration of production component should help provide a legal framework for agribusinesses to contract directly with farmers .... :unquote.

There is a long history of farmer contracting in the country, particularly by multinational agribusiness firms, along with a supporting legal framework. In the vast majority of cases, however, these firms have been contracting with large land owners. With the advent of CARP the same firms will have to now deal with a multitude of small, independent and relatively

untrained/unsophisticated growers. In this regard, the support services component of ASAP has the flexibility to address problems of applying the existing legal framework for subcontracting to small farmers. However, private sector representatives have repeatedly emphasized in the PAAD design that the real constraint in this area is not the legal framework but the cost/risk associated with training/organizing small growers. It is anticipated that much of the resources devoted to vertical integration under the project component will be focused on this problem.

4. Per the 4th sentence of paragraph 3.C. quote: The PAAD design should include consultations with the private sector :unquote.

Over the past two years, the Agricultural, Policy and Planning Division (APPD), within the Mission's Office of Natural Resources, Agriculture and Decentralization (ONRAD), has on the average met twice a month with agribusiness representatives from the Philippine Chamber of Commerce and Industry (PCCI) and the American Chamber of Commerce (AMCHAM) to discuss the proposed ASAP interventions at the policy and project levels. Both organizations have reviewed/commented on the PAIP and relevant sections of the PAAD. In addition, the Mission has repeatedly met with many representatives from local and U.S. firms who have, or are interested in making agribusiness investments in the Philippines, to discuss policy and non-policy constraints to the sector.

**ANNEX C**  
**GRAY AMENDMENT CERTIFICATION**

ANNEX C

CERTIFICATION PURSUANT TO UTILIZATION OF GRAY AMENDMENT ORGANIZATION

I, MALCOLM BUTLER, Director of the Agency for International Development in the Philippines, having taken into account the potential involvement of small and/or economically and socially disadvantaged enterprises, do hereby certify that in my judgment the technical assistance required under this program can best be procured through open competition. All other things being equal however, preference will be given to firms which submit joint proposals with Gray Amendment-satisfying firms. Furthermore, for the scheduled external evaluations, joint efforts involving both local expertise and Gray Amendment-satisfying organizations are anticipated. My judgment is based on the recommendations of the Program and Mission Review Committees.



\_\_\_\_\_  
Malcolm Butler  
Director, USAID/Philippines

AUG 30 1991

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Date

**ANNEX D**  
**ECONOMIC ANALYSIS OF SELECTED ASAP POLICY REFORMS**



## ANNEX D

# AN ECONOMIC ANALYSIS OF SELECTED POLICY REFORMS PROPOSED UNDER THE AGRIBUSINESS SYSTEMS ASSISTANCE PROGRAM (ASAP)

by

*Ramon L. Clarete*

The purpose of this report is to calculate the economic impacts of selected policy reforms in the agribusiness sector as proposed by the Agribusiness Sector Assistance Program (ASAP) and compare the policy reforms' net benefits with the proposed investment to be made under the program.

The proposed reforms are grouped into three categories namely price-related reforms, rationalization of GOP regulations to encourage a dominant private sector role in agribusiness markets and increased budgetary support for the agribusiness sector development. The proposed price-related reforms include the lowering of tariff rates on intermediate inputs of the livestock sector, the lifting of price controls in rice and semi-processed pork, and a modification of the implementation of the value added tax in order to remove the unintended over-taxation of the value added from agroprocessing activities.

The regulatory reforms focus on encouraging the private sector to invest in post-harvest, trading and storage activities for corn and reducing the role of the National Food Authority in these activities in the major corn surplus provinces of the country. A second set of specific policy changes is aimed at improving the implementation of the comprehensive agrarian reform program in order to reverse the slide of agribusiness investments induced by it. A better regulatory environment also requires the elimination of unnecessary restrictions on entry and competition within the agribusiness sector as well as in inter-island shipping.<sup>1</sup>

The third category of reforms consists of improving the DA's capability to collect, analyze and disseminate agribusiness data, conduct economic policy analysis, advocate economic policy reforms benefiting the sector, work for improvements in multilateral and/or bilateral trade relations with trading partners for the purpose of improving market access for the country's agribusiness products.

Of the above policy reforms, only the following will be analyzed quantitatively in this report: trade policy reforms, VAT reforms, the impact of CARL on investments and productivity in the agribusiness sector, and the impact of allowing the private sector assume a dominant role over the government in corn trading, storage and post-harvest activities.

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<sup>1</sup> The program is only concerned with those regulations in inter-island shipping which particularly obstruct the flow of agribusiness products from and supplies of inputs to the sector. The other larger issues are not addressed since they involve other sectors of the economy, e.g. tariff protection on shipbuilding and provision of port facilities.

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The CGE model that is used here consists of twenty sectors and is designed for analyzing tariff policies. The benchmark year of the model is 1989. It assumes that imported and local goods are imperfect substitutes with each other. The implication of this assumption is that the results obtained tend to be conservative compared to those of models which otherwise assume that both goods are identical in quality.

Table C4 in Appendix C illustrates the correspondence between the Philippine 127 input-output table and the 20-sector CGE model as well as the average tariff rates used in the 20-sector CGE model now and under the proposed tariff reforms of the ASAP. Given the way the various sectors are aggregated, only three of the 20 sectors of the model experience a reduction in their respective tariff rates. They are the livestock sector (sector 2), animal feeds (sector 9) and chemicals (sector 11). Respectively, the percentage cuts in the tariff rates are .05, .58 and .05 percent. The results of the simulations involving tariff reforms are reported in Tables C5 and C6 also reported under Appendix C.

Table 1 shows the effects on real income arising from the proposed tariff reforms. The government's tariff revenues appear to go down as a result of these reforms by .026 billion pesos. Despite these losses, the entire economy stands to gain by only .001 billion pesos. The tariff reforms thus appear to be beneficial to the Philippine economy. Table 2 shows the changes in trade flows arising from these reforms.

The gain of 1 million pesos is relatively small; prices, production and consumption hardly change; and trade flows grow at about less than five percent. The reason for this is that the inputs whose tariffs ASAP is proposing to lower cover only a small proportion to total costs in livestock production. But there is no argument that the direction the program is taking is in the right direction of minimizing the tariff distortions in the Philippine economy. This is supported by the overall net impact on economic efficiency.

Based on the above figures, it is clear that ASAP's selection of tariff reforms does not substantially alter the policy environment, which is in turn determined by the sectoral nature of the program. In order to make an important impact on the country's tariff structure, the program would have to undertake a reform such as lowering down the disparity in nominal tariff protection rates in the Philippine economy. Being a major change in the tariff structure, this initiative would have to be taken up in a much larger program than ASAP.

To give the readers the dimension of benefits a reform like this will provide the Philippine economy, we performed a simulation involving a uniform tariff rate. A uniform tariff rate is obviously politically unlikely. But this is the direction which should guide policy makers in moving towards a sector-neutral tariff structure. The weighted average tariff rate in the Philippine economy is roughly 16 percent. We used this number as our uniform tariff rate. The overall benefit we obtained from introducing this 16 percent uniform tariff rate was about a billion pesos in 1989 prices. Appendix C lists down all the results of the uniform tariff simulations.

## B. Value Added Tax (VAT) Reforms

### 1. VAT Collection Mechanics and Effective Rates

The argument made in this report is that the implementation of the VAT inadvertently taxes the value added in agro-processing at a rate higher than the rate prescribed under the law. This is due to the feature in the VAT law which exempts primary agricultural sector from the tax and the way the VAT is collected. Such a feature discourages investments in agro-processing and thus the policy reform in this area must strive to correct this inadvertent bias of the VAT against agro-processing.

In this we formally lay down the basic argument that the present VAT collection method combined with the exemption of the primary agricultural sector causes a bias against agricultural processing. The VAT becomes non-neutral despite the fact that it imposes a uniform rate across the VAT-liable sectors in the economy.

Let  $X$  be the volume of processed agricultural product,  $a_i$  be the amount of intermediate input  $i$  required to produce a unit of output  $j$ ,  $p, w$  be the VAT-inclusive prices of output  $X$  and inputs, respectively.

The value added ( $V$ ) net of the value added tax is computed as:

$$V = pX - \sum_{i=1}^N a_i w_i X \quad (V.1)$$

$p'$  and  $w'$  are VAT-deflated prices. Let us assume that there are no other indirect taxes to simplify the discussion.

If the VAT has a uniform rate ( $t$ ) and allows no exemptions, then the amount of revenues the government collects this tax is calculated as follows:

$$\begin{aligned}
 R &= \frac{t}{(1+t)} \left[ pX - \sum_{i=1}^N a_i w_i X \right] \\
 &= \frac{t}{(1+t)} pX - \frac{t}{(1+t)} \sum_{i=1}^N a_i w_i X \\
 &= \text{output VAT} - \text{input VAT}
 \end{aligned}
 \tag{V.2}$$

This is what Tait calls as the subtractive indirect and alternatively the invoice or credit method of collecting the VAT.<sup>2</sup> This method corresponds to the original EEC model for collecting the VAT and is the one that is used in many countries.

The effective VAT ( $t^*$ ) rate is easily calculated by dividing (2) with (1). That is,  $t^*$  is equal to the book rate  $t$ .<sup>3</sup>

Suppose now that intermediate input  $N$  was VAT-exempt. Then the VAT which a user of input  $N$  pays to the government is:

$$R = \frac{t}{(1+t)} \left[ pX - \sum_{i=1}^{N-1} a_i w_i X \right]
 \tag{V.3}$$

Note that the sum operator is running from input 1 to  $n-1$  rather than from 1 to  $n$ .

The effective VAT rate in this case is now equal to:

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<sup>2</sup> See Tait, A. (1988) Value Added Tax: International Practice and Problems. Washington, D.C.: International Monetary Fund. In this, Tait mentions three other ways of collecting the VAT, namely: the additive-direct or accounts method or  $t^*$ (factor payments); the additive-indirect method or  $t$ (wages) +  $t$ (profits) +  $t$ (payments to other factors); and the subtractive direct method also called an accounts method or  $t$ (output-input costs).

<sup>3</sup> If the VAT revenue is divided by the value added gross of the VAT, then the effective VAT rate would have to equal to  $t/(1+t)$ .

$$\begin{aligned}
t^* &= \frac{R}{V} \\
&= t \left[ p'X - \sum_{i=1}^N a_i w_i'X \right] \\
&= t(1+\alpha) \\
&\geq t
\end{aligned}
\tag{V.4}$$

where

$$\alpha = \frac{a_N X w_N}{V} > .0.$$

The non-neutrality of the VAT is more serious the larger  $\alpha$  is.

This point is at the heart of the argument why the present method of collecting the VAT combined with the exemption granted to primary agricultural products provides a disincentive to agricultural processors. The primary agriculture content of agricultural processing activities is substantially high.

Table 3 shows the effective VAT rates for some 126 sectors of the economy. The basic data used in these computations is the 1983 input-output data of the Philippine economy consisting of 126 sectors. The assumption made in this computation is that the VAT exempt sectors are the primary sectors including farming, fishing, logging, fertilizers, pesticides, herbicides and petroleum products.<sup>4</sup>

Table 4 shows the effective VAT rates for the key sectors in the economy. Agricultural processing has the highest effective VAT rate, 22.28 percent, followed by the services sector. While VAT-liable sectors other than agro-processing may also use VAT-exempt intermediate inputs, the inadvertent bias against them are not as serious as in the case of agro-processors. The effective VAT rate for the non-agricultural processing sectors are not substantially higher than 10 percent. The explanation for this is because the proportion of VAT-exempt intermediate inputs in these other sectors is small compared to the same proportion in the case of agricultural processing.

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<sup>4</sup> There are more VAT-exempt products according to Section 104 of the National Internal Revenue Code but the above would constitute the significant exemptions in the VAT system.

## 2 Do Effective VAT Rates Matter?

Critics to the argument that the VAT is biased against agricultural processing argue that while indeed effective VAT rates in agricultural processing are higher than those in other VAT-liable sectors this problem has no resource allocation effects. This counter-argument may be illustrated by the following numerical example.

Consider two producers with identical transactions before the VAT was imposed. Producers A and B have the following input-output transactions. The VAT in this illustration is imposed at ten percent and the procedure of collecting is the credit method. The sales of producers A and B are both set at 100 pesos; intermediate costs at 70 pesos; and value added at 30 pesos. That is, the two producers have identical cost structure although they may be producing quite different products. If the VAT is at 10 percent, then the respective effective tax rates for each of the two sectors are equal at 10 percent.

	Producer A	Producer B
Sales	100	100
Intermediate Cost	70	70
Value Added	30	30

Suppose now that Producer A's intermediate inputs are exempted from the VAT but B's are not. The transactions table will thus become:

	Producer A	Producer B
Sales	100	100
Intermediate Cost	70	70
VAT	10	3
output VAT	10	10
input VAT	0	7
Value Added		
net of VAT	30	30
Effective VAT rate	1/3	1/10

The argument continues that the profit positions of the two producers will remain identical after the VAT is imposed as illustrated in the preceding table. Let us for simplicity's sake assume that the two respective production activities utilize as inputs fixed capital and the intermediate inputs so that the value added becomes profits going to the respective producers. The two producers have identical profits (30 pesos) before and after the VAT.

In the case of producer A, profits equal to 110 less seventy less 10; for producer B it is equal to 110 less 77 less 3.

Based on this apparent neutrality of the VAT with respect to profits critics argue that resources would not be reallocated among sectors despite the discrepancy in effective VAT rates among the sectors.

The criticism seems to run counter to basic propositions in both international trade and public finance literature. In trade, the concept of effective protection rate exactly parallels that of the concept of effective VAT rate. Effective protection rate (EPRs) is the rate of protection on value added provided by tax or other policies at the border while the effective VAT rate is the rate of the tax on value added. In his seminal work on this topic, Corden<sup>5</sup> has argued that resources would tend to flow from sectors with lower EPRs to those with higher EPRs. Following Corden's line of argument, resources would tend to flow from sectors with high effective VAT rate to sectors with relatively lower VAT rates.

One has of course to stretch the definition of EPR and not be confined with comparing the domestic with world value added since clearly there is no discrepancy in the treatment between domestic and imported products. An appropriate comparison would have involve the value added with the present VAT and that without it.

In public finance, the concept of the efficiency cost of government tax or other policies places this deadweight loss as directly related to the effective tax rate on a given production activity as Harberger<sup>6</sup> has argued. The higher this tax rate is the larger is the deadweight loss. A large loss would indicate that resources would have been re-allocated away from the taxed sector in substantial amounts.

The weakness of the criticism above to the argument of the bias against the agricultural processing sector of the VAT boils down to the following: it fails to consider the output and price effects of the introduction of the VAT. The profit function of the producer activity subjected to the VAT is:

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<sup>5</sup> Corden writes:

"... if four activities producing traded goods can be ordered along a scale A, B, C, D in ascending order of effective rates, we can say that output of A must fall and of D must rise and that resources will be pulled from A to B and from A and B to C... (pp. 112-113) .

For more see Corden, W. (1966), "The Structure of A Tariff System and the Effective Protection Rate," Journal of Political Economy vol. 74.

<sup>6</sup> See Harberger, A. "Three Basic Postulates for Applied Welfare Economics," Journal of Economic Literature vol. 9.

$$\pi = p'X - \sum_{i=1}^N a_i X w_i' \quad (V.5)$$

where again we are assuming that the only resource here is the fixed capital so that profits are equal to value added. The question whether profits change because of the VAT is answered by taking the derivative of profits with respect to  $p$  and  $W$  since  $X$  is a function of  $p$  and  $a_i$  may be assumed as a constant technological parameter. Thus:

$$d\pi = \left[ X \frac{\partial p}{\partial \alpha} - \sum_{i=1}^N a_i X \frac{\partial w_i}{\partial \alpha} \right] dt - Z dt \quad (V.6)$$

where  $Z$  is quantity inside the brackets or simply the price effects of the VAT.

For the argument that the present VAT is neutral to be correct despite the discrepancy in the effective VAT rates, any one of the following conditions must be fulfilled:

$$\frac{Z_{\Delta}}{Z_B} = \frac{dt_B}{dt_{\Delta}} \quad (V.7)$$

or

$$Z_{\Delta} - Z_B = 0.$$

This paper is arguing that any of the above conditions is difficult to fulfill given plausible characterizations of any given economy.

### *3. Incidence of the Additional VAT on Agro-Processors*

Another criticism against the argument that the VAT in the Philippines is non-neutral is that while the agricultural processors pay a higher VAT than other VAT-liable producers the additional VAT that they pay is passed backwards to the farmers. In this way, the design of the VAT is simply excellent in that the government collects a neutral tax covering

the primary agricultural sector without spending a centavo on enforcing this tax in the primary sector.

To illustrate this argument consider the following. In this we insert a row called "passed backward VAT" signifying the amount of the VAT which producer A is able to pass backwards to the farmer. As the illustration shows, the bias of the VAT disappears once the additional VAT is passed backward to the farmer by the agricultural processor. The effective VAT rate is now equalized across all three producers. This paper's argument therefore with respect to the VAT critically rests on the assertion that the agricultural processor is unable to pass backward to the farmer the additional VAT he pays to the government.

	Farmer	Producer A	Producer B
Sales	70	100	100
Intermediate Cost	0	70	70
VAT	7	3	3
output VAT	0	10	10
input VAT	0	0	7
"passed backward VAT"	7	-7	0
Value Added Net of VAT	70	30	30
Effective Rate	1/10	1/10	1/10

To evaluate the validity of this argument one should investigate the extent to which the added VAT can be passed backwards to the farmers. This question on the economic incidence of the additional VAT which agricultural processors pay to the government can be analyzed in three separate cases. Case one is for a product that is an importable. Case two is for a product that is an exportable and case three is for a homegood.

If the product is an importable, then the burden of these added revenues will fall on the agro-processors. The reason for this is that imported primary agricultural product are also exempted from the VAT like its local substitute. Assuming that the country is a price taker in world markets, the world price gross of the customs duty and other border measures will become the binding domestic price of the product. Thus the additional VAT is effectively paid by agro-processors.

For the sake of discussion, the government has to subsidize imports equal to the VAT rate in order to enable the agro-processors to pass backward the additional VAT to the primary

producers. If the world price of an imported agricultural product is 100 and the VAT rate is 10 percent. Then the domestic price of the substitute will also go down by the rate of the VAT. Thus the agro-processors will have been able to pass backwards the additional VAT to the farmers.

If the primary agricultural product is an exportable, then the same argument that the burden of the added VAT will fall on agro-processors holds. Exports are exempted from the VAT and thus domestic prices of primary agricultural exportables are equal to the going world prices of the primary products. So in order to enable agro-processors to pass backwards the added VAT, exports would have to be covered by the VAT. Without including primary agricultural exports in the VAT the additional VAT would again be left for agro-processors to pay.

If the primary agricultural product is not traded (and there is hardly any of these), then the ability of agro-processors to pass the added VAT to farmers depends upon the elasticity of supply of farm products. The less elastic this supply the more able the agro-processors to pass this tax backwards. Most empirical estimates of farm products are definitely non-zero. Therefore the argument made here is that only part of the added VAT tax can be passed backwards by agro-processors to farmers.

In summary, it is argued that the incidence of the additional VAT revenues collected by the government from agro-processors are likely to be paid ultimately by them.

#### *4. The Automatic Input VAT Credit (AIVC) Proposal*

The suggested policy measure to correct the discrepancy in effective VAT rates due to VAT collection mechanics and the exemption of the primary sector is to provide all agricultural processors, i.e. producers who purchase primary agricultural products as raw materials a credit equal to 10 percent of the cost of VAT-exempt raw materials. According to this proposal, the VAT is computed as the difference between the output VAT less input VAT and less the input VAT credit.

The AIVC is a tax credit granted in order to offset the bias against producers who use VAT-exempt inputs. Formally, the proposal to correct the bias against the agro-processors is to compute the VAT as:

$$R = \text{output VAT} - \text{input VAT} - \text{AIVC} \quad (\text{V.8})$$

The AIVC is a note which tells the BIR tax collector to deduct from the tax liability of the agro-processor (or any other producer in the same situation as the former) an amount equal to:

$$AIVC = \tau w'_N a_N X \quad (V.9)$$

where N refers to the intermediate input which is exempted from the VAT. If incorporated, the AIVC will equalize the effective VAT rate in all VAT-liable sectors and equates this to the legal rate. Since  $a_i$ 's are observable then the proposal can be operationalized.

### 5. *Economic Impact of the AIVC*

The estimated effective VAT rates were then used in the CGE analysis. In this CGE simulation, a seven-sector CGE model of the Philippine economy was used since this was designed to analyze value added taxes. A description of this model appears in Appendix A of this study.

Table 5 shows the production and price effects of introducing the input VAT credit calculated using the CGE model. Except milling and food and beverages, all sectors reduce their respective production. Production of food and beverages increases by 3.25 percent while that of milling activities rises by 1.38 percent. Production declines are however marginal ranging from 0.08 in the case of other primary and other industry sectors to 0.34 in the case of services.

Prices do not change as a result of the policy reform. This result provides an evidence to the argument made regarding the incidence of the additional VAT taxes collected by the government from the agro-processors. In contrast to the official line which states that such additional VAT revenues are shifted backwards by agro-processors to primary agricultural producers, the argument in this paper is that agro-processors are in fact prevented by competition with imports from doing so. The over-taxation of value added in agroprocessing does not change the prices of the primary products concerned, these being determined by the given world prices and the import taxes that apply.

Since all primary agricultural products are importables in this model, the result obtained with respect to prices is consistent with the argument in the preceding paragraph that the binding policy defining producer prices of importables will be the import restrictions. Since these did not change in the simulation, no changes in prices were thus observed.

Since agro-processors are prevented from shifting backward the additional VAT revenues collected from them by the government, then such additional VAT revenues will certainly be at the expense of factor earnings and in particular on any fixed factors in agro-processing. Table 11 shows the effects on factor prices of introducing the input VAT credit. As expected, the unit profits going to fixed factors in the two agro-processing sectors of the model increased by 2.48 and 4.38 percent respectively.

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The numbers in Table 6 confirm the argument that if left uncorrected the inadvertent bias in the implementation of the VAT against agro-processors will distort the pattern of investments in the economy away from the agroprocessing activities. It is therefore imperative that this distortion in the VAT must be corrected in order to encourage investments to move to the agribusiness sector.

Table 7 shows the net effect on real income resulting from the introduction of the input VAT credit. A reallocation of resources in favor of agribusiness sectors will come at the expense of other sectors in the economy. The policy reform will also mean a loss in tax revenues of the government. This attempts to compute the net change in real income in the economy resulting from the policy reform.

Consumers stand to gain a real income equal to 989.85 million pesos while the government stand to lose 602.36 million pesos. This loss in tax revenues amounted to about 11 percent of the total VAT yield in 1988 or .09 percent of the benchmark national income. The net effect is that the national real income increases by 387.49 million pesos or .05 percent of the base case national income.

## II. CARL AND THE AGRIBUSINESS SECTOR

### A. Erosion of the Collateral Value of Farm Lands

The Management Association of the Philippines (MAP) has argued that the CARL has inadvertently reduced the amount of production loans which go to the agricultural sector. Citing results of the survey it carried out among its membership, the MAP said that:

*"Approximately half of the respondents stated that the agrarian reform program had hindered or prevented them to obtain loans using their land as collateral."<sup>7</sup>*

A reduction in the amount of agricultural production loans has a clearly negative impact on productivity. This issue thus merits a careful look by policy makers in order to reverse whatever indirect effect the agrarian reform program induces on agricultural credit markets.

The problem seems to thrive on the erosion of the collateral value of agricultural lands. Under CARL, the agricultural land market seems to be impaired by its prohibition of re-selling lands re-distributed by the agrarian reform program in order to avoid a reconsolidation of land ownership. Unable to sell farm lands, formal credit institutions has therefore lost interest in accepting land which has long since been an important piece of collateral accepted by creditors to secure agricultural production loans.

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<sup>7</sup> See the position paper of the MAP entitled "Managing The Comprehensive Agrarian Reform Program For Maximum Economic Development Benefits" (December 20, 1990).

Another side of this pertains to lands due for redistribution under the agrarian reform program. There is lack of information as to when such lands are to be actually broken down for distribution to tenant-farmers or to farm workers. Under this cloud of uncertainty, formal credit institutions are reluctant to extend loans with lands due to be transferred as collateral.

In this part of the report, we will try to measure the impact of CARL on agricultural production loans and the implication of this on farm productivity.

### 1. A Rural Credit Market Model

Consider the following farmer who grows crop  $j$  using primary factors and intermediate inputs. His profit ( $\pi_j$ ) in this production activity is given by:

$$\pi_j = p_j X_j - \sum_{i=1}^n a_{ij} X_j p_i \quad (C.1)$$

where the  $p$ 's stand for prices,  $X$  denotes output,  $a_{ij}$ 's the respective amounts of input  $i$  required to produce a unit of  $X_j$ . There are  $N$  such inputs and to save space in the paper this includes both primary and intermediate inputs.

The amount of production loans which the farmer will borrow from creditors is equal to the costs of production. This is really to simplify the exposition. The farmer can clearly finance part of his production costs from his own savings. But we will regard the farmer as needing credit to finance production costs. Using  $L_j$  as the amount of production loans,

$$L_j = \sum_{i=1}^n a_{ij} X_j p_i \quad (C.2)$$

The decision to borrow is determined by whether or not his expected revenues will be at least equal to the cost of repaying the loan plus interest. If the loan is good for one season and the notation  $i$  stands for the interest rate on the loan per season then the farmer will borrow if the following relation is true:

$$p_1 X_1 - (1+i)L_1 \geq 0. \quad (C.3)$$

Given (C.2), this relation translates into:

$$\frac{\pi_1}{L_1} \geq i. \quad (C.4)$$

That is, if the farmer's profit per peso of the loan he plans to borrow is at least equal to the rate of interest then he will borrow money to cover his production costs.

Given sufficient competition in both output and credit markets, it is reasonable to expect that whatever profits a farmer will obtain would only be enough to cover the interest cost on the loan. If this is true, then the inequality (C.3) becomes an equality. This then becomes the basis of a demand for production loans. Thus:

$$L_1 = \frac{p_1 X_1}{(1+i)} \quad (C.5)$$

The problem with this specification for the demand of farmer  $j$  for production loans is that the risk inherent in farming due to weather and other stochastic factors is not included in (C.5). To improve this, let  $X$  be a random variable which has some probability distribution. If  $X$  is a random variable then  $p$  would have to be a random variable, this being the equilibrium price in the  $X$  market. But there is no loss in analytical result if we assume that the prices are exogenous. We can rationalize this assumption by assuming that all these commodities are traded freely at fixed world prices ( $p_j^w$ ).

$$p_1 = \bar{p}_1^w. \quad (C.6)$$

## 2. Risk of Loan Default and Collateral

The farmer faces the prospect of being unable to repay the loan at the end of the cropping season. His involuntary default function<sup>8</sup> is the proportion of his cash shortage for servicing his loan. Denoting by  $p_1$ , the involuntary default function is given by:

$$p_1 = \begin{cases} 0 & \text{if } p_1 X_1 \geq (1+i)L_1 \\ 1 - \frac{p_1 X_1}{(1+i)L_1} & \text{if } p_1 X_1 < (1+i)L_1 \end{cases} \quad (C.7)$$

As a form of insurance against the possibility of default, a collateral is agreed upon to secure the loan. The value of this collateral from the viewpoint of the borrower-farmer is given by  $K^B$  and  $K^L$  from the viewpoint of the lender. Borrower's valuation of the collateral would of course be higher than that of the lender. It is the argument of some authors that some equilibrium price of the collateral  $K$  will arise if and when the part of the loan is defaulted and the part or the entire collateral is transferred to the creditor.

The farmer's actual probability of default<sup>9</sup> is given by:

$$u_1 = \begin{cases} 1 & \text{if } L_1(1+i) > K_1^B \\ p_1 & \text{if } L_1(1+i) \leq K_1^B \end{cases} \quad (C.8)$$

The creditor's earnings function from lending to farmer  $j$  ( $F_j$ ) is shown by the following equation:

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<sup>8</sup> This discussion on collateral price formation is based on Basu (1984) which in his own words is "a generalization and formalization of the works of Bahduri (1977), Rao (1980), Borooah (1980) and Prasad (1974), that is, after ironing some flaws." See Basu (1984) The Less Developed Economy: A Critique of Contemporary Theory. New York: Basil Blackwell; Rao, J.M. (1980), "Interest rates in Backward Agriculture" in Cambridge Journal of Economics vol. 4; Bhaduri, A. (1977), "On the Formation of Usurious Interest Rates in Backward Agriculture" in Cambridge Journal of Economics vol. 1; Borooah, V. (1980) "High Interest Rates in Backward Agricultural Communities: An examination of the Default Hypothesis" in Cambridge Journal of Economics vol. 4; Prasad, P.H. "Reactionary Role of Usurer's Capital in Rural India" in Economic and Political Weekly vol. 9.

$$F_1 - (1+i)(1-u_1)L_1 + u_1(K_1^L - L_1) - L_1(1-u_1). \quad (C.9)$$

Clearly the decision to lend to the farmer will be dictated by whether or not the following relation is true:

$$L_1 [\mu_1 - i(1-\mu_1)] \leq \mu_1 K_1^L \quad (C.10)$$

If (C.10) is true then the creditor lends to the farmer.

Given that we have incorporated the uncertainty on cash receipts and the requirement of securing loans with collaterals, equation (C.3) is now modified as follows:

$$p_1 X_1 - (1+i)(1-u_1)L_1 - u_1(K_1^B - L_1) \geq 0. \quad (C.11)$$

Again given that there is adequate competition, the inequality (C.11) will become an equality. That is whatever profit the farmer obtains from farming is exactly sufficient to cover for his probable interest payments less his perceived gains in giving up part or the whole collateral in exchange for the amount of the loan that is defaulted.

$$\frac{\pi_1}{L_1} - i(1-u_1) + \mu_1 \frac{K_1^B}{L_1} \quad (C.12)$$

This implies that the demand for production loans in the presence of uncertainty and the requirement of a collateral to secure production loans is:

$$L_1 = \frac{p_1 X_1 - u_1 K_1^B}{1 + i(1-u_1)} \quad (C.13)$$

The impact on the amount of loans demanded by the market with respect to the variables as the borrower's valuation of the collateral (K), interest rate (i), price of the output (p), and production (X) are respectively given by the following order of magnitudes:

$$\begin{aligned} L_{K^B} &= 0 & \text{if } u_1 &= 0 \\ &< 0 & \text{if } u_1 &> 0 \\ L_1 &< 0 \\ L_{p_j} &> 0 \\ L_{X_j} &> 0 \end{aligned} \quad (C.14)$$

The lender's supply of loans to farmers depends upon the opportunity cost of loans elsewhere in the economy. Dividing equation (C.9) by  $L_1$ , equating this to the opportunity cost of loans and solving for  $i$ , we obtain:

$$i = \frac{d + u_1 - u_1 \left( \frac{K_1^L}{L_1} \right)}{(1-u_1)} \quad (C.15)$$

We assume that  $d$  is given, i.e. the lender is an interest rate taker in credit markets. If we substitute  $i$  into (C.13), then we can determine the amount of loans that farmers will demand and lenders will supply. This is indeed the equilibrium interest rate for agricultural production loans.

### 3. Erosion of Collateral Value

What happens in this model if from the viewpoint of lenders the collateral value is inadvertently reduced by government policy to zero? The equilibrium interest rate in (C.15) then becomes:

$$i^* = \frac{(d + u_1)}{(1 - u_1)} \quad (C.16)$$

Clearly  $i^* > i$ . Since  $L_1 < 0$  by virtue of equation (C.14), the equilibrium amount of agricultural production loans will go down. Thus the policy which reduces the lender's valuation of the collateral has a negative impact on the amount of production loans which go to the agricultural sector.<sup>9</sup>

In the following we will estimate the demand for production loans in agriculture and use this to quantify how much agricultural loans are reduced by the CARL.

#### A. Econometric Model

The following regression model is derived from equation (C.13):

$$\ln L_1 \approx \alpha + \beta \ln Q_1 + \gamma i_1 + \mu \quad (C.17)$$

where  $\alpha$  = constant term,  $Q_1 = p_1 X_1 - u_1 K_1^B$ ,  $\gamma = \epsilon(1 - u_1)$ ,  $\epsilon$  being the interest rate elasticity of demand; and  $\mu$  = error term. We are interested in knowing the magnitude of  $\epsilon$  in order for us to estimate the impact on investments of CARL. Based on (C.13) our a-priori range estimate for  $\gamma$  is that  $\gamma < 0$ .

$Q_1$  may be proxied by either production or value added. There is reason to believe that the borrower's valuation of the collateral (which in this case is the farm land) depends upon the following. For a given season, land fetches a rent equivalent to some number say  $H_t$  where the subscript  $t$  refers to the crop season. If the depreciation of such land is negligible, then the present value of this stream of rents discounted at the rate  $r$  will be the borrower's valuation of the collateral. That is:

$$K_1^B = \frac{H_1}{r} \quad (C.18)$$

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<sup>9</sup> Equation (16) is none other than the so-called lender's risk hypothesis explanation for why the interest rate in agriculture is higher than in the organized urban credit markets (see Tun Wai, 1958, Bottomley, 1975, Raj 1979). This argues that creditors in agriculture face a positive risk of default and once this is taken into account, the effective rate of interest has to be higher than that in the urban credit market.

But  $H_t$  is a function of the level of output in crop period  $t$ . Thus,  $Q_t$  is indeed a function of either production or value added.

There is of course reason to believe that the actual loan default is a random variable since by construction this is a function of output and prices. But in this model we are assuming that this default is a constant. We will treat the situation as if the farmer has some flexibility with regards to his wealth so as to maintain a given probability of default.

The data we use here in estimating this model are shown in Tables 8 through 10. The results of the regression analysis are shown in Table 11. The interpretation of the results follows.

Not all of the regression equations we tried to estimate yielded significant estimates of the elasticity of demand for loans. This is true in the case of aggregate groups of agricultural products including other crops, fisheries, and livestock. However the sign of the coefficient with respect to interest rate is negative as expected. Forestry is an exception to this where the sign of the elasticity is positive.

The estimated coefficients of the logarithm of the interest rate for specific products including palay, corn, sugar, and coconut are negative and significant. It is interesting to note that the estimates cluster around the value of -1.0.

## B. Empirical Results and Implications

The key result of the above econometric analysis is shown in Table 12. In this, simulations involving the demand for agricultural production loans and key assumed parameters are done. The average elasticity of the demand for loans to interest rate for the sectors palay, corn, coconut, and sugar is used in these calculations. Since no-a-priori information was obtained for such parameters as the average loan default, sensitivity of the percent decline in the amount of loans demanded by agricultural producers with respect to these assumed parameters is also shown in this table.

The steps taken in doing these calculations are as follows. The effective interest rate was first computed using equation (C.15) above except that the erosion of the lender's valuation of the collateral is partial in contrast to what is specified under the so-called lender's risk hypothesis or equation (C.16). The collateral premium over loans or  $(K_t^L/L_t)$  is assumed at 25 percent and the default parameter is also assumed at 10 percent. This number may be conservative. Based on the performance of loans granted to the farm sector through various government credit programs, the default parameter is in the neighborhood of 20 percent. Having computed the effective interest rate, its percentage increase is then calculated and the corresponding result multiplied by the estimated rate elasticity of loan demands.

The key parameter is of course the rate elasticity of loan demands which is slightly over 1 percent. Given the above assumptions and model, we find that the amount of loans demanded in agriculture will decline by close to 10 percent as a result of the erosion of collateral values due to the comprehensive agrarian reform program.

These are simulations done under the usual *ceteris paribus* assumption. That is everything else remaining the same, agricultural credit flow will slow down to close to ten percent of its level if collateral values were not eroded by the impairment of the agricultural land market under the comprehensive agrarian reform law.

If we take the aggregate amount of loans going to the agricultural sector of 35,390 million pesos, then we are looking at an absolute decline in credit by say 3478.84 million pesos.

### C. Implication on Production and Real Income

We then used the reduction in credit loans in the CGE model in order to obtain a magnitude of its impact on productivity and real income. The result of the computation is shown in Table 13. All except the two primary agricultural sectors in the 7-sector CGE model registered an increase in production. Farming and other primary sectors productivity decline by 4.73 and 3.79 percent respectively. The increase in production in other sectors is because credit diverted away from primary sectors due to the erosion in collateral land values goes to such other sectors in the economy. However net effect of these movements is that the real income of the entire economy declines by close to two billion pesos.

Not reported in this model is the result that fixed factors in primary agriculture stand to suffer cuts in real returns as a result of the decline in productivity. Wages of labor likewise fall as a result. Based on this result, it is ironic that the very measure which aims to boost the income of owner-cultivators especially including the new CARL beneficiaries ends up delivering lower returns to land as a result of the impairment of agricultural land markets.

### B. Production and Profit Sharing in the Livestock Sector

Two provisions in the CARL (Sec. 32) require livestock farms to transfer 3 percent of gross sales and 10 percent of profits to regular and other farmworkers over and above the compensation these workers currently receive. These are respectively the production and profit-sharing schemes of the law while awaiting the final transfer of such lands to the said workers as provided for by the CARL.

These provisions constitute an important distortion in the agribusiness system. Only the livestock and other commercial farms are subjected to these provisions; other sectors in the economy are not.

An analysis of the possible impacts of these provisions was made using the 20-sector CGE model. These sharing schemes are analytically treated as taxes on production and profits

in the livestock sector and the revenues of such taxes given to the workers. Since it is reasonable to expect that this scheme will be imperfectly enforced, the rates were halved. Thus the production sharing scheme analyzed in the model only provides a 1.5 percent of sales transfer to the workers and the profit sharing is only implemented at 5 percent of profit instead of 10 percent. Another important reason for adjusting downward these rates is that these apply to livestock farms with gross sales amounting to over 5 million pesos.

Table 14 shows the key results of such an analysis. Appendix E lists down all the results of the analysis.

### III. ENCOURAGING PRIVATE INVESTMENT IN CORN STORAGE

A key problem encountered by farmers, feedmillers, and livestock producers is the uncertain profits in corn farming, storage, and trading, animal feedmilling and livestock production. In addition to the fact that corn is very susceptible to random weather factors, this problem can also be explained by the seasonal nature of corn production and the stable pattern of consumption of meat and meat products through the year, the production of which requires corn as a very important input. Corn prices tend to fluctuate, being high particularly in the first quarter and low in the third quarter of the year. Profits become less predictable than in other ventures since the particular nature of this price fluctuation in any given year is generally less understood by the various producers in the corn-livestock industry.

This problem in turn discourages investments in the industry. Farmers lack the profit incentive to improve farm yield through better technology and post-harvest handling. On the part of users, livestock production fails to grow up to its full potential because of the risk that the supply of corn may be inadequate for their requirements. Thus the country is in a chicken-egg situation: corn farmers do not grow as much corn as the market could absorb because of possible production losses and livestock producers do not raise as much livestock heads as the available corn farms could support.

#### A. A Seasonal Model of The Corn Market

In the following a partial equilibrium model of the corn market is specified in order to formally describe the implications of the problems encountered by the farmers, traders, and livestock producers in the industry. The pattern of corn production is clearly seasonal. There are two seasons in every year namely the harvest ( $t = 1$ ) and the lean ( $t = 2$ ) seasons. Corn is abundant during the harvest season and inadequate during the lean season.

The corn output ( $X$ ) in season  $t$  is given by the following

$$X_t = \theta f(H_t, L_t, Z_t, M_t) \quad t = 1, 2 \quad (M.1)$$

where  $H_t$ ,  $L_t$ ,  $Z_t$ , and  $M_t$  are the amounts of land, labor, fixed factors and intermediate input  $i$  used in season  $t$ . The latter include such inputs as seeds and fertilizers.  $\gamma_i$  is a seasonal variable which takes value greater than one during harvest and less than one during the off-harvest season.

The profit of corn producers is

$$\pi_t^i = p_t X_t - r_t H_t - w_t L_t - \sum_{i=1}^N M_{it} v_i \quad (M.2)$$

where  $p_t$  is the price of corn they receive and  $r_t$ ,  $w_t$ , and  $v_k$  are the prices that they paid for land and labor services and intermediate inputs in season  $t$ .

Storing corn involves procuring corn in the harvest season (i.e.  $t=1$ ) and selling the product in the lean season (i.e.  $t=2$ ). The amount of stored corn available for sale in the lean season ( $S_2$ ) is:

$$S_2 = X_1^s (1 - \delta) \quad (M.3)$$

where  $\delta$  is the rate of depreciation of corn stock in between the two seasons.  $X_1^s$  is the amount of corn procured by corn traders for storage purposes in season 1.

The profit function in storage services is

$$\begin{aligned} \pi_2^s &= p_2 S_2 - X_1^s (p_1 (1 + i) - c) \\ &= X_1^s (p_2 (1 - \delta) - p_1 (1 + i) - c) \end{aligned} \quad (M.4)$$

where  $i$  is the rate of interest per season and  $c$  is the constant average physical cost of corn storage. In order for storage to be profitable, the following condition must be satisfied:

$$\frac{P_2}{P_1} = \frac{\frac{c}{s} + (1+i)}{(1-\delta)} \quad (M.5)$$

That is the seasonal fluctuations in corn prices expressed by the relative corn prices during the lean and harvest seasons must be at least sufficient to cover the per unit cost of physical storage and money discounted by the rate of stock depreciation. Otherwise corn storage is not a worthwhile undertaking.

The demand for corn in season  $t$  is derived from the demand for livestock products. Suppose that the demand for corn in livestock production is given by the following:

$$X_t^L = bQ_t \quad (M.6)$$

where  $b$  is the amount of corn required to grow a unit of a livestock product and  $Q_t$  is the amount of livestock product grown in season  $t$ . The total demand for corn in period  $t$  is therefore:

$$X_t^A = X_t^L + X_t^R. \quad (M.7)$$

The equilibrium condition of this model is that the market for corn is cleared or

$$X_t^A - X_t = 0. \quad (M.8)$$

The equation is solved for the price of corn in season  $t$ .

### 1. *The Effect of the NFA*

The government's grains stabilization activity is implemented by the National Food Authority (NFA). The government's intervention through the NFA is bad at least as far as

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promoting private corn storage is concerned for at least three reasons. One is that the NFA's corn storage activities is subsidized, private storage activities are not and there is not enough money in the NFA to make it accomplish its task effectively. Two, storage by the public sector is usually more costly for the country than by the private sector. The third reason is that the agency's decisions when and how much to buy and sell corn are less predictable adding additional uncertainty into the system.

The role of the NFA in stabilizing corn prices at the farm is substantially smaller compared to its role in supporting rice prices. One expert puts the corn operations of the agency at 10 percent of its rice operations.<sup>10</sup> The NFA's lack of budgetary resources particularly in corn does not necessarily diminish its key role in the industry. This is because the NFA's procurement and release decisions are themselves vulnerable to lobbying by both users and producers of corn. The political pressures on the agency from vested interests appear to weigh heavily in shaping the agency's trading operations, more so than the concern to encourage private storage activities and promote an efficient stabilization program. As a result the timing when corn is procured at the farm and sold to corn users is less predictable. The spread of release and buying prices is not wide enough to allow private storage nor are the agency's target release prices of corn linked to the long run trend of corn prices in the world market.

These less predictable release and timing decisions of the agency are transmitted down to the industry by traders who use the agency's prices as benchmark levels on which they apply their standard mark ups for their services to arrive at their own release or procurement prices. Thus additional uncertainty with respect to prices is further injected into the corn-livestock sector and clearly provides disincentives for private investments into corn storage.

One may argue that the problem in corn are due to the limited resources which NFA has to make its presence in corn more significant and thus the key policy measure required is to increase the agency's corn allocation. Given the growing size of the corn market, the NFA will need billions of pesos in order to stabilize corn prices. It is politically infeasible to increase these resources for corn without doing the same for rice which despite the present focus of the agency on rice could use a great deal more of budgetary resources. Moreover if increased, government money put into the corn stabilization effort becomes more difficult to control since the government does not have the comparative advantage in storage and marketing of corn.

Larger government resources into the corn stabilization effort will certainly put out any private sector initiatives in post harvest and corn storage. Public and private sector storage

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<sup>10</sup> But even in the case of rice, the agency's impact on prices is constrained by among other things its lack of resources and administrative delays in delivering such resources to the agency. At present, the NFA covers only 6% of production. According to one NFA official, the procurement performance of the agency has historically been 70% of its target procurement.

compete with each other for the available corn output. If the government increases the subsidy to the former, then this will definitely drive the private sector out of the corn market.

While stabilization of prices and supply is a legitimate policy concern, it does not necessarily follow that the government has the comparative advantage over the private sector in addressing this concern. A more cost-effective way of stabilizing corn prices and supply may be to mobilize the private sector to do this task. The picture that one gets is that the NFA has taken up an extremely complex and large task of stabilizing corn prices upon itself with a very limited amount of budgetary resources and in the process of implementing its mandate has discouraged the private sector to help store corn and stabilize the price through the season. On the contrary the government more than ever needs the private sector to stabilize corn prices.

The NFA's profit in trading may be described by the following

$$\begin{aligned} \pi_2^N &= p_2^N S_2^N - X_1^{NS} (p_1^N (1+i) - c) + SUBS \\ &- X_1^{NS} (p_2^N (1-\delta) - p_1^N (1+i) - c) + SUBS \end{aligned} \quad (M9)$$

where the superscript N refers to the NFA and the SUBS is the amount of subsidy going to the agency. Ex post, the agency's profit is equal to zero with the subsidy making up for the agency's losses.

The NFA's buying price may be known with certainty. However the volume and timing of the procurement is assumed to be random with some probability distribution. Given this uncertain factor in the system, the actual market clearing price is a stochastic variable for the added reason of NFA's unpredictable trading activities.

The NFA's mandate is of course to stabilize prices but in addition to this the agency strives to narrow down the disparity between the high and low price levels through the lean and harvest seasons. Thus the ratio,  $p_2/p_1$  tends to go down in the presence of the NFA. Thus if private storage activities are in equilibrium, i.e. equation (C.5) is satisfied, then the NFA's role would tend to discourage such activities.

$$\frac{p_2}{p_1} < \frac{\frac{s}{B} + (1+i)}{(1-\delta)} \quad (M.10)$$

It is reasonable to assume that the physical cost of storage of the NFA,  $c^N$ , is higher than that of the private sector,  $c$ . Furthermore that the rate of stock depreciation,  $\rho^N$ , is higher than that of the private sector,  $\rho$ . These assumptions would tend to support the argument that with a subsidized NFA trading operations, policy in effect is promoting an inefficient storage agent at the expense of at least as efficient or better private storage agents.

## *2. Import Licensing Policy*

One more piece of government intervention in corn has to do with requiring permits to import corn. The government through the Department of Agriculture decides on whether the country should import corn in a given season and if so on the volume and timing of such imports. During the lean months of the year, feedmillers and livestock producers request permission to import corn from nearby Thailand. This application sets up a debate between these users and producers of corn. The latter argue that there is no need to import corn even during the lean months.

If a decision to import is made (and this is usually the case), the policy debate would have taken up too much time such that the imported corn will arrive just as farmers may be harvesting their corn. This feature is brought up into the discussion to highlight the fact that the lobbying process adds another dimension of uncertainty in the market prices prevailing during the lean and harvest periods.

The import licensing policy tends to increase domestic prices during the lean months. Higher prices should encourage private storage. But the problem appears to lean more heavily on the unpredictable nature of such prices. It would seem to be the case that private businessmen perceive that the expected domestic price of corn during the lean months is not high enough to remunerate private storage effort.

## *3. Transportation Cost*

Another problem in the industry is that the land transportation and inter-island shipping services are costly. Corn farms are not close to the feed mills. The crop is largely grown in the rural areas of Southern and Central Mindanao, Central Visayas, the Cagayan Valley and Pangasinan in Luzon while the majority of the feedmillers are located in Metro Manila. Corn is first transported from the farms to the sea ports through largely underdeveloped roads and bridges in the rural areas. The rural road system is generally impassable by large trucks and slows down the movement of corn to the feed mills.

Another bottleneck in corn marketing is inter-island shipping. Inter-island vessels are inadequate for the volume of cargoes which ply the country's sea lanes. High cost of financing, high tariffs, inappropriate regulations and the relatively low profits in the inter-island shipping industry explain why the number of vessels is inadequate for the growing volume of passengers and cargo moving from island to another in the country. Most of the existing shipping companies cannot finance vessel acquisition or replacement internally. Loans are available at current market rates but the problem is that these loans are delayed by bureaucratic red tape and onerous loan conditions.

Imported vessels are taxed at the rate of from 0 to 10 percent depending upon whether the country is capable (not actually) of producing a local substitute or not. There is duplication in the technical evaluation and vessel valuation by the Central Bank and MARINA resulting in delays. Such delays are critical because the second-hand vessel market which is where local shipping companies go to acquire vessels is regarded by experts as inherently volatile. Repairs of existing vessels are likewise costly. Imported spare parts have a tariff rate of 20 percent. Other problems which explain the high cost of interisland shipping are not discussed here. These problems include poor port facilities, port cargo handling, vessel turnaround time, collection of cargo handling fees for work not performed, pilotage regulations, and vessel voyage clearances.

Economic policy is hardly designed to alleviate the adverse implications of these problems on the profit levels of the corn farmers and traders, feed millers and livestock producers. The various pieces of government intervention measures in the corn-livestock industry appear disjointed. To an analyst, the impression is that the government is trying hard to promote productivity in both ends of the corn-livestock sector but is doing little to widen the bottlenecks through which the corn output has to go through to reach its users.

These bottlenecks in marketing corn would tend to prolong the duration of both extremes of corn prices in any given season. The difficulty of moving corn from surplus to deficit areas slows down the process which would tend to equalize the prices of corn in the country. If in the long run, the government is able to improve the infrastructure situation in the rural areas then the length of time when corn prices differ from their seasonal average would be shorter. This in turn helps to reduce the uncertainty with respect to profit levels in the corn-livestock industry.

#### **B. ASAP's Proposed Intervention**

The proposed reforms to address these problems in the corn-livestock sector consists of the following:

- getting the NFA out of corn trading;
- implementing a price band scheme for stabilizing corn supply and prices in the country; and

reduce partly the transportation cost by demonopolizing cargo handling services in the country's public ports.

The price band should be able to encourage private storage, defended primarily by imports or exports as the case may be rather than public sector buffer stocking activities, and reflect an equitable sharing of the burden of the temporarily high transportation cost as a result of the lack of fundamental public infrastructure.

### *1. A Measure of Benefits*

Figure 1 illustrates the possible economic effects when inter-island shipping costs are reduced. The vertical distance between the farmgate and millgate supply curves measures the transportation costs of corn from the farm to the users. A reduction in such transport cost causes the millgate supply curve of corn to shift downward to  $S'$ . This causes the price of corn to fall encouraging demand for corn. Such added demand for corn then provides incentives to farmers to plant more of the product. Thus the farmgate price has to rise in order to induce additional supply which is the horizontal distance between  $Q_1$  and  $Q_0$ . The latter being the supply before transport cost is reduced.

Figure 2 illustrates the effects of the removal of the NFA and the introduction of the price band in corn. These reforms reduce the uncertainty hovering above the private sector who could invest in corn storage. With a more certain environment in corn marketing, the private sector is expected to increase storage activities during the harvest season with the aim of selling the same during the lean months.

Panel A of the Figure illustrates the market during the harvest season. The starting equilibrium is described by the price  $Pf_0$  and the quantities sold and bought is equal to  $C_0 = Q_0$ . Again the vertical distance between millgate and farmgate supplies is the cost of the transportation. Upon the implementation of the reforms, the private sector increases the demand for corn during the season. This is shown by the rightward shift of the demand curve. This then increases the price and along with this the farmgate price from  $Pf_0$  to  $Pf_1$ . Output then rises to  $Q_1$  while use falls to  $C_1$  because of the higher price.

Panel B of the Figure shows the same market during the lean season. The starting equilibrium is described by the price  $Pf_0$  and the quantities  $Q_0$  and  $C_0$ . With the reforms, the supply of corn during the lean season rises and this is shown by the rightward shift of the supply curve in the diagram. This then causes prices to go down from  $Pf_0$  to  $Pf_1$ . As a result corn production falls from  $Q_0$  to  $Q_1$  while corn use rises from  $C_0$  to  $C_1$ .

The joint effect is that the utilization of corn between the two seasons in any given calendar year is smoothed out. Generally farmgate price rises which then provides the farmers to plant more corn. On the other the millgate price also falls and this encourages use of the product.

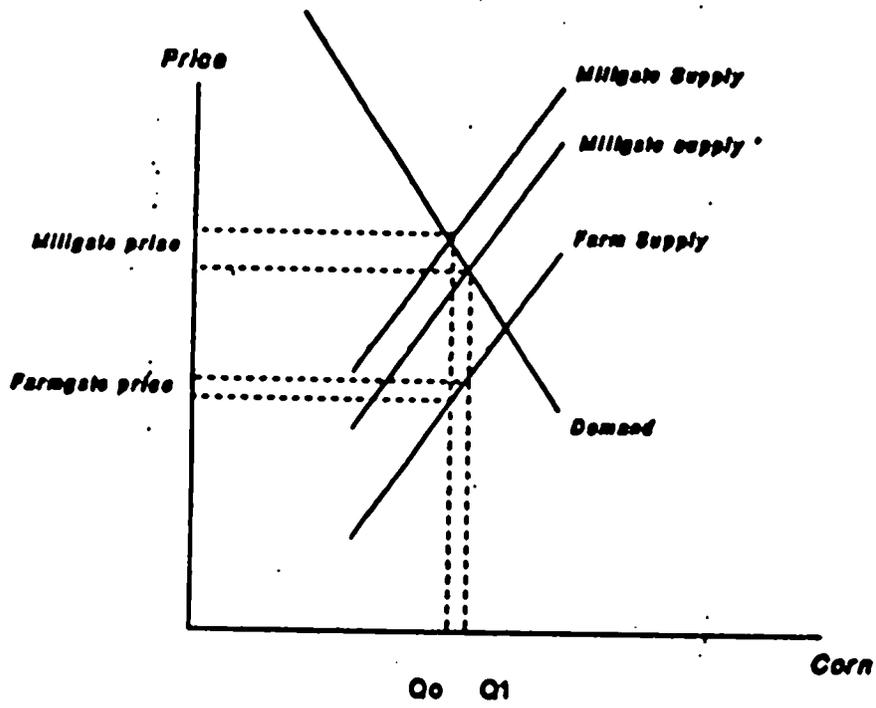


Figure 1. Effect of Reduced Marketing Cost

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Panel A: Harvest Season

Panel B: Lean Season

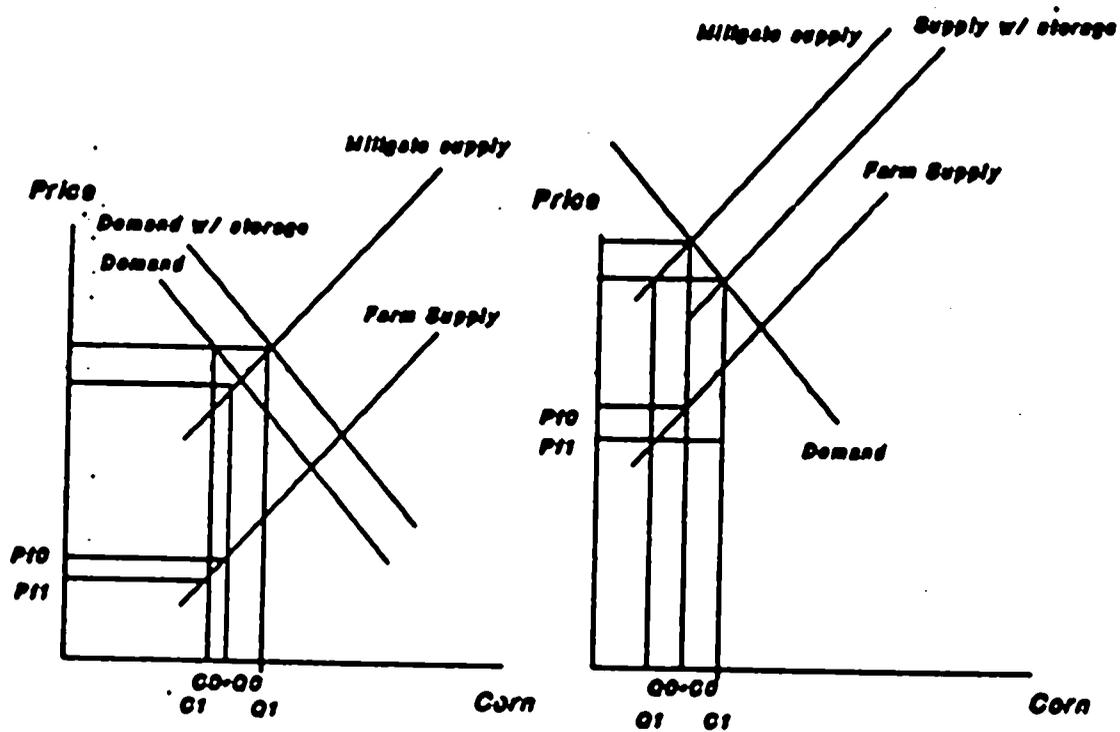


Figure 2. Effect of Additional Storage

An attempt is made to obtain an idea about how much benefits are actually involved with these reforms. Tables C1 to C5 are useful tools in explaining the method used in obtaining the benefits.

Table 15 lays down the basic data that is used in this exercise. Panel A illustrates how corn is used through the seasons in three different years. There three identifiable use of corn namely for feeds, for food and other uses, and storage. In percentage terms, feed millers constitute the top users of corn in the country. Storage as a proportion to total use is about 28 percent during the high or harvest season and 6 percent during the lean season.

There are three sources of supply namely production, imports and the corn stock stored in the preceding season. Clearly it is the current output during the season which constitutes practically all of the available supply of corn during the season. Imports of corn are controlled; their proportion to total supply ranges from 1.19 to 7.80 percent.

Table 16 shows selected patterns of corn use and supply. For example, about 55 percent of total use (feed, food and others except storage) occurs during the harvest season. The standard deviation of the shares (55-45) is about 5 percent. The share of storage to the use of corn during the season is about 40 percent during harvest season and 7 percent during the lean season. Imports are typically zero during the harvest season and about .5 to 4 percent of annual requirements during the lean months. Another pattern which is useful in the modelling exercise which is done below is the incremental use of corn between two low seasons. The average incremental use is roughly 30,000 metric tons.

Table 17 attempts to construct a benchmark equilibrium configuration of the corn market. The numbers are three-year averages of the same data that is reported in Table 15. These data is consistent with the market clearing condition. The particular step done to arrive at this configuration is the determination of the amount of corn that is stored. For example, the amount 982.10 is the difference between the actual supply of corn during the harvest season and the feed and other uses of corn for the same period. The reported beginning stock of corn during the harvest season is computed by multiplying the amount of corn used in the lean season during the preceding year with the factor .07. This factor is of course one of the selected patterns which are highlighted in Table 16.

Table 18 shows the assumptions, equations and methodology used to compute the economic impact of the reforms. The equations (5) and (6) constitute a two-equation system for the two unknowns which are the percentage changes in farmgate prices during the harvest and lean seasons. The system is then solved using an algorithm called MPS/GE.

How the above equations are obtained depends upon the critical partial equilibrium assumption that the intervention of ASAP will require additional storage and which then allows a smoothening out of corn use through the seasons. As Table 16 shows, the standard deviation of the seasonal uses of corn in any given year is about 5. I made the assumption that the ASAP's reforms will cause such a standard deviation to fall to 3. This then implies

that 53 percent of total corn use in any given year occurs during the harvest season instead of the observed 55 percent. This is the factor which then disturbs the original equilibrium.

The solution to the exercise is that farmgate prices during the harvest season rises by 4 percent while those during the lean months will fall by 5 percent.

Table 19 shows a counterfactual equilibrium once the marketing reforms proposed by ASAP is fully implemented. These values are to be compared with those in Table 17 to get the changes in the corn system as a result of the reforms.

Table 20 summarizes such changes. On an annual basis, production rises by 0.43 percent or an increment of 19.05 thousand metric tons. This is the net impact after deducting the decline in production during the lean season as a result of the decline in farmgate prices. Storage rises by 19.68 percent. Imports rises by 4.90 percent. This increase is due to the fact that the model assumes imports to equal to 2 percent of the total corn requirements during any given year. Since corn use have risen imports have increased as well. Total available supply grows by 4.26 percent.

There are two measures of benefits depending upon where the resources used to grow the additional corn is coming from. Under the first assumption which states these resources come from other sectors in the economy, then the benefit to the economy of the reforms is equal to 7.66 million US dollars. Under the second assumption which states that these were otherwise unemployed resources, then the total benefit to the economy is 11.06 million US dollars.

These numbers obtained from the above partial equilibrium exercise suggest that the reforms proposed by the ASAP constitute an improvement to the policy environment for the agribusiness system. What is excluded in this quantification is the benefit obtained from the reduced inter-island shipping cost. Thus the net benefit which is obtained here is only indicative of the possibly larger benefit which these reforms entail.

## *2. Post-Harvest Losses*

A related analysis done by Daly makes the same point that with increased certainty in corn marketing, more of the product will be made available to the livestock sector. The argument is based on the fact that a significant proportion of output, 20 percent, appears to be wasted through inadequate handling of the output after harvest activities.<sup>11</sup> Daly

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<sup>11</sup> The figure is attributed to NAPHIRE. There are few studies however which validates the amount of post harvest losses either by crop or by region. While the actual loss may differ by crop, region, season or post harvest activity, there is unanimity within policy circles in agriculture that little incentive is there to encourage farmers to use better post harvest handling of the crop and thus reduce the waste of output. Twenty percent is an often cited estimate and until challenged by more recent studies this number may probably constitute the accepted loss estimate in corn.

argues that if the uncertainty in corn marketing is removed much of this waste will be saved. He estimates that 10 percent of the wet-season crop will be saved and 5 percent in the case of the dry-season harvest. With a yearly crop of 4.5 million, three fourths of which is harvested in the wet-season, the ASAP can save as much as 395,000 MT. This will increase the supply initially by about 8.8 percent.

The estimate of the final impacts on the industry is arrived at by disturbing the corn market equilibrium on an annual basis with the 8.8 percent gain in supply as a result of the post-harvest savings. This tends to reduce corn prices which would then discourage additional plantings in subsequent seasons. The larger supply of corn will increase however livestock production and reduce prices of livestock products. Three iterations were made to the multi-market model set up by Daly before a new equilibrium was reached. The following are the results of his analysis. The net gain in supply was 3 percent, the net price reduction is 7 percent, the net gain in livestock demand is 2.5 percent and livestock prices fall by 2.5 percent.

Given all these effects, Daly estimates the following benefits to the economy. The values of the post-harvest losses is P1.8 billion; and of the output reduced due to a decline in demand, P.8 billion. The savings in livestock feed costs amount to P1.6 billion while consumer gains totals P2.9 billion.

### *3. Impact on Investments in the Livestock Sector*

The analysis done by Daly seems to suggest an even larger amount of benefits to the economy as a result of the ASAF's reforms in corn marketing. What is also worth pointing out is the interaction of such reforms on the livestock sector. In the analysis done in this report, the mechanism of the feed back of the reforms on the livestock sector is through the reduction in corn prices which then encourages demand and thus increase user surpluses.

But the more likely larger impacts of the reforms which unfortunately both this and Daly's analyses fail to capture is the impact of the reforms on the investments in the livestock sector particularly the swine and poultry sub-sectors. In many developing countries, these activities are particularly leading the agribusiness system in terms of economic performance. This is also true in the Philippines. For a long time now, developments in the corn industry are closely tied to what is happening in the livestock sectors. Growth in these typically are in the range of 9 to 10 percent. As a result corn output is also growing but at a slightly lower rate of about 6 percent. But nonetheless this performance in the primary sector is already an exception to an otherwise slow growth in other primary crop growing activities.

These achievements have been made despite the problems in the corn marketing which ASAP proposes to solve. The perception in the livestock and meat industries is that the

demand for these products locally is large and there is still a room for expanding investments in these industries to satisfy that demand. Other experts tell us that the country can be competitive in these livestock products in the world market.

What holds down investments in the livestock sector is, in addition to the negative impacts of the CARL on credit and other factors, of course the uncertainty that is engendered by the corn marketing problem. If much of this problem is removed then the ground is opened for additional investments to be made in the swine and poultry sub-sectors.

#### IV. BANANA HECTARAGE LIMITATION

The banana export hectarage in the country is subject to a 26,000 hectare limit as provided for by LOI No. 790. The regulation dates back to an earlier LOI No. 58 issued in 1973 which then stipulated the limit at 21,000 hectares. The rationale of such regulations was to protect the investments in the banana export industry.

Since these regulations were in place the country's share in the world export market of bananas have been declining. In 1990 the country's share was about 9 percent of the world's total banana exports. This indicates that the country is less able to take the opportunity given by the world market. Data show that the country's growth performance in banana exports is low relative to the world's total export growth performance. The situation appears to be worsening in view of the opening up of the Korean market for bananas. The Philippines is presently the largest exporter of bananas in Asia. But this may not be for a long time since investments in Indonesia appear to be growing. Once Indonesia will have developed its banana industry, the Philippine comparative advantage in banana in the Japanese and Korean markets is going to be effectively challenged. Majority of these exports of the country goes to Japan and Saudi Arabia at present. Both countries account for 80 percent of the country's exports. The Korean market is clearly another opportunity for the country to expand its production in exportable bananas and generate additional economic growth in the economy.

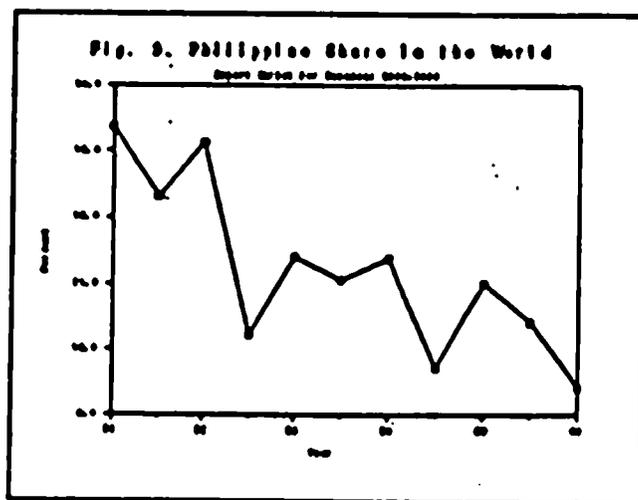


Figure 3

The problem among other factors is rooted in the regulation which limit hectarage of the product. At present there are 25 firms which receive hectarage allocation from the government. Five of these have allocations over 1,000 hectares. The total authorized allocation which is 24,259 hectares is even lower than the maximum total hectares allowed

by law. But of this number, the utilization of these hectareage is only about 94 percent.

The regulation in effect hinders the country to respond effectively to opportunities in the export market as unfolded for instance by Korea opening up its market for bananas. The Philippines has the comparative advantage in transportation over other exporting countries in the Korean market. But if the regulation is not lifted, it is likely that the country may be end up losing this particular market opportunity.

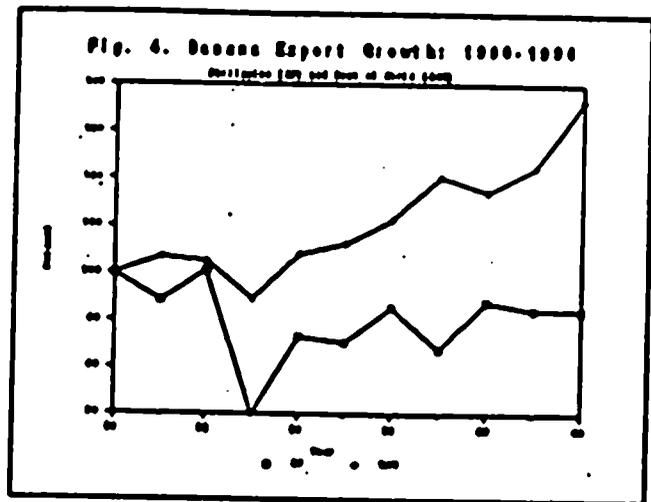


Figure 4

The lifting of the hectareage limitation can provide the flexibility required to supply bananas in the world market. In our opinion, this will enable the country to reach and maintain its average world market share of 11 percent and perhaps even more. The country could then penetrate the Korean market to about 11 percent as well.

The lifting of the hectareage limitation does not necessarily mean that the amount of hectareage will go up as a result of the policy. In fact we computed the total hectareage required to sustain the additional production required to maintain the 11 percent market share in the world market for bananas. The land required is even less than the 26,000 total hectares allowed by law.

The policy reform however is the necessary environment for an aggressive export activity required to defend or increase the country's market share. It may even be the case that the producers/exporters of bananas are the same ones who are going to produce and export bananas to the world. But clearly some of these are less efficient and dynamic than others. The former will therefore find it to their benefit to buy out or rent existing hectareage from existing producers who may not be up to par with the growing market opportunity in the world. The hectareage limitation will unnecessarily constrain the more efficient and dynamic producers from seizing potential new markets for bananas. The reform has therefore to be undertaken in order to encourage exportable banana production in this country.

If the country can obtain and defend an average market share of 11 percent, how much does it gain from this development? We projected the world exports of bananas for five years using a simple regression method. The additional revenues which the country gets every year are in the range of 73 to close to 100 million dollars. If this production is at no expense to other sectors in the economy, then this constitutes a net benefit to the entire economy.

The total hectarage used for the 11 percent market share ranges from 23,000 to 24,500 hectares. These numbers are clearly below the 26,000 limit allowed by law. But this should not be taken to argue that the restriction should not be lifted. The argument in favor of deregulation is in the flexibility given to the existing and potential producers in the industry when market opportunities arise as in the Korean market.

Only ten percent of the benefits is claim in consideration of the opportunity cost of the additional hectarage used to sustain the country's targetted market share. Another reason is that the forecasting model does not take into consideration the possible recessions in the developed economies which will have a negative impact on their demands for bananas. The number of years we are claiming benefits for is only five years starting at 1992. We would be stretching unproductively the predictive capability of the forecasting model if the forecast is done for a longer period of time.

**Table 1**  
**REAL INCOME EFFECTS OF LOWERING THE TARIFF RATES OF**  
**A FEW AGRIBUSINESS INTERMEDIATE INPUTS**  
(in billion pesos, 1989 prices)

Consumer	Base Case	Proposed Reforms	Change
Private Consumer	865.262	865.287	0.025
Government	109.949	109.925	-0.024
Tariffs	38.320	38.293	-0.026
Excises	29.449	29.447	-0.002
Other Income	31.504	31.504	0.000
Capital Flows	10.680	10.680	0.000
Net Real Income Gain			0.001

**Table 2**  
**EFFECTS ON TRADE FLOWS OF ASAP TARIFF REFORMS**  
(in thousand pesos)

CGE Code	Description	Additional	
		Imports	Exports
1	Crops	-400.00	500.00
2	Livestock and poultry	34.00	4.30
3	Fishery	-26.00	420.00
4	Forestry and logging	-13.00	6.00
5	Mining	-110.00	500.00
6	Coconut & veg oil manuf	-34.00	400.00
7	Animal feeds manufacturing	11980.00	-300.00
8	Food, beverages & tobacco	-420.00	1100.00
9	Textile, apparel, footwear & leather	-200.00	1000.00
10	Wood, paper & rubber	-400.00	800.00
11	Chemicals	3900.00	340.00
12	Petroleum refineries	-1100.00	130.00
13	Non-metallic mineral products	-70.00	30.00
14	Basic metal industries	0.00	300.00
15	Fabricated metal products	-90.00	6.00
16	Machinery except electrical	-600.00	90.00
17	Electrical machinery	-300.00	1300.00
18	Transport equipment	-500.00	30.00
19	Miscellaneous manufactures	-500.00	70.00
20	Services	-1800.00	2000.00
	<b>Total</b>	<b>9351.00</b>	<b>8726.00</b>
	<b>Percent Change</b>	<b>3.69</b>	<b>3.59</b>

This is in 1989 exchange rate (=21.7) and prices.

**Table 3**  
**EFFECTIVE VALUE ADDED TAX RATES (%)**

<b>Code Description</b>	<b>Effective Rate</b>
1 Palay, irr.	0.00
2 Palay, non-irr.	0.00
3 Corn	0.00
4 Coconut, copra made in farms	0.00
5 Sugarcane	0.00
6 Banana	0.00
7 Other fruits & nuts	0.00
8 Vegetables	0.00
9 Rootcrops	0.00
10 Tobacco	0.00
11 Fiber crops	0.00
12 Coffee and cacao	0.00
13 Other comm. crops, n.e.c.	0.00
14 Hogs	0.00
15 Other livestock & its prods.	0.00
16 Chicken for meat	0.00
17 Other poultry & its prods	0.00
18 Agric'l services	0.00
19 Comm. fishing, off and coast	0.00
20 In'd fishing & others	0.00
21 Logging	0.00
22 Other forestry act.	0.00
23 Gold & other precious metals	11.11
24 Copper ore	11.53
25 Other metallic mining	11.36
26 Sand, stone & clay quarrying	10.98
27 Other non-metallic m & q	12.16
28 Rice & corn milling	36.28
29 Sugar milling & refining	39.41
30 Milk processing	14.20
31 Other dairy products	15.09
32 Crude coco,veg./anml oils/fats	27.12
33 Refined (ckg) oil & margarine	13.08
34 Slaught'g & meat pack'g plants	38.03
35 Meat processing	32.10
36 Flour & other grain mill	43.11
37 Animal feeds	29.82
38 Fruit & veg. preserves	22.97
39 Fish preparations	30.86
40 Bakery prods. incl. noodles	14.20
41 Cocoa prods. & confectionery	19.15
42 Coffee, ground or instant	29.10
43 Dessicated coconut	16.95

Table 3 (con't)

Code Description	Effective Rate
44 Ice, except dry ice	11.63
45 Misc. food mfs., n.e.c.	19.74
46 Wine & liquor	10.75
47 Brewery & malt prods.	10.64
48 Soft drinks & carbonated water	10.73
49 Cigars & cigarettes	10.17
50 Tobacco leaf processing	17.32
51 Textile mill prods.	15.12
52 Knitting mill prods.	11.35
53 Other made-up textile goods	12.77
54 Wearing apparel	10.28
55 Footwear not rubber/plast/wood	10.13
56 Lumber, rough or worked	35.54
57 Veneer and plywood	27.65
58 Other wood, cork & cane prods.	16.18
59 Pulp, paper & paperboard	16.91
60 Converted ppr & pprbrd prods.	10.97
61 Publishing and printing	10.25
62 Leather & leather prods.	10.31
63 Rubber tires & tubes	19.27
64 Rubber footwear	21.92
65 Other rubber prods.	19.12
66 Fabricated plastic prods.	10.35
67 Drugs & medicines	10.31
68 Basic indust'l chemicals	11.14
69 Fertilizer	0.00
70 Plastic materials	11.35
71 Pesticides, insecticide*, etc.	0.00
72 Paints, varnish & rel'd cpds.	11.62
73 Soap & synthetic detergents	10.28
74 Cosmetics & toilet prep'ns	10.26
75 Other chemical prods.	11.27
76 Prods. of petrol, coke & coal	0.00
77 Cement	20.88
78 Glass & glass prods.	12.06
79 Other non-metal minrl prods.	12.00
80 Primary iron & steel prods.	12.21
81 Non-ferrous basic metal prods.	12.08
82 Fabricated metal prods.	11.03
83 Mach & equip no elect'l	10.70
84 Electric ind'l mach & equip	10.13
85 Elect'l appls & hwares	10.49
86 Batteries	11.01

Table 3 (cont)

Code Description	Effective Rate
87 Wires & wiring devices	10.75
88 Semi-conductor devices	10.17
89 Misc elect'l equip, supp, accs	11.02
90 Motor vehicles	10.49
91 Othr trans eqp/sup/ac/rep serv	10.26
92 Furnitures & fixtures-wood	11.09
93 Furnitures & fixtures-metal	10.63
94 Musical instruments	10.43
95 Artists' & office supplies	10.63
96 Misc. mfts, n.e.c., scrap	15.23
97 Construction	10.52
98 Electricity	26.06
99 Gas mfts & dist'n no LPG	23.03
100 Water services	10.58
101 Bus line operation	16.46
102 P.U. cars & taxicabs	14.13
103 Jeepy, calesas, tricycles	14.67
104 Rail & other road pass transpo	13.04
105 Road freight transport	13.88
106 Ocean (overseas) shipping	14.64
107 Inter-island shipping	15.53
108 Air transprt, dom. & int'l	12.17
109 Services incidental to transpo	10.67
110 Communication services	10.28
111 Storage & warehousing	11.29
112 Wholesale trade	10.07
113 Retail trade	10.13
114 Fin. instns (b & nb)	10.02
115 Insurance, life & nlife	10.05
116 Real estate	10.18
117 Ownership of dwellings	10.00
118 Government services	10.00
119 Private education services	10.11
120 Private health services	10.49
121 Hotels & other lodging places	10.47
122 Restaurants & fun places	16.04
123 Business services	10.40
124 Recreat'l & cult'l services	10.24
125 Personal & household services	10.58
126 Other social/commty services	10.76

**Table 4**  
**SIMPLE AVERAGE VAT RATES BY KEY SECTORS (%)**

	<b>Book Rate</b>	<b>Effective Rate</b>	<b>Percent Deviation</b>
<b>Primary Sectors</b>	1.85	2.12	2.63
<b>Agricultural Processing</b>	10.00	22.28	122.81
<b>Industry</b>	9.35	12.34	29.92
<b>Services</b>	10.00	12.55	25.49

**Table 5**  
**PRODUCTION AND PRICE EFFECTS OF THE INPUT VAT CREDIT (%)**

<b>Sector</b>	<b>Production</b>	<b>Producer Prices</b>
<b>Farming</b>	<b>-0.10</b>	<b>0.00</b>
<b>Other Primary</b>	<b>-0.08</b>	<b>0.00</b>
<b>Milling</b>	<b>1.38</b>	<b>0.00</b>
<b>Food, Beverages</b>	<b>3.25</b>	<b>0.00</b>
<b>Manufacturing</b>	<b>-0.20</b>	<b>0.00</b>
<b>Other Industry</b>	<b>-0.08</b>	<b>0.00</b>
<b>Services</b>	<b>-0.34</b>	<b>0.00</b>

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**Table 6**  
**EFFECTS ON FACTOR PRICES OF THE INPUT VAT CREDIT (%)**

Factor	
Labor	0.01
Variable Capital	0.09
Fixed Factors	
Farming	-0.10
Other Primary	-0.08
Milling	2.48
Food, Beverages	4.38
Manufacturing	-0.20
Other Industry	-0.08
Services	-0.34

**Table 7**  
**REAL INCOME CHANGE ASSOCIATED WITH THE INPUT**  
**VAT CREDIT**  
(in million pesos, 1988 prices)

Agent	Benchmark	Percent of Income
Consumers	989.85	0.14
Government	-622.36	-0.25
Net Effect	387.49	0.05

Table 8  
AGRICULTURAL PRODUCTION LOANS: 1980-1989

Sector	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	Total
Palay	1556.6	1641.7	1622.9	1884.3	1085.9	1223.5	1393.1	2128.5	3084.4	3679.0	19299.9
Corn	147.1	202.9	250.8	207.3	177.5	182.1	226.7	546.3	471.9	655.2	3067.8
Cocunut	1945.6	2900.8	2153.3	2134.9	1573.2	5107.6	3007.2	3055.6	3633.0	1527.5	27038.7
Sugar	7602.4	6521.3	8927.6	8200.3	6068.8	5048.5	4142.8	5512.9	5963.3	6536.6	64524.5
Other Crops	4256.8	6563.0	4256.8	6563.0	10027.1	6563.0	10027.1	10027.1	6563.0	8452.2	73299.1
Livestock	2818.4	3482.0	4116.9	4270.1	3897.3	2403.3	2359.0	2423.9	3559.4	4619.9	33950.2
Fisbery	1012.1	1644.8	1819.9	2397.1	1654.6	1319.2	2533.3	2698.4	4576.5	4222.7	23878.6
Forestry	1607.4	2420.1	2500.6	2428.7	3085.7	1733.3	1667.2	1200.2	1681.0	1512.8	19837.0
<b>Total</b>	<b>20946.4</b>	<b>25376.6</b>	<b>25648.8</b>	<b>24085.7</b>	<b>27570.1</b>	<b>23580.5</b>	<b>25356.4</b>	<b>27592.9</b>	<b>29532.5</b>	<b>31205.9</b>	

Source: Agricultural Credit Policy Council

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**Table 9**  
**AGRICULTURAL VALUE ADDED: 1980-1989**

Sector	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Palay	9078	10901	11944	12225	21417	29251	21012	24028	28296	35598
Corn	3481	4044	4563	4272	7710	10687	9477	11551	11646	15833
Cocoon	3036	3066	3053	5221	10975	8837	7460	8582	9554	11396
Sugar	2669	3182	4053	3286	5329	3358	3171	4030	5098	6189
Other Crops	18035	19193	20585	22775	38039	46686	46456	47325	52266	60964
Livestock	7486	9033	10394	12436	20876	24851	25834	28028	32780	39830
Fishery	11199	13821	14777	16790	23116	27984	32705	36319	37227	44546
Forestry	6743	6151	7351	7541	12043	10865	9874	10907	13121	12342
<b>Total</b>	<b>61727</b>	<b>69391</b>	<b>76720</b>	<b>84546</b>	<b>39505</b>	<b>62519</b>	<b>155989</b>	<b>170770</b>	<b>189988</b>	<b>226698</b>

Source: Cited by Agricultural Credit Policy Council

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Table 10  
AVERAGE ANNUAL INTEREST RATES: 1980S

Year	Rate
1980	0.135
1981	0.152
1982	0.182
1983	0.193
1984	0.267
1985	0.282
1986	0.173
1987	0.133
1988	0.160
1989	0.195

Source: Asian Development Bank

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**Table 11  
REGRESSION RESULTS**

<b>Panel A: Palay</b>				
Constant	0.656312			
Std Err of Y Est	0.304291			
R Squared	0.516899			
No. of Observations	10			
Degrees of Freedom	7			
	<b>lnVA</b>	<b>lnRate</b>		
X Coefficient(s)	0.521067	-1.00717		
Std Err of Coef.	0.230635	0.433937		
t-statistic	2.259269	-2.32102		
<b>Panel B: Coconut</b>				
Constant	5.736935			
Std Err of Y Est	0.284326			
R Squared	0.692094			
No. of Observations	10			
Degrees of Freedom	5			
	<b>lnVA</b>	<b>lnRate</b>	<b>DV1</b>	<b>DV2</b>
X Coefficient(s)	0.009668	-1.13388	-0.24482	1.278363
Std Err of Coef.	0.248314	0.542501	0.331638	0.383861
t-statistic	0.038937	-2.09010	-0.73821	3.330272
<b>Panel C: Other Crops</b>				
Constant	3.831915			
Std Err of Y Est	0.259023			
R Squared	0.497376			
No. of Observations	10			
Degrees of Freedom	7			
	<b>lnVA</b>	<b>lnRate</b>		
X Coefficient(s)	0.482577	0.006471		
Std Err of Coef.	0.192179	0.353882		
t-statistic	2.511074	0.018286		
<b>Panel D: Fishery</b>				
Constant	-1.39812			
Std Err of Y Est	0.319254			
R Squared	0.658808			
No. of Observations	10			
Degrees of Freedom	7			
	<b>lnVA</b>	<b>lnRate</b>		
X Coefficient(s)	0.807456	-0.55544		
Std Err of Coef.	0.223424	0.423881		
t-statistic	3.613999	-1.31038		

Table 11 (con't)

<b>Panel E: Corn</b>			
Constant	-3.47234		
Std Err of Y Est	0.296632		
R Squared	0.751759		
No. of Observations	10		
Degrees of Freedom	7		
	lnVA	lnRate	
X Coefficient(s)	0.821340	-1.02723	
Std Err of Coef.	0.188576	0.400960	
t-statistic	4.355479	-2.56194	
<b>Panel F: Sugar</b>			
Constant	8.319149		
Std Err of Y Est	0.159354		
R Squared	0.679814		
No. of Observations	10		
Degrees of Freedom	6		
	lnVA	lnRate	DV1
X Coefficient(s)	-0.13441	-1.07788	-0.59553
Std Err of Coef.	0.211322	0.342068	0.170424
t-statistic	-0.63608	-3.15107	-3.49440
<b>Panel G: Livestock</b>			
Constant	9.192554		
Std Err of Y Est	0.283984		
R Squared	0.056163		
No. of Observations	10		
Degrees of Freedom	7		
	lnVA	lnRate	
X Coefficient(s)	-0.07196	0.225803	
Std Err of Coef.	0.167571	0.385830	
t-statistic	-0.4294299	0.5837267	
<b>Panel H: Forestry</b>			
Constant	14.75864		
Std Err of Y Est	0.223960		
R Squared	0.538391		
No. of Observations	10		
Degrees of Freedom	7		
	lnVA	lnRate	
X Coefficient(s)	-0.63652	0.810492	
Std Err of Coef.	0.292384	0.317594	
t-statistic	-2.17699	2.551975	

Notes: lnVA = natural logarithm of value added; lnRate = natural logarithm of interest rate; DV1 = 1 for "bad years" for coconut; "good years" for sugar; DV2 = 1 for "1985 recession year" for coconut.

**Table 12**  
**SIMULATIONS ON THE DEMAND FOR AGRICULTURAL**  
**PRODUCTION LOANS**

<b>Panel A: Sensitivity to Erosion of Collateral Value</b>			
Rate Elasticity of Demand for Loans	-1.06	-1.06	-1.06
Default Parameter	0.1	0.1	0.1
Collateral Premium Over Loans	1.25	1.25	1.25
Percent of Pre-CARL Collateral Value	0.9	0.8	0.7
Percent Increase in Rate	9.26	18.52	27.78
Percent Change in Loan Demand	-9.83	-19.66	-29.49
<b>Panel B: Sensitivity to Loan Default Parameter</b>			
Rate Elasticity of Demand for Loans	-1.06	-1.06	-1.06
Default Parameter	0.1	0.2	0.3
Collateral Premium Over Loans	1.25	1.25	1.25
Percent of Pre-CARL Collateral Value	0.9	0.9	0.9
Percent Increase in Rate	9.26	22.73	44.12
Percent Change in Loan Demand	-9.83	-24.13	-46.83
<b>Panel C: Sensitivity to Collateral Premium vis-a-vis Loans</b>			
Rate Elasticity of Demand for Loans	-1.06	-1.06	-1.06
Default Parameter	0.1	0.1	0.1
Collateral Premium Over Loans	1.25	1.1	1
Percent of Pre-CARL Collateral Value	0.9	0.9	0.9
Percent Increase in Rate	9.26	7.33	6.25
Percent Change in Loan Demand	-9.83	-7.78	-6.63

Note: Benchmark formal sector interest rate is 16%. The benchmark production loans to agricultural sector was 29,532.5 million pesos in 1988. This number excludes the loans granted by savings and loans institutions. On the basis of the amount of loans granted by institutions, the amount reached 35,290.0 million pesos in 1988 according to the ACPC.

**Table 13**  
**PRODUCTION AND REAL INCOME EFFECTS OF A**  
**DECLINE IN AGRICULTURAL CREDIT (%)**

	Percent Change
Farming	-4.70
Other Primary Sectors	-3.79
Milling	0.40
Food, Beverages	0.68
Manufacturing	1.02
Rest of Industry	0.31
Services	1.97
Real Income Change (million pesos, 1988 prices)	-1908.26

1464

**Table 14**  
**EFFECTS OF PRODUCTION AND PROFIT SHARING SCHEMES**

	Book Case	CARL Sec. 32	Change
<b>Real Income</b>			
(billion 1989 pesos)			-0.097
Private	865.26	865.24	-0.027
Government	109.95	109.88	-0.070
<b>Production</b>			<b>% Change</b>
Crops			-0.001
Livestock			1.264
Fishery			-0.121
Forestry, Logs			-0.129
Mining			-0.107
Coconut Oil			-0.172
Feeds			1.083
Food, Beverages, Tob			0.359
Textile, Apparel			-0.246
Wood Products			-0.149
Chemicals			-0.137
Petroleum			-0.093
Non-metallic prods.			-0.117
Metallic prods.			-0.048
Fabricated metals			-0.102
Machineries			-0.181
Electric Machinery			-0.187
Transport equip.			-0.186
Other manufacturing			-0.205
Services			-0.131

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**Table 15**  
**CORN USE AND SUPPLY: 1987-1989**  
(in thousand metric tons)

<b>Panel A: Use</b>					
<b>Year</b>	<b>Season</b>	<b>Feed Use</b>	<b>Other Use</b>	<b>Storage</b>	<b>Total</b>
1987	High	1323.00	1114.80	953.60	3391.40
	Low	1082.00	896.20	114.40	2092.60
1988	High	1460.00	1005.10	994.30	3459.40
	Low	1194.00	807.30	95.00	2096.30
1989	High	1511.00	997.60	998.40	3507.00
	Low	1237.00	799.90	220.50	2257.40
<b>(In Percent)</b>					
1987	High	39.01	32.87	28.12	100.00
	Low	51.71	42.83	5.47	100.00
1988	High	42.20	29.05	28.74	100.00
	Low	56.96	38.51	4.53	100.00
1989	High	43.09	28.45	28.47	100.00
	Low	54.80	35.43	9.77	100.00
<b>Panel B: Supply</b>					
<b>Year</b>	<b>Season</b>	<b>Production</b>	<b>Imports</b>	<b>Begin'g Stock</b>	<b>Total</b>
1987	High	3299.00	0.00	92.4	3391.40
	Low	1083.00	56.00	953.6	2092.60
1988	High	3345.00	0.00	114.4	3459.40
	Low	1077.00	25.00	994.3	2096.30
1989	High	3412.00	0.00	95.0	3507.00
	Low	1083.00	176.00	998.4	2257.40
<b>(In Percent)</b>					
1987	High	97.28	0.00	2.72	100.00
	Low	51.75	2.68	45.57	100.00
1988	High	96.69	0.00	3.31	100.00
	Low	51.38	1.19	47.43	100.00
1989	High	97.29	0.00	2.71	100.00
	Low	47.98	7.80	44.23	100.00

Source of Basic Data: Daly (1989)  
BAS

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Table 16  
**SELECTED PATTERNS OF CORN USE/SUPPLY**  
 (in percent)

Year	Season	Seasonal Distribution of Corn Use		Shares of		Incremental Low Season Use
		Share	STD	Storage to Season Use	Imports to Annual Use	
1987	High	55.01	5.01	39.12	0.00	
	Low	44.99		5.78	1.27	
1988	High	55.01	5.01	40.34	0.00	
	Low	44.99		4.75	0.56	
1989	High	54.99	4.99	39.80	0.00	23.10
	Low	45.01		10.83	3.87	35.60
Average (2 or 3 low seasons)				7.12	1.90	29.35

**Table 17**  
**3-YEAR AVERAGE PATTERN OF CORN USE AND SUPPLY**  
 (in thousand metric tons)

<b>Panel A: Use Year</b>	<b>Season</b>	<b>Feed Use</b>	<b>Other Use</b>	<b>Storage</b>	<b>Total</b>
<b>1987-1989</b>	<b>High</b>	1431.33	1039.17	982.10	3452.60
	<b>Low</b>	1171.00	834.47	143.30	2148.77
	<b>Year</b>	2602.33	873.63	1125.40	5601.37
	<b>(In Percent)</b>				
	<b>High</b>	41.46	30.10	28.45	100.00
	<b>Low</b>	54.50	38.83	6.67	100.00
<b>Panel B: Supply Year</b>	<b>Season</b>	<b>Production</b>	<b>Imports</b>	<b>Begin'g Stock</b>	<b>Total</b>
<b>1987-89</b>	<b>High</b>	3352.00	0.00	100.60	3452.60
	<b>Low</b>	1081.00	85.67	982.10	2148.77
	<b>Year</b>	4433.00	85.67	1082.70	5601.37
	<b>(In Percent)</b>				
	<b>High</b>	97.09	0.00	2.91	100.00
	<b>Low</b>	50.31	3.99	45.71	100.00

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Table 18  
COMPUTATION OF PRICE AND OUTPUT EFFECTS

**A: Assumptions**

1. Demand Elasticity (ETA) = -1.00
  2. Supply Elasticity (EPS) = 0.36
  3. Storage to use during the low season = 7.00
  4. Imports to annual use without storage = 2.00
  5. Incremental low season corn use = 30.00
- (see Table C2 for the above shares (%) and incremental use)
6. World Corn Price = 5000/ton; exchange rate = P28 to US\$

**B: Notations, Structural Equations and Equilibrium Conditions**

- x1 = change in the farmgate price high season
- x2 = change in the farmgate price low season
- C1 = corn use high season
- C2 = corn use low season
- Q1 = corn production high season
- Q2 = corn production low season
- del = change in
- M1 = corn imports high season
- M2 = corn imports low season
- S1 = corn storage high season
- S2 = corn storage low season

- (1)  $S2 = .07 \cdot C2$
- (2)  $M1 = 0$
- (3)  $M2 = .02 \cdot (C1 + C2)$
- (4)  $del C2 = 30$

**Equilibrium Conditions:**

- (1)  $S2' + Q1 + M1 - C1 - S1 = 0$
- (2)  $S1 + Q2 + M2 - C2 - S2 = 0$
- (3)  $C1 - .53 \cdot (C1 + C2) = 0$

**Adding equations (1) and (2) -- annualizing the flow**

$$(4) Q1 + Q2 + M1 + M2 - (C1 + C2) - (S2 - S2') = 0$$

**Taking the total differential of (4) and (3), we obtain:**

$$(5) Q1 \cdot eps \cdot x1 + Q2 \cdot eps \cdot x2 - .98 \cdot (C1 \cdot eta \cdot x1 + (C2 \cdot eta \cdot x2)) - 21.1 = 0$$

$$(6) .47 \cdot C1 \cdot eta \cdot x1 - .53 \cdot eta \cdot x2 + 98.6 = 0$$

**C: Solution (Rate of Increase in Farmgate Prices)**

Solving (5) and (6) for x1 and x2 we obtain:

High Season = 0.04

Low Season = -0.05

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**Table 19**  
**COUNTERFACTUAL VALUES WITH THE MARKETING REFORMS**

<b>Panel A: Use Year</b>	<b>Season</b>	<b>Feeds &amp; Other</b>	<b>Stored</b>		<b>Total</b>
<b>1987-89</b>	<b>High</b>	<b>2381.43</b>	<b>1152.55</b>		<b>3533.98</b>
	<b>Low</b>	<b>2111.84</b>	<b>194.38</b>		<b>2306.22</b>
	<b>Year</b>	<b>4493.27</b>	<b>1346.93</b>		<b>5840.20</b>
	<b>(In Percent)</b>				
	<b>High</b>	<b>67.39</b>	<b>32.61</b>		<b>100.00</b>
	<b>Low</b>	<b>91.57</b>	<b>8.43</b>		<b>100.00</b>
<b>Panel B: Supply Year</b>	<b>Season</b>	<b>Production</b>	<b>Imports</b>	<b>Begin'g Stock</b>	<b>Total</b>
<b>1987-89</b>	<b>High</b>	<b>3388.25</b>	<b>0.00</b>	<b>145.73</b>	<b>3533.98</b>
	<b>Low</b>	<b>1063.80</b>	<b>89.87</b>	<b>1152.55</b>	<b>2306.22</b>
	<b>Year</b>	<b>4452.05</b>	<b>89.87</b>	<b>1298.28</b>	<b>5840.20</b>
	<b>(In Percent)</b>				
	<b>High</b>	<b>95.88</b>	<b>0.00</b>	<b>4.12</b>	<b>100.00</b>
	<b>Low</b>	<b>46.13</b>	<b>3.90</b>	<b>49.98</b>	<b>100.00</b>

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**Table 20  
SUMMARY OF EFFECTS**

	Increments	Rates (%)
Production	19.05	0.43
Use	17.30	0.39
Storage	221.53	19.68
Imports	4.20	4.90
Supply	238.83	4.26
<b>Benefits (in million US dollars)</b>		
Production		3.40
Producer Surplus		11.54
User Surplus		-3.88
Net Impacts		
Add'l corn output at other sectors' expense		7.66
Add'l corn output not at other sector's expense		11.06

**Table 21**  
**PHILIPPINE SHARE IN THE WORLD BANANA**

Year	RP Exports (000 mt)	World Exports (000 mt)	RP Share (%)
1980	922.7	6904.3	13.4
1981	868.6	7047.3	12.3
1982	926.7	7060.5	13.1
1983	643.4	6292.1	10.2
1984	799.7	7011.5	11.4
1985	769.3	7136.6	11.1
1986	855.7	7514.8	11.4
1987	775.0	7974.6	9.7
1988	866.8	7882.0	11.0
1989	851.0	8167.7	10.4
1990	850.0	9026.0	9.4
<b>Average</b>			<b>11.2</b>

Source: FAO -- CCP: BA 91/6

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Table 22  
**BANANA IMPORTS, BY COUNTRIES**  
 (000 tons)

Year	EEC	US	Japan	Other DCs	Korea	Saudi Arabia	Other LDCs
1980	2360.6	2147.1	726.0	827.6	1.5	135.3	583.60
1981	2375.5	2241.5	707.9	787.5	5.0	138.0	598.80
1982	2302.9	2374.0	757.9	702.8	1.4	145.7	455.40
1983	2178.6	2257.0	575.9	672.0	0.8	147.5	298.00
1984	2282.0	2375.0	682.3	768.9	7.8	126.2	300.70
1985	2335.5	2772.0	680.0	824.1	0.8	85.2	337.00
1986	2467.0	2815.7	764.6	794.3	3.7	58.1	376.60
1987	2582.3	2780.5	774.8	912.0	9.5	163.2	399.20
1988	2753.7	2750.0	760.4	897.2	12.9	171.8	404.10
1989	2957.7	2760.0	773.7	1074.3	21.2	156.3	416.80
1990	3230.5	2850.1	757.5	1155.8	60.0	169.0	421.00

Source: FAO - OCP: BA 91/6

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Table 23  
**PHILIPPINE MARKETS FOR BANANA**  
 (000 tons)

Year	Japan	Saudi Arabia	China	Hong Kong	World
1980	696.7	148.4			922.7
1981	592.7	124.9			868.6
1982	621.3	118.1			926.7
1983	458.7	73.5			643.4
1984	592.3	70.5			799.7
1985	597.9	78.3			789.3
1986	647.5	77.7	17.2	50.4	855.7
1987	603.4	64.3	5.2	32.9	775.0
1988	639.1	72.7	11.5	34.9	866.8
1989	655.5	51.8	2.8	37.3	851.0
1990	645.0	104.8		31.0	850.0

Source: FAO -- CCP: BA 91/6

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Table 24  
BANANA EXPORT HECTARAGE (hectares)

	Authorized Area	Area Planted		
		1988	1989	As of 6/30
Tagum Agri'l. Devt. Co.	5625.00	5317.0	5334.0	5334.0
Davao Fruits, Inc.	3474.00	1770.0	1871.0	1887.0
Stanfilco Small Growers	3228.86	3200.0	3200.0	3200.0
Hijo Plantations, Inc.	1350.17	n.a.	n.a.	n.a.
Twin Rivers	1001.77	n.a.	n.a.	n.a.
Marsman Estate Plantations	944.00	949.0	949.0	949.0
AMS Farming Corp.	907.00	907.0	903.0	867.0
Wadecor	907.00	0.0	0.0	0.0
Cherkered Farms, Inc.	870.00	870.0	870.0	870.0
Evergreen Farms	840.00	840.0	840.0	840.0
Golden Farms	741.36	741.0	741.0	741.0
Diamond Farms	629.58	623.0	623.0	623.0
Farmington Agro-Developers	619.00	523.0	523.0	523.0
Lapanday Agri'l. & Dev.	575.02	575.0	575.0	575.0
F.S.Dizon & Sons	558.00	520.0	520.0	520.0
Guihing Agri'l. & Dev.	493.64	493.0	493.0	493.0
Napungas	245.43	0.0	0.0	0.0
Soriano Fruits	230.00	230.0	230.0	230.0
Cadeco Agro-Dev.	194.28	171.0	171.0	171.0
Mt. Apo Fruits Corp.	180.00	0.0	0.0	0.0
S.E.I. Agri. Devt.	176.94	176.0	176.0	176.0
Sarangani Agri.	160.52	160.0	160.0	160.0
Calinan Fruits	150.00	150.0	150.0	150.0
Nova Vista Mgt. & Dev.	108.00	0.0	0.0	0.0
Edca Corp.	50.00	34.0	28.0	48.0
<b>Total</b>	<b>24259.57</b>	<b>18249.00</b>	<b>18357.00</b>	<b>18357.00</b>
		47.5	46.4	46.3

\* n.a. = data not available Source: Board of Investments

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Table 25  
BANANA HECTARAGE UTILIZATION

	1988	1989	1990
Tagum Agri'l. Devt. Co.	94.52	94.83	94.83
Davao Fruits, Inc.	50.95	53.86	54.32
Stanfilco Small Growers	99.11	99.11	99.11
Hijo Plantations, Inc.	n.a.	n.a.	n.a.
Twin Rivers	n.a.	n.a.	n.a.
Marsman Estate Plant'ns	100.53	100.53	100.53
AMS Farming Corp.	100.00	99.56	95.99
Wadccor	c.o.	c.o.	c.o.
Checkered Farms, Inc.	100.00	100.00	100.00
Evergreen Farms	100.00	100.00	100.00
Golden Farms	99.95	99.95	99.95
Diamond Farms	98.95	98.95	98.95
Farmington Agro-Devs	84.49	84.49	84.49
Lapanday Agri'l & Dev Corp	100.00	100.00	100.00
F.S.Dizon & Sons	93.19	93.19	93.19
Guihing Agri'l. & Dev.	99.87	99.87	99.87
Napungas	c.o.	c.o.	c.o.
Soriano Fruits	100.00	100.00	100.00
Cadeco Agro-Dev.	88.02	88.02	88.02
Mt. Apo Fruits Corp.	c.o.	c.o.	c.o.
S.E.I. Agri. Devt.	99.47	99.47	99.47
Sarangani Agri.	99.68	99.68	99.68
Calinan Fruits	100.00	100.00	100.00
Nova Vista Mgt. & Dev.	c.o.	c.o.	c.o.
Eden Corp.	68.00	56.00	96.00
Average	93.5	93.0	94.9

\*n.a. = data not available; c.o. = ceased operations

Source: BOI

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**Table 26**  
**BENEFITS OF MAINTAINING AN 11 PERCENT SHARE IN THE**  
**WORLD MARKET**

Year	Projected World	Exports RP	Additional RP Share	Hectareage Used	Value (mln \$)	Net Benefits (mln \$)
1992	10073.9	1007.4	100.7	23091.7	73.5	7.4
1993	10751.2	1075.1	107.5	23410.0	78.5	7.8
1994	11492.8	1149.3	114.9	23758.6	83.9	8.4
1995	12298.7	1229.9	123.0	24137.4	89.8	9.0
1996	13168.9	1316.9	131.7	24546.4	96.1	9.6

1. Present Value at 15% discount = 27.8
2. The benchmark share of RP in the world market is 9 percent.
3. The price of a bananas is 730 US dollars per ton.
4. Yield is 47 tons per hectare.
5. Projected world exports =  $7123.942 - 191.248t + 32.167t^2$   
(R-squared = 90%).
6. Benefits claim is 10% of value of additional exports due to the opportunity cost of the additional lands planted to exported banana. Also the forecast model use fail to capture the possible fluctuation in world demand for bananas due to business cycles.

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## APPENDIX A THE COMPUTABLE GENERAL EQUILIBRIUM (CGE) MODEL

### ANALYTICAL FRAMEWORK

The analytical framework that is used in analyzing tariff and tax reforms was the computable general equilibrium (CGE) model of the Philippine economy. The CGE models are appropriate for analyzing simultaneous policy changes such as the tariff reforms.

The version of the CGE methodology that is used here is due to Shoven and Whalley (1984). Under this, "the general equilibrium structure ... (is converted) from an abstract representation of a hypothetical economy into realistic models of ..." the Philippine economy by specifying the economic functions of the model and assigning values to their parameters in a manner which enables the model to replicate a benchmark general equilibrium data set of the economy. The calibrated model can then be used to compute policy impacts on a spectrum of concerns ranging from employment, capital use, productivity, economic efficiency to income distribution. An appropriate computer algorithm is used to solved for general equilibrium prices. Two sets of general equilibrium prices are calculated. One involves the basecase policies and the other equilibrium incorporates the changes in the prevailing policies. The two equilibria are then compared in order to calculate the economic impacts of the policy changes.

### ANALYTICAL STRUCTURE

#### Notation Used

$Q_j$	-	the amount produced of the import substitute j
$Q_j^E$	-	the amount produced of the exportable j
$V_j$	-	the value added in sector j
$A_{ij}$	-	the intermediate input requirement in sector j
$K_j$	-	the use of variable capital in sector j
$L_j$	-	the use of variable labor in sector j
$F_j$	-	the amount of fixed factor in sector j
$R_{ij}$	-	the amount of intermediate input i used in sector j
$\pi_j$	-	the profit in sector j
$C_j$	-	the amount produced of the composite product of the import and the import substitute
$I_j$	-	the amount of import used in producing the composite good
$Q_j^I$	-	the amount of the import substitute used in producing the composite good j
$\rho_j$	-	factor substitution parameter in sector j
$\alpha_j$	-	share of variable capital to total value added in sector j
$\beta_j$	-	share of labor to total value added in sector j
$a_{ij}$	-	the amount of intermediate input i per unit of output in sector j
$\gamma_j$	-	share of the import substitute in total cost of producing the composite good j
$\eta_j$	-	Armington substitution elasticity parameter
$e$	-	the exchange rate
$Y_G$	-	the government's income
$T_M$	-	tariff revenues
$T_E$	-	excise taxes
$NLST_G$	-	net lumps sum income transfers to the government
$FK$	-	capital inflows
$t_j$	-	the tariff rate on imported good j

<sup>1</sup> See Shoven and Whalley (1984), " " Journal of Economic Literature, vol. .

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- $v_{ij}$  - the world price of imported good  $j$
- $w_i$  - the price of labor services
- $v_{Ej}$  - the world price of exported good  $j$
- $FX_j$  - the foreign exchange earnings of sector  $j$
- $TD$  - trade deficit
- $BP$  - balance of payments
- $r$  - price of capital services
- $P_c$  - the price of the composite good
- $NLST_p$  - net lump sum income transfers to persons
- $L$  and  $K$  - labor and capital endowments of the economy

Equations of the Model

*I. Production Side*

$$T_j - T_j(Q_j^S, E_j^S, -V_j, -A_j) = 0 \tag{A.1}$$

$$V_j = [\alpha_j K_j^{\rho_j} + \beta_j L_j^{\rho_j} + (1 - \alpha_j - \beta_j) F_j^{\rho_j}]^{\frac{1}{\rho_j}} \tag{A.2}$$

$$\sigma_{ij} = \frac{R_{ij}}{(Q_j^S \cdot E_j^S)} \tag{A.3}$$

$$A_j = \min\left\{\frac{R_{ij}}{\sigma_{ij}}, 1 - 12, \dots, N\right\} \tag{A.4}$$

$$\pi_j = P_{Sj} Q_j^S + P_{Ej} E_j^S - rK_j - wL_j - \sum_{i=1}^N P_{Cj} R_{ij} \tag{A.5}$$

$$C_j^S = [\gamma_j Q_j^{\mu_j} + (1 - \gamma_j) V_j^{\mu_j}]^{\frac{1}{\mu_j}} \tag{A.6}$$

$$\frac{\partial C_j^S / \partial Q_j}{\partial C_j^S / \partial I_j} = \frac{q_{1j}}{q_{0j}} \quad (\text{A.7})$$

$$\frac{FX_j}{I_j} = \bar{v}_{1j} \quad (\text{A.8})$$

2. Demand Side

$$\begin{aligned} L^S &= \bar{L} \\ K^S &= \bar{K} \\ F_j^S &= \bar{F}_j \end{aligned} \quad (\text{A.9})$$

$$Y_P = w\bar{L} + r\bar{K} + \sum_{i=1}^N \pi_i + NLST_P \quad (\text{A.10})$$

$$\begin{aligned} \text{Max } U &= \prod_{i=1}^N C_{hi}^{\delta_i} \\ \text{s.t. } \sum_{i=1}^N q_{hi} C_{hi} &= Y_h = 0 \end{aligned} \quad \begin{array}{l} h = \text{Private government} \\ (\text{A.11}) \end{array}$$

$$Y_G = T_M + T_B + NLST_G + dFK \quad (\text{A.12})$$

$$T_M = \sum_{i=1}^N \pi_i \bar{v}_{ii} A_i \quad (\text{A.13})$$

$$T_E = \sum_{i=1}^N P_{CI} C_i^S \quad (A.14)$$

### 3. Foreign Trade and External Payments

$$FX_j^S = \overline{VE}_j E_j \quad (A.15)$$

$$TD = \sum_{j=1}^N [\overline{V}_j E_j - \overline{VE}_j E_j] \quad (A.16)$$

$$BP = TD - FK \quad (A.17)$$

### 4. General Equilibrium Conditions

The general equilibrium conditions of the model are the following:

- (a) zero profit conditions in all activities;
- (b) market clearing conditions in all commodities and services;
- (c) zero fiscal deficit;
- (d) balance of payments condition.

The model is solved using the MPS/GE computer algorithm.

#### CGE Model Versions

Except for the simulations involving CARL-collateral and VAT, the CGE model used is for a 20-sector Philippine economy. This model was developed by the author for analyzing tariff policies. The base year of the model is 1989. It models the Philippines as a price taker in world markets. It features imperfect substitution between imported and domestic goods.

For the CARL-collateral and VAT simulations, the CGE model used is that for a 7-sector CGE model. The base year of the model is 1983. The Philippines is also a price-taker in world markets. However imported and domestic goods are perfect substitutes for each other.

## APPENDIX B EFFECTIVE TARIFF PROTECTION RATE

The effective tariff protection rates or ETPR are computed using the 1983 input output data and the vector of book tariff rates associated with the 127 input-output table. The following assumptions are made in computing these rates.

1. The only distortions prevailing are tariff policies.
2. The country is a small-open economy.
3. There are  $n_1$  traded goods and  $n_2$  homegoods;  $n_1 + n_2 = n$
4. Output effects impacts on marginal costs of homegoods of tariff policies are negligible.

Using the following notations, we now formally define the ETPR:

- $Q$  = the vector of domestic output produced
- $Q'$  = the vector of output produced under a free trade regime
- $p$  = the vector of domestic producer prices
- $m$  = the vector of marginal costs for homegoods
- $z$  = the vector of exogenous world prices of traded goods
- $V$  = the vector of domestic value added
- $V'$  = the vector of world value added
- $A$  = the matrix of input-output transactions in producer prices; dimension ( $n$  by  $n$ )
- $a$  = the matrix of intermediate input requirements per product unit; dimension ( $n$  by  $n$ )
- $t$  = the vector of tariffs; = 0 for homegoods
- $T$  = the set of traded goods
- $H$  = the set of homegoods

The distorted domestic value added equations are:

$$V_j = p_j Q_j - \sum_{i=1}^n A_{ij} V_i \quad \forall j = 1, \dots, n \quad (T.1)$$

where

$$\begin{aligned} A_{ij} &= p_i a_{ij} Q_j && \forall j = 1, \dots, n \\ p_j &= z_j (1 + t_j) && \forall \text{ traded good} \\ p_j &= m_j && \forall \text{ homegood} \end{aligned}$$

The free trade value added equations are:

$$V_j = Q_j \left[ z_j - \sum_{i \in T} z_i a_{ij} - \sum_{i \in H} m_i a_{ij} \right] \quad \forall j = 1, 2, \dots, n \quad (T.2)$$

where the variables with prime refer to their free trade values.

The effective tariff protection rate is calculated as:

$$ETPR_j = \frac{V_j - V_j'}{V_j} - 1 \quad \forall j = 1, 2, \dots, n \quad (T.3)$$

$$= \frac{V_j}{\frac{(p_j Q_j')}{(1+t)} - \frac{\sum_{i=1}^n x_{ij} Q_i'}{(1+t)}}} - 1$$

Since output effects and impacts on marginal costs of homegoods of tariff policies are small as assumed, then the effective tariff protection rate can be approximated by equation (3) where we substitute the free-trade outputs of goods and services and marginal costs of home goods with their corresponding tariff-distorted amounts. Equation (T.4) below is the formula that was used in computing ETPRs.

$$ETPR_j = \frac{V_j}{\frac{(p_j Q_j)}{(1+t)} - \frac{\sum_{i=1}^n a_{ij} Q_i}{(1+t)}}} - 1 \quad \forall j = 1, 2, \dots, n \quad (T.4)$$

APPENDIX C: SIMULATION RESULTS -- INPUT  
ASAP ECOANAL -- 5/28/91

Case:	Bench	Reforms	Percent Change
YU-PRI	8.7E+08	8.7E+08	0.003
YP-METL	33052000	33052700	0.002
YP-FABM	14845200	14845200	0.000
YP-MACH	7644080	7644240	0.002
YP-ELMA	35329800	35331500	0.005
YP-TRNS	4020080	4020120	0.001
YP-OMAN	6589570	6589630	0.001
YP-SERV	7.6E+08	7.6E+08	-0.001
YC-CRPS	1.6E+08	1.6E+08	-0.001
YC-LIVE	71985900	71992200	0.009
YC-FISH	55409000	55409800	0.001
YC-LOGS	18901600	18901700	0.001
YC-MINE	21979200	21979300	0.000
YC-COCO	36822700	36822400	-0.001
YC-FEED	29633900	29632800	-0.004
YC-FDBV	2.7E+08	2.7E+08	0.002
YC-TXAP	89917300	89918400	0.001
YC-WDPR	59699300	59698900	-0.001
YC-CHEM	70895300	70898000	0.004
YC-PETL	87168700	87167700	-0.001
YC-NMMP	15532600	15532400	-0.001
YC-METL	47171000	47171400	0.001
YC-FABM	19154300	19154100	-0.001
YC-MACH	30601800	30601200	-0.002
YC-ELMA	34641100	34641200	0.000
YC-TRNS	23607600	23607000	-0.003
YC-OMAN	23862800	23862100	-0.003
YC-SERV	7.0E+08	7.0E+08	-0.002
M-CRPS	12319900	12319500	-0.003
M-LIVE	378492	378526	0.009
M-FISH	928982	928956	-0.003
M-LOGS	758891	758878	-0.002
M-MINE	8151720	8151610	-0.001
M-COCO	640593	640559	-0.005
M-FEED	4630900	4642880	0.259
M-FDBV	9917360	9916940	-0.004
M-TXAP	13967600	13967400	-0.001
M-WDPR	8755740	8755340	-0.005
M-CHEM	30780100	30784000	0.013
M-PETL	34684200	34683100	-0.003
M-NMMP	2167720	2167650	-0.003
M-METL	22045800	22045800	0.000
M-FABM	3896950	3896860	-0.002

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APPENDIX C (Cont'a)

Case:	Bench	Reforms	Percent Change
M-MACH	21653200	21652600	-0.003
M-ELMA	16774000	16773700	-0.002
M-TRNS	17382600	17382100	-0.003
M-OMAN	14727500	14727000	-0.003
M-SERV	28694800	28693000	-0.006
X-CRPS	11410600	11411100	0.004
X-LIVE	11508.3	11512.6	0.037
X-FISH	7640800	7641220	0.005
X-LOGS	225923	225929	0.003
X-MINE	10786500	10787000	0.005
X-COCO	10042400	10042800	0.004
X-FEED	1402100	1401800	-0.021
X-FDBV	11361100	11362200	0.010
X-TXAP	17562100	17563100	0.006
X-WDPR	15919700	15920500	0.005
X-CHEM	7124640	7124980	0.005
X-PETL	3013650	3013780	0.004
X-NMMP	1081320	1081350	0.003
X-METL	10453300	10453600	0.003
X-FABM	422319	422325	0.001
X-MACH	1656780	1656870	0.005
X-ELMA	20927300	20928600	0.006
X-TRNS	1125930	1125960	0.003
X-OMAN	1933200	1933270	0.004
X-SERV	1.1E+08	1.1E+08	0.002
FOREX	1	1	0.000
U-PRI	1	0.999948	-0.005
U-GOV	1	0.999956	-0.004
VF-LABO	1	0.999977	-0.002
VF-CAPI	1	0.999974	-0.003
FF-CRPS	1	0.999984	-0.002
FF-LIVE	1	1.00015	0.015
FF-FISH	1	1.00001	0.001
FF-LOGS	0.999994	0.999984	-0.001
FF-MINE	0.999999	1.00003	0.003
FF-COCO	1	0.999982	-0.002
FF-FEED	1	0.998886	-0.111
FF-FDBV	1	1.00005	0.005
FF-TXAP	1	1.00002	0.002
FF-WDPR	1	1	0.000
FF-CHEM	1	0.99991	-0.009
FF-PETL	1	1.00001	0.001
FF-NMMP	0.999999	0.999971	-0.003
FF-METL	1	1.00002	0.002

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APPENDIX C (Cont'a)

Case:	Bench	Reforms	Percent Change
FF-FABM	1	0.99997	-0.003
FF-MACH	1	1.00001	0.001
FF-ELMA	1	1.00005	0.005
FF-TRNS	1	0.99999	-0.001
FF-OMAN	1	0.999992	-0.001
FF-SERV	1	0.999952	-0.005
PG-CRPS	1.23789	1.23784	-0.004
PG-LIVE	1.22578	1.22542	-0.029
PG-FISH	1.19562	1.19557	-0.004
PG-LOGS	1.13191	1.13188	-0.003
PG-MINE	1.08534	1.08531	-0.003
PG-COCO	1.24751	1.24745	-0.005
PG-FEED	1.14745	1.147	-0.039
PG-FDBV	1.26733	1.26724	-0.007
PG-TXAP	1.29588	1.29583	-0.004
PG-WDPR	1.23053	1.23047	-0.005
PG-CHEM	1.14496	1.14485	-0.010
PG-PETL	1.11149	1.11145	-0.004
PG-NMMP	1.15729	1.15725	-0.003
PG-METL	1.1146	1.11459	-0.001
PG-FABM	1.21413	1.21411	-0.002
PG-MACH	1.13676	1.13671	-0.004
PG-ELMA	1.20655	1.2065	-0.004
PG-TRNS	1.19162	1.19159	-0.003
PG-OMAN	1.19658	1.19653	-0.004
PG-SERV	1	0.999957	-0.004
PM-CRPS	1.23789	1.23789	0.000
PM-LIVE	1.22581	1.22546	-0.029
PM-FISH	1.19562	1.19562	0.000
PM-LOGS	1.13191	1.13191	0.000
PM-MINE	1.08534	1.08534	0.000
PM-COCO	1.24751	1.24751	0.000
PM-FEED	1.14745	1.14334	-0.358
PM-FDBV	1.26733	1.26733	0.000
PM-TXAP	1.29588	1.29588	0.000
PM-WDPR	1.23053	1.23053	0.000
PM-CHEM	1.14496	1.14464	-0.028
PM-PETL	1.11149	1.11149	0.000
PM-NMMP	1.15729	1.15729	0.000
PM-METL	1.1146	1.1146	0.000
PM-FABM	1.21413	1.21413	0.000
PM-MACH	1.13676	1.13676	0.000
PM-ELMA	1.20655	1.20655	0.000
PM-TRNS	1.19162	1.19162	0.000

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APPENDIX C (Cont'd)

Case:	Bench	Reforms	Percent Change
PM-OMAN	1.19658	1.196580	0.000
PM-SERV	1	1	0.000
PX-CRPS	1	1	0.000
PX-LIVE	1	1	0.000
PX-FISH	1	1	0.000
PX-LOGS	1	1	0.000
PX-MINE	1	1	0.000
PX-COCO	1	1	0.000
PX-FEED	1	1	0.000
PX-FDBV	1	1	0.000
PX-TXAP	1	1	0.000
PX-WDPR	1	1	0.000
PX-CHEM	1	1	0.000
PX-PETL	1	1	0.000
PX-NMMP	1	1	0.000
PX-METL	1	1	0.000
PX-FABM	1	1	0.000
PX-MACH	1	1	0.000
PX-ELMA	1	1	0.000
PX-TRNS	1	1	0.000
PX-OMAN	1	1	0.000
PX-SERV	1	1	0.000
CG-CRPS	1	0.999967	-0.003
CG-LIVE	1	0.999713	-0.029
CG-FISH	1	0.999959	-0.004
CG-LOGS	0.999998	0.999977	-0.002
CG-MINE	1	0.999981	-0.002
CG-COCO	1	0.999955	-0.004
CG-FEED	1	0.999035	-0.096
CG-FDBV	1	0.999931	-0.007
CG-TXAP	1	0.999970	-0.003
CG-WDPR	1	0.999959	-0.004
CG-CHEM	1	0.999816	-0.018
CG-PETL	1	0.999981	-0.002
CG-NMMP	1	0.999974	-0.003
CG-METL	1	0.999994	-0.001
CG-FABM	1	0.999985	-0.001
CG-MACH	1	0.999992	-0.001
CG-ELMA	1	0.999983	-0.002
CG-TRNS	1	0.999997	-0.000
CG-OMAN	1	0.999993	-0.001
CG-SERV	1	0.999959	-0.004
TTR-GOV	38320000	38292700	-0.071
STR-GOV	29448700	29447200	-0.005
GTRANS	31504300	31504300	0.000

**Table C1**  
**MODEL TRANSLATION OF ASAP TARIFF REFORMS FOR**  
**EFFECTIVE PROTECTION RATE ANALYSIS**

IO Sector	Number of HS Lines	Tariff Rates (%)		
		Change	Present	New
15	38	-.18421	20.79	20.61
37	24	-.29166	20.83	20.25
67	70	-.24285	12.57	12.08

**Table C2**  
**MODEL TRANSLATION OF ASAP TARIFF REFORMS FOR**  
**COMPUTABLE GENERAL EQUILIBRIUM ANALYSIS**

CGE Model Sector	Number of IO Sectors	Tariff Rates (%)		
		Change	Present	New
2	4	-0.04605	31.90	31.85
7	1	0.58333	20.83	20.25
11	9	-0.05396	23.27	23.22

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**Table C3**  
**EFFECTIVE TARIFF PROTECTION RATES (%)**

Code Description	Current	Proposed
<b>Primary Agriculture, Forestry &amp; Mining</b>		
1 Palay, irr.	54.29	54.29
2 Palay, non-irr.	-0.30	-0.30
3 Corn	23.16	23.16
4 Coconut, copra made in farms	39.46	39.46
5 Sugarcane	65.04	65.04
6 Banana	62.82	62.82
7 Other fruits & nuts	54.14	54.14
8 Vegetables	43.10	43.10
9 Rootcrops	42.35	42.35
10 Tobacco	54.36	- 54.36
11 Fiber crops	31.62	31.62
12 Coffee and cacao	113.10	113.10
13 Other comm. crops, n.e.c.	33.45	33.45
14 Hogs	28.52	29.17
15 Other livestock & its prods.	25.12	24.96
16 Chicken for meat	147.04	148.23
17 Other poultry & its prods	49.26	49.33
18 Agric'l services	-0.73	-0.73
19 Comm. fishing, off and coast	32.63	32.63
20 In'd fishing & others	32.51	32.51
21 Logging	4.81	4.81
22 Other forestry act.	32.90	32.90
23 Gold & other precious metals	9.61	9.61
24 Copper ore	9.75	9.75
25 Other metallic mining	10.04	10.04
26 Sand, stone & clay quarrying	17.29	17.29
27 Other non-metallic m & q	16.33	16.33
<b>Processed Agriculture</b>		
28 Rice & corn milling	275.18	275.18
29 Sugar milling & refining	111.84	111.84
30 Milk processing	30.28	30.35
31 Other dairy products	39.16	39.16
32 Crude coco,veg./anml oils/fats	104.89	104.89
33 Refined (ckg) oil & margarine	47.64	47.64
34 Slaught'g & meat pack'g plants	22.98	23.09
35 Meat processing	296.93	296.95
36 Flour & other grain mill	46.93	46.93
37 Animal feeds	14.97	12.60
38 Fruit & veg. preserves	101.53	101.53

Table C3 (Cont'n)

Code Description	Current	Proposed
39 Fish preparations	201.55	201.55
40 Bakery prods. incl. noodles	91.02	91.02
41 Cocoa prods. & confectionery	65.87	65.87
42 Coffee, ground or instant	156.55	156.55
43 Deseccated coconut	-16.32	-16.32
44 Ice, except dry ice	113.68	113.68
45 Misc. food mfs., n.e.c.	48.21	48.21
46 Wine & liquor	76.24	76.24
47 Brewery & malt prods.	41.58	41.58
48 Soft drinks & carbonated water	82.83	82.83
49 Cigars & cigarettes	86.04	86.04
50 Tobacco leaf processing	58.50	58.50
Industry		
51 Textile mill prods.	37.84	37.84
52 Knitting mill prods.	75.29	75.29
53 Other made-up textile goods	117.82	117.82
54 Wearing apparel	86.19	86.19
55 Footwear not rubber/plast/wood	103.64	103.64
56 Lumber, rough or worked	573.66	573.66
57 Veneer and plywood	244.64	244.64
58 Other wood, cork & cane prods.	63.61	63.61
59 Pulp, paper & paperboard	124.37	124.87
60 Converted ppr & pprbrd prod	78.20	78.20
61 Publishing and printing	30.83	30.83
62 Leather & leather prods.	30.26	30.26
63 Rubber tires & tubes	62.94	62.94
64 Rubber footwear	160.26	160.26
65 Other rubber prods.	50.04	50.04
66 Fabricated plastic prods.	126.90	126.90
67 Drugs & medicines	10.63	9.48
68 Basic indust'l chemicals	7.89	7.89
69 Fertilizer	-2.00	-2.00
70 Plastic materials	55.26	55.26
71 Pesticides, insecticides, etc.	-111.66	-111.66
72 Paints, varnish & rel'd cpds.	25.95	25.95
73 Soap & synthetic detergents	58.35	58.35
74 Cosmetics & toilet prep'ns	143.92	143.92
75 Other chemical prods.	29.70	29.70
76 Prods. of petrol, coke & coal	25.65	25.65
77 Cement	-17.92	17.92
78 Glass & glass prods.	57.00	57.00
79 Other non-metal minrl prods.	81.12	81.12
80 Primary iron & steel prods.	25.47	25.47

Table C3 (con't)

Code Description	Current	Proposed
81 Non-ferrous basic metal prods.	8.54	8.54
82 Fabricated metal prods.	93.41	93.41
83 Mach & equip no elect'l	26.64	26.64
84 Electric ind'l mach & equip	45.98	45.98
85 Elect'l appls & hwares	165.11	165.11
86 Batteries	85.39	85.39
87 Wires & wiring devices	45.75	45.75
88 Semi-conductor devices	31.43	31.48
89 Misc elect'l equip, supp, accs	59.15	59.15
90 Motor vehicles	126.28	126.28
91 Othr trans eqp/sup/ac/rep serv	29.35	29.35
92 Furnitures & fixtures-wood	101.21	101.21
93 Furnitures & fixtures-metal	231.74	231.74
94 Musical instruments	33.80	33.80
95 Artists' & office supplies	66.25	66.25
96 Misc. mfts, n.e.c., scrap	4.99	4.99

Source: Current nominal rates were provided for by the  
Tariff Commission, 1990.

**Table C4**  
**TARIFF RATES IN THE 20 SECTOR CGE MODEL (%)**

<b>CGE Model Sector Code Description</b>	<b>127 IO Sector Included</b>	<b>Current</b>	<b>Proposed</b>
1 Crops	1-13,18	33.61	33.61
2 Livestock	14-17	31.90	31.90
3 Fisheries	19-20	27.64	27.64
4 Forestry, Logging	21-22	18.64	18.64
5 Mining	23-27	12.06	12.06
6 Vegetable Oils	32-33	34.97	26.67
7 Animal Feeds	37	20.83	10.00
8 Food, Beverages, Tobacco	28-31, 34-36		
	38-50	38.44	38.44
9 Textiles, Apparel, Leather	51-55, 62	40.93	40.93
10 Wood, Paper, Plastics, Rubber	56-61,63-66		
	92-93	35.45	35.45
11 Chemicals	67-75	23.27	22.71
12 Petroleum Refining	76	15.75	15.75
13 Non-metallic prods.	77-79	22.22	22.22
14 Basic Metals	80-81	16.19	16.19
15 Fabricated metal prods.	82	30.25	30.25
16 Machineries expt. elec'l	83	19.32	19.32
17 Electrical	84-89	29.18	29.18
18 Transportation equipment	90-91	27.07	27.07
19 Other manufacturing	94-96	27.77	27.77
20 Services	97-126	0.00	0.00

**Table C5**  
**EFFECTS ON SELECTED ECONOMIC MAGNITUDES OF LOWERING**  
**THE TARIFF RATES OF A FEW AGRIBUSINESS**  
**INTERMEDIATE INPUTS (%)**

<b>Sector</b>	<b>Production</b>	<b>Use</b>	<b>Imports</b>	<b>Exports</b>
Crops	0.000	-0.001	-0.003	-0.004
Livestock	0.009	0.009	0.009	0.037
Fisheries	0.002	0.001	-0.003	0.005
Forestry, Logging	0.001	0.001	-0.002	0.003
Mining	0.004	0.000	-0.001	0.005
Vegetable Oil	0.000	-0.001	-0.005	0.004
Animal Feeds	-0.059	-0.004	0.259	-0.021
Food, Beverages	0.003	0.002	-0.004	0.010
Textiles, Apparel	0.003	0.001	-0.001	0.006
Wood, Paper, Plastics	0.002	-0.001	-0.005	0.005
Chemicals	-0.003	0.004	0.013	0.005
Petroleum	0.001	-0.001	-0.003	0.004
Non-metallic minerals	0.000	-0.001	-0.003	0.003
Basic Metals	0.002	0.001	0.000	0.003
Fabricated metal prods.	0.000	-0.001	-0.002	0.001
Machineries	0.002	-0.002	-0.003	0.005
Elec. machineries	0.005	0.000	-0.002	0.006
Transport equipment	0.001	-0.003	-0.003	0.003
Other Manufacturing	0.001	-0.003	-0.003	0.004
Services	-0.001	-0.002	-0.006	0.002

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Table C6  
**EFFECTS ON SELECTED PRICES OF LOWERING THE TARIFF  
 RATES OF A FEW AGRIBUSINESS INTERMEDIATE  
 INPUTS (%)**

Sector	Production	Use	Imports	Exports
Crops	-0.004	-0.003	0.000	-0.002
Livestock	-0.029	-0.029	-0.029	0.015
Fisheries	-0.004	-0.004	0.000	0.001
Forestry, Logging	-0.003	-0.002	0.000	-0.001
Mining	-0.003	-0.002	0.000	0.003
Vegetable Oil	-0.005	-0.004	0.000	-0.002
Animal Feeds	-0.039	-0.096	-0.358	-0.111
Food, Beverages	-0.007	-0.007	0.000	0.005
Textiles, Apparel	-0.004	-0.003	0.000	0.002
Wood, Paper, Plastics	-0.005	-0.004	0.000	0.000
Chemicals	-0.010	-0.018	-0.028	-0.009
Petroleum	-0.004	-0.002	0.000	0.001
Non-metallic minerals	-0.003	-0.003	0.000	-0.003
Basic Metals	-0.001	-0.001	0.000	0.002
Fabricated metal prods.	-0.002	-0.001	0.000	-0.003
Machineries	-0.004	-0.001	0.000	0.001
Elec. machineries	-0.004	-0.002	0.000	0.005
Transport equipment	-0.003	-0.000	0.000	-0.001
Other Manufacturing	-0.004	-0.001	0.000	-0.001
Services	-0.004	-0.004	0.000	-0.005

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**APPENDIX D - SIMULATION RESULTS  
16% UNIFORM TARIFF RATE 06/10/91**

Case:	ASAP-B	16% Uniform Tariff	Percent Change
YU-PRI	8.7E+08	8.8E+08	1.38
YU-GOV	1.1E+08	99113100	-9.86
YP-CRPS	1.5E+08	1.5E+08	-0.09
YP-LIVE	71533400	71687000	0.21
YP-FISH	61939100	62080200	0.23
YP-LOGS	18268500	18289400	0.11
YP-MINE	23349200	23797600	1.92
YP-COCO	46066000	46677900	1.33
YP-FEED	25722300	25762300	0.16
YP-FDBV	2.6E+08	2.6E+08	0.31
YP-TXAP	89379000	91029900	1.85
YP-WDPR	64844800	65107900	0.41
YP-CHEM	42778100	42922800	0.34
YP-PETL	43342800	43367200	0.06
YP-NMMP	14105200	14075800	-0.21
YP-METL	33052000	33363100	0.94
YP-FABM	14845200	14621700	-1.51
YP-MACH	7644080	7686080	0.55
YP-ELMA	35329800	37091600	4.99
YP-TRNS	4020080	4001160	-0.47
YP-OMAN	6589570	6461720	-1.94
YP-SERV	7.6E+08	7.6E+08	-0.44
YC-CRPS	1.6E+08	1.6E+08	0.69
YC-LIVE	71985900	72178800	0.27
YC-FISH	55409000	55509100	0.18
YC-LOGS	18901600	18925600	0.13
YC-MINE	21979200	21969300	-0.05
YC-COCO	36822700	37191500	1.00
YC-FEED	29633900	29699600	0.22
YC-FDBV	2.7E+08	2.7E+08	0.78
YC-TXAP	89917300	92866400	3.28
YC-WDPR	59699300	60147800	0.75
YC-CHEM	70895300	71048900	0.22
YC-PETL	87168700	86670500	-0.57
YC-NMMP	15532600	15532900	0.00
YC-METL	47171000	47539900	0.78
YC-FABM	19154300	19199800	0.24
YC-MACH	30601800	30762500	0.53
YC-ELMA	34641100	36182300	4.45
YC-TRNS	23607600	24101600	2.09
YC-OMAN	23862800	23890000	0.11
YC-SERV	7.0E+08	6.9E+08	-0.84

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APENDIX D (Cont's)

Case:	ASAP-B	16% Uniform Tariff	Percent Change
M-CRPS	12319900	13466500	9.31
M-LIVE	378492	412105	8.88
M-FISH	928982	986261	6.17
M-LOGS	758891	764270	0.71
M-MINE	8151720	7982330	-2.08
M-COCO	640593	707592	10.46
M-FEED	4630900	4680310	1.07
M-FDBV	9917360	11139000	12.32
M-TXAP	13967600	15768200	12.89
M-WDPR	8755740	9319100	6.43
M-CHEM	30780100	30934100	0.50
M-PETL	34684200	34286900	-1.15
M-NMMP	2167720	2207770	1.85
M-METL	22045800	22207500	0.73
M-FABM	3896950	4126320	5.89
M-MACH	21653200	21786000	0.61
M-ELMA	16774000	17792800	6.07
M-TRNS	17382600	17831100	2.58
M-OMAN	14727500	14865600	0.94
M-SERV	28694800	27673100	-3.86
X-CRPS	11410600	11572400	1.42
X-LIVE	11508.3	11701.5	1.68
X-FISH	7640800	7747770	1.40
X-LOGS	225923	228804	1.28
X-MINE	10786500	11057100	2.51
X-COCO	10042400	10363500	3.20
X-FEED	1402100	1432610	2.18
X-FDBV	11361100	11581600	1.94
X-TXAP	17562100	18489700	5.28
X-WDPR	15919700	16400100	3.02
X-CHEM	7124640	7290070	2.32
X-PETL	3013650	3045970	1.07
X-NMMP	1081320	1097250	1.47
X-METL	10453300	10575800	1.17
X-FABM	422319	422090	-0.05
X-MACH	1656780	1688840	1.94
X-ELMA	20927300	22362300	6.86
X-TRNS	1125720	1145120	1.70
X-OMAN	1933200	1941490	0.43
X-SERV	1.1E+08	1.1E+08	1.41
FOREX	1	1	0.00
U-PRI	1	0.97526	-2.47

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APENDIX D (Cost's)

Case:	ASAP-B	16% Uniform Tariff	Percent Change
U-GOV	1	0.977225	-2.28
VF-LABOR	1	0.988945	-1.11
VF-CAPIT	1	0.991354	-0.86
FF-CRPS	1	0.987392	-1.26
FF-LIVE	1	0.993566	-0.64
FF-FISH	1	0.993886	-0.61
FF-LOGS	0.999994	0.992577	-0.74
FF-MINE	0.999999	1.02044	2.04
FF-COCO	1	1.0178	1.78
FF-FEED	1	0.992417	-0.76
FF-FDBV	1	0.996318	-0.37
FF-TXAP	1	1.01584	1.58
FF-WDPR	1	0.996187	-0.38
FF-CHEM	1	0.996338	-0.37
FF-PETL	1	0.992737	-0.73
FF-NMMP	0.999999	0.986107	-1.39
FF-METL	1	1.01248	1.25
FF-FABM	1	0.963784	-3.62
FF-MACH	1	0.998968	-0.10
FF-ELMA	1	1.06534	6.53
FF-TRNS	1	0.982686	-1.73
FF-OMAN	1	0.959022	-4.10
FF-SERV	1	0.981224	-1.88
PG-CRPS	1.23789	1.21803	-1.60
PG-LIVE	1.22578	1.20813	-1.44
PG-FISH	1.19562	1.17383	-1.32
PG-LOGS	1.13191	1.11876	-1.16
PG-MINE	1.08534	1.07372	-1.07
PG-COCO	1.24751	1.21855	-2.32
PG-FEED	1.14745	1.12343	-2.09
PG-FDBV	1.26733	1.24609	-1.68
PG-TXAP	1.29588	1.24305	-4.08
PG-WDPR	1.23253	1.18901	-3.37
PG-CHEM	1.14496	1.11826	-2.33
PG-PETL	1.11149	1.09948	-1.08
PG-NMMP	1.15729	1.13652	-1.79
PG-METL	1.1146	1.11089	-0.33
PG-FABM	1.21413	1.19597	-1.50
PG-MACH	1.13676	1.117	-1.74
PG-ELMA	1.20655	1.15405	-4.35
PG-TRNS	1.1972	1.15606	-2.98
PG-OMAN	1.1958	1.15644	-3.35

APPENDIX D (Cont'd)

Case:	ASAP-B	16% Uniform Tariff	Percent Change
PG-SERV	1	0.978716	-2.13
PM-CRPS	1.23789	1.112	-10.17
PM-LIVE	1.22581	1.112	-9.28
PM-FISH	1.19562	1.112	-6.99
PM-LOGS	1.13191	1.112	-1.76
PM-MINE	1.08534	1.112	2.46
PM-COCO	1.24751	1.112	-10.86
PM-FEED	1.14745	1.112	-3.09
PM-FDBV	1.26733	1.112	-12.26
PM-TXAP	1.29588	1.112	-14.19
PM-WDPR	1.23053	1.112	-9.63
PM-CHEM	1.14496	1.112	-2.88
PM-PETL	1.11149	1.112	0.05
PM-NMMP	1.15729	1.112	-3.91
PM-METL	1.11146	1.112	-0.23
PM-FABM	1.21413	1.112	-8.41
PM-MACH	1.13676	1.112	-2.18
PM-ELMA	1.20655	1.112	-7.84
PM-TRNS	1.19162	1.112	-6.68
PM-OMAN	1.19658	1.112	-7.07
PM-SERV	1	1	0.00
PX-CRPS	1	1	0.00
PX-LIVE	1	1	0.00
PX-FISH	1	1	0.00
PX-LOGS	1	1	0.00
PX-MINE	1	1	0.00
PX-COCO	1	1	0.00
PX-FEED	1	1	0.00
PX-FDBV	1	1	0.00
PX-TXAP	1	1	0.00
PX-WDPR	1	1	0.00
PX-CHEM	1	1	0.00
PX-PETL	1	1	0.00
PX-NMMP	1	1	0.00
PX-METL	1	1	0.00
PX-FABM	1	1	0.00
PX-MACH	1	1	0.00
PX-ELMA	1	1	0.00
PX-TRNS	1	1	0.00
PX-OMAN	1	1	0.00
PX-SERV	1	1	0.00
CG-CRPS	1	0.97522	-2.48

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APENDIX D (Cont's)

Case	ASAP-B	16% Uniform Tariff	Percent Change
CG-LIVE	1	0.985081	-1.49
CG-FISH	1	0.985627	-1.44
CG-LOGS	0.99998	0.988113	-1.19
CG-MINE	1	1.00372	0.37
CG-COCO	1	0.974846	-2.52
CG-FEED	1	0.977275	-2.27
CG-FDBV	1	0.977943	-2.21
CG-TXAP	1	0.937961	-6.20
CG-WDPR	1	0.954652	-4.53
CG-CHEM	1	0.973963	-2.60
CG-PETL	1	0.994685	-0.53
CG-NMMP	1	0.978596	-2.14
CG-METL	1	0.997185	-0.28
CG-FABM	1	0.967488	-3.25
CG-MACH	1	0.979077	-2.09
CG-ELMA	1	0.935973	-6.40
CG-TRNS	1	0.937639	-6.24
CG-OMAN	1	0.93696	-6.30
CG-SERV	1	0.979599	-2.04
TIR-GOV	30320000	25901500	-32.41
STR-GOV	29448700	28773900	-2.29
GTRANS	31504300	31504300	0.00

APPENDIX E - SIMULATION RESULTS  
SECTION 32 CARL - LIVESTOCK 6-10-91

Case:	ASAP-B	CARL Sec 32	Percent Change
YU-PRI	8.7E+08	8.7E+08	-0.003
YU-GOV	1.1E+08	1.1E+08	-0.064
YP-CRPS	1.5E+08	1.5E+08	-0.001
YP-LIVE	71533400	72437800	1.264
YP-FISH	61939100	61863900	-0.121
YP-LOGS	18268500	18244900	-0.129
YP-MINE	23349200	23324100	-0.107
YP-COCO	46066000	45986600	-0.172
YP-FEED	25722300	26000800	1.083
YP-FDBV	2.6E+08	2.6E+08	0.359
YP-TXAP	89379000	89158900	-0.246
YP-WDPR	64844800	64748300	-0.149
YP-CHEM	42778100	42719400	-0.137
YP-PETL	43342800	43302300	-0.093
YP-NMMP	14105200	14088700	-0.117
YP-METL	33052000	33036000	-0.048
YP-FABM	14845200	14830000	-0.102
YP-MACH	7644080	7630230	-0.181
YP-ELMA	35329800	35263600	-0.187
YP-TRNS	4020080	4012610	-0.186
YP-OMAN	6589570	6576090	-0.205
YP-SERV	7.6E+08	7.6E+08	-0.131
YC-CRPS	1.6E+08	1.6E+08	0.033
YC-LIVE	71985900	72876400	1.237
YC-FISH	55409000	55343200	-0.119
YC-LOGS	18901600	18876300	-0.134
YC-MINE	21979200	21956600	-0.103
YC-COCO	36822700	36769500	-0.143
YC-FEED	29633900	29971010	1.138
YC-FDBV	2.7E+08	2.7E+08	0.311
YC-TXAP	89917300	89716800	-0.223
YC-WDPR	59699300	59613900	-0.143
YC-CHEM	70895300	70808300	-0.123
YC-PETL	87168700	8706700	-0.117
YC-NMMP	15532600	15513600	-0.122
YC-METL	47171000	47119200	-0.110
YC-FABM	19154300	19135500	-0.098
YC-MACH	30601800	30549900	-0.170
YC-ELMA	34641100	34580600	-0.175
YC-TRNS	23607600	23571300	-0.154
YC-OMAN	23862800	23829900	-0.138
YC-SERV	7.0E+08	7.0E+08	-0.129
M-CRPS	12319900	12346400	0.215

APPENDIX B (Cont'd)

Case:	ASAP-B	CARL Sec 32	Percent Change
M-LIVE	378492	368037	-2.762
M-FISH	928982	928037	-0.102
M-LOGS	758891	757324	-0.206
M-MINE	8151720	8143570	-0.100
M-COCO	640593	640428	-0.026
M-FEED	4630900	4692520	1.331
M-FDBV	9917360	9898280	-0.192
M-TXAP	13967600	13943100	-0.175
M-WDPR	8755740	8744230	-0.131
M-CHEM	30780100	30745800	-0.111
M-PETL	34684200	34636100	-0.139
M-NMMP	2167720	2164670	-0.141
M-METL	22045800	22013800	-0.145
M-FABM	3896950	3893570	-0.087
M-MACH	21653200	21617000	-0.167
M-ELMA	16774000	16745400	-0.171
M-TRNS	17382600	17356500	-0.150
M-OMAN	14727500	14709100	-0.125
M-SERV	28694800	28660500	-0.120
X-CRPS	11410600	11389400	-0.186
X-LIVE	11508.3	12136.2	5.456
X-FISH	7640800	7630360	-0.137
X-LOGS	225923	225799	-0.055
X-MINE	10786500	10774600	-0.110
X-COCO	10042400	10015700	-0.266
X-FEED	1402100	1414160	0.860
X-FDBV	11361100	11459700	0.868
X-TXAP	17562100	17510600	-0.293
X-WDPR	15919700	15894400	-0.159
X-CHEM	7124640	7113610	-0.155
X-PETL	3013650	3012030	-0.054
X-NMMP	1081320	1080280	-0.096
X-METL	10453300	10453500	0.002
X-FABM	422319	421820	-0.118
X-MACH	1656780	1653630	-0.190
X-ELMA	20927300	20887100	-0.192
X-TRNS	1125930	1123610	-0.206
X-OMAN	1933200	1928420	-0.247
X-SERV	1.1E+08	1.1E+08	-0.140
FOREX	1	1	0.000
U-PRI	1	0.998207	-0.179
U-GOV	1	0.999929	-0.007

APPENDIX E (Cont'n)

Case:	ASAP-B	CARL Sec 32	Percent Change
VF-LABOR	1	1.00252	0.252
VF-CAPIT	1	0.997776	-0.222
FF-CRPS	1	1.00218	0.218
FF-LIVE	1	0.872328	-12.767
FF-FISH	1	0.999199	-0.080
FF-LOGS	0.999994	0.997551	-0.244
FF-MINE	0.999999	0.99901	-0.099
FF-COCO	1	0.997708	-0.229
FF-FEED	1	1.02155	2.155
FF-FDBV	1	1.00996	0.996
FF-TXAP	1	0.99806	-0.194
FF-WDPR	1	0.998913	-0.105
FF-CHEM	1	0.998515	-0.148
FF-PETL	1	0.99577	-0.423
FF-NMMP	0.999999	0.998473	-0.153
FF-METL	1	0.998599	-0.140
FF-FABM	1	0.999669	-0.033
FF-MACH	1	0.998365	-0.164
FF-ELMA	1	0.998436	-0.156
FF-TRNS	1	0.998685	-0.131
FF-OMAN	1	0.998436	-0.156
FF-SERV	1	0.99919	-0.081
PG-CRPS	1.23789	1.24037	0.200
PG-LIVE	1.22578	1.17704	-3.976
PG-FISH	1.19562	1.19583	0.018
PG-LOGS	1.13191	1.13106	-0.075
PG-MINE	1.08534	1.08541	0.006
PG-COCO	1.24751	1.24901	0.120
PG-FEED	1.14745	1.15012	0.233
PG-FDBV	1.26733	1.26064	-0.528
PG-TXAP	1.29588	1.29664	0.059
PG-WDPR	1.23053	1.2307	0.014
PG-CHEM	1.14496	1.14521	0.022
PG-PETL	1.11149	1.11102	-0.042
PG-NMMP	1.15729	1.15704	-0.022
PG-METL	1.1146	1.1138	-0.072
PG-FABM	1.21413	1.21433	0.015
PG-MACH	1.13676	1.13689	0.011
PG-ELMA	1.20655	1.20667	0.010
PG-TRNS	1.19162	1.19196	0.029
PG-OMAN	1.19658	1.1973	0.060
PG-SERV	1	1.00011	0.011
PM-CRPS	1.23789	1.23789	0.000

APPENDIX E (Cont'n)

Case:	ASAP-B	CARL Sec 32	Percent Change
PM-LIVE	1.22581	1.22581	0.000
PM-FISH	1.19562	1.19562	0.000
PM-LOGS	1.13191	1.13191	0.000
PM-MINE	1.08534	1.08534	0.000
PM-COCO	1.24751	1.24751	0.000
PM-FEED	1.14745	1.14745	0.000
PM-FDBV	1.26733	1.26733	0.000
PM-TXAP	1.29588	1.29588	0.000
PM-WDPR	1.23053	1.23053	0.000
PM-CHEM	1.14496	1.14496	0.000
PM-PETL	1.11149	1.11149	0.000
PM-NMMP	1.15729	1.15729	0.000
PM-METL	1.1146	1.11461	0.001
PM-FABM	1.21413	1.21413	0.000
PM-MACH	1.13676	1.13676	0.000
PM-ELMA	1.20655	1.20654	-0.001
PM-TRNS	1.19162	1.19162	0.000
PM-OMAN	1.19658	1.19658	0.000
PM-SERV	1	1	0.000
PX-CRPS	1	1	0.000
PX-LIVE	1	1	0.000
PX-FISH	1	1	0.000
PX-LOGS	1	1	0.000
PX-MINE	1	1	0.000
PX-COCO	1	1	0.000
PX-FEED	1	1	0.000
PX-FDBV	1	1	0.000
PX-TXAP	1	1	0.000
PX-WDPR	1	1	0.000
PX-CHEM	1	1	0.000
PX-PETL	1	1	0.000
PX-NMMP	1	1	0.000
PX-METL	1	1	0.000
PX-FABM	1	1	0.000
PX-MACH	1	1	0.000
PX-ELMA	1	1	0.000
PX-TRNS	1	1	0.000
PX-OMAN	1	1	0.000
PX-SERV	1	1	0.000
CG-CRPS	1	1.00181	0.181
CG-LIVE	1	0.960494	-3.951
CG-FISH	1	1.00017	0.017

APPENDIX E (Coer's)

Case:	ASAP-B	CARL Sec 32	Percent Change
CG-LOGS	0.999998	0.999277	-0.072
CG-MINE	1	1.00003	0.003
CG-COCO	1	1.00118	0.118
CG-FEED	1	1.00191	0.191
CG-FDBV	1	0.994973	-0.503
CG-TXAP	1	1.00047	0.047
CG-WDPR	1	1.00011	0.011
CG-CHEM	1	1.00011	0.011
CG-PETL	1	0.999783	-0.022
CG-NMMP	1	0.999817	-0.018
CG-METL	1	0.999652	-0.035
CG-FABM	1	1.00012	0.012
CG-MACH	1	1.00002	0.002
CG-ELMA	1	1.00004	0.004
CG-TRNS	1	1.00003	0.003
CG-OMAN	1	1.00013	0.013
CG-SERV	1	1.0001	0.010
TTR-GOV	38320000	38282200	-0.099
STR-GOV	29448700	29409000	-0.135
GTRANS	31504300	31504300	0.000
GAM		0.123982	

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**ANNEX E**  
**SUPPORT SERVICES COMPONENT**

## ANNEX E

### SUPPORT SERVICES COMPONENT

To mobilize private sector-led support for the policy reforms identified above and to seek private sector solutions to mitigate some of the non-policy constraints to agribusiness development as specified in Section 2, this component introduces activities that will directly impact upon private sector firms and support the policy reforms initiated under the program component. The support services component of this program will be focused into two major sets of activities:

- (1) policy analysis, formulation, and advocacy; and
- (2) the strengthening of vertical market linkages.

Activities will include both long and short-term technical assistance as well as training programs, workshops, seminars and observation tours to support the achievement of program objectives. As described in greater detail in Section 6, Implementation Plan, a single general contractor will be hired to carry out many of the activities under the support services component. The firm may sub-contract to private sector firms and other institutions to implement the various component activities. Also, grants will be made to local non-profit organizations. Some grantees may serve as umbrella grantees which in turn may make subgrants to other private trade and industry associations, regional chambers of commerce, universities and colleges, and other NGOs to conduct policy analysis and advocacy, as well as market development activities.

Efforts directed to policy analysis, data collection and advocacy are aimed at increasing the long-term sustainability of the improved policy framework. The market linkage activities are aimed at improving the ability of the private agribusiness system to respond more effectively to the improved policy environment, specifically the movement toward open markets and increased competition.

#### I. Policy Analysis, Formulation and Advocacy

**Objective:** To create a more conducive agribusiness investment climate thru increased private sector and GOP capacity for policy analysis, formulation and advocacy in support of open markets.

The first priority is to mobilize the private agribusiness community and GOP capacity for economic analysis, policy planning, formulation and advocacy. Economic studies will constitute a major part of this effort as effective policy formulation and implementation is a continuous process that must be responsive to changes in domestic and external conditions. But equally important is support for the advocacy activities of various private sector groups, as well as advocacy within the GOP, for implementing policy reforms.

Although the performance-based disbursements are an incentive for the GOP to enact policy reforms, building a local private sector constituency to support GOP implementation of, and monitor its adherence to, policy reform is critical

to the long-term success of ASAP. Fostering private sector groups' active participation in policy research and advocacy will moreover lead to identification of additional future reforms which may become necessary in attaining ASAP's overall purpose and objectives.

This element will also support increased private sector involvement in establishing GOP priorities in such areas as infrastructure affecting agribusiness. This includes the location/phasing of infrastructure investments in roads, shipping, port, transportation, communication, irrigation, etc. Assistance will also be provided for: organizing information services to private sector groups on policy issues, coordinating the implementation of GOP policies affecting agribusiness, and identifying other policy issues as they arise.

Good factual data is essential for policy analysis, as well as for policy reform implementation and monitoring. Assistance will be given to improve both private and public sector data collection, analysis, and dissemination.

#### **A. Program Performance Indicators:**

- 1. Increased number of private sector groups with improved capacity for policy analysis**

Under the Accelerated Agricultural Production Project (AAPP), several private sector groups and two universities received USAID grants to conduct policy research and analysis/advocacy activities. The activities have had an important impact on policy formulation and will be continued under ASAP. Other private sector groups have also indicated their interest in becoming involved in these types of activities. The DA has indicated that due to private sector support in the policy arena, policy issues have become better understood, with greater progress toward consensus for desired changes.

Dollar funding will be made available to selected local organizations, some of whom may serve as umbrella grantees administering subgrants to other private sector groups such as Chambers of Commerce and Industry, trade and commodity associations, academe, etc. It is envisioned that, at a minimum through direct grants or subgrants, ASAP funds will be granted to a total of 15 private sector groups and four regional universities to become involved in policy related activities.

Grant funds will finance data collection, research studies, analysis, workshops and seminars to present research findings, and other advocacy activities as needed. In order to strengthen the capacity of these groups to carry out these functions, funds may be used for staff hiring, training, technical assistance and commodities (such as computers, desk top publishing, etc.).

As approved by USAID, the general contractor (GC) hired under this program will provide technical assistance and training to grantees in USAID grant regulations and responsibilities, as well in areas related to policy research, analysis and advocacy.

## 2. Increased number of private sector groups participating in policy advocacy

Some groups may choose to participate only in advocacy activities. Grants will be made available to these groups, since, due to success achieved under AAPP, it is widely accepted by the private sector community that the more groups involved in policy formulation, the better the overall results for the Philippines as democratic processes are strengthened. The grants will be used to finance workshops, seminars and publications dealing with policy issues affecting the agribusiness system or specific agribusiness sub-sectors. All grantees and subgrantees will be provided with guidelines to assure that advocacy activities supported by ASAP will be consistent with USAID regulations as well as ASAP objectives.

## 3. Strengthened DA Capacity to Conduct and Support Policy Analysis, Formulation and Advocacy

This element will involve strengthening the information and analytical bases for DA management decisions, planning and policy formulation and program development. Considering previous DA projects funded by USAID (esp. AAPP) and other donors, ASAP will not dwell on institution building per se, but rather, focus on sustaining/enhancing the skills, resources, and linkages already in place. It might be stressed that various past projects have created a foundation on which to build, and provided lessons on what parameters constrain the DA's overall analytic capacity. ASAP will build on these successes. The ensuing discussions will be organized according to tasks listed above.

Data is the basic ingredient for this capacity-building task. As such, a Census of Agriculture and Fisheries (CAF) will be a major and priority activity, and will be completed by the GOP using GOP funding as early as possible during the life of the Program. The Census establishes the basis for subsequent statistical sampling activities. Reliable data is among the basic inputs in analyzing existing policies and advocating the policy impact and changes needed for the improvement of the agribusiness system. Without the Census of Agriculture and Fisheries, the country will continue using the 1980 Census. Data users are already hampered by the unreliability of the statistical output based on the 1980 Census. The Census will also serve as the baseline survey by which measurement of progress in the sector can be assessed.

Primary responsibility for policy analysis, formulation, and advocacy within the DA rests on the Policy Analysis Division (PAD) of the Planning and Monitoring Service (PHS). The AAPP has been vigorously supporting the PAD with contractual staff, equipment, technical assistance, and training. Despite this assistance, further financial and human resource development support is necessary to fully reach sustainability of this important function and to accelerate the policy reform process.

First, the PAD remains saddled with "quick response" tasks and therefore has limited time for in-depth economic analysis and monitoring of significant developments in the sector. ASAP funds will be used to provide policy analysis technical assistance, either through the general contractor or

through other USAID mechanisms such as the Agricultural Policy Assistance Program (APAP). These funds will provide access to such organizations as HIID and IFPRI. It is also expected that a separate quick response group will be institutionalized through ASAP assistance using GOP resources and funding. This group can take various forms, including that of a Policy Analysis Assistance Office similar to what was set up under AAPP, or a small "executive staff" at the disposal of the Secretary and the Undersecretary for Policy and Planning.

The second major constraint is the rapid staff turnover which has precluded long-term sustainability of prior efforts to strengthen DA capacity for policy analysis and formulation. PAD and other DA units have relied on project contractual staff. The major factor for the rapid turnover, low salaries, should be taken as a "given" rather than as a solvable "problem". Using the increased DA budgetary allocations stipulated under the program component, ASAP will explore the feasibility of providing DA with an organization such as the Philippine Institute for Development Studies (PIDS) which has worked well for the National Economic and Development Authority (NEDA). The PIDS-type institution should have the institutional flexibility which DA itself does not have. With the view that no new institutions should be created, candidates will include existing institutions such as the Agricultural Credit Policy Council (ACPC) and the National Agriculture and Fishery Council (NAFC).

The third major constraint to the effective functioning of PAD is the lack of delineation and coordination between PMS/PAD and other DA units which have key roles in policy analysis, formulation, and advocacy for agribusiness development. These other DA units include the Agribusiness Group, the Bureau of Agricultural Statistics (BAS), and regional/provincial offices. As approved by USAID, the general contractor will provide technical assistance to help delineate these various units' functions and help coordinate their roles in policy analysis, formulation and advocacy.

Aside from delineating and expanding policy-related activities in DA, strengthening of its linkages with other institutions will further serve to strengthen DA's overall capacity to conduct and support policy analysis, formulation, and advocacy. Tapping into external institutions is necessary because of the multi-faceted nature of agribusiness development which transcends the immediate bounds of the DA's mandate. Grants made to NGOs, trade associations, regional chambers, etc. will foster linkages between the private sector and DA to work more closely together in achieving mutual goals. For example, perhaps formal arrangements can be made for colleges and universities to allow students to do research in the DA. Compared to past USAID interventions in the area of policy analysis, advocacy, and reform, linkages between private sector and GOP under ASAP will be much more broadly based in line with the principle of democratic pluralism.

Providing the human development resource requirements in support of policy efforts is difficult as already noted in connection with the rapid turnover of staff. Through increased DA budget allocations, ASAP will further address human resource development by building in-house training capability began under AAPP. Formal training will be focused on in-country institutions with corresponding research to be done in DA.

#### **4. Strengthening DA Linkages within the Public Sector to Promote Policy Formulation and Advocacy for Agribusiness Development**

The DA is particularly weak in policy advocacy, with advocacy activities having just begun only under AAPP funding. Under AAPP, multisectoral workshops and conferences were held with success, including those sponsored by DA as well as the private sector. DA linkages with the Legislative and Executive Branches must also be strengthened to allow the DA to have a greater influence on agriculture policy matters, as well as to foster discussions on policy issues. As approved by USAID and as requested by the DA Secretary and/or Undersecretary for Policy and Planning, the general contractor will provide technical assistance and/or training to the Philippine Legislature and other GOP Departments.

##### **a. Linkages with the Legislative Branch**

Participation in policy formulation/advocacy by members from both Congress and Senate would strengthen the position of the agribusiness system in attaining needed policy reforms. At present, the DA has assigned one Undersecretary and one Assistant Secretary to act as liaison officers with Congress. Their focus is on monitoring pending bills/issues affecting the sector and to give DA the necessary feedback so that appropriate action could be taken. However, efforts in this area have been minimal in the past with limited results. In order to improve the effectiveness of the private sector and the DA in influencing policy reform, at the direction of the DA Secretary and as approved by USAID, the general contractor may provide technical assistance to the Legislature to conduct sector analysis on current and pending legislation. Such support directed towards the members of the Legislature would be expected to:

- i. facilitate the passage of bills needed for policy reforms;**
- ii. promote nationwide advocacy for policy reforms that will benefit the agriculture sector being deliberated in Congress; and**
- iii. strengthen the working relationship between the Department and the Legislature.**

Sponsorship and passage of bills required to institute policy reforms in the agribusiness sector sometimes need only a modest investment in technical assistance or training to make the legislators understand the importance of such bills and their impact on the economic development of the country. Internal competition among the politicians and the desire to report certain accomplishments to their constituents will facilitate sponsorship of such bills especially those benefitting the majority of Filipinos who live and work in the agriculture sector. The goal of providing such assistance to the Philippine Congress is to get the legislators themselves to expound on the need for such reforms and the subsequent economic benefits which the country would then derive.

##### **b. Linkages with Other Agencies in the Executive Branch**

Because of the broad and strategic importance of the agribusiness food and fiber system in the economy, issues involving the agribusiness sector

are often much broader than the role of DA alone. As a result, the management, analysis and policy and program development activities affecting the sector are often highly fragmented among Departments and autonomous agencies.

This fragmentation in management often leads to policy biases that favor non-agribusiness industry at the expense of the farm/fishery/forestry sector and the related agribusiness firms that support and depend on the sector. Fragmentation in management also exacerbates frictions between farmer and such upstream industries as the feed-livestock complex of industries, food processors, grain millers, oilseed crushers and other related and dependent agribusiness industries.

The unification of the data base upon which analysts and researchers derive their figures will help solve this problem over the medium term. But the more immediate action that can be taken with regards to policy formulation and advocacy would be the strengthening of linkages among the various agencies within the Executive Branch of government.

The activities funded by ASAP to strengthen these inter-agency linkages will be workshops, policy dialogues, and consultations among the policy analysts in the various government agencies. Private sector consultations and dialogues on policy issues will also be initiated by the Department of Agriculture with the participation of the other agencies. Joint undertakings in policy formulation and advocacy can also be funded as initiated by the Department of Agriculture. This will be supported by technical assistance and consultancy dialogues using the resources provided through the general contractor and private sector grantees.

### c. Funding

To increase flexibility, responsiveness and timeliness, funding for these activities shall be placed under the administration of the proposed General Contractor as approved by USAID and used to:

i. Allow the appropriate DA unit the resources and representation capability to establish and strengthen their linkages with Congress and the agencies in the Executive Branch for the purposes enumerated above through: technical assistance; conduct of workshops/dialogues; commissioning of studies/drafting of proposed bills; printing of materials/production of documentaries; limited purchase of commodities; and other expenses;

ii. providing policy related technical assistance and training to other departments and agencies in the executive branch and to the Agriculture Committees in the legislature; and

iii. funding site visits and regional dialogues with interest groups.

## II. Market Development

**Objective:** Encourage private sector investment in efficient vertical coordination in the processing and marketing of selected agricultural commodities with domestic and export market potential.

As the investment climate improves due to the policy reforms promoted by ASAP, the private sector should respond by increasing investments in agribusiness activities. However, during this transition, ASAP resources can be effectively utilized to speed the transformation and restructuring of the agribusiness system.

PAAD design analysis showed that ASAP assistance should focus on three areas of nonpolicy constraints facing agribusiness investment: (1) weak linkages between farmers and agribusiness firms; (2) lack of access to agro-processing technologies; and (3) lack of marketing knowledge and expertise. The following program performance indicators and ASAP funded activities are designed to address these three constraints.

#### A. Program Performance Indicators:

1. Market linkages between agribusinesses and primary producers created or strengthened.

In the past, agroprocessors controlled most of their raw materials production by owning plantations or at least a nucleus estate. CARP is radically changing that system whereby firms will have to increasingly obtain their raw materials from large numbers of small farmers. As individual units, many of these small farmers are economically unviable and unable to enter into satisfactory marketing contracts with agribusinesses. AAPP helped foster successful models in which agribusiness firms organized and trained farmers into more profitable production units under a wide variety of contract growing or contract marketing arrangements. ASAP will build upon that base of successful models and encourage the expansion thereof to many other businesses and farmers.

Organized groups of farmers in the Philippines can secure increased access to inputs and markets, as well as supply agribusiness with a more stable supply of quality produce. However, given the uncertainties surrounding CARP implementation, agro-processors are hesitant to invest in the training and/or organization of small farmer groups. Many of these firms do not have the skills or funds for such developmental activity.

Traditionally, agribusiness firms invest in marketing infrastructure, processing plants, etc. and rarely engage in training farmers to produce for the firm. The government or NGOs have always shouldered the burden and costs of training farmers, albeit with limited success. Design analysis has shown that firms are reluctant to invest in farmer training since this is an area which they have little expertise and view the cost of such investment as outside of their normal business practices. However, many firms have indicated a willingness to become involved in such training if those additional costs were to be lowered. Design analysis has also indicated that farmer training controlled by the agroprocessing firm would yield far better results due to the strong incentives for the firm to ensure that the farmers produce a quality and timely product as input into the agroprocessing plant. Also, as the firms and farmers work more closely together, it will become easier for the two sides to enter into contract growing/marketing arrangements. These contracts ensure a steady market for farmers' produce at

predictable prices and assure the firm a steady flow of quality produce as input into processing or marketing activities.

As an alternative to public supported extension services and to offset part of these costs and risks, ASAP funds will be matched with business to organize and/or train farmer groups to respond to market driven demand for farm produce. In particular, U.S./Philippine joint ventures will be a major target group. Firms may provide these services themselves or may chose to hire an NGO or other independent training organization.

Firms or the farmer groups themselves will make proposals for cost-sharing for a period of no more than three years. The ASAP general contractor (GC) will review and approve these proposals based on guidelines prepared at the beginning of the project and approved by USAID. It is envisioned at this time that these proposals will be in the form of subcontracts to the GC with the GC reimbursing the subcontractor (the proponent agribusiness firm) a percentage of the training costs. All subcontracts will be approved by USAID. Up to 75% of the direct organizational and training costs, i.e., excluding overhead costs, will be reimbursed as agreed upon under each cost-sharing arrangement. For example, if the firm makes a substantial investment in a new agroprocessing plant or other marketing infrastructure, ASAP funds would share a greater percent of the training costs. If the firm chooses to train farmers first before making investments in processing/marketing, ASAP would share a smaller percentage of the farmer training costs.

## 2. Increased Private Agribusiness Access to Agro-processing Technologies

The objective of this activity is to help provide technical processing information not readily available to agribusiness entrepreneurs. When producing for export markets, the processing technology frequently comes with the market. The purchasers of the products will provide the processing technologies to the producing firm. However, there will be instances when a Philippine agro-processing firm needs to identify processing or other technologies before pursuing markets, or certain fragmented markets will require that the producer find and adapt the necessary technology.

This activity will focus on the handling and processing of fruits and vegetables, grains and livestock. The technology adaptation will include farm-level trials to identify varieties that not only grow well but are also consistent with the processing technology of the agribusiness. The GC will assist the agribusiness firm to identify sources of such information and technology. Up to seventy-five percent of the costs of non-proprietary technology adaptation can be reimbursed by the GC, as approved by USAID.

As approved by USAID, technical assistance may also be provided by the GC to agribusiness firms or associations of firms in the area of agro-processing and/or marketing technologies. If firms require processing, packaging, marketing, or other special technologies or information, to market products in domestic or export markets, ASAP funds may be used to acquire such technical assistance. Experts from the U.S. or other countries may be hired to train the firms in the needed technology. Travel funds will also be available for Philippine firms to

travel to the U.S. to view the operation of the technology or be trained in its usage. However, all other costs associated with acquiring technology, i.e., costs of equipment, shipment of equipment to the Philippines, etc. will be borne entirely by the firm itself.

Based upon experience already gained by implementation of USAID's PITO/P Project in Cebu, Davao, and the National Capital Region, it has already become evident that the demand for the services described above exceed the resources available under PITO/P. ASAP implementors will work closely with the USAID/PESO office to ensure that PITO/P resources will be utilized whenever possible. If such resources are not available (i.e. if the firm is outside of those three geographic areas), then ASAP resources will be tapped.

### 3. Improved Marketing Knowledge and Expertise

#### a. More Timely Market Data Collection and Dissemination

Perfect information is one of the primary assumptions in a dynamic open market society. However, lack of market information has been identified as a key nonpolicy constraint to agribusiness investment.

Building on the foundation laid by the activities of the BAS currently being funded under AAPP, the proposed ASAP Agricultural Marketing Information System (AGMARIS) will build upon improved utilization of existing public sector institutions and programs, while forming stronger linkages with and enlisting the more active involvement of the private sector for a more sustainable and relevant marketing information system. AGMARIS will address the needs of the agribusiness community, including farmers and other marketing participants, while also assisting policy makers.

The activities will be carried out in three phases. The first is the design phase, which is currently underway and is expected to be completed under AAPP funding by the end of 1991. This consists of finalizing the AGMARIS Strategy and Action Plan; finalizing the Manuals on Marketing Information Needs Assessment and AGMARIS Computer Operations; and prototyping of joint venture arrangements.

Phase two is the ASAP-funded initial 3 year implementation phase. Four regional teams will be organized to set up the data gathering/dissemination systems and procedures in seven provinces in three regions, including initiation of joint venture arrangements, adaptation of computer programs and training of implementation teams. This is expected to be accomplished in the first six months. Over the next 30 months the Market News Service and the Price and Volume Monitoring Service will be implemented. These services will provide provincially/regionally disseminated information on prices and market conditions for key agricultural products/inputs in 40 commercially active provinces and all 13 regional centers. The same information will also be transmitted to national level for policy/planning purposes. During this period, the system will be refined as necessary to meet the needs of the users. AGMARIS will continue to work closely with market information activities funded under PITO/P to avoid duplication of effort and to provide information which PITO/P does not address.

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While the coordinated AGMARIS is being designed and tested, the Philippine Chamber of Commerce and Industry's Marketing Information Dissemination (MARID) Project will receive support from ASAP. MARID has successfully demonstrated the feasibility of a private sector-public sector collaboration in the collection, analysis, and dissemination of marketing information. Some parts of the MARID Project will be self-sustaining by the end of CY 1991. Therefore ASAP activities will focus on expansion of the content of information, and commodity and area coverage of data collection and dissemination, including feedback to the policy makers and legislators on market situation and outlook.

Phase three, which will be implemented during the last two years of the program, will introduce the remaining two services at key locations: the Marketing Analysis Service and Marketing Advisory Service. The Marketing Analysis Service will provide information on weekly market developments at the provincial, regional and national levels, and annual market analysis at regional and national levels. Information materials for the GOP extension service and farmers and recommendations for policy makers and planners will be provided by the Marketing Advisory Service.

This sub-component will be implemented by the Agricultural Marketing Services and Advisory Division of the BAS with joint venture arrangements with private sector groups and other public sector agencies. Based on the January 1991 Asian regional planning workshop for the Philippine AGMARIS, the major groups listed in Table 1 are expected to participate in various ways. ASAP will provide short-term technical assistance through a buy-in with the AID/H Agricultural Marketing Information Systems project (AMIS). Operational support will be provided by the DA.

Table 1: AGMARIS Participants

<u>ORGANIZATIONS</u>	<u>ROLES</u>
a. Farmers Associations	Directions and Feedback
b. PCCI	Directions and Feedback
	Data Collection
	Data Processing
	Data Analysis
	Information Dissemination
c. Provincial and Regional Agricultural and Fishery Councils, National Ag and Fishery Council, Provincial and Regional Chambers of Commerce, and People's Economic Councils	Directions and Feedback
	Information Dissemination
d. Philippine Ports Authority	Data Collection
e. Other Industry Associations	Directions and Feedback
	Data Collection
	Information Dissemination
	Data Analysis
f. DA Agribusiness Group, Planning and Monitoring Service, and Operations Group	Information Dissemination

## **b. Increased number of joint ventures initiated**

Project funds will be used to encourage joint ventures between U.S. and Philippine agribusiness firms. The U.S. has long been recognized as a largely untapped market for Philippine agricultural products. Also, many U.S.-based agribusiness firms have expressed interest in investing in Philippine agriculture. In order to increase these types of agribusiness joint ventures, grant funds will be made available to trade groups, NGO's, Chambers of Commerce, etc. to host trade missions and consultations. Transportation costs, per diems, workshops, seminars, and other direct costs are eligible expenditures. Technical assistance and training will also be funded in order to increase the capacity of private sector groups to organize and conduct activities which lead to increased opportunities for joint ventures.

The general contractor (GC) will have a home base office in the U.S. which will contact U.S. agribusinesses to solicit their interest in entering into joint ventures in the Philippines. The GC will be able to provide support as needed to encourage U.S. agribusiness firms to travel to the Philippines to develop contacts with Philippine agribusinesses who also wish to enter into joint ventures with their U.S. counterparts. This support will include plane tickets and per diems, as well as logistical support in the Philippines. The Manila office of the GC will also work with Philippine agribusiness firms who wish to set up meetings with their U.S. counterparts. The GC will be able to offer the same incentives and logistical support in the U.S. for these Philippine firms. The GC will also coordinate closely with PTO/P funded activities to avoid duplication of effort and to lead to greater complementarity between the two efforts.

Working in conjunction with the U.S and Philippine agribusiness communities, the GC will also arrange for and sponsor trade missions between the U.S. and the Philippines to encourage formulation of joint ventures.

## **c. Increased Number of Trade Fairs, Missions, Exhibitions and Market Studies Conducted**

Funding for the conduct and participation of farmers groups and agribusinessmen in trade fairs and exhibitions together with funding for the initiation of trade missions can be classified under the general term of market promotion where awareness and opportunities can be created. Such activities will promote agribusiness products here and abroad, thereby widening the marketing cycle. Such activities could also create opportunities for increased investments in agribusiness giving additional market opportunities for farmers who could be tapped for raw material requirements.

ASAP funds will be utilized for the activities under this sub-component. Such funds will be administered by the General Contractor as approved by USAID. Several activities could be considered for funding in this sub-component:

1. Limited sponsorship by ASAP for local (or regional) agribusiness fairs and exhibitions with the objective of promoting market matches between farmers' groups and processors.

- ii. Partial funding (up to 75% of cost to be refunded up by the General Contractor) for participation of local agribusiness enterprises in international trade fairs and exhibitions.
- iii. Trade missions which could be conducted under the auspices of the Philippine Chamber of Commerce and/or the American Chamber of Commerce which could invite potential American investors to the Philippines to explore agribusiness opportunities.
- iv. Promotion of Philippine agricultural products in the international market utilizing the possible assistance of the various agriculture and commercial attaches.

One important activity under this sub-component will be support for the Center for International Trade Expositions and Missions (CITEM) in undertaking activities that will focus on the promotion of Philippine agricultural products. CITEM is the principal government agency given the mandate of organizing and implementing international trade expositions, missions and fairs. Philippine and foreign firms recognize the important role and performance of CITEM. Despite this positive impression, CITEM has not been able to expand its services to as many private sector entities as needed and has been selective in its participation and sponsorship of missions, fairs and exhibitions primarily due to insufficient funds.

Increased GOP funding for CITEM will help finance agribusiness related Philippine and international fairs, investment missions by foreign firms, and selling missions by Philippine firms. Direct organizational and operational costs such as communications, advertisements, brochures, posters, local and international travel, per diems, and other logistical support for buyers, sellers, and investors, and the cost of rental of booths should be made eligible for funding.

ASAP will fund market studies to be carried out by Philippine as well as foreign marketing and consulting firms or trade associations in coordination with PCCI, CITEM and other appropriate organizations. Proposals for ASAP-supported marketing studies will be received and evaluated jointly by the GC and CITEM. CITEM's primary responsibility will be to provide technical and logistical support especially, itinerary of travel, arrangements for visits with appropriate public sector agencies and buyers or suppliers, as appropriate. As approved by USAID, the GC will provide technical assistance in market research. ASAP will also provide operational support for publications, brochures, local and international travel, training of suppliers/producers in market research, workshops/consultations, and commodities for information collection, retrieval and transmission.

**ANNEX F**  
**INITIAL ENVIRONMENTAL EXAMINATION**  
**AND ENVIRONMENTAL ANALYSIS**

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AGRIBUSINESS SYSTEM ASSISTANCE PROGRAM  
(492-0445)

INITIAL ENVIRONMENTAL EXAMINATION

- A. COUNTRY: Philippines
- B. ACTIVITY: Agribusiness System Assistance Program (492-0445)
- C. TOTAL A.I.D. FUNDING: \$80 million
- D. LIFE OF PROGRAM: FY 1991 - FY 1996
- E. STATEMENT PREPARED BY: Gary M. Imhoff  
Gary M. Imhoff  
Office of Development Resources Mgmt.  
USAID/Philippines
- F. ENVIRONMENTAL ACTION RECOMMENDED: At this time, no further environmental examination is necessary.
- G. ENVIRONMENTAL OFFICER'S CLEARANCE: Kevin A. Rushing  
Kevin A. Rushing  
Office of Rural and Agricultural Devt.  
USAID/Philippines
- H. USAID/PHILIPPINES Director's Decision: APPROVED: Nickolas B. ...  
DISAPPROVED: \_\_\_\_\_  
DATE: January 18, 1991
- I. <sup>APRE</sup> ENVIRONMENTAL OFFICER'S DECISION: APPROVED: U. ...  
DISAPPROVED: \_\_\_\_\_  
DATE: August 7, 1991

## EXAMINATION OF THE NATURE, SCOPE AND MAGNITUDE OF THE ENVIRONMENTAL IMPACT

### A. Description of the Program:

The purpose of the Agribusiness System Assistance Program (ASAP) is to increase the volume and efficiency of private sector investment in agribusiness activity, with particular emphasis on the feed-livestock and the fruit-vegetable complexes, closely linked to the small farm production subsector.

The program will provide \$80 million over the five-year life of the program to support policy reforms, improve policy analysis capabilities, encourage the use of appropriate technology and the dissemination of needed information which should lead to greater investment in the agribusiness subsector.

The program will provide an estimated \$67 million in performance-based disbursements for the implementation of specified policy changes; a \$10 million for support services; and \$3 million for monitoring, evaluation and audit services. The \$80 million in A.I.D. program assistance is expected to be released in annual tranches over the five-year life of the program, with the first tranche to be released in late FY 1991.

The procurement of pesticides or fertilizer is not envisioned under the proposed program.

### B. Recommended Environmental Action:

According to A.I.D. Regulation 16, the function of the Initial Environmental Examination is to provide a brief statement of the basis for a threshold decision, which determines whether a proposed Agency action is a major action significantly affecting the environment. With respect to effects on the environment outside the United States, Section 216.1(c)(11) defines "significant effect on the environment" as "significant harm to the environment."

It is recommended that the Mission Environmental Officer monitor the implementation of the project component of ASAP and encourage that appropriate environmental impact assessments are included under all feasibility studies of new agro-industrial investment projects which have a potential negative environmental impact. In this regard, it is further recommended that the Project Officer inform the Mission Environmental Officer on a regular basis of the proposed project activities. It is also recommended that the scope of work of the technical assistance for the project component includes provisions for monitoring of environmental effects of new agribusiness investments and the coordination with the Department of Environment and Natural Resources in ensuring that appropriate environmental impact assessments are conducted and appropriate protective measures are included in the engineering designs.

**ANNEX F**  
**ENVIRONMENTAL ANALYSIS**

**I. INTRODUCTION**

**A. Rationale for the Analysis**

The purpose of this annex is to identify potential environmental and natural resource issues arising from implementation of ASAP policy reforms and consequent developments in specific agribusiness subsectors. ASAP primarily is aimed at inducing policy reforms which currently constrain the development of the agribusiness sector in the Philippines and to encourage a more constructive government-private sector "partnership" in the sector.

As in the case in many countries, short-sighted or overly-ambitious GOP economic and natural resource policies and regulations have had disastrous effects on the sustainability of the process of economic development and have distorted the natural development of open, competitive markets. Combined with the private sector's own structural failings, this situation has led to stagnation and decline in sectoral growth and gross mismanagement of natural resources. This is almost obvious in "extractive" industries like forestry and fisheries but is also a serious problem for plantation and small-scale commercial agriculture. Hence, it is likely that most of the reforms envisioned under ASAP will have some positive environmental and resources impacts, if they are implemented effectively. However, in the absence of an adequate database on individual agribusiness subsectors, which is admitted by the PAIP, and given the historically poor environmental and sustainable resource management record of the private sector in agriculture, liberalizing reforms may not be a sufficient condition for sustainable agribusiness development.

The purpose of the environmental analysis of ASAP, then, is to discuss issues of potential environmental concern, within the scope of the proposed reform program and project assistance components in order to recommend specific guidelines. These are aimed particularly at the technical assistance component of the program. In the event applied research activities are supported by USAID, particularly where these may involve significant field activities or pesticides use, these procedures should be used. Finally, suggestions for monitoring and evaluation are provided.

**B. Scope and Organization of the Analysis**

This environmental analysis focuses first on the possible environmental and resource management implications of the proposed reform program of ASAP, to the extent that they can be foreseen at this stage of the program. Second, the analysis will examine potential environmental concerns within the specific agribusiness subsectors of corn and livestock feed and tropical fruits and vegetables.

This analysis will not attempt to provide empirical analyses/findings or describe quantitative models of the relationships between the proposed reforms and impacts on resources and environmental/socioeconomic systems. Neither the database nor the time exists to attempt such an effort. The aim of the analysis is to identify possible relationships and gaps in the knowledge base which ASAP should address, primarily through its support services component.

Hence, the analysis begins with a discussion of environmental policy and institutional issues related to reform of the agribusiness sector. This is followed by a discussion of possible environmental concerns in the two subsectors addressed by ASAP and some recommendations for GOP and private sector institutional roles. The analysis concludes with some suggestions for further research and study, and technical assistance and training under the program.

## II. PRINCIPAL ENVIRONMENTAL AND RESOURCE MANAGEMENT ISSUES IN ASAP

### A. Policies for Sustainable Resource Management

Within the vertical organization of the agribusiness sector, two stages pose the greatest environmental risk from rapid expansion and intensification. These are the production of "raw materials" and the processing of these materials for intermediate and final markets. In contrast to these two, the marketing, the transport and distribution stages are of secondary environmental concern. Hence, this analysis focuses on the first two stages.

One aim of ASAP is to increase the quantity/quality of feed corn and tropical fruits/vegetables (the "raw materials") available to livestock producers and agro-processors. A second aim is to focus on downstream industries and services which transform agricultural production into processed goods for domestic and export markets. The two agribusiness subsectors identified are both well-established and widespread. Analysis to date indicates that they both have promising domestic market potential. Fruits/vegetables are furthermore thought to have export potential. Finally, the two subsectors are dominated by many small producers. ASAP hypothesizes that both subsectors are highly susceptible to downstream integration with a number of opportunities for increasing the value-added component along the way to final markets.

As noted above, a number of the ASAP policy reforms probably will have either no net negative impact or even a positive impact on the environment and natural resource management. At a general level, proposed policy reforms can be screened for their potential environmental impact following Table 1, which is based on the ASAP program strategy. The two most potentially important policy actions for the environment concern the proposed stimulus to the corn/livestock feed subsector (2.1), and the encouragement of agribusiness production/processing (2.4). These two issues will be addressed in more detail along with the general analysis of environmental concerns.

The macroeconomic and regulatory reforms proposed along with expected changes in microeconomic behavior give rise to a number of questions about the environmental implications of the reform program. Specifically, if the assumption is accepted that the reforms proposed under ASAP would lead to an

**Table 1: Matrix of Potential ASAP Environmental Concerns Policy Matrix<sup>1/</sup>**

<b>Policy Reform Objective</b>	<b>Implementation Action</b>	<b>Potential Environmental Concern</b>	<b>Summary of Environmental Concern</b>
1. Improve price and incentive environment for agribusiness	1.1 Lower VAT on agricultural processing	No	
2. Reduce GOP direct operations/obstructive regulation.	2.1 Phase out NFA role in corn increase all	Yes	Land use conversion; waste disposal; monocultures; production inputs
	2.2 Freer entry and competition in agribusiness markets.	No	
	2.3 Better access to inter-island shipping	Possibly	Port congestion from increase in cargoes
	2.4 Clarify CARL land use conversion; titling and use of land as loan collateral	Yes	Land use conversion; watershed management; water resources; waste disposal; & other pollution.
3. Improve GOP budgetary support for agribusiness	3.2 Improve DA institutional & data management capacity	Yes	Potential positive impacts on environment; better extension, & sustainable intensification.

<sup>1/</sup>ASAP policy matrix drawn from Reference (1), pp 25-6 in Appendix 2.

increase in the quantity/quality of production in the two target subsectors, what are the implications for resource management or environmental carrying capacity? Is good arable land available to sustain such quantity increases? Are farm management systems and inputs adequate or sustainable to support improvements in the quality of production in these two subsectors? What are the implications for land use policy in the principal growing regions? Is water availability and water quality a serious constraint? Will the proposed reforms have negative socio-economic impacts on producers, workers or consumers, including subsistence production? What are the cumulative impacts of agro-processing industry demands for large supplies of good quality water.

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or the waste assimilative capacity of specific regions? Will development of mining and other industry or land conversion from activities in other economic sectors affect the viability of production and processing in these target subsectors? What other government agencies besides the Department of Agriculture need to be involved in order to make ASAP work?

These questions, it should be noted, address potential concerns, not inevitable ones. Nor are they potential direct results of ASAP implementation. Rather they address the current sustainability of the agribusiness systems which ASAP is attempting to improve. Experience in both developing and developed countries indicates that removal of price and structural distortions in agriculture, including the development of open, unsubsidized markets and farmer responsive input supply, information and technical extension systems can introduce more rational resources utilization and stimulate capital investments which increase the carrying capacity of the environment. But, as even U. S. experience has shown, this kind of "win-win" solution is by no means easy to implement.

The challenge for both GOP and the private sector, in the Philippines, is to find ways of incorporating the full opportunity costs of the use of common resources like water and soil into the cost and price structures of agribusiness and small farmer operations. This includes evaluating the real or economic costs of maintaining or increasing the quantity/quality of such resources and the benefit streams from sustaining environmental carrying capacity. By contrast, the prevailing emphasis of governments and private sector management often has been to emphasize short-term production growth over medium & long-term sustainability and profitability.

## 1. Land Resources and Land Use Planning

Issues of relevance to ASAP under this topic include agricultural production impacts, e.g. the lack of effective land use and spatial planning at the local/regional levels; land tenure uncertainty; soil and water conservation, including sustainable upland farming systems; the use of "pasture" lands and viable forms of agroforestry and tree crop systems for environmentally fragile lands. Agricultural processing operations impacts on land resources can be divided into two categories: the size and location of the facility and the disposal of solid and liquid wastes from processing.

### a. Production-related issues

Many Filipino private farmers and private and state agricultural enterprises have failed to manage common resources sustainably unless forced to do so, usually after the resources are already in short supply or seriously degraded in quality, at which point the costs of maintenance and reliable supplies become very steep. This is a common problem even in developed countries. The usual alternative has been to abandon the land. The feasibility of this strategy is strongly influenced by population pressure and availability of alternative sites. The latter variable is influenced, in turn, by the edaphic and climatic requirements of the cropping system. Cassava, for example, can be grown successfully on a wide variety of environmental conditions whereas certain high value horticultural crops have very specific requirements.

Attempts to meet increased demands from either subsistence, commercial markets or both usually take one of two routes: either expanding the area of production, i.e. bring new lands into production or find new sources of water, for example, or invest more labor, capital and other direct and embodied forms of energy into exploiting the existing resource. In most cases, the Philippines has already exhausted the former option, at least under traditional production technology. Rapid population growth, deforestation and land conversion have reduced the amount of new non-"marginal" lands which can be brought into production to a few remnant areas, even in so-called "pioneer" regions such as Palawan. "Marginal", it should be noted, is a valued-laden term; land which is marginally productive for continuous cereal production, for example, may have a variety of other, even more profitable agricultural uses.

Throughout Southeast Asia, extensive, relatively low-intensity commercial agriculture has been a characteristic of the plantation sector, whereas intensive polyculture has been characteristic of small-scale semi-commercial producers. However, sustainable, intensive polycultural systems in the Philippines seem to be less developed in comparison to, for example, Indonesia or Thailand, two other high population, humid tropical environments. Nevertheless, there are clearly many opportunities for comparatively low cost intensification of existing lands which are relevant to the subsectors in this project. A large proportion of agricultural land in the Philippines is given over to coconut plantations, for example. One of the advantages of coconut, as a tree crop, is its high and relatively open canopy. This provides many opportunities for inter-cropping of fruits and vegetables, corn or fodder grasses for grazing livestock. Apparently, coconut estates are underutilized in this fashion, in many parts of the Philippines. Is this because they tend to be operated under tenancy arrangements. Are there local shortages of labor and capital or an absence of technical information or marketing arrangements (including infrastructure) for appropriate understory crops? Pasture lands are another underutilized resource in the Philippines. Most of these are, in fact, Imperata (cojon); grasslands with very limited fodder potential. They might serve a better function if they were reclassified by the GOP to encourage secondary succession and the development of more productive agro-forestry systems, for example.

Land use planning in the Philippines, particularly as it relates to the development of the agribusiness sector, has been abused extensively by a succession of governments. The enormous expansion of plantations for export crops, partly a reflection of the mid-'70s commodity boom and the GOP's need to finance debt repayments have led to massive transformations of the environment in some areas. In Mindanao, for example, by 1980, agribusiness firms were estimated to have planted up to 52% of the entire arable land area. This land was acquired by either seizure of ancestral tribal lands or forced indebtedness with the result that thousands were driven into the uplands, further exacerbating environmental degradation and ironically, threatening the new lowland infrastructure with sedimentation and flood damage (5:16-18). Overall extensive agribusiness, i.e. corporate plantations have tended to provide less employment and income per hectare, while entailing serious social costs to the Philippine economy. To the extent that the current proposal seeks to work with smallholders, in intensive systems, the strategy may yield more employment/environmental services. However, this is, as yet, unknown and should be monitored during the program.

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Still, smallholder intensification of existing croplands for commercial production also can have potential impacts on land use and soil resources:

i. Intensification of crop land has the potential for raising per hectare yields and returns to the owner-operator. Over time, this may raise the value of the land. If tenants are operating the land, they may be forced off due to higher rents or the desire of the owner to manage the land himself. This phenomenon may be more pronounced if the land parcel is near a road, irrigation outlet or other form of infrastructure.

ii. Intensification may require greater applications of artificial fertilizer and pesticides which, over time and at high application rates, have serious consequences for soil structure, erodibility and accumulation of heavy metals. This is most common in continuous, monoculture systems.

iii. Soil is a semi-renewable resource. Under most circumstances, if depleted beyond certain limits, whether economic or physical, it requires an extremely long time to be restored, if at all. For the individual operator, however, the option value of conserving the resources is by no means as obvious as it might seem. For both the poor, subsistence farmer (typically described as the main causal agent of land degradation) or the commercial farmer growing high value temperate vegetables for the urban/export markets, for example, the discounted net present value of soil and water conservation investments or mulching and composting or crop rotations may be extremely low. In various parts of SE Asia, for example, intensive commercial vegetable cultivation is carried out by tenants of absentee owners. The relatively high prices for these crops encourage continuous cultivation often on steep, upland slopes; tremendous overuse of fertilizers and pesticides; contamination of groundwater supplies and downstream sedimentation and flooding.

#### b. Processing-related issues

Impacts on land use and soil resources from processing take two forms: one is the location and scale of the facility and other is the disposal of wastes from the facility. Location and scale issues are partly inter-dependent and partly a matter of the technology employed. The larger the agro-processing facility, in many cases, the more severe the potential impacts. These impacts include siting on steep and unstable land; across aquifers or adjacent streams; near or in the midst of human settlements. The main waste disposal problem for land use and soil resources concerns solid waste: shells, skins and other inedible parts. However, for some technologies, there is also the risk of soil contamination from chemical residues, waste oils and other contaminants. For a number of agribusinesses, there are opportunities for reuse of processing by-products, for example, as fuel for process heat requirements or further processing as mulch or compost. The use of by-products depends partly on the existence or stimulation of markets for them and the price of alternatives (e.g. fuel or fertilizer). Government economic and resources policies are clearly very important to the economic viability of these alternatives. Impacts from the environment on agribusiness processing can also be serious. This is discussed in the section on cross-sectoral impacts.

## 2. Water Resources

Water is probably the single most important constraint on agricultural production/productivity. In the Philippines, as in most other developing countries, it is a scarce and valuable resource. Reliable, relatively clean water supplies are essential to both the production and processing stages of most agribusinesses. Unfortunately, water regimes, in many parts of the Philippines, have been seriously damaged by improper land use, particularly in upland regions and by contamination of groundwater supplies and, in some areas, salt water intrusion. Groundwater supplies have been most seriously affected in urban and peri-urban regions but are also showing shortages in rural areas, due mainly to disturbances of the hydrological regime, with reduced infiltration and recharge of aquifers.

To the extent that the crop subsectors which are the focus of this project can rely on rainfed systems, they will be less directly affected by water shortages. However, agribusiness processing, in some areas could be threatened both in terms of water supply/quality. Process water for many agro-processing operations has to have a high level of purity which can be costly to achieve in a polluted environment. Water supply problems can be partly addressed for some types of operations through reuse and recycling of process water within the plant.

Many agribusiness operations also will require some degree of pre-treatment of wastewater before discharge into waterways due to often high levels of chemical and biological oxygen demand (COD/BOD) and other pollutant levels of such wastewaters. In the Philippines, agribusinesses are the second largest producers of wastewaters with high BOD and nutrient loads. When combined with domestic sewage and wastewater, such levels are very damaging. Some experimentation has been carried out in different parts of the Third World to utilize discharged wastewater safely/productively, including wastewater irrigation and wastewater aquaculture. These experiences could be documented further by the ASAP program's Support Services Component and, if appropriate, formulated into general guidelines for private sector agribusinesses.

However, reuse and recycling of water often is perceived to be "economic" only where appropriate water pricing, accounting and treatment policies by local or national governments exist and are enforced, otherwise private sector water users (whether in agribusiness or not) will have few incentives to invest even modest sums in conservation. Secondary impacts on water resources from agro-processing can be numerous due to the transport function of water. For example, agricultural chemical runoff, particularly from high intensity tropical storms flows into streams which, in turn, flow into the seas, damaging or destroying fisheries and coral reef systems.

## 3. Feed-Livestock

The initial environmental concern with the corn subsector, in particular, concerns the proposed increases in production. What is unclear is whether this increase is expected to come from a few regions or whether the participating farmers are spread throughout the country. The implications for land use, cropping systems, employment and pollution could be very different depending upon the answer to this question.

A second potential issue concerns the scale and technology of corn drying, storage and milling facilities. The extent to which as many as possible of the activities of the first two stages, in particular, can be maintained at the farmer or farm cooperative level, the fewer major construction, transport and waste disposal impacts there are likely to be generated. Milling facilities may require transport infrastructure improvements, construction of the facility and many possibly generate local air pollution from milling dust.

The livestock subsector is suffering from relatively stagnant growth, because of structural cost problems and macroeconomic reasons. One of the aims of ASAP is to make the livestock sector more competitive, including the export market. Growth of this sector will require greater numbers of abattoirs and dressing plants. These can generate potentially large amounts of solid/liquid wastes. Fortunately with the right incentives, some of the solid waste can be recycled (e.g. bone meal) and wastewater effluent also can be reduced.

#### 4. Tropical Fruits and Vegetables

The range of potential cultivars in this subsector is quite large. It is not clear if the target products are strictly tropical in origin or if they include some temperate crops which are widely grown now in the tropics as well (e.g. potatoes, carrots, tomatoes, asparagus, etc.). As noted earlier in the discussion on land use and soil resources some of these crops, when grown without attention to environmental impacts can be disastrous for local environments. ASAP should try to address this concern directly, in the project (see Section IV). Most tropical fruit tree crops are likely to have few negative environmental impacts and a number of positive ones, to the extent they replace continuous cultivation of erodible slopes, for example and to the extent that they are part of diverse, upland smallholder cropping systems.

The processing of tropical fruit/vegetable products includes drying, canning, juice concentrate and squash making and secondary or co-products such as oil. Fruit processing can utilize considerable amounts of process heat and water and can generate considerable amounts of wastewater. Much of the heat, water and waste can be reused, recycled or minimized with good factory management practices and relatively small capital investment and training (how "small" depends partly on the scale of the plant). Again, as noted above, incentives for waste minimization are most effective when the prices or penalties the GOP influences or sets provide a "level playing field" compelling all resource users to focus on conservation and pollution avoidance.

#### B. Socio-Economic Issues in ASAP

Plantation workers have been amongst the poorest paid workers in the Philippines. Their plight, evidently was one of the reasons for the CARL. Since the ASAP project will focus on smallholders, including those with new land titles, the program could have a net positive social impact. One of the major issues identified by the PAIP was the ability to use land as collateral, provided guarantees exist to avoid forfeiture of land in the case of loan defaults. Another issue is the organization/training of farmers in production and initial post-harvest processing. If undertaken with appropriate attention to environmental components these activities would also have positive environmental impacts.

Socio-economic impacts associated with agro-processing are similar to other industrial development, including possible dislocation of residents on the site, contamination of local water supplies by the plant or contamination of the processing plant's surface or groundwater water supplies by illegal settlements which have no proper sanitary systems. Such settlements may spring up in part because of employment opportunities at the plant or the provision of services for the plant and its workers.

### C. Cross-Sectoral Issues

A number of cross-sectoral issues have been identified already in the previous discussion. Some of these are the impacts of internal operations of the producer or processing plant on the environment and vice-versa and others are the result of regulatory or economic policies. Examples of the first kind of cross-sectoral impact include:

1. Transport of pollutants off-site and their contamination of other environmental systems or human activities. Examples include mercury or other leachate from gold mining and similar activities, contaminating surface or groundwater supplies and coastal systems, including water used by agribusinesses. This has been identified as a serious problem in parts of Mindanao and Leyte, for example (6:F16-19). Air pollution from certain kinds of basic industries: cement, smelting, refining, for example can have serious impacts on crops downwind. Some of these industries exist in Mindanao as well. Wastewater from agro-processing activities, as noted, can contaminate water supplies for human settlements and agriculture as well as coastal ecosystems.

2. Land use and cropping system changes arising from contractual relationships to agribusinesses. Impacts can include diversion of land from food crops with consequent impacts on nutrition and health; the spread of environmentally unstable monocultural cropping systems; a concentration of agricultural chemicals in the soil and water supply affecting on-site and downstream residents. Examples of the second kind of impact include:

- a. Subsidies of agricultural inputs such as fertilizer and pesticides (even credit, sometimes) which can lead to their wasteful and environmentally-damaging use and encouragement of poor land husbandry practices. This was also noted in the PAIP.

- b. Inattention to siting or non-enforcement of spatial planning and zoning regulations which can lead to unsafe, economically sub-optimal land uses, and environmentally hazardous location of settlements or agroenterprises which, as has been noted, is a particular problem for contamination of scarce water supplies.

## III. INSTITUTIONAL ISSUES OF ENVIRONMENTAL MANAGEMENT RELEVANT TO ASAP

### A. The Role of Environmental Policy and Management in ASAP

A number of the potential impacts and resource management issues identified in this analysis are the result of poor GOP policy and regulations or inability to enforce these. Most environmental analysts, familiar with the Philippines, agree that the GOP has put into place a fairly comprehensive and

experience with lowland, uniform cereal commodity systems than with diverse upland polycultural systems. In addition, because environmental, socio-economic and cultural conditions are so varied, it is very difficult to devise a standard extension package for the producers. The PAIP recommended the reform of the DA's extension system which could help considerably. However, pilot activities with farmer-lead technology development/transfer, possibly with the help of PVOs might be useful as well.

#### IV. Recommendations for Action, Training and Research

##### A. Priority Issues for ASAP

The major environmental and resource priorities identified by this analysis for ASAP are:

1. Land use and area or spacial planning, along with good resource maps and databases by sub-region. For the most part, with these needs will be addressed by USAID's LDAP Project and within ASAP through discussions with the GOP on the implementation of its CARL program. In addition to these initiatives, the ASAP technical assistance team should have the capability to respond to requests for technical guidance on environmental aspects of agroprocessing operations, e.g. siting of plants (groundwater or waste disposal impacts, etc.) and other related concerns as discussed in Section II above.

2. Farmer-lead research on sustainable forms of intensification of upland mixed agro-ecosystems, preferably on rainfed lands. This is being addressed directly by the project design, in which agribusinesses will work directly with farmers on agronomic and processing requirements for specific commodities. As part of its normal project monitoring, USAID (or the contractor) should review periodically such agribusiness guidance for its environmental or socio-economic sustainability.

3. Agro-processing plant environmental audits. Technical assistance in carrying out such audits is available through the World Environment Center, with which the Asia Bureau has a cooperative agreement, presently.

4. Development of effective environmental policy analysis, technical guidance and management units in DENR, DA and DTI to deal specifically with ASAP concerns and the targeted sub-sectors. As noted above, many of the proposed changes and improvements in database management, extension, etc., in these departments, either will entail or benefit from inclusion of environmental variables and issues.

##### B. Scope of USAID Action in the Framework of ASAP

The principal environmental/resource management role of the USAID Mission in relation to this program will be to monitor economic policy reforms in the GOP and how these reforms relate to the development of the agribusiness sector. Although the PAAD has identified a number of critical structural and regulatory barriers to development of this sector, it is reasonable to assume that other, as yet not clearly known barriers (or opportunities) may arise during the course of the program which will need to be considered. It is

recommended that the program implementation plan be a flexible one and that the monitoring component of the support services section of the program be pro-active and visible from the start of the project. This is particularly relevant to the natural resources sector, given the intimate connection with environmental quality of agribusiness activities.

A second mandatory role for the USAID Mission and the ASAP Program (as represented by the MEO, in this case) is to continue to monitor carefully the use of pesticides and other hazardous agro-chemicals (herbicides, fungicides, etc.) as specified in Section 216.3 (10) (b) of 22 CFR 216 (A.I.D. Environmental Procedures) since the proposed intensification of commercial agricultural production, storage and distribution in densely populated areas poses a potentially serious health/pollution problem. Similarly, opportunities for incorporating known integrated pest management techniques in applied research or technology dissemination efforts should be taken up.

ASAP will focus on policy reform with support services for smallholders and agribusinesses. It is recommended that ASAP maintain a close coordination & consultation role, not only with other relevant Mission programs/projects but also with other donor activities. Possibly relevant Mission activities include the NRMP, LDAP, the Mindanao Development Project, Local Government Infrastructure Project and Philippines Capital Infrastructure Project.

With regard to the concerns raised in the environmental analysis, three components of the ASAP program seem appropriate for USAID environmental action in the context of the program. These are: the Support Services Component, Monitoring & Evaluation Component, and EAs for feasibility studies. Most of what is recommended below is meant to be integrated directly into the proposed program rather than stand alone measures. This will ensure compliance with the intent of A.I.D.'s environmental procedures which are for them to be integrated into planning, design and monitoring.

### C. Technical Assistance Recommendations

Most of the recommendations below take the form of technical assistance and research recommendations. This environmental analysis will not attempt to specify, in detail, the implementation arrangements which might be used.

1. The ASAP envisions a strong effort to remove licensing and permit restrictions on agribusiness sub-sectors which unnecessarily limit private sector entry or exit or which protect parastatal or private monopolies and oligopolies. The PAIP and PAAD describe a web of inefficient and self-defeating policies and regulations. In this respect, it is recommended that TA in the Support Services Component work closely with DENR's Environmental Management Bureau to review their environmental licensing procedures (EIS and ECC) with respect to agribusinesses so that appropriate standards and realistic certification requirements are developed which reflect the nature, scale and scope of potential resource and environmental impacts and which serve to enhance resource and plant efficiency rather than act as a disincentive to investment. Ideally, this review process should take the form of government-industry dialogue and would be located in the appropriate line

agency (DENR with DA or DTI) but under present GOP arrangements, this is not yet the case. This could be the focus of further policy dialogue and institutional development, though probably not directly through the ASAP program.

2. With respect to the design and operations of agro-processing plants, it is recommended that the general contractor of ASAP try to take advantage of the special expertise of the World Environment Center (WEC), an American PVC which provides high-level industrial expertise on a pro bono basis to Third World industries. They are especially good at waste minimization and pollution prevention programs utilizing plant audits, specialized training and short-term technical assistance. The Asia Bureau has a cooperative agreement with the WEC. These services may be accessed directly by ASAP or may be included in the design of the forthcoming Urban and Industrial Management Program.

3. It is clear from the ASAP analysis and that of the Sustainable Natural Resources Assessment (4) that DA is lacking in expertise in Integrated Pest Management, polycultural cropping systems, farmer-lead research and other areas which will be vital to the success of ASAP. This is because horticultural management often demands greater farmer management inputs and sophistication than does much cereal production, for example. While at least some of the proposed fruit-vegetable sub-sectors are well-known to Filipino farmers, the demands for quality and sustained production will require substantial technology transfer to small producers. Much of this will be addressed through private, NGO and public sector research with participating farmers under ASAP. The general contractor, nevertheless, should monitor technology development/transfer financed under ASAP to ensure that environmentally sustainable technologies and support systems are tested and transferred.

#### D. Special Studies and Research

The main environmental and resource needs which involve studies and research (not otherwise available through other programs and projects) are partly the function of the ASAP monitoring system and partly independent needs. As numerous analyses have noted, the existing agricultural database relevant to agribusiness concerns (including production and resource use as well as marketing information) is very deficient. The GOP should begin to put into place a design for one or more GIS or other similar database systems which provide the basis for assessing regional cumulative stress on resources from unplanned or uncoordinated growth and development. This is rapidly becoming a major issue for Mindanao, for example, and could affect the long-term viability of agribusiness development. The ASAP program lacks the resources or design scope to tackle such a research project, although it could provide a source of technical guidance to local governments or other research projects which do include such aims, e.g. the Mindanao Growth Plan.

Some evidence exists which suggests that the initial impact of the CARL on agricultural productivity and sustainable intensification has been somewhat negative, due partly to sub-optimal parcel sizes, particularly in the uplands. Further access to needed inputs/markets will require some degree of resource pooling and group organization, as has been the case in most other countries. In this respect, it might be useful to carry out a "before and after" study of participating farmers (a representative sample) to determine whether vertical

integration, brought about by ASAP, actually improved the livelihood of participating farmer groups on a sustainable and environmentally sound basis and whether other kinds of reforms or support services were needed as well.

#### E. Training

The principal area of training not otherwise captured in the design concerns the training of agro-processing environmental and safety engineers for agribusiness plants. Under the proposed procedures for accepting proposals for cost sharing, described in this PAAD, ASAP would share the costs of applied research and/or farmer organization/training costs of acceptable proposals. Many proposals will not entail any investments in major agroprocessing facilities. For this reason, applied research and selection of agroprocessing technology should include those technologies/processes which result in minimal or reduced waste discharges and have relatively safe operations. Other training support could then focus on plant "housekeeping" and other resource-saving, pollution avoiding management (and cost saving) measures.

In summary, given the focus for ASAP's cost-sharing of proposals on small to medium-sized firms, applied research, technical assistance and training should focus on environmental measures which require relatively low capital and operating costs, reduce contingent liability risks, require relatively little sophisticated training and which could improve resource productivity, including plant profitability. As noted above, for many industries, such economies can be obtained through smart plant design (e.g. the reuse of process water, location of waste facilities, etc.) and housekeeping and other management measures. The role of ASAP could include the provision of information via publications/manuals, and the sponsoring of short training courses for selected personnel of industries by subsector or other relevant criteria. The second opportunity for environmental intervention lies in the selection of proposals which reduce input burdens (e.g. artificial fertilizers & pesticides) or promote sustainable forms of intensification should be encouraged by ASAP. Clearly, the selection of any technical assistance team should include individuals with appropriate environmental and anthropological experience.

It is assumed that the ASAP Program will try to monitor the effects of the reforms it is encouraging and that would include monitoring/evaluating the impact of the program on various components of the agribusiness sectors, farmers, processors, marketers, etc. Further, it is assumed that ASAP recognizes that the effects of such reforms will not necessarily be uniform or neutral across categories of producers and processors.

#### V. PROPOSED ENVIRONMENTAL PROCEDURES FOR ENVIRONMENTAL ASSESSMENT OF AGRIBUSINESS INVESTMENT FEASIBILITY STUDIES UNDER ASAP

##### A. Summary of A.I.D. Environmental Procedures

A.I.D.'s environmental procedures are described in 22 CFR 216. The purpose of these procedures is to identify as early in the project's planning and design as possible, potential significant impacts on natural resources, environmental systems and important socio-economic groups and cultural resources. This is, in fact, the reason for this environmental analysis. The

Bureau Environmental Coordinator (BEC) must approve all major environmental documents, prior to authorization of funds. Each environmental document is an integral part of the project design process, IEE (PID/PAIP), Environmental Analysis, EA Scoping Sessions and an Environmental Plan of Action (PP/PAAD). The calculator of the program or project budget should allow for any monitoring and mitigation measures identified in the "Environmental Plan of Action".

If ASAP disaggregates its monitoring/impact evaluations, it should not be difficult to include some characterization of the environmental components of the various systems: the farm or factory and their input and waste streams. This monitoring/evaluation system need not constitute separate ASAP studies but can be included in periodic project monitoring or in applied research and extension activities, including those organized by agribusiness companies themselves.

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**ANNEX G**  
**SOCIAL ANALYSIS**

## 6. SOCIAL ANALYSIS

Appraisal of the social and gender issues inherent in ASAP feasibility requires two types of analysis:

- \* Population-level impacts of the reforms constituting the policy component of the program;
- \* Broad-based participation in and benefits from activities of the support services component.

Full appreciation of the nature and degree of gender-disaggregated impacts of ASAP can only be gained from special tracking of program and projectized activities during the five-year life of program. In consequence, monitoring and evaluation of people-level employment and income impacts of ASAP will be undertaken by the General Contractor, probably through a sub-contract with a specialized Filipino research institution. Such monitoring and evaluation will take care to distinguish between impacts on men and women; that is, it will be gender-disaggregated. People-level impact monitoring will focus on the corn-feed-livestock sub-sector and concern both the effects of key policy reforms and relevant ASAP activities designed to relieve non-policy constraints in the vertical integration of this important sub-sector. A second analysis of impacts in the fruits and vegetables sub-sector will be undertaken or commissioned by the General Contractor, when specific commodities in addition to bananas have been selected.

### A. Social and Gender Issues in Population-level Impacts of Key Policy Reforms

The purpose of policy reform objectives under ASAP is to contribute to the creation of a legal-regulatory framework conducive to increased private sector investment in the agribusiness sector. Such investment will lead inevitably over time to growth in value added generated by the agribusiness system.

Several policy reform objectives are envisaged under ASAP. At the heart of these objectives are four reforms designed to promote growth in grain production, particularly corn, and in the feed-livestock sub-sector, through increased efficiencies and lowered production costs. Government involvement in grain trading and fertilizer provision, tax and regulatory bias against the agribusiness sector, and restrictions on the importation of stockraising inputs will all be reduced or eliminated during the life of program.

Two reforms will further support the efficiencies generated by the removal or reduction of governmental control of the grain-feed-livestock sub-sector. The first of these targets the uncertainties surrounding the implementation of the Comprehensive Agrarian Reform Law (CARL) of 1988, presently constraining the use of land as collateral for investment credit, legal conversion of agricultural

land to non-agricultural purposes, and the establishment of effective producer-processor linkages. These constraints will be addressed under ASAP by the development of realistic CARL land use guidelines, and a CARP implementation schedule.

The second reform is designed to achieve "an efficient inter-island industry for the movement of agricultural commodities." Since Mindanao is likely to produce a majority of the new value added in corn and livestock, a reduction in costs of transport to major markets in Manila will have significant impact in reducing the price of final products. Demand for pig and poultry products should respond accordingly, ultimately spurring smallholder corn production.

Social and gender issues can be identified in two key reform objectives under ASAP: liberalization of the corn-feed-livestock sub-sector and removal of uncertainty over CARL implementation.

- § Establish a policy environment conducive to sustained private sector investment in corn and livestock production and trading.

(1) The first action under ASAP will be the reduction and eventual elimination of NFA participation in domestic corn marketing. The present unpredictability and inefficiency of its interventions introduces risk and distortions in the agribusiness system, thereby discouraging private sector investment. Farmers, feedmillers, and livestock producers all suffer the consequence of increased difficulty of gauging the real returns to the sustained production, storage, and processing of corn products and to investment in livestock and poultry production.

Corn production in the Philippines is a recognized potential source of economic growth; it is the second largest crop (20% of area planted, 22% of all farms in 1980 Census), second only to rice. Demand-led growth in the livestock industry, particularly hogs and chickens, will continue to drive domestic demand for corn production. Pork, beef, and poultry consumption rises even faster with increase in income than wheat, the staple food with the highest income elasticity (IFPRI, 1991). Market linkages from the mass of smallholders, particularly in the Visayas and Mindanao (79% of total production in 1987), through feedmillers to hog and poultry raisers should generate significant multipliers--especially off-farm employment--in the Philippine economy. It is the gender-disaggregated nature of both on-farm and related off-farm employment and income impacts that will constitute the subject of research under the Impact Monitoring Unit of the General Contractor.

Since corn production is overwhelmingly the result of smallholder operations (average farm size of 2.8 ha. and 69% of farms below 3 ha. in 1980 Census), the impact of ASAP reforms affecting corn production and marketing will have broad-based, beneficial impact on the rural, generally poor, population of the

Philippines. On average household size on corn-producing family farms is about 6 persons (IFPRI, 1991). Broad-based impact will also be the case for the small livestock sub-sector; 84% of hog production and 76% of poultry raising is carried out on smallholder farms and in backyard, cottage-style operations (IFPRI, 1991). A majority of backyard pig and poultry production, moreover, is carried out by women (Coronel, 1990).

Furthermore, the number of commercial hog and broiler raisers is growing rapidly, with contract growing schemes with farmers increasingly common around the major markets, such as Manila. The contractual arrangement involves cost and risk sharing between the poultry or hog integrators, charged with providing animals, medicines, and feed, and the farmer contractors, who provide the land, buildings, equipment, and labor. With the rapid growth in small livestock production to meet urban meat consumption demand, the relative consumption of corn as feed has risen from 42% of domestic supply in 1970 to 65% in 1989 (IFPRI, 1991). On average feedmillers now use about 52% corn in their feed mix production for hogs and poultry.

Linking the corn producers and the livestock industry are the 210 registered manufacturers of mixed feeds (1989). In 1985, some 85% of feed mills were located in or near Manila, comprising about 76% of total feedmilling capacity (IFPRI, 1991). Forward and backward linkages between the millers and other enterprises involve nearly 2,000 firms. Commercial feedmillers, moreover, control about 74% of total output of mixed feed. Feed for chickens and hogs constitute 46% and 45% respectively of the 963,000 metric tons of feed produced in 1989 (IFPRI, 1991).

(2) Another set of actions under ASAP will attempt to link more fully the domestic feed-livestock sub-sector to the world market. Domestic corn prices are currently higher than world prices and corn producers are protected through import quotas. While this would appear to favor corn producers at the expense of feed users, the arbitrary application of the quotas, presently the result of competing requests each year from users and producers, results in risk and unpredictability of returns to both. This discourages investment in corn production, storage, processing, and use in stockraising. By introducing a price band scheme for stabilizing domestic corn supply and prices as a step to eventual total liberalization, ASAP will promote trading margins sufficient to cover private sector procurement, storage, transport, and processing, while not unduly constraining smallholder producers. The latter will benefit on balance from increased private sector demand for their produce, a process tending to raise and to stabilize prices. Although eventually competing directly with world producers of corn, smallholders should respond to increased competition through farmer associations and improved and sustained linkages with agrib-processors, as well as benefitting from reduced transport costs, particularly in shipping and handling.

A gender-disaggregated survey of employment and income impacts

including the expansion of trader operations and on-farm production will be conducted by the Impact Monitoring Unit of the General Contractor beginning with a baseline survey in the first year of GC activity. A sample of small farms and of the various trader groups (barangay, municipal, & provincial traders, canvassers, shippers) will be examined. Of interest also will be the evolution of the oligopolistic nature of farmer-trader relationships and of the "suki" contract, whereby traders establish long-term patron-client relations by extending credit and other services to farmers. It will be important to see whether firms begin to bypass traditional trader-producer linkages by establishing direct producer-processor contracts.

- \* Remove uncertainty of CARL implementation to facilitate private sector agribusiness planning and investment.

Two areas of uncertainty in the application of CARL remain at present and will be addressed under ASAP: use of agricultural land for collateral for credit; and conversion of agricultural lands to non-agricultural uses. The status of lands used for livestock production was resolved by the Supreme Court in January, 1991, ruling that livestock lands are not subject to redistribution under the CARP.

Under CARL, ownership of agricultural land cannot be transferred without the approval of the Department of Agrarian Reform. Lending institutions currently are reluctant to approve loans with land subject to DAR authority as collateral. Until the uncertainty concerning the transfer of holdings over five hectares to employees and tenant farmers can be lifted, agricultural credit will be effectively stifled. Another dampening effect is the policy whereby land used as collateral for defaulted loans can only be sold to DAR at DAR-determined prices. Nevertheless, CARP implementation can be beneficial to smallholders and agro-processors alike, if newly divided holdings can continue to function under coordinated or centralized management much as before. This will require a new form of partnership between agro-processors and farmer associations or cooperatives, because it is doubtful that individual smallholders can easily recreate the efficiencies and economies of scale of former plantation crops.

The related issue of the conversion of present agricultural lands to non-agricultural use, particularly livestock raising will be addressed under ASAP. To the extent that predictability and ease of conversion can be assured, investment will be promoted in livestock enterprises and in upstream and downstream linking activities. This will particularly benefit poultry and hog raisers and the mass of smallholder corn producers. The nature and degree of these impacts will be examined by the gender-disaggregated employment and income impacts survey of the Impact Monitoring Unit of the General Contractor.

- \* Remove excessive GOP regulation of private agribusiness and eliminate the tax bias against the sector.

First among actions to correct policy constraints through excessive regulation and taxation will be the removal of retail price controls on rice, pork, and chicken. This will allow appropriate price incentives to spur productive investment, although increased efficiencies in production and marketing should in the short term permit an easing of prices to consumers to spur demand. Price deregulation will particularly benefit the large number of backyard producers of pigs and poultry, who are overwhelmingly women.

The Philippines have a comparative advantage internationally in the production of bananas. Although 25% of production is exported at present, GOP regulations limit total area planted to 25,000 hectares. The recently opened Korean market for bananas cannot consequently be exploited by Philippine producers. Considerable investment in the banana subsector can be expected with the lifting of this limit under ASAP conditionality. Additional revenues generated by full exploitation of external market opportunities is estimated at from \$73-96 million (cf. economic analysis).

Removal of the hectareage limitation on export banana production will generate increased smallholder production of bananas, particularly in view of CARL implementation. Growers will contract with large exporters, such as Delmonte and Dole, or will organize associations of producers to assure needed volume to processing plants. In some cases, farmers already possess their own processing stations. Most banana production will occur on Mindanao, free from typhoons. Smallholder farms average 5-6 hectares, are generally independently owned, and employ men and women about equally in productive tasks. On this basis from 600 to 1,000 farms are needed to constitute adequate production volume to packers and exporters. A majority of women are employed in washing, treating, and packing bananas prior to shipment. Survey and case study research targetting the employment and income impacts of the expansion of export banana production and export from Mindanao will be part of the tasks of the Impact Monitoring Unit of the General Contractor.

#### B. Social and Gender Issues in Market Development Support Services

ASAP assistance in alleviating non-policy constraints to the establishment of more effective vertical integration and coordination within the agribusiness system will address the following issues: weak linkages between farmers and agribusiness firms; lack of access to agro-processing technologies; and lack of marketing knowledge and expertise. Social and gender issues lie primarily in activities designed to foster linkages between farmers and agro-processors. Many of these involve organizational, training, or extension services which must not ignore the economic roles of women and the poorer farm households for GOP equity objectives.

### 3. Creating and Strengthening Market Linkages between Agribusiness and Primary Producers

The market development support services aim to establish increased complexity and efficiency in the processing and marketing of selected agricultural commodities. At present, only corn and bananas have been targetted under ASAP, but it is expected that producers of other commodities, such as cut flowers, asparagus, tomatoes, and various fruits will respond to incentives in the liberalized agribusiness system.

Activities under ASAP to organize small, unviable, smallholder operations into larger groupings to enter into volume contracts with agro-producers and marketers have already proven successful under the Accelerated Agricultural Production Project (AAPP). Six market development specialists are currently engaged in organizing farmer associations or cooperatives throughout the Philippines, the most successful of which are based in Cebu and Mindanao. It is planned that these models will be expanded under ASAP.

The trend away from monolithic plantation or nuclear estate farming seems under way, spurred on by the inevitability of CARL implementation. Some of the large agro-business firms, such as Ayala Agricultural Development Corporation and Republic Flour Mills (RFM), are already pioneering in establishing long-term processor-producer cooperative linkages based on mutual support and trust, much like the longer term trader-farmer relationships known as "suki." Under ASAP, training, seminars, workshops, and technical resources (including the services of market development experts) will be used to assist both farmer cooperatives and agro-processors to engage effectively in institutionalized marketing arrangements.

The use of matching ASAP and private sector funds to organize and train producer cooperatives must assure that such activities properly include both sexes. Such apparently is the case in many of the training sessions currently undertaken under the AAPP. Nevertheless, experience from similar project activities in other countries underscores the potential for women to drop out as target beneficiaries under ASAP-funded activities. The transfer of technology and marketing information must involve both sexes; relying on transmission of technical and market information from husband to wife has proven less effective worldwide than involving both sexes in extension services. In the case of the large number of female-run farms in the Philippines (23%), it is probable that no other representative would be as effective as the female head of farm (see Coronel, 1990).

It is recommended that deliberate attention be paid under ASAP to involving female-headed farm families in farmer cooperatives, since many tend to be from the poorest 30% of Philippine households, the target group under current GOP socio-economic objectives. Proposals for cost-sharing arrangements made to the General Contractor should indicate awareness of gender issues in

the formation and training of farmer cooperatives and in the promotion of contractual arrangements between these and agro-processors. Sponsorship by ASAP of local or regional agribusiness fairs and exhibitions with the objective of promoting market matches between farmer groups and processors should also take gender considerations into account.

### C. Monitoring and Evaluation of the Employment and Income Impacts of Growth in the Corn-Feed-Livestock Sub-sector

Under ASAP several people-level impact monitoring activities will be carried out by the Impact Monitoring Unit (IMU) of the General Contractor. Case studies of impacts of market development activities under the support services component and of employment effects in the export banana sub-sector should be carried out during the five-year program. The primary evaluation effort of the IMU, however, should be the design and implementation of an employment and income impact monitoring survey, whose objective would be to track a strategic sample of producer groups and agribusiness firms lying at key points along the set of vertical linkages in the corn-feed-livestock sub-sector. The survey would consist of sub-samples drawn from organized and unorganized producers, from trading enterprises of various types, from feedmillers, and from commercial hog and poultry producers. The objective will be to determine employment levels, types of remuneration, and trends for both men and women during the life of program. Wherever possible, linkages between ASAP policy reforms and employment and income trends should be made...

The survey may be seen more appropriately as a set of surveys, each focusing on a specific segment of the marketing chain from producer to ultimate transformer. It is not expected that these surveys should statistically cover the universe of producers, traders, feedmillers, and stockraisers. They should be seen more appropriately as case studies, or as rapid reconnaissance tools to assess trends set in motion by policy reform and support services activities under ASAP. A control group of producers and agro-processors can be studied to assess the effectiveness of market matching and development activities under ASAP, since primary tracking of impacts will involve samples drawn from areas where projectized support activities are to occur.

The purpose of employment and income monitoring studies under ASAP is to track the expected gender-specific, people-level benefits resulting from increased investment by the private sector in the agribusiness system. Changes in employment and income patterns on the farm and in various parts of the marketing chain will reveal places where support service activities under ASAP can more effectively intervene in future years. Monitoring such changes will enable the GOP and A.I.D. to design more effective follow-on projects after the completion of ASAP. Finally, data on differential impacts on men and women will enable women's groups monitoring the Philippine Development Plan for Women (1989-1992) and the Philippine Country Plan for Women (1990-1992) to establish

at least one baseline set of studies for tracking women's participation and benefits from agribusiness expansion over the next five to ten years.

Further details concerning the nature of the employment and income impact monitoring system under ASAP are to be found in reports prepared previously by Ernst and Young (October, 1990) and De La Salle University (November, 1990), including proposed sub-contractor institutions to implement the work. When designing the monitoring and evaluation system, a survey recently conducted by IFPRI (March to July, 1990) of 928 corn producers and traders in 11 sample provinces selected from the 6 major corn producing regions should be consulted for its potential as one baseline source. Another very exhaustive survey, the "Benchmark Survey for the Comprehensive Agrarian Reform Program" is being developed by the Agrarian Institute of the University of the Philippines, Los Banos to monitor the effects of CARP implementation on some 8,000 households from all regions. Some of its results may be used as appropriate, although it is expected that precise monitoring of corn-feed-livestock and fruit/vegetable employment and income changes will require carefully crafted mini-surveys targetting strategic links in the vertical production-processing-marketing systems.

**ANNEX H**  
**LOGICAL FRAMEWORK**

**PRELIMINARY PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK**

LIFE OF PROGRAM:  
 From FY 21 to FY 22  
 Total U.S. Funding \$45,000,000  
 Date Prepared: 8/25/21

Program Title and Number: AGRI-BUSINESS SYSTEM ASSISTANCE PROGRAM (ASAP) - 472-0443

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS					
<p>(A-1) Program or Sector Goal: The broader objective to which this project contributes:</p> <p>Sustained private sector-led growth in the agribusiness system.</p>	<p>(A-2) Measures of Goal Achievement:</p> <ul style="list-style-type: none"> <li>- Increased investment, production and employment in the priority subsectors.</li> <li>- Increased fruit and vegetable production.</li> </ul>	<p>(A-3)</p> <p>GDP statistics.</p>	<p>(A-4) Assumptions for achieving goal targets:</p> <p>Sound macroeconomic policy; growing world markets; political stability; no major exogenous shocks; improved infrastructure; competitive labor costs; and adequate credit.</p>					
<p>(B-1) Project Purpose:</p> <p>To improve the environment for private investment in agribusiness activity linked to a more efficient small farm production sector.</p>	<p>(B-2) Conditions that will indicate purpose has been achieved: End-of-Project Status.</p> <p>Improved policy framework; increased private agribusiness investment and more effective agribusiness advocacy; member-supported trade association(s) in priority subsectors; and partnership between private agribusiness and the GOP.</p>	<p>(B-3)</p> <p>ASAP monitoring and external evaluation.</p>	<p>(B-4) Assumptions for achieving purpose:</p> <p>DA and the private sector want to advocate for agribusiness development within open markets; private sector will support trade association(s); recurrent costs of data collection/analysis will be covered; and the GOP is willing to support private sector development.</p>					
<p>(C-1) Project Outputs:</p> <ol style="list-style-type: none"> <li>1. Reduced policy bias against the agribusiness system.</li> <li>2. Fewer restrictions on open markets.</li> <li>3. Increased capacity for policy analysis, agribusiness advocacy and collection/dissemination of market information for private sector agribusiness development.</li> <li>4. Improved mechanisms for technology search/access and adaptation by private sector agribusiness.</li> <li>5. Improved vertical linkages in selected agribusiness subsectors and new ventures made possible by GOP risk/cost sharing.</li> </ol>	<p>(C-2) Magnitude of outputs:</p> <ul style="list-style-type: none"> <li>- As defined on policy matrix.</li> </ul>	<p>(C-3)</p> <p>ASAP monitoring and external evaluation.</p>	<p>(C-4) Assumptions for achieving outputs:</p> <p>No serious obstacles to policy reforms; policy analysts are available; trade associations are willing/able to implement ASAP activities; market analysis/development expertise is available; GOP and private sector want to coordinate development efforts; and agribusinesses are willing to cooperate.</p>					
<p>(D-1) AID Project Inputs:</p> <ol style="list-style-type: none"> <li>1. Program assistance for policy reforms.</li> <li>2. Support services, including technical assistance for policy analysis, data collection, market analysis/development; policy/market studies; and short-term training.</li> <li>3. Monitoring, evaluation and audit services.</li> </ol> <p>AID TOTAL</p>	<p>(D-2) Implementation Target (Type and Quantity):</p> <table style="margin-left: auto; margin-right: auto;"> <tr><td style="text-align: right;">0000</td></tr> <tr><td style="text-align: right;">25,000</td></tr> <tr><td style="text-align: right;">24,500</td></tr> <tr><td style="text-align: right;">- 430</td></tr> <tr><td style="text-align: right;"><u>25,000</u></td></tr> </table>	0000	25,000	24,500	- 430	<u>25,000</u>	<p>(D-3)</p> <ul style="list-style-type: none"> <li>- DA unaudited disbursement reports.</li> <li>- AID financial records.</li> <li>- COA audit reports; and</li> <li>- Consultants' papers.</li> </ul>	<p>(D-4) Assumptions for providing inputs:</p> <p>Availability of AID and GOP funds over the life of the program.</p>
0000								
25,000								
24,500								
- 430								
<u>25,000</u>								

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**ANNEX I**  
**STATUTORY CHECKLIST**

ANNEX G

5C(2) - ASSISTANCE CHECKLIST

Listed below are statutory criteria applicable to the assistance resources themselves, rather than to the eligibility of a country to receive assistance. This section is divided into three parts. Part A includes criteria applicable to both Development Assistance and Economic Support Fund resources. Part B includes criteria applicable only to Development Assistance resources. Part C includes criteria applicable only to Economic Support Funds.

CROSS REFERENCE: IS COUNTRY CHECKLIST UP TO DATE?

A. CRITERIA APPLICABLE TO BOTH DEVELOPMENT ASSISTANCE AND ECONOMIC SUPPORT FUNDS

1. Country Development Effo. (FAA Sec. 601(a)): Information and conclusions on whether assistance will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture, and commerce; and (f) strengthen free labor unions.

2. U.S. Private Trade and Investment (FAA Sec. 601(b)): Information and conclusions on how assistance will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).

Yes. It is included in the PAAD for the Private Enterprise Policy Support Program (492-0457).

1. & 2. One of the Program's objectives is to encourage market development and joint presentation between agribusiness farms and/or farm groups.

**3. Congressional Notification**

a. General requirement (FY 1991 Appropriations Act Secs. 523 and 591; FAA Sec. 634A): If money is to be obligated for an activity not previously justified to Congress, or for an amount in excess of amount previously justified to Congress, has Congress been properly notified (unless the notification requirement has been waived because of substantial risk to human health or welfare)?

Congressional Notification was submitted on June 27, 1990 for \$40,643,000 for obligation this FY.

b. Notice of new account obligation (FY 1991 Appropriations Act Sec. 514): If funds are being obligated under an appropriation account to which they were not appropriated, has the President consulted with and provided a written justification to the House and Senate Appropriations Committees and has such obligation been subject to regular notification procedures?

N/A

c. Cash transfers and nonproject sector assistance (FY 1991 Appropriations Act Sec. 575(b)(3)): If funds are to be made available in the form of cash transfer or nonproject sector assistance, has the Congressional notice included a detailed description of how the funds will be used, with a discussion of U.S. interests to be served and a description of any economic policy reforms to be promoted?

Yes.

4. Engineering and Financial Plans (FAA Sec. 611(a)): Prior to an obligation in excess of \$500,000, will there be: (a) engineering, financial or other plans necessary to carry out the assistance; and (b) a reasonably firm estimate of the cost to the U.S. of the assistance?

N/A

5. Legislative Action (FAA Sec. 611(a)(2611(a)): If legislative action is required within recipient country with respect to an obligation in excess of \$500,000, what is the basis for a reasonable expectation that such action will be completed in time to permit orderly accomplishment of the purpose of the assistance?

N/A

6. Water Resources (FAA Sec. 611 (b); FY 1991 Appropriations Act Sec. 501): If project is for water or water-related land resource construction, have benefits and costs been computed to the extent practicable in accordance with the principles, standards, and procedures established pursuant to the Water Resources Planning Act (42 U.S.C. 1962, et seq.)? (See A.I.D. Handbook 3 for guidelines.)

N/A

7. Cash Transfer and Sector Assistance (FY 1991 Appropriations Act Sec. 575(b)): Will cash transfer or nonproject sector assistance be maintained in a separate account and not commingled with other funds (unless such requirements are waived by Congressional notice for nonproject sector assistance)?

Yes.

8. Capital Assistance (FAA Sec. 611(e)): If project is capital assistance (e.g., construction), and total U.S. assistance for it will exceed \$1 million, the Mission Director certified and Regional Assistant Administrator taken into consideration the country's capability to maintain and utilize the project effectively?

N/A

9. Multiple Country Objectives (FAA Sec. 601(a)): Information and conclusions on whether projects will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; and (c) encourage

The program objectives includes policy reform which will encourage agribusiness investment and lead to increase flow of international trade.

development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture and commerce; and (f) strengthen free labor unions.

10. U.S. Private Trade (FAA Sec. 601(b)): Information and conclusions on how project will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).

The program includes activity which are designed to stimulate joint venture arrangements between U.S. and Philippine firms and farmer groups.

#### 11. Local Currencies

a. Recipient Contributions (FAA Secs. 612(b), 636(h)): Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized in lieu of dollars.

The GOP will contribute to the Program through budget resources.

b. U.S. -Owned Currency (FAA Sec. 612(d)): Does the U.S. own excess foreign currency of the country and, if so, what arrangements have been made for its release?

N/A

c. Separate Account (FY 1991 Appropriations Act Sec. 575). If assistance is furnished to a foreign government under arrangements which result in the generation of local currencies:

N/A

(1) Has A.I.D. (a) required that local currencies be deposited in a separate account established by the recipient government, (b) entered into an agreement with that government providing the amount of local currencies to be generated and the

terms and conditions under which the currencies so deposited may be utilized, and (c) established by agreement the responsibilities of A.I.D. and that government to monitor and account for deposits into and disbursements from the separate account?

(2) Will such local currencies, or an equivalent amount of local currencies, be used only to carry out the purposes of the DA or ESF chapters of the FAA (depending on which chapter is the source of the assistance) or for the administrative requirements of the United States Government?

(3) Has A.I.D. taken all appropriate steps to ensure that the equivalent of local currencies disbursed from the separate account are used for the agreed purposes?

(4) If assistance is terminated to a country, will any unencumbered balances of funds remaining in a separate account be disposed of for purposes agreed to by the recipient government and the United States Government?

## 12. Trade Restrictions

a. Surplus Commodities (FY 1991 Appropriations Act Sec. 521(a)): If assistance is for the production of any commodity for export, is the commodity likely to be in surplus on world markets at the time the resulting productive capacity becomes operative, and is such assistance likely to cause substantial injury to U.S. producers of the same, similar or competing commodity? No.

b. Textiles (Lautenberg Amendment) (FY 1991 Appropriations No.

Act Sec. 521(c)): Will the assistance (except for programs in Caribbean Basin Initiative countries under U.S. Tariff Schedule (Section 807," which allows reduced tariffs on articles assembled abroad from U.S.-made components) be used directly to procure feasibility studies, or project profiles of potential investment in, or to assist the establishment of facilities specifically designed for, the manufacture for export to the United States or to third country markets in direct competition with U.S. exports, of textiles, apparel, footwear, handbags, flat goods (such as wallets or coin purses worn on the person), work gloves or leather wearing apparel?

13. Tropical Forests (FY 1991 Appropriations Act Sec. 533(c) (3)): Will funds be used for any program, project or activity which would (a) result in any significant loss of tropical forests, or (b) involve industrial timber extraction in primary tropical forest areas?

No.

#### 14. PVO Assistance

a. Auditing and registration (FY Appropriations Act Sec. 537): If assistance is being made available to a PVO, has that organization provided upon timely request any document, file, or record necessary to the auditing requirements of A.I.D., and is the PVO registered with A.I.D.?

It will.

b. Funding sources (FY 1991 Appropriations Act, Title II, under heading "Private and Voluntary Organizations"): If assistance is to be made to a United States PVO (other than a cooperative development organization), does it obtain at least 20 percent of its total annual funding for international activities from sources other than the United States

It is not envisioned that a U.S. PVO will be provided direct assistance under the Program.

**Government?**

**15. Project Agreement Documentation (State Authorization Sec. 139 (as interpreted by conference report): Has confirmation of the date of signing project agreement, including the amount involved, been cabled to State L/T and A.I.D. LEG within 60 days of the agreement's entry into force with respect to the United States, and has the full text of the agreement been pouched to those same offices? (See Handbook 3, Appendix 6G for agreements covered by this provision).**

**It will.**

**16. Metric System (Omnibus Trade and Competitiveness Act of 1988 Sec. 5165, as interpreted by conference report, amending Metric Conversion Act of 1975 Sec. 2, and as implemented through A.I.D. policy): Does the assistance activity use the metric system of measurement in its procurements, grants, and other business-related activities, except to the extent that such use is impractical or is likely to cause significant inefficiencies or loss of markets to the United States firms? Are bulk purchases usually to be made in metric, and are components, subassemblies, and semi-fabricated materials to be specified in metric units when economically available and technically adequate? Will A.I.D. specifications use metric units of measures from the earliest programmatic stages, and from the earliest documentation of the assistance processes (for example, project papers) involving quantifiable measurements (length, area, volume, capacity, mass and weight), through the implementation stage?**

**Yes they will.**

17. Women in Development (FY 1991 Appropriations Act, Title II, under heading "Women in Development"): Will assistance be designed so that the percentage of women participants will be demonstrably increased?

Yes, see Sec. 7(E).

18. Regional and Multilateral Assistance (FAA Sec. 209): Is assistance more efficiently and effectively provided through regional or multilateral organizations? If so, why is assistance not so provided? Information and conclusions on whether assistance will encourage developing countries to cooperate in regional development programs.

No.

19. Abortions (FY 1991 Appropriations Act, Title II, under heading "Population, DA," and Sec. 525):

N/A

a. Will assistance be made available to any organization or program which, as determined by the President, supports or participates in the management of a program of coercive abortion or involuntary sterilization?

b. Will any funds be used to lobby for abortion?

20. Cooperatives (FAA Sec. 111): Will assistance help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward a better life?

Yes, as part of the market development assistance element.

21. U.S.-Owned Foreign Currencies

N/A

a. Use of currencies (FAA Secs. 612(b), 636(h); FY 1991 Appropriations Act Secs. 507, 509): Describe steps taken to assure that, to the maximum extent possible, foreign currencies owned by the U.S. are utilized in lieu of dollars to meet the cost of contractual and other services.

b. Release of currencies (FAA Sec. 612(d)): Does the U.S. own excess foreign currency of the country and, if so, what arrangements have been made for its release?

22. Procurement

a. Small business (FAA Sec. 602(a)): Are there arrangements to permit U.S. small business to participate equitably in the furnishing of commodities and services financed? Yes.

b. U.S. procurement (FAA Sec. 604(a)): Will all procurement be from the U.S. except as otherwise determined by the President or determined under delegation from him? Yes.

c. Marine insurance (FAA Sec. 604(d)): If the cooperating country discriminates against marine insurance companies authorized to do business in the U.S., will commodities be insured in the United States against marine risk with such a company? No.

d. Non-U.S. agricultural procurement (FAA Sec. 604(e)): If non-U.S. procurement of agricultural commodity or product thereof is to be financed, is there provision against such procurement when the domestic price of such commodity is less than parity? (Exception where commodity financed could not reasonably be procured in U.S.) There will be.

e. Construction or engineering services (FAA Sec. 604(g)): Will construction or engineering services be procured from firms of advanced developing countries which are otherwise eligible under Code 941 and which have attained a competitive capability in international markets in one of these areas? (Exception for those countries which N/A

f. Cargo preference shipping (FAA Sec. 03): Is the shipping excluded from compliance with the requirement in section 901(b) of the Merchant Marine Act of 1936, as amended, that at least 50 percent of the gross tonnage of commodities (computed separately from dry bulk carriers, dry cargo liners, and tankers) financed shall be transported on privately owned U.S. flag commercial vessels to the extent such vessels are available at fair and reasonable rates?

No.

g. Technical assistance (FAA Sec. 621 (a)): If technical assistance is financed, will such assistance be furnished by private enterprise on a contract basis to the fullest extent practicable? Will the facilities and resources of other Federal agencies be utilized, when they are particularly suitable, not competitive with private enterprise, and made available without undue interference with domestic programs?

Yes.

h. U.S. air carriers (International Air Transportation Fair Competitive Practices Act, 1974): If air transportation of persons or property is financed on grant basis, will U.S. carriers be used to the extent such service is available?

Yes.

i. Termination for convenience of U.S. Government (FY 1991 Appropriations Act Sec/ 504): If the U.S. Government is a party to a contract for procurement, does the contract contain a provision authorizing termination of such contract for the convenience of the United States?

All contracts will contain such provision.

j. Consulting services (FY 1991 Appropriations Act Sec. 524): If assistance is for consulting service through procurement contract pursuant to 5 U.S.C. 3109, are contract expenditures a matter of

Yes.

public record and available for public inspection (unless otherwise provided by law or Executive Order?)

k. Metric conversion (Omnibus Trade and Competitiveness Act of 1988, as interpreted by conference report, amending Metric Conversion Act of 1975 Sec. 2, and as implemented through A.I.D. policy): Does the assistance program use the metric system of measurement in its procurements, grants, and in its procurements, grants and other business-related activities, except to the extent that such use is impractical or it likely to cause significant inefficiencies or loss of markets to United States firms? Are bulk purchases usually to be made in metric, and are components, subassemblies, and semi-fabricated materials to be specified in metric units when economically available and technically adequate? Will A.I.D. specifications use metric units of measures from the earliest programmatic stages, and from the earliest documentation of the assistance processes (for example, project papers) involving quantifiable measurements (length, area, volume, capacity, mass and weight), through the implementation stage?

Yes.

l. Competitive Selection Procedures (FAA Sec. 601(e): Will the assistance utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise?

Yes.

### 23. Construction

a. Capital project (FAA Sec. 601(d)): If capital (e.g., construction) project, will U.S. engineering and professional services be used?

N/A

**b. Construction contract (FAA Sec. 611(c)):** If contracts for construction are to be financed, will they be lent on a competitive basis to maximum extent practicable?

**c. Large projects, Congressional approval (FAA Sec. 620(k)):** If for construction of productive enterprise, will aggregate value of assistance to be furnished by the U.S. not exceed \$100 million (except for productive enterprise in Egypt that were described in the Congressional Presentation), or does assistance have the express approval of Congress?

**24. U.S. Audit Rights (FAA Sec. 301(d)):** If fund is established solely by U.S. contributions and administered by an international organization, does Comptroller General have audit rights? organization, does Comptroller General have audit rights?

**25. Communist Assistance (FAA Sec. 620(h)):** Do arrangements exist to insure that United States foreign aid is not used in a manner which, contrary to the best interests of the United States, promotes or assists the foreign aid projects or activities of the Communist-block countries?

**26. Narcotics**

**a. Cash reimbursements (FAA Sec. 483):** Will arrangements preclude use of financing to make reimbursements, in the form of cash payments, to persons whose illicit drug crops are eradicated? **Yes.**

**b. Assistance to narcotics traffickers (FAA Sec. 487):** Will arrangements take "all reasonable steps" to preclude use of financing to or through individuals or entities which we know or have **Yes.**

reason to believe have either: (1) been convicted of a violation of any law or regulation of the United States or a foreign country relating to narcotics (or other controlled substances); or (2) have been an illicit trafficker in, or otherwise involved in the illicit trafficking of, any such controlled substance?

27. Expropriation and Land Reform (FAA Sec. 620(g): Will assistance preclude use of financing to compensate owners for expropriated or nationalized property, except to compensate foreign nationals in accordance with a land reform program certified by the President? Yes.

28. Police and Prisons (FAA Sec. 660): Will assistance preclude use of financing to provide training, advice, or any financial support for police, prisons, or other law enforcement forces, except for narcotics programs? Yes.

29. CIA Activities (FAA Sec. 662): Will assistance preclude use of financing for CIA activities? Yes.

30. Motor Vehicles (FAA Sec. 636(i): Will assistance preclude use of financing for purchase, sale, long-term lease, exchange or guaranty of the sale of motor vehicle manufactured outside U.S.; unless a waiver is obtained? Yes.

31. Military Personnel (FY 1991 Appropriations Act Sec. 503): Will assistance preclude use of financing to pay pensions, annuities, retirement pay, or adjusted service compensation for prior or current military personnel? Yes.

32. Payment of U.N. Assessments (FY 1991 Appropriations Act Sec. 505): Will assistance preclude use of financing to pay U.N. assessments, arrearages or dues? Yes.

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33. **Multilateral Organization Lending (FY 1991 Appropriations Act Sec. 506):** Will assistance preclude use of financing to carry out provisions of FAA Section 209(d) (transfer of FAA funds to multilateral organizations for lending)? **Yes.**
34. **Export of Nuclear Resources (FY 1991 Appropriations Act Sec. 510):** Will assistance preclude use of financing to finance the export of nuclear equipment, fuel, or technology? **Yes.**
35. **Repression of Population (FY 1991 Appropriations Act Sec. 511):** Will assistance preclude use of financing for the purpose of aiding the efforts of the government of such country to repress the legitimate rights of the population of such country contrary to the Universal Declaration of Human Rights? **Yes.**
36. **Publicity or Propaganda (FY 1991 Appropriations Act Sec. 516):** Will assistance be used for publicity or propaganda purposes designed to support or defeat legislation pending before Congress, to influence in any way the outcome of a political election in the United States, or for any publicity or propaganda purposes not authorized by Congress? **No.**
37. **Marine Insurance (FY 1991 Appropriations Act Sec. 563):** Will any A.I.D. contract and solicitation, and subcontract entered into under such contract, include a clause requiring that U.S. marine insurance companies have a fair opportunity to bid for marine insurance when such insurance is necessary or appropriate? **Yes.**

38. Exchange for Prohibited Act (FY 1991 Appropriations Act Sec. 569): Will any assistance be provided to any foreign government (including any instrumentality or agency thereof), foreign person, or United States person on exchange for that foreign government or person undertaking any action which is, if carried out by the United States Government, a United States official or employee, expressly prohibited by a provision of United States law?

No.

No.

