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PN/ACF-903

**TRADE LIBERALIZATION,  
ECONOMIC GROWTH  
AND FOOD SECURITY  
AN EXAMPLE FROM  
BANGLADESH**

**May 1999**

**APAP III  
Research Report  
No 1071**

**Prepared for**

**Agricultural Policy Analysis Project, Phase III, (APAP III)**

**USAID Contract No LAG-C-00-93-00052-00**

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# **Trade Liberalization, Economic Growth and Food Security: An Example from Bangladesh**

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May, 1999

Prepared under the

Agricultural Policy Analysis Project, Phase III (APAP III)

Sponsored by the

U S Agency for International Development  
USAID Contract No LAG-C-00-93-00052-00

## Preface

With a new round of trade negotiations slated to begin at the end of 1999, developing countries must once again consider how best to prepare themselves. Likewise, this becomes an important question for USAID and other donors and financial institutions concerned with trade and development. Under the Agricultural Policy Analysis Project III (APAP III) a number of analyses have been directed at assessing how best to put trade, food security and poverty reduction goals together. Assessing the benefits and tradeoffs resulting from decisions taken in the last round of global trade negotiations, the Uruguay Round agreement (URA), is a useful step in preparing for the next round.

APAP III staff approached the USAID mission in Bangladesh about the possibility of using the country as a case example in analyzing the impacts of the Uruguay Round on economic growth and food security. The response from John Swanson, Richard Rousseau and Dr. Shahidur Bhuiyan was favorable, leading to undertaking the current effort.

The Abt Associates Inc. project team for this assignment, included Dr. Ayubur Rahman Bhuiyan, who provided an assessment of regulatory and policy developments in Bangladesh associated with the Uruguay Round agreement, Dr. Fumiko Yamazaki, who took the lead in the food security modeling analysis, Mr. Samir Zaman, who coordinated operations in Bangladesh, and Dr. Mohammad Fatmi who provided anecdotal commentary on microeconomic impacts of the URA and other liberalization measures as an indication of the need for additional empirical household and family level analysis. Dr. Mark D. Newman provided overall project direction and took responsibility for developing the final synthesis report.

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## **Executive Summary**

Leaders of the 133 member countries of the World Trade Organization (WTO) will gather in Seattle, Washington on November 30, 1999 to launch a new round of negotiations aimed at further opening markets in goods and services, and agricultural trade. One of the concerns in the last round of global trade negotiations, the Uruguay Round, was whether the least developed countries (LDCs) and net food importing developing countries (NFDICs) would be hurt in the process of adjustment in implementing the round, either through increased food import costs or a reduction in the relative value of special access, such as the Generalized System of Preferences (GSP) accorded to LDC exports by higher income countries.

For USAID, one fundamental question is what role it might play in providing assistance to client countries in preparing for, and adjusting to trade liberalization. This paper provides empirical analysis of the impacts of trade liberalization resulting from the Uruguay Round Agreement (URA) using a case example of the impacts of trade and market liberalization in Bangladesh. After presenting analysis of some of the macro and micro impacts, implications for future assistance programs are discussed.

To assess the net impact of liberalization requires looking at both import costs and export opportunities and revenues. The developed countries are required by the UR agricultural agreement to reduce both the existing tariffs on agricultural products and the tariffs resulting from conversion of non-tariff border measures by an average of 36% over a six year period, with a minimum reduction of 15% on individual items. There is no reduction obligation for LDCs. Tropical products will have an above average tariff reduction of 43 percent, which is an advantage for developing countries as a whole, although LDCs will have to balance the erosion of their tariff preferences.

### **Agriculture, Exports and Food Availability in Bangladesh**

Agriculture is the single most important sector of Bangladesh's economy. It is the principal source of income and livelihood of the vast majority (80 percent) of the population, employing approximately 66 percent of the labor force. Fifty-seven percent of the labor force is engaged in the crop sector which represents about 78 percent of the value added in the agricultural sector. The share of agriculture in GDP has fallen from around 57 percent in the 1970s to 35 percent in recent years but is still the largest economic sector. Agriculture is also the source of many of the small industrial sector's raw materials, such as jute, and accounted for 54 percent of the value of exports in agricultural products in 1993/95. In short, agriculture is the driving force behind economic growth in Bangladesh and, as a result, increasing food and agricultural production have always been major concerns of Bangladesh policy-makers.

Bangladesh is the world's leading exporter of raw jute and jute products, including carpet backing, twine and sacking. It accounts for as much as 46 percent of world jute production, 85 percent of world jute fiber exports and 44 to 55 percent of exports of jute manufactures. The fibers' prominence in agriculture, as well as in the economy of

Bangladesh, slipped during the 1970s and 1980s as world demand fell as a result of competition from synthetic substitutes. Consequently, the jute industry, which contributed 54 percent of total export earnings in 1984/85, accounted for only 11 percent a decade later. Overtaking jute in 1987/88 as an export earner, the garments industry has emerged, as the country's most important export sector. Garment exports comprised 57 percent of export earnings in 1994/95, up from 11 percent a decade earlier. Since garments exports require corresponding imports of other items, such as fabric, yarn and buttons, the net benefit of the garments industry to export earnings in 1994/95 was only 29 percent of the sector's gross export earnings. There are clear indications that the industry is beginning to lose momentum and speculation that pressures on the industry are likely to intensify as countries such as China and Viet Nam develop their garment industries.

Bangladesh's dependence on food imports and, in particular, food aid throughout the years has been cause for concern. Prior to the recent floods, food imports in Bangladesh represented approximately 18 percent of total imports (down from 26 to 30 percent during the 1980s) and absorbed 34 percent of total export earnings (down from 50 to 70 percent during the 1980s). In 1990/91, food aid represented 98 percent of total food imports but this was reduced considerably to representing 30 percent of total food imports in 1995/96. The significant difference has essentially been made up by private sector imports which began in 1992/93.

Although Bangladesh has approached foodgrain self-sufficiency at a national level, food security is far from being achieved, especially at the household level. Access to food remains a significant problem, with a sizable proportion of the rural population still suffering from chronic and transitory food insecurity. *Food insecurity in Bangladesh is closely linked to poverty, nearly half the population is simply too poor to obtain a reasonable share of the food that is available in the marketplace.*

The agricultural sector in Bangladesh clearly has major potential for contributing to overall GDP growth and poverty alleviation, especially considering that 62 percent of household income is spent on food. However, increasing rice production is not enough. Bangladesh is now entering a new and challenging phase of agricultural development.

Export earnings from fish and fish products, in particular shrimp, are also sizable, followed by export earnings from the leather industry. Natural gas production is of increasing importance. Its major product, urea fertilizer, has more than doubled in output in the last decade and the country now exports fertilizer, mainly to neighboring Asian countries. Within the agricultural sector, tea follows jute as an important cash crop and export product, however, it represented only 1 percent of the country's total export earnings in 1994/95.

### **Food Insecurity in Bangladesh**

Developing countries are concerned about world cereal market instability and the availability of cereal imports at reasonable prices. At times of low world cereal prices,

food aid becomes more available and hence the total cost of imports becomes lower. In periods of world scarcity and high prices, however, food aid availability lessens, and the cost of imports rises. This phenomenon is especially clear in looking at the experience of world commodity markets over the last two years. The issue of NFIDC food insecurity and the best way to deal with world cereal price instability has been debated for years. However, *most of the variability in food import costs for poor countries has not, historically, come from fluctuations in world market prices.* Thus, it is important to examine what factors are important for the food security problem in Bangladesh.

There are two main causes of macro level food insecurity:

- Shortfalls in domestic production from trends (which are usually weather induced and can be substantial) and
- Shortfalls in countries' capacity to import due to sudden increases in world prices for imported goods and/or decreases in the prices of exports used to cover the cost of food imports.

The food import/export ratio is used as an indicator of the pressure put on foreign exchange supplies to finance cereals imports. Based on this measure, Bangladesh is shown to have a severe constraint on foreign exchange even in normal years, and in one unfavorable year, this ratio reached an intolerable high of 48 percent. However, the trend indicates the country's foreign exchange position improved significantly over the period of 1980-95 due to strong growth in export earnings. *These findings underscore a key issue in looking at the Marrakesh Declaration relative to NFIDCs: Food import costs and assurance of the availability of food are critical issues but impacts of the URA are often only a small contributor to a larger overall problem.*

The correlation coefficient between cereal availability and total production is 99 percent. This reflects the high share of cereals in total production and the relatively higher variability of production of cereals. Thus, for Bangladesh, consumption of food fluctuates with cereal production, and the relationship is a proportional one. A policy of consumption stability requires that imports reflect a highly negative correlation with production. *As a general rule for Bangladesh, fluctuations in food consumption follow closely the fluctuations of domestic cereal production.*

### **The Uruguay Round Agreement, Export Earnings and Food Imports**

Analysis of the absolute variability of the food import costs for Bangladesh indicates that they are smaller than the variability of export earnings. A positive correlation between export earnings and import costs indicates positive correlation between world prices of food imports and major export commodities, which implies that in years when the food import costs are higher as a result of higher import prices of food and/or higher import volumes, foreign exchange earnings are also higher. Thus, Bangladesh may be able to afford higher import costs.

When Bangladesh's export earnings are higher, world market prices for cereals also tend to be high, and associated with a reduction in availability of food aid. *Positive correlation between food aid and deviations in production and deviations in imports indicates that food aid does not necessarily improve the food security position of the country. This is an important finding for importing country decision makers, as well as those who manage foreign assistance. It underscores the importance of looking to alternatives to food aid as mechanisms to increase food security. One goal of the URA and a worthy objective of the upcoming trade round should be to take maximum advantage of new market opportunities being opened by freer trade. As discussed below, foreign assistance aimed at strengthening the competitiveness of local export industries, particularly those that will create opportunities for those facing the greatest threats to food security, will be a key to increased growth and food security.*

Even with the reduced value of concessions such as the GSP, the Uruguay Round is creating important opportunities through which Bangladesh can create income, employment and growth. The country's food self-sufficiency goal would be well addressed in the context of increasing food security through some combination of productivity increases in agriculture and related business. Addressing structural, institutional and infrastructural impediments on the domestic front to export growth will be one part of the solution. Diversification of the range of export products and development of new markets will both be important.

### **Next Steps**

The analysis conducted herein focused primarily at the macro level. The paper also included some anecdotal reports on micro level issues and impacts, although the scope of work did not include primary fieldwork. Based on this evidence it is clear that it is even more difficult to separate URA impacts from the impacts of other market liberalization and natural phenomena at the household, family or individual level.

With a new round of trade negotiations scheduled to begin in late 1999, the findings of this analysis indicate that Bangladesh has important interests in targeted successful liberalization along with efforts to strengthen its export industries in order to take maximum advantage of new opportunities. USAID in Bangladesh is already providing some technical assistance to export oriented agribusiness, and could consider ways to ensure that this has maximum impact.

Additionally, Bangladesh has an interest in preparing for the next WTO round. The IMF, ITC, UNCTAD, UNDP, World Bank and WTO have developed a framework for consultations aimed at determining the trade related technical assistance needs of LDCs (See Appendix). This is another area where USAID should examine possibilities to provide useful support.

Finally, the findings presented here raise some troubling concerns about food aid as a tool for achieving food security. This subject should be investigated in further detail.

## 1. Introduction

Leaders of the 133 member countries of the World Trade Organization (WTO) will gather in Seattle, Washington on November 30, 1999 to launch a new round of negotiations aimed at further opening markets in goods and services, and agricultural trade. One of the concerns in the last round of global trade negotiations, the Uruguay Round, was whether the least developed countries (LDCs) and food importing countries would be hurt in the process of adjustment in implementing the round, either through increased food import costs or a reduction in the relative value of special access, such as the Generalized System of Preferences (GSP) accorded to LDC exports by higher income countries.

The WTO held a special "High Level Meeting" in late 1997, aimed at addressing trade concerns of the LDCs and has since brought together six major international organizations (IMF, ITC, UNCTAD, UNDP, World Bank and WTO) to develop an integrated framework for Trade-related technical assistance to LDCs in preparing to address trade liberalization-related impacts on their economies and in preparing for the next round of multilateral negotiations. For USAID, one fundamental question is what role it might play in providing assistance to client countries in preparing for, and adjusting to trade liberalization. This paper provides empirical analysis of the impacts of trade liberalization resulting from the Uruguay Round Agreement (URA) using a case example of the impacts of trade and market liberalization in Bangladesh. After presenting analysis of some of the macro and micro impacts, implications for future assistance programs are discussed.

### **Food Security, Poverty Reduction Promises of the Uruguay Round Agreement (URA)**

The *Marrakesh Agreement*, made as part of the final agreement of the Uruguay Round promised to protect the least developed countries and other food deficit developing countries from adverse impacts on food import costs that might result from trade liberalization and implementation of the URA. Impacts of trade liberalization on developing countries are of special interest because of the importance of food insecurity and poverty that often accompanies the low income levels by which countries are often defined as "developing". The Rome World Food Summit set a goal of halving the number of the World's poor by 2015, and the Copenhagen Summit and OECD 21<sup>st</sup> Century Document set a similar goal with respect to world poverty reduction.

Since at least the time of Adam Smith, trade and commerce have been viewed as engines for inducing economic growth. In looking at mechanisms that will contribute to food security and poverty reduction, especially on a self-sustaining basis, empirical evidence

indicates that growth is critical (ODI, Ravallion, World Bank<sup>1</sup>) Nonetheless, the direct causal link between trade-induced growth and poverty reduction is still the subject of debate among international development professionals

The term *pro-poor growth* has been coined with the implication that development assistance that promotes growth in general does not necessarily ensure that the benefits of growth will contribute to poverty reduction This really takes us to the fundamental questions of economic development, some of which have been debated with conflicting answers for the last half century or more – Will a rising tide raise all boats? Will the benefits of growth trickle down to improve the welfare of the poor and food insecure, who often start out with the lowest level of resource endowments? Should development assistance focus on improving the welfare of the poor by focusing primarily on creating opportunities directly for the poor?

With lofty and challenging goals for poverty reduction and food security and the beginning of a new round of trade negotiations fast approaching, it is useful to consider what sort of strategy will be most beneficial for development Under the Agricultural Policy Analysis Project (APAP III), using funding allocated by USAID's Bangladesh Mission, it was decided that Bangladesh would make a useful case example in which to examine the impacts of trade liberalization since the Uruguay Round Agreement (URA)

The case of Bangladesh is especially interesting and important for a number of reasons

- 1) South Asia is home to a large share of the world's food insecure and poor people,
- 2) Economic reforms undertaken as part of structural adjustment in Bangladesh go beyond those required by the URA

Assessment and attribution of impacts in the Bangladesh case is complicated by a number of special conditions that have affected the country, both climatic and political This paper brings together elements of a preliminary case example of trade liberalization, economic growth and food security in Bangladesh from three perspectives

- 1) Policy – what has happened in terms of trade and market liberalization – Commitments in the URA, but also policy reform that has been undertaken that goes beyond that required in the URA
- 2) Macro economic trade impacts – Bangladesh has been, and remains a net food importer – one of the concerns in implementing the URA has been that countries that rely on food imports would be harmed by price increases resulting from more open markets Bangladesh is also an exporter, so impacts of increased market access on the country's ability to increase exports – and hedge against domestic production volatility through the ability to pay for food was also examined

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<sup>1</sup> Overseas Development Institute for the OECD/DAC Poverty Reduction Network Poverty Scoping Study London and Paris 1999

- 3) Micro economic impacts – while project resources did not permit in depth analysis of household level impacts and distributional implications of trade liberalization, the analysis did develop a framework for examining these issues and anecdotal evidence of impacts

Based on findings in the sections described above, conclusions and implications for USAID, the government of Bangladesh and the business community are suggested. This includes recommendations for additional analysis needed to confirm and further define preliminary conclusions presented here, and needs for support in preparation for the new round of trade negotiations slated to begin in Seattle later this year.

The paper is organized as follows

- Chapter 2 presents an overview of the Uruguay Round agreement, its predicted impacts on key commodities and sectors, and related Government of Bangladesh policies and actions to implement the agreement or make reforms in keeping with the intent of the agreement
- Chapter 3 presents empirical analysis and findings at the macro level on trade and food security– specifically implications for import and export price volatility, costs and returns for a selected set of agricultural commodities and sectors
- Chapter 4 presents anecdotal evidence on micro implications of liberalization measures associated with the URA and other reforms. It suggests gaps in empirical insights that will be important to address in order to better understand household and family level impacts
- Chapter 5 presents conclusions and recommendations
- An Appendix includes an outline prepared by the secretariats of the IMF, ITC, UNCTAD, World bank and WTO aimed at helping LDC's prepare documentation for consultations on trade-related technical assistance

## 2. The Policy Environment of Trade Liberalization in Bangladesh

This chapter provides an overview of the policy environment within which it is necessary to assess the challenges and opportunities facing Bangladesh as a result of implementation of the Uruguay Round Agreement on Agriculture (URA) and policies with similar intent. The chapter begins with an overview of the impacts of the URA on agriculture, proceeds to a discussion of the key elements of the URS, provides background on the role of agriculture in Bangladesh, and then discusses developments in macroeconomic and agricultural policy environments in Bangladesh, the country's specific commitments in the URA, and broader developments that are important in understanding the impacts of trade and market liberalization.

### Overall Impacts of the Uruguay Round Agreement on Agriculture (URA)

The overall outlook for agricultural commodity markets in the 1990s, and possibly beyond, is one of a slowdown in growth rates compared with 1980s, despite the Uruguay Round. On the whole, assessments by FAO and other organizations show that the net impact of the Uruguay Round on commodity markets at the global level is likely to be modest. This is more so for most primary agricultural commodities produced and exported by the developing countries, as protectionism was already relatively low prior to the Uruguay Round. As for temperate products, which are also produced and exported to a more limited extent by developing countries, e.g. vegetables and fruits, cereals and meats, while trade liberalization could make large impacts, impact of the Uruguay Round is not expected to be large as the degree of liberalization actually effected was small.

Tropical beverages (coffee, cocoa and tea) are not import competing products in the developed countries and their market access conditions were already relatively good before the conclusion of the Uruguay Round. During the past 15 years or so these commodities faced declines in real world market prices, for a number of reasons which include the relatively inelastic import demand for these commodities, a sizable potential for increased output in major producing countries and technological improvements. These factors will continue to dominate the future trends in these markets with the Uruguay Round playing a relatively minor role.

The global demand for agricultural raw materials also expanded less rapidly over the past two decades. These commodities suffered more from the growth in the use of synthetic substitutes than from other factors. However, with increasing consumer awareness of environmental issues, their demand should hold up better. With virtually nil or very low import duties in most major markets, the impact on trade of tariff reductions on these raw materials has been assessed to be small. The demand for cotton (textiles), however, is expected to be positively affected with the lifting of the Multi-fiber Arrangement (MFA), even though some countries may well lose quota rents from the liberalization of the trade in textiles.

## Details of the Uruguay Round Agreement

The major elements of the URA are spread over its 21 Articles and 5 annexes. The Agreement seeks to provide a stronger market orientation to trade in agricultural products (specified in Annex I of the Agreement). These are mainly temperate agricultural products, and products like sugar and rice that compete with temperate agricultural products. The measures stipulated in the Agreement to liberalize trade in agriculture are the following:

1. The Agreement establishes tariffs as the legally accepted form of protection for agriculture and requires these tariffs to be bound against increases. As such, a major element of the Agreement is “tariffication” and binding of all border non-tariff measures, (viz, QRs, variable levies, minimum import prices, voluntary export restraints, non-tariff measures maintained through state trading enterprises, etc.) These bound tariffs (which also include any pre-tariffication duties) are to be lowered by 24 percent over a 10-year period by developing countries, and by 36 percent over a 6-year period by developed countries. These reductions are calculated on a simple average basis, with a minimum rate of reduction of 10 percent specified for each tariff line for developing countries, and of 15 percent for developed countries. The LDCs like Bangladesh are not required to reduce tariffs, even though they are required to tariffy and bind them.
2. The Agreement requires the member countries to provide “minimum access” to their own domestic markets. It provides for a minimum access of 3% of domestic consumption rising to 5% over six years for developed countries and 10 years for developing countries with special exception from immediate tariffication for Japan and the Republic of Korea (specified in Annex 5 of the Agreement). Japan has agreed to 4% access for rice rising to 8% in 6 years, and ROK has agreed to 2% access by 1999.
3. In order to facilitate export competition among countries, the Agreement requires Members to reduce the existing export subsidies and refrain from introducing any new ones. Accordingly, it provides for reducing the value of bound export subsidies by 34% and their volume by 21% in the course of next six years for developed countries, and by 24% by value and 14% by volume over 10 years for developing countries. Bangladesh, like all other LDCs, is exempted from reduction commitments. The base period for computing the cut-back in subsidies is 1986-1990 unless agricultural exports in 1991-92 were higher.
4. Another major element of the new disciplines on agriculture is the commitment to lower subsidies to domestic producers of agricultural products as expressed in terms of the “Aggregate Measure of Support” (AMS) by 20% in developed countries over the next six years and 13.3% in developing countries over the next 10 years. NO reductions are necessary for LDCs, and hence for Bangladesh. A distinctive feature of the domestic support reduction commitments is that they are applied on an “aggregate” rather than on “product specific” basis. In computing total AMS,

exceptions from the requirement to reduce support include (i) subsidies that have minimum impact on trade (“green box” policies listed in Annex 2 of the Agreement), (ii) direct payments under production limiting programs, (iii) cases in which domestic support constitutes less than 10% of total value of production in developing countries and 5% for developed countries, and (iv) investment subsidies, agricultural input subsidies and such measures that are applied to encourage agricultural and rural development in developing countries. In truth only 28 member countries of the WTO have to make AMS reductions as a result of the URA, and 90 percent of those are developed countries. This despite the fact that in 1997, OECD countries made transfers to agriculture valued at \$280 billion.

- 5 The Agreement provides for special safeguards against disruption of domestic market from import surges or low prices, based on defined ‘trigger levels’. This trigger level depends on the ‘import penetration’ currently existing in the market. On the basis of ‘trigger levels’, members are allowed to invoke safeguard measures and impose additional tariffs. Safeguard measures are, however, to be limited in duration and must be progressively relaxed throughout their duration.
- 6 The Agreement recognizes the special problems that the developing and the least developed countries may face following the implementation of the provisions of the Uruguay Round Agreement on agriculture and other issues. Taking into consideration the special needs and concerns of the developing and least developed countries, the Agreement provides for exemption from commitments on market access, subsidy and domestic support by these countries. Other provisions for special treatment of developing countries and LDCs are in Articles 6(2), 8(2), 12(2), 15(2), and (16) of the Agreement. They also receive special treatment under a separate Decision in the Final Act.

### **Implications of Agricultural Liberalization for Bangladesh**

As regards tariffication of non-tariff measures (NTMs), the tariffication process in the case of many important agricultural products in developed countries has resulted in the establishment of tariff rates that are as prohibitive as the NTMs they replaced, often reaching levels in the range of 200-500 percent ad-valorem. Therefore, the tariffication process will not in itself provide any significant improvement in market access conditions. The liberalizing impact of the Agreement is also affected by a special safeguard clause which permits members to impose an “additional duty” on imports of those items subject to tariffication, if the volume of imports of a given product exceeds a “trigger level” in terms of domestic consumption or when import prices fall below a “trigger price” based on a 1986-1988 reference price. Measures taken under this provision (Article 5) are shielded from recourse by affected countries under the Agreement on Safeguards. Neither can the actions taken under the Agreement of Agriculture be challenged under the related provisions in the Agreement on Subsidies and Countervailing Measures, nor under the Dispute Settlement Understanding.

As for domestic support reduction, the provision of reducing the AMS may enable governments to shift support to domestic production among commodities, thus applying much lower reduction to targeted sectors. The provision of AMS combined with the formula for tariff reductions mentioned in the preceding paragraph enables countries to retain high rates of protection and subsidization in selected product categories.

It is worth noting that Bangladesh as a signatory to the WTO Agreement is required to tariffy and bind its tariffs, but as an LDC it is exempted from obligation to reduce tariffs and domestic subsidies. However, the real implication for the country lies not in the exemption from reduction commitments that the agricultural agreement entails, but the possibility that its food bill may rise sharply and affect its capacity to devote its resources to other areas of economic development. To a lesser extent, the erosion of tariff preferences (under GSP) on certain agricultural items and the resultant loss of their competitiveness in major export markets because of the reduction in MFN tariffs at the Uruguay Round, could affect the country's export earnings.

An important point to reckon is that while the objective of agricultural trade liberalization is to allow world prices of agricultural products to rise to distortion-free levels, such liberalization is likely to lead to increase in prices of agricultural products and have adverse impact on net food importing countries. Studies show that the prices of cereals and dairy products, of which Bangladesh is a large importer, will rise in the international market on account of liberalization.

The least-developed and net-food importing countries,<sup>2</sup> including Bangladesh, continue to raise concerns that greater liberalization of trade in agriculture resulting from the implementation of the URA will adversely affect them. The 1996 Singapore Ministerial Declaration reiterates the need for a plan of action and to monitor the Marrakesh Ministerial Decision on measures to counter any adverse effects of the reform program.

In the Asia-Pacific region, Japan and the Republic of Korea have agreed to lift the ban on rice imports and provide minimum access. This may increase the price of rice in the world market. While the Marrakesh Agreement is specifically directed at addressing impacts of trade liberalization, the sometimes increased dependence of many countries including Bangladesh on imported food can only partly be attributed to the results of trade liberalization. For example, Bangladesh has imported record amounts of rice (1.9 million metric tons (mmt)) and wheat (2.6 mmt) as a result of the worst flooding in the century. This notwithstanding, the donor countries and international agencies are making some efforts to ensure adequate financial and technical assistance to LDCs so that they can meet their import bills and improve their agricultural productivity and infrastructure. This is made more difficult by sharp reductions in donor attention to agriculture in recent years.

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<sup>2</sup> The least-developed countries include those recognized by the United Nations Economic and Social Council (countries with per capita income below US\$1070) and developing countries which notified to the World Trade Organization their status as net-food importers.

To assess the net impact of liberalization requires looking at both import costs and export opportunities and revenues. The developed countries are required by the UR agricultural agreement to reduce both the existing tariffs on agricultural products and the tariffs resulting from conversion of non-tariff border measures by an average of 36% over a six year period, with a minimum reduction of 15% on individual items. There is no reduction obligation for LDCs. Table 2-1 shows the commitments made by developed countries for tariff reductions on agricultural product groups. Tropical products will have an above average tariff reduction of 43 percent, which is an advantage for developing countries as a whole, although LDCs will have to balance the erosion of their tariff preferences.

**Table 2-1: Tariff Reductions by Developed Countries on Agricultural Product Groups**

Product Group	Value of Imports) (\$ billion)	Percentage of Reduction in Tariff
<b>All Agricultural Products</b>	<b>84.2</b>	<b>37</b>
Coffee tea, cocoa, mate	9.1	35
Sugar	1.7	30
Spices and cereal preparations	2.8	35
Fruits and vegetables	14.6	36
Oilseeds, fats and Oils	12.6	40
Animals and products	9.6	32
Beverages and Spirits	6.6	38
Dairy products	1.3	26
Flowers, plants, vegetable materials	1.9	48
Tobacco	3.1	36
Grains	5.3	39
Other agricultural products	15.6	48
<b>Tropical Products</b>	<b>24.0</b>	<b>43</b>
Tropical Beverages	8.7	46
Tropical Nuts and Fruits	4.3	37
Certain oilseeds oils	3.4	41
Roots, rice, tobacco	4.6	40
Spices, flowers and plants	3.0	52

Source: GATT, The Results of the Uruguay Round Multilateral Trade Negotiations, November, 1994.

A favorable outcome associated with the rise in agricultural prices is the likely increase in agricultural output, depending, of course, on the price response of agricultural production, and in earnings from agricultural exports. The negative effect of the increase in food prices may thus in part be offset by increased domestic production of food. The implementation of the URAA is thus likely to bring about a change in the country's net balance of domestic supply and demand for food, effecting in its wake a change in the food budget of the country.

A change in the country's food budget, which will alter the amount of government expenditure, and the change in the volume of exports and imports following the implementation of the URAA, will together alter the Government's budgetary balance and also affect the country's balance of payments position with the rest of the world

The fundamental question is whether increased market access to the developed country markets is likely to have a favorable impact on Bangladesh's exports in the immediate term sufficient to offset the impact of any increase in food prices on the country's import bill. Raising domestic production for the home market as well as for purpose of exports should therefore constitute the cornerstone of the Government's agricultural support policy. Notice that the URAA does not prohibit domestic support for agriculture, but only restricts it within specified limits. Also, as a LDC Bangladesh is entitled to special treatment with respect of application of domestic support policy. As detailed in the next section, it is important for Government of Bangladesh to carefully consider the tradeoffs in terms of costs and productivity incentives and impacts in making policy decisions to implement provisions of the Agreement.

### **Agriculture in the Bangladesh Economy**

Agriculture is the single most important sector of Bangladesh's economy. It is the principal source of income and livelihood of the vast majority (80 percent) of the population, employing approximately 66 percent of the labor force. Fifty-seven percent of the labor force is engaged in the crop sector which represents about 78 percent of the value added in the agricultural sector. The share of agriculture in GDP has fallen from around 57 percent in the 1970s to 35 percent in recent years but is still the largest economic sector. Agriculture is also the source of many of the small industrial sector's raw materials, such as jute, and accounts for 54 percent of the value of exports in agricultural products in 1993/95 (Table 2-2). In short, agriculture is the driving force behind economic growth in Bangladesh and, as a result, increasing food and agricultural production have always been major concerns of Bangladesh policy-makers.

Within the crop sector (rice, wheat, pulses and jute), rice dominates, with an average 71 percent share of the gross output value of all crops. As a result, growth in the agricultural sector essentially mirrors the performance of rice production, although the share of livestock and fisheries has increased steadily in recent years to 22 percent of the value added in agriculture.

The possibility of natural disasters is a constant threat for the economy, as was made evident by the worst flooding of the century during 1998. The country has been, and will continue to be, particularly vulnerable to sudden floods, cyclones and even droughts. Vulnerability to natural disasters and a heavy reliance on annual rains for the main crop performance are the cause of severe fluctuation in foodgrain production and also very erratic GDP growth. Losses of both food and cash crops are a common occurrence, seriously disrupting the entire economy by precipitating unanticipated food import requirements. This in turn reduces the foreign exchange availability necessary for

imports of essential inputs for manufacturing and industry and, as a result, causes shortfalls in exports

Bangladesh is the world's leading exporter of raw jute and jute products, including carpet backing, twine and sacking. It accounts for as much as 46 percent of world jute production, 85 percent of world jute fiber exports and 44 to 55 percent of exports of jute manufactures. The fibers' prominence in agriculture, as well as in the economy of Bangladesh, slipped during the 1970s and 1980s as world demand fell as a result of competition from synthetic substitutes. Consequently, the jute industry, which contributed 54 percent of total export earnings in 1984/85, accounted for only 11 percent a decade later. Overtaking jute in 1987/88 as an export earner, the garments industry has emerged, as the country's most important export sector. Garment exports comprised 57 percent of export earnings in 1994/95, up from 11 percent a decade earlier. Since garments exports require corresponding imports of other items, such as fabric, yarn and buttons, the net benefit of the garments industry to export earnings in 1994/95 was only 29 percent of the sector's gross export earnings. There are clear indications that the industry is beginning to lose momentum and speculation that pressures on the industry are likely to intensify as countries such as China and Viet Nam develop their garment industries.

Bangladesh's dependence on food imports and, in particular, food aid throughout the years has been cause for concern. Prior to the recent floods, food imports in Bangladesh represented approximately 18 percent of total imports (down from 26 to 30 percent during the 1980s) and absorbed 34 percent of total export earnings (down from 50 to 70 percent during the 1980s). In 1990/91, food aid represented 98 percent of total food imports but this was reduced considerably to representing 30 percent of total food imports in 1995/96. The significant difference has essentially been made up by private sector imports which began in 1992/93.

The government has moved away from its previous intervention in the foodgrain market. In August 1992, it removed import restrictions on foodgrains for the first time. Private traders responded immediately by importing more than 300 thousand metric tons (mt) of wheat by the end of that year. The private sector imported more than one-third of total foodgrain imports in 1995 to 1996. The government has also substantially downsized its food distribution system by eliminating the highly subsidized rural rationing channels and drastically reducing the total volume of distributed food. Because of the partial privatization of grain trading and the partial dismantling of the Public Food Grain Distribution System, the government has reduced public spending for subsidies and has significantly reduced domestic procurement of foodgrains. The macroeconomic and sectoral policy reforms have reduced several price distortions and made allocative decisions in the agricultural sector more sensitive to price signals in external markets.

Table 2-1 Structure of Trade in Bangladesh

Item	Exports Million \$US			Imports Million \$US		
	81/83	87/89	93/95	81/83	87/89	93/95
Total Merchandize Trade	700 51	1,250 64	2,670 92	2,037 38	2,712 84	4,372 00
Agriculture + Fish + Forestry	230 12	325 06	375 58	503 97	785 49	983 60
% Ag + Fish + Forest in Total	32 85%	25 99%	14 06%	24 74%	28 95%	22 50%
Agricultural Production Total	171 70	159 57	143 99	500 57	765 93	940 82
Cereal & preparations	2 32	0 03	0 37	221 54	324 79	287 17
Dairy products	0 00	0 41	0 20	39 44	82 41	71 36
Fish & forest Products	58 43	165 49	231 59	3 40	19 56	42 78
Fruits & vegetables	1 88	14 50	10 84	11 29	32 23	63 68
Mate	0 00	0 06	0 00	0 00	0 00	0 00
Oilseeds	0 04	0 00	0 19	7 90	24 54	67 54
Rice	2 28	0 00	0 13	48 32	53 42	55 25
Sugar & honey	0 65	1 09	0 00	15 23	39 16	27 77
Tea	42 60	36 21	46 74	0 00	0 00	0 02
Textile fibres	108 34	86 33	78 70	76 56	62 47	142 84
Jute	107 12	85 95	78 34	0 00	0 00	0 02
Jute & jute base fibers	107 60	85 98	78 34	0 00	0 00	0 02
Tobacco	1 32	1 35	1 24	2 59	5 67	20 74
Wheat & wheat flour	0 03	0 00	0 00	171 03	264 88	219 72

Although Bangladesh has approached foodgrain self-sufficiency at a national level, food security has yet to be concretized, especially at the household level. Access to food remains a significant problem, with a sizable proportion of the rural population still suffering from chronic and transitory food insecurity. *Food insecurity in Bangladesh is closely linked to poverty, nearly half the population is simply too poor to obtain a reasonable share of the food that is available in the marketplace*

The agricultural sector in Bangladesh clearly has major potential for contributing to overall GDP growth and poverty alleviation, especially considering that 62 percent of household income is spent on food. However, increasing rice production is not enough. Bangladesh is now entering a new and challenging phase of agricultural development.

Export earnings from fish and fish products, in particular shrimp, are also sizable, followed by export earnings from the leather industry. Natural gas production is of increasing importance. Its major product, urea fertilizer, has more than doubled in output in the last decade and the country now exports fertilizer, mainly to neighboring Asian countries. Within the agricultural sector, tea follows jute as an important cash crop and export product, however, it represents only 1 percent of the country's total export earnings in 1994/95.

### **Macroeconomic Policy in Bangladesh**

Economic policy in the 1970s and 1980s was characterized by unrealistic and unmet objectives, partly owing to a combination of problems arising from the rise in world oil prices, natural catastrophes and political disorder. Since the late 1980s, Bangladesh has been undergoing structural adjustment reforms. Policies have been aimed at liberalizing the economy and making it market-based in order to raise growth, mainly by reducing the role of the government and giving encouragement to the private sector.

The Government of Bangladesh (GOB) has initiated a number of structural reforms which encompass fiscal, financial, trade, institutional and industrial policy reforms, public resource management and privatization. Efforts are being made to restructure and/or privatize state-owned enterprises, most of which are incurring operating losses. Fiscal policy seeks to raise additional revenue through the improvement of tax laws, structures and management, contain and switch public expenditure and enhance incentives for private investment. The external trade sector has been liberalized through steady reductions in import tariffs, and the government has been pursuing a flexible exchange rate policy in an effort to improve international competitiveness. Its monetary policy also aims at flexible and indirect management of money and credit growths. With the exception of three lending categories, agriculture, small industry and exports, interest rates have been decontrolled.

GOB reforms have contributed to significant economic progress over the past decade. Up until 1993/94, the economy was responding favorably. The inflation rate fell from 9.8 percent in 1985/96 to 5.3 percent in 1990/91 and down to 1.8 percent in 1993/94.

With the combined impact of the Asian financial crisis and natural disaster, inflation again reached 9.6 percent in 1998.

There was a sharp decline in the current account deficit as a result of a rapid rise in exports of non-traditional items, such as garments and fisheries, combined with a slow growth rate in imports. Thus, the current account deficit dropped from 6.7 percent of GDP in 1984/85 to 4.5 percent in 1989/90 and again to 1.6 percent of GDP, an all-time low, in 1993/94, rising to about 2.5 percent in 1998.

The country's foreign exchange reserves stood at \$3.2 billion, enough for covering more than seven months of imports, in 1993/94. Government revenues increased to about 12.2 percent of GDP (1993/94) as opposed to 9 percent during the 1980s, and the budget deficit, as a percentage of GDP, declined from 8.4 percent in 1986/87 to 6 percent in 1993/94.

A sudden turnaround in these positive performances, however, took place in 1994/95 and 1995/96, the years in which the country experienced devastating foodgrain shortfalls. The rate of inflation climbed back to 5.2 percent, export growth slowed, the current account deficit increased considerably, owing to increased foodgrain purchases from abroad, and the foreign exchange reserve declined to \$2.03 billion by the end of 1995/96.

Since 1989, annual GDP growth has consistently remained between 4 and 4.5 percent, but below the target rate of 6 percent considered essential for any significant impact on poverty alleviation. Per capita GDP in 1998 was about US\$300. Growth reached 5.6 percent in 1998, but is expected to be only 3 percent for 1999. The main sources of this modest growth have been in large-scale industry, construction, transport and allied services and trade services. Despite impressive industrial growth in the 1990s, led by the export-oriented garments industry, the industrial sector still accounted for only 11.5 percent of GDP in 1995/96, with 34 percent of the sector's contribution coming from small-scale, usually traditional, industry.

### **Government Policies in Agriculture**

This Section provides a detailed account of the prevailing agricultural policies of the country and the various aspects of agricultural reforms instituted by the GOB over the recent years together with some weaknesses of these reforms. The main justification of including such information lies in the fact that adherence to and implementation of the various provisions of the URAA may necessitate institutional and policy changes in the domain of agriculture in order for making domestic laws, rules and regulations conform to the provisions of the URAA. Keeping this in view, major elements of GOB policy in crop agriculture as discerned in various Plan documents and in the surveys and reviews published by the relevant Ministries are highlighted in this Section.

## **General Policies**

The GOB's state objectives include to

- 1 Achieve self-sufficiency in cereal production for human consumption
- 2 Provide reasonable incentive prices to producers with a view to accelerating food production
- 3 Achieve food security by ensuring adequate and steady supply of foodgrains at relatively stable price
- 4 Gradually phase out subsidies on food distribution with provision for government intervention for generally inaccessible areas
- 5 Increase coverage of vulnerable population in rural and urban areas under PFDS and food for work and education programs
- 6 Increase private sector's participation in national food management
  - domestic procurement and import of foodgrains, edible oils, salt and other essential items (as and when necessary)
  - storage, preservation, distribution and sale
  - transportation and movement
  - price and market stabilization

## **Specific Policies**

Highlights of specific elements of GOB agricultural policy include the following

### **Crop Diversification**

- In conjunction with cereal production, encourage production of high value cash crops (vegetables, seasonal fruits and other horticultural crops), nutritional crops such as pulses, and fodder crops for cattle feeding etc
- Promote import substituting and export-oriented crops for improvement of daily diet of people and balance of payments position
- Both horizontal and vertical expansion of minor crops at first, followed by only vertical expansion, by use of improved technologies and intensive cropping

## **Agricultural Inputs**

### Fertilizer

- Overcome micro-nutrient deficiency problems by importing/manufacturing complex/compound fertilizers containing specific micro-nutrient for specific deficient areas plus use of organic fertilizer including bio-fertilizer
- Privatization of fertilizer distribution – wholesale and retail sales
- Subsidies have been entirely eliminated from urea, but continue on TSP and MP at about 30% below world price

### Seed Policy

- Private sector's involvement has been ensured in production, procurement (including import) and distribution of almost all crops except rice, wheat, jute, sugarcane (major crops)
- Public sector involvement remains confined to varietal development, foundation seed production, transfer of technology to the growers and private sectors, quality control, formulation and enforcement of comprehensive seed policy, market and price policy

### Plant Protection Policy

- Procurement, movement, storage and distribution of pesticide and plant protection equipment already remain at the hands of the private sector. The public sector activities are confined to qualitative and quantitative aspects of plant protection – pest surveillance, monitoring and early warning against pest outbreaks, advisory services to the farmers, traders and others dealing with pesticides and quality control of pesticides marketed by private sector
- Emphasis is given on Integrated Pest Management (IMP) technique using physical, mechanical and biological means with minimum use of pesticide as and when vitally necessary
- Quarantine and inspection activities will be expanded at the entry point (airport, seaport, border areas) in relation to trade movement of seeds, plant parts, pesticides and agricultural commodities

### Farm Power

- There is a shortage of draft animals in the country equivalent to approximately 132,000 mechanical tillers. In order to provide tillage operation in time and in face of

draft power shortage, Government has eliminated import duty on power tiller and abolished standardization restrictions including duty free import of spare parts

- Local manufacturers will be given necessary support and encouragement to produce and for the sale of improved indigenous and new farm implements in local markets to farmers and govt agencies Integration of small/cottage industries for local manufacture of such equipment is one of the important policies of the Government

#### **Irrigation**

- Major emphasis has been provided for expansion of minor irrigation since major coverage of irrigation is from minor irrigation Minor irrigation is now at the hands of the private sector Now a farmer has freedom to purchase any irrigation equipment and machinery with spare parts from the open market and can install in the field Standardization restriction has been withdrawn and no import duty and VAT is charged on these equipment and machinery

#### **Soil Conservation and Forestry**

- Watershed management to prevent soil erosion and silt deposit in river beds which create unstable conditions in regions of rivers has been emphasized
- Forestry in thinly classified, unclassified, and denuded forest has been given due consideration Besides, coastal afforestation has been emphasized to reduce/prevent tidal surge and to maintain ecological balance In addition, massive plantation of fast growing tree species and fruit trees are going on in homesteads, on embankments, in public and semi-public places under community and social forestry program

#### **NGO Involvement**

NGO involvement in technology dissemination in conjunction with DAE, technology screening at the farmers' field and poverty alleviation through various agricultural and non-agricultural activities has been emphasized

#### **Flood Action Plan (FAP)**

- After the devastating floods in 1987 and 1988 FAP has been set up for a wide range of investigations into technical, social and environmental issues required to be addressed in formulating long term flood control, drainage and river management programs

#### **Water Control and Drainage**

- Bring shallow and medium flooded land under controlled flooding to prevent environmentally desirable irrigated agriculture and aquaculture development through construction of dykes and polders with regulators and structures

- Create appropriate institutional framework for operation and maintenance of schemes on a self-sustaining basis and assign local bodies at union/Thana level the responsibility of maintenance/management of small schemes within their jurisdiction
- Complementarity of minor irrigation development with flood control and drainage
- Flood control impact improves wet season rice production, and minor irrigation can facilitate timely aus plantation and provide needed water during grain filling of T Aman Similarly, small scale Flood Control & Drainage (FCD) can complement minor irrigation of boro by protecting its harvest from early flooding This complementary technology is especially suitable in Haor areas and many other similar regions

### **Women's participation**

- Priority has been provided to expand women's participation in nation building activities—crop production, livestock rearing/maintenance, homestead gardening, agro-forestry, community forestry, cottage industry, in construction works under Food for Work and other programs

### **Crop Insurance**

- In view of the occurrence of natural hazards—floods, drought, outbreak of insect, pest and disease and other natural calamities—causing partial or complete damage of crops, the Sadharan Bima Corporation, a public sector insurance company, voluntarily introduced a pilot scheme for crop Insurance in 1977, but it has sustained continuous losses since inception

### **Agricultural Credit**

- Agricultural credit has a significant impact on the growth of agricultural output, especially in view of the emphasis on adoption of high input based farming and policies of withdrawal of subsidies Agricultural credit is now used by the farmer to invest in modern inputs, dealers to invest in input procurement and sales, processors to invest in drying, storage, processing, transport and marketing, and manufacturers to invest in supplying goods to farmers, dealers and processors The existing rural credit institutions and programs, in most cases, have proved ineffective to remove the constraints on small farmer development because they lack many features and characteristics which small farmer credit programs require, such as collateral-free loan, simple lending procedure, target group approach, supervised credit, formation of appropriate groups
- The farmer credit system would be restructured, which would require development of financial intermediation system including establishment of a small Farmers' Development Bank, more NGO participation along Grameen Bank lines and initiation

of changes in the regulatory framework to encourage participation of private commercial banks in agricultural credit activities

### **Private Investment in Agriculture**

During recent years, privatization in the agricultural sector has assumed two major dimensions. Firstly, the policy of privatization in terms of ownership of irrigation equipment has been vigorously pursued for implementation. Secondly, there has been expanded private sector involvement in trading of agriculture—minor irrigation equipment, and fertilizer, pesticide, nursery, etc

### **Policy Reforms in the Agriculture Sector**

Until the early 1980s, Government intervened extensively in all spheres of agricultural activity through controls on production, marketing and agricultural prices, both outputs and inputs. Inefficient price intervention served to discriminate against agriculture. Agriculture was also indirectly taxed through overvalued exchange rates and protection of industry which turned the terms of trade against agriculture and in favor of manufacturing. The accumulation of policy biases against agriculture not only reduced the overall growth in agricultural production and export, but also encouraged the shift from commercial to subsistence farming.

Since mid-1980's, agricultural reforms have been high on the country's priority agenda. Reforms, which have generally been carried out in the context of multilaterally supported structural adjustment programs, have sought to reduce the Government's role in production, pricing and marketing of agricultural inputs and outputs and to remove historical price and non-price disincentives to agriculture in ways that promote a more efficient use of resources. Attempts to achieve this general objective have relied on a variety of policy instruments, including agricultural input and output pricing and trade and institutional reforms.

The response of supply to the structural adjustment efforts has been negligible, however. Agricultural price reforms involve not only raising prices for agricultural output, but also simultaneously entail the removal of producer support, such as subsidies for fertilizers and credit. This raises production costs and thus has an offsetting effect on incentives. A controversy is, therefore, going on concerning the elimination of fertilizer subsidies, which suggests that the structural adjustment objective of correcting relative prices could be in conflict with the goal of increasing agricultural output.

Since price reforms affect both the pricing of agricultural inputs and outputs, whether incentives actually accrue to producers will depend on their net return per unit of output. Even assuming that the net return to farmers is positive, it is now widely acknowledged that while the responsiveness of the production of individual agricultural commodities to price incentives may be high in the short and medium term, it is likely to be low for agricultural output as a whole, due to aggregate resource constraints, such as land, labor and infrastructure. The lesson is that supply response to price incentives may be muted.

without complementary “non-price” measures, particularly in the form of improved research capacity, better extension services, and better marketing, transport and storage facilities

### **Food Supply Management**

Over the years, instabilities in domestic production of foodgrains required substantial intervention in food markets in the form of subsidized sales and open market sales (OMS) operations. The high incidence of poverty also required that the Government consolidate and expand its safety nets, essentially through targeted programs like FFW and VGD operations. As a result, an elaborate public food distribution system (PFDS) was built up.

In the latter half of the 1980s and the early 1990s, the PFDS operations were drastically reduced, e.g., statutory rationing was withdrawn. The food trade was liberalized by opening it to the private traders, and the institutional capacity to face crisis situations like droughts, flood, cyclone etc greatly improved. But the role of the Government has remained important, as is reflected in the declared policy objectives of the Fifth Five Year Plan. The central objectives of the national food policy and strategies of the Fifth Plan are the attainment of foodgrain self-sufficiency and food security. These objectives are as follows:

1. Ensuring food security for all, elevating nutritional status of the people living below poverty line,
2. Preservation and maintenance of security stock of foodgrain to meet any natural calamities, production shortfalls and supply hazards,
3. Development of a social safety net program for vulnerable groups through improvement and enlargement of targeted food distribution,
4. Maintenance of price stability within a band to protect interests of producers and consumers,
5. Expansion of private sector in storage, distribution and trade of foodgrain, and
6. Development of a sound quality control, grading and standardization system of all foodgrain and foodstuff

Within these broad objectives, the following policies and strategies are planned to be pursued during the Plan period, specifically for the purpose of promoting food security:

**Maintenance of buffer stocks** Buffer stocks will be maintained to make up anticipated production and stock losses due to periodical droughts, floods and cyclones.

**Procurement of foodgrain** Internal procurement of foodgrain will be continued to (i) ensure floor price to the growers and (ii) provide incentive and confidence to growers for further production.

**Price stabilization** The government will formulate an effective mechanism to avoid wide price fluctuations. It will include holding of food security stocks and the program of open market sales.

**Targeted support for vulnerable groups** In spite of increasing foodgrain production and falling real prices of rice, over half of the country's population cannot afford an adequate diet Hence, the case for public intervention remains strong and clear Vulnerable Group Development, Food for Work Program and Food for Education will be some of the specific programs of public interventions

**Government role** To meet any shortfall in the flow of required quantum of food, the public sector may have to intervene for —

- 1 Preservation and maintenance of security stocks,
- 2 Development of a safety net program by improvement and enlargement of targeted food distribution,
- 3 Providing incentives to growers through procurement of foodgrain at remunerative prices,
- 4 Stabilization of price of foodgrain in relation to production cost and purchasing power of the consumers, and
- 5 Modernizing and maintaining existing storage capacity by renovating old food godowns and, if necessary, constructing new godowns in strategic areas of the country

### **Food Balance**

Ensuring continued security in domestic food supply is one of the major concerns of the country Despite efforts to reach food self-sufficiency, the country remains food deficit mainly because of the growth of population and insufficient growth of food production to the level required for feeding the growing population The situation is, however, projected to improve during the Fifth Plan In 1996/97, the country had a food gap of 2.11 mmt The Plan aims at attaining self-sufficiency in 2001/02 when it calls for the country to have a surplus of 0.67 mmt

### **Bangladesh's Commitments in Agriculture under the URA**

#### Tariff binding

Bangladesh, as an LDC, is not required to reduce tariff on imports but all tariffs are to be bound At the time of signing the Agreement, Bangladesh bound the ordinary custom duties at a ceiling rate of 200% for all products except 44 items on which tariffs have been bound at 50% Other duties and charges bound at the rate of 20% are also applicable to these products Among the 44 products, the following 15 fall under the agricultural category

**Table 2-3: Bangladesh's MFN Tariff  
(Annex 1 of the Agreement)**

Tariff item Number	Product description	Base rate of duty(%)	Bound rate of duty(%)	Implementation period from	Other duties and charges
01 01 11	Live horses	0	50	1995	20
01 04 10	Live sheep	0	50	1995	"
01 05 11	Live fowl	0	50	1995	"
02 08 20	Frog legs	150	50	2004	"
05 01 00	Human hair	50	50	1995	"
07 01 10	Seed potatoes	150	50	2004	"
09 02 10	Green tea	150	50	2004	"
09 02 30	Black tea	150	50	2004	"
10 06 10	Rice in husk	0	50	150	"
10 08 30	Canary seeds	0	50	1995	"
12 01 00	Soybean	50	50	1995	"
12 07 20	Cotton seeds	50	50	1995	"
17 03 10	Molasses	100	50	2004	"
03 06 13	Shrimp and	-	50	-	"
03 06 23	Prawns	-	50	-	"
53 03 10	Raw jute	-	50	-	"

Source GOB, Ministry of Commerce

As part of the country's liberal economic and trade policy, however, Bangladesh started reducing the tariff rates voluntarily even before the conclusion of the Uruguay Round, and most of the operative tariff rates now are much below the bound rate of 50%. Non-tariff barriers have also been reduced greatly over the years. Currently only 19 items are restricted for trade reasons, out of which only two items, viz, egg and sugar, fall under the agricultural category. *There is thus virtually free access of foreign agricultural products into Bangladesh's market. In case however free import of any agricultural commodity threatens the country's domestic production Bangladesh can invoke special safeguard provisions of Article 5 of the Agreement.*

### Domestic Support

Bangladesh maintains some domestic support measures, which fall under the provisions of Annex 2 of the Agreement, such as those related to expenditures in relation to (i) programs which provide services or benefits to agriculture or the rural community, (ii)

public stockholding for food security purposes, (iii) domestic food aid, (iv) government financial participation in income safety net programs, (v) relief from natural disasters, (vi) payments under environmental programs, and (vii) assistance to producers in disadvantaged regions. The Government's support to agriculture also includes input subsidies, permitted under Article 6, paragraph 2 of the Agreement as being considered as integral parts of the development programs of developing countries.

Bangladesh, like any other country, developed or developing, is required to calculate the aggregate measure of support (AMS) under the Agreement but, as a least developed country, did not have to make any reduction commitment on domestic support to agricultural producers. However, Bangladesh is required to abide by the general discipline on AMS which means that the country cannot spend in total or in product-specific agricultural support in excess of the *de minimis* percentage (under paragraph 4b of article 6), which is 10 percent of the value of her total agricultural production. Available information from an interim report on URAA prepared for the Ministry of Commerce indicates that the actual domestic support to agriculture has remained negligible – less than 1.5 percent of the value of the country's total agricultural GDP.

### **Export Subsidies**

Article 9 of the Agreement specifies types of export subsidies which are subject to reduction commitments under the Agreement. Least developed countries are, however, exempted from the requirement to undertake such reduction commitments. Bangladesh as an LDC may take full advantage of this exemption.

At the present, Bangladesh does not grant any export subsidies as defined in Article 9 of the Agreement, although it offers several types of support to exporters to encourage exports. These supports include (i) promotional services such as organizing trade fairs, disseminating trade information etc., and (ii) financial services and incentives in the form of credit and insurance facilities, duty free import of capital goods and primary and intermediate inputs for use in export production, tax rebate, tax exemption of export income, tax holiday for export industries, foreign exchange benefits for exporters, etc. Note that these types of incentives are also given to exporters by almost all developing countries that compete with Bangladesh's exports. This is because paragraph 4 of Article 9 of the Agreement exempts all developing country Members from undertaking commitments in respect of the export subsidies listed in subparagraphs (d) and (e) of paragraph 1 of the same Article, during the implementation period. Besides, Article 15 of the Agreement provides developing country Members flexibility to implement reduction commitments over a period of up to 10 years.

### **3. Macro Impacts of Market Liberalization: Empirical Evidence on Trade and Food Security Impacts**

The impacts of trade liberalization under the URA for developing countries have been expressed in various forms. While substantial real income gains for developing countries are predicted from the Agreement, potential welfare losses are estimated for some least-developed regions. These losses reflect a number of factors, including the rise in prices of major food imports, increases in the prices of imported textile and clothing products, adverse terms-of-trade effects and the lack of own country liberalization.

This chapter begins with a review of the component impacts of the URA and Food insecurity. It then examines the consequences of the emerging global trading environment following the conclusion of the Uruguay Round on Bangladesh's imports and exports. It then presents a detailed analysis of the component impacts of the URA and trade and market liberalization on food security in Bangladesh.

This analysis concludes that while Bangladesh is clearly very vulnerable in terms of food insecurity, price level increases and volatility related to the results of the UR are only a minor contributor to the overall problem. Results of empirical analysis of the 1980-95 period indicates that upward price impacts on the cost of imported food commodities have been offset by upward movement in the prices of the goods that Bangladesh exports. As a result, if price movement alone were the issue, Bangladesh would be able to pay for more expensive food imports with more valuable exports. The real problem is in the volatility of food production and availability. Food aid tends to be most available in times of surpluses and low prices, when importing countries could most afford to purchase commercially. It is likewise least available when prices are high and supplies limited. As a result, food aid does not always have the desired impact of stabilizing food availability. This is an important issue to be addressed, although it is not a direct result of the Uruguay Round or Market Liberalization.

#### **Elements of the Uruguay Round Agreement**

The URA achieved a great deal by bringing agriculture under GATT disciplines. New rules were developed to control import barriers, export subsidies, and the total level of support to agriculture. However, the implementation of individual country commitments, while maintaining consistency with new rules, often amounts to only small steps toward liberalizing trade. Restrictions on market access remain substantial and domestic markets in many developing countries continue to be largely isolated from world price movements. Since the completion of the Round in 1993, in many cases only a small amount of market liberalization has taken place. The following is a brief review of the new rules and their implementation and the progress in post-URA agricultural trade liberalization. With a new round of negotiations slated to begin at the end of 1999, this sets forth the starting point for further liberalization.

#### *Tariffication and Minimum Access*

The most significant aspect of the UR agreement on agriculture was a change in the rules regarding market access. The agreement mandates, except in cases of “special treatment,” to (a) replace non-tariff barriers with tariffs, (b) bind all tariffs and tariff equivalents, (c) reduce tariffs by 36 percent, based on simple unweighted average, over six years in industrial countries, and by 24 percent over ten years in developing countries, and (d) to establish minimum access commitments at 3 percent of 1986-88 consumption, rising to 5 percent (2 to 4 percent for developing countries) at the end of implementation period.

### *Export Subsidies*

Participating countries accepted binding commitments on maximum export subsidization (Article 3), leading to an agreed reduction in expenditures on export subsidies (industrial countries by 36 percent and developing countries by 24 percent) and reduction in the quantity of subsidized exports (industrial countries by 21 percent and developing countries by 14 percent) over the implementation period (6 years for industrial countries and 10 years for developing countries). The new rules on export subsidies under the Round, while important, were not as sweeping as those in market access, in that the Round did not outlaw export subsidies but only imposed limits on their application.

### *Domestic Support*

New limits were established on the aggregate level of trade-distorting domestic agricultural support. Based on fixed external prices in the base period (1986-88), the agreement specifies the determination of the Aggregate Measure of Support (AMS) and requires developed countries to reduce their total AMS by 20 percent (13.33 percent in developing countries) over the implementation period. Individual commodity support is not limited except that if support exceeds the 1992 level. For several reasons, these concessions on domestic support reductions are considerably less effective than those of border measures. First, the constraint on aggregate, rather than commodity specific support, leaves much scope for continued support policies and domestic policy action on particular commodities. Second, the “green box” will allow many policies to continue unreduced in participating countries. Last, the AMS calculations are based on the outlays during 1986-88, which was a period of relatively low world prices for agricultural products and generally high expenditures on domestic support to farmers.

### **Addressing Food Insecurity**

World grain markets have entered a new era after the conclusion of the URA. The major thrust is toward more open national markets, and agreed restrictions on the type and magnitude of interventions allowed. The aims are on the one hand to bring domestic prices of agricultural products and cereals in particular more in line with world market prices, and also to allow more transmission of world market signals to domestic producers. Developing countries that are exporters of agricultural products participated extensively in the UR, anticipating the potential benefits of more open markets, and

increased prices Net Food Importing Developing Countries (NFIDCs), on the other hand were concerned that they would tend to be net losers as a result of higher world food prices resulting from the agreement

At its November 1997 meeting, the WTO Committee on Agriculture, which is responsible for monitoring progress in the implementation of the commitments under the Agreement on Agriculture (AoA), reviewed the issues related to the Marrakesh 'Decision' (Decision on Measures Concerning the Possible Negative Effects of the Uruguay Round Agreement on Least-Developed and Net Food-Importing Developing Countries) and at its March 1998 meeting, dealt with the list of eligible countries Several donors submitted notifications on their development assistance programs to the LDCs and NFIDCs, including food aid shipments The Food Aid Convention, currently under review by the Food Aid Committee of the International Grains Council, was extended by one year, to June 1999, at the Committee meeting in December 1997 Donors are considering various proposals for improving the food aid system, including ways to respond to the needs of LDCs and NFIDCs under the Decision

The Ministers agreed to establish appropriate mechanisms to ensure that the implementation of the Uruguay Round in the area of trade in agriculture would not prevent food aid being available at the level sufficient to assist in meeting the food needs of developing countries, especially the least-developing countries To this end, the Ministers agreed to review the level of food aid under the Food Aid Convention, to ensure that an increasing proportion of basic foodstuffs is given to affected countries in fully grant form and/or on appropriate concessional terms

As a country with extremely high levels of food insecurity, Bangladesh is especially concerned about impacts of developments that could make it worse off Among Bangladesh's 128 million people, an estimated one third, or 41 million people are estimated to be undernourished using FAO's measure Using the World Health Organization's yardstick, two thirds of all children, the highest level in the world, are undernourished (Stryker, Metzler, et al) This makes the pursuit of solutions extremely important As discussed in detail below, part of the food security problem is characterized by the extreme variability of food consumption in the country Because of the availability of food imports through food aid and commercial channels, the overall variability of consumption is substantially lower than the variability that would be due to production alone

### **Uruguay Round Effects on Bangladesh's Agricultural Exports and Imports**

Bangladesh is basically an agrarian economy, 29.8 percent of the country's nominal GDP (as of 1996/97) originating from the agriculture sector Within agriculture, crops, fisheries, forestry and livestock sub-sectors account for 60, 17, 12 and 11 percent, respectively, of the agricultural GDP In 1996/97, agricultural exports were 23.2 percent of the country's total exports, and agricultural imports constituted 10.8 percent of the country's total imports In the terminal year of the Fifth Five Year Plan, agricultural

exports and imports are projected to decline slightly, to account for 20.4 percent and 10.2 percent of total exports and imports, respectively (Tables 3-1 and 3-2)

Global liberalization of agricultural trade in the wake of the Uruguay Round and Bangladesh's commitments to the reform process as required by the WTO are bound to affect the volume and prices of Bangladesh's exports and imports, and through these, domestic agricultural production and income. A lowering of protection in the importing countries is likely to produce static trade creation effects for export products, but in some cases these gains may be offset by trade diversion effects because of the loss of privileged access (under GSP, for example) to some markets because of a lowering of general levels of protection. Regarding imports, most studies indicate that UR trade liberalization will raise prices of agricultural products, and to the extent that Bangladesh is a net importer of several agricultural products, in particular food, her import costs will increase. The implications of the URAA for Bangladesh's agriculture should therefore be carefully investigated.

Among the important positive effects, not all are easily amenable to detailed analysis. The purpose of removal or reduction of trade barriers is to raise income levels, and growth rates if the efficiency effects are dynamic, that is to say, if the price effects will induce sufficiently strong supply response. These effects are likely to be important for Bangladesh especially for some of its products which are not significantly affected by direct reforms in the Uruguay Round. These products are those which have already been most liberalized, or which have not attracted major protection, and include actual or potential primary products with high income elasticities.

As shown in tables 3-1 and 3-2, important agricultural products in Bangladesh's current export basket are frozen food (shrimp), jute goods, leather, raw jute and tea, while wheat, edible oils, raw cotton, milk, sugar and oilseeds are the principal items of imports and will remain so in the coming years. Other factors being equal, Uruguay Round liberalization will lead to a rise in prices of these exports and imports.

Whether as an exporter or a net importer of agricultural products the overall impact of the Uruguay Round reform process on Bangladesh's economy in general and the agricultural sector in particular has to be judged in terms of three crucial factors: 1) effects on access to wider markets, 2) effects on world prices, and 3) effects on the stability of world prices. Even countries which are now net importers are concerned with market access because there may be certain products which they could export at free market world prices and with fewer barriers. Another crucial factor to be judged is the responsiveness of domestic production to price changes.

**Effects of Global Trade Liberalization in Agriculture on World Prices of Agricultural Products** Estimates of the price effects of agricultural liberalization as are available in different studies vary widely. The disparities can be explained by differences in the base year and in assumptions regarding demand and supply elasticities. They do, however, generally agree that world prices for countries will rise. The results give the following ranges for full liberalization by the developed countries:

Wheat	5 to	8%
Rice	3 to	8%
Coarse grain	5 to	10%
Sugar	6 to	13%
Tea	-5 to	4%
Oilseeds	2 to	5%
Milk	8 to	16%
Cotton	1 to	4%
Edible oils	1 to	4%

As for fish, shrimp, jute, leather and soybean oil, a study conducted in 1994 for the Dhaka Metropolitan Chamber of Commerce and Industry, the price rise is estimated at 2.4%, 0.9%, 0.25%, 0.37%, and 5.8%, respectively

**Table 3-1: Bangladesh's Agricultural Exports,  
1996/97(actual) and 2001/02 (projected)**

(values in million US\$)

Commodity	Unit	1996/97		2001/02	
		Quantity	Value	Quantity	Value
1 Frozen food	Million lbs	80	332(7.5)	140	595(7.7)
2 Fish	'000 tons	1.3	7	4.05	19
3 Tortoise turtles and crabs	-do-	6.0	14	8.5	40
4 Vegetables	-do-	20	23(0.5)	30	35
5 Fruits	-do-	1.3	2	1.8	3
6 Betel leaves	-do-	1.1	1	1.6	2
7 Tobacco	-do-	2.5	3	3.0	3
8 Tea	Million kg	27	32(0.7)	32	38(0.5)
9 Raw jute	Million bales	1.6	104(2.4)	2.5	162(2.1)
10 Jute goods	'000 tons	425	298(6.8)	550	385(5.0)
11 Leather	Million sft	145	203(4.6)	200	280(3.6)
Total Agricultural Exports			1,019		1,582
Total Export			4,400		7,750
Agricultural Export as % of Total Exp			23.2		20.4

Note Figures in parentheses indicate percentage of total exports

Source Planning Commission, The Fifth Five Year Plan, 1997-2002

**Table 3-2: Bangladesh's Agricultural Imports  
1996/97(actual) and 2001/02 (projected)**  
(values in million US\$)

Commodity	Unit	1996/97		2001/02	
		Quantity	Value	Quantity	Value
1 Rice	Million tons	0 07	20	0	0
2 Wheat	-do	1 0	200(2 9)	1 21	242(2 3)
3 Edible oils	'000 tons	300	180(2 6)	550	330(3 1)
4 Oilseeds	-do-	140	45(0 6)	275	88(0 8)
5 Cotton	'000 bales	400	190(2 7)	550	261(2 5)
6 Sugar	'000 tons	150	56(0 8)	133	49(0 5)
7 Milk & cream	-do-	25	52(0 7)	30	62(0 6)
8 Spices	-do-	5 5	11	18	35(0 3)
9 Coconut oil	-do-	5	5	10	10
Total Agricultural Imports			759		1,072
Total Import			7,000		10,525
Agricultural Import as % of Total Imp			10 8		10 2

Note Figures in parentheses indicate percentage of total imports

Source Planning Commission, The Fifth Five Year Plan, 1997-2002

### Effects on Production

Traditionally, agriculture is a low-elasticity sector. Supply response of agricultural crops to price changes is very small. This is true for both crop and non-crop primary sector production. Table 3-3 shows the production of major agricultural crops. Time series production data (not shown in this brief) would indicate very low supply response to price changes over the past two decades. In some cases, production has remained stagnant or even declined. Most pulses, oilseeds, spices, and fruits and jute fall in this category. Production of certain commodities, however, have secularly increased (such as, rice, wheat, and tuber crops) but these increases are more policy-induced than the result of price changes. Introduction of high yielding varieties, intensification of cropping systems, productivity improvements through increased availability of better seeds, irrigation water, and fertilizers, and decreased dependence on draft power through mechanization etc are principal factors that contributed to increased production. The projection of production increases made in the Fifth Plan (see Table 3-3) is based generally on the anticipated success of the promotional activities and policies and strategies that are proposed to be implemented in the agricultural sector. In fact, the planned increase in agricultural production will be associated with overall growth rather than be a result of price increases following the Uruguay Round.

**Table 3-3: Projected Bangladesh Crop Production During Fifth Five Year Plan**

(area in million hectare and production in mmt unless otherwise stated)

Crops	1996/97(Benchmark)		2001/02(Projection)	
	Area	Production	Area	Production
Rice	10 40	18 88	10 11	23 40
Wheat	0 71	1 45	0 70	1 60
<b>Sub-total</b>	<b>11 11</b>	<b>20 33</b>	<b>10 81</b>	<b>25 00</b>
Other coarse grain	0 10	0 10	0 12	0 12
<b>Total Foodgrain</b>	<b>11 21</b>	<b>20 43</b>	<b>10 93</b>	<b>25 12</b>
Potato	0 15	1 85	0 16	2 43
Sweet Potato	0 05	0 50	0 05	0 66
Oilseeds	0 50	0 37	0 70	0 76
Pulses	0 65	0 53	0 78	0 85
Spices	0 15	0 33	0 22	0 50
Vegetables	0 25	1 45	0 30	1 82
Fruits	0 19	2 14	0 26	3 54
Jute(million bales)	0 51	4 87	0 57	7 24
Cotton(million bales)	0 04	0 10	0 11	0 26
Sugarcane	0 18	8 10	0 18	12 37
Tea(million kg)	0 05	54 00	0 05	60 00
Tobacco	0 03	0 04	0 03	0 04

Note Pulses include gram, khesari, masur, mashkalai, mung and matar, Oilseeds include rape and mustard, til groundnut, linseed and coconut, Spices include rabi chillies onion garlic and turmeric, Fruits include banana, mango, pineapple and jackfruit

Source Planning Commission The Fifth Five Year Plan, 1997-2002

### Effects on Exports

Frozen food, jute goods, leather, raw jute and tea account for 95 percent of Bangladesh's total agricultural exports. All these exports benefit from the GSP schemes of the major importing countries. Tariff reduction in these products in the Uruguay Round has thus led to some erosion of tariff preferences enjoyed by Bangladesh implying some amount of trade diversion in these products. The extent of trade diversion will, however, vary from product to product depending upon the volume covered by GSP. Trade diversion is likely to be small in jute and tea, because of their relatively low GSP-coverage and the predominance of non-GSP donor countries as destinations for these products.

GSP benefits have, however, been significant for shrimp and leather, the two agricultural exports that have registered robust growth in the recent years. The prospective erosion of preferences in these two products is thus a cause of concern.

There may be some trade diversion in jute goods as well because of the erosion of EU trade preference, but the impact thereof on the prospects of jute industry is likely to be minimal. The major problems confronting Bangladesh's jute industry are endogenous—high unit cost of production, the presence of excess capacity, overmanning and labor unrest, and low productivity and operational inefficiency resulting from the use of

obsolete and outdated machinery. The influence of the Uruguay Round on the future of the industry will remain inconsequential in the absence of efforts and thorough reforms and improvement of the competitiveness of the industry.

It must be mentioned, however, that the extent of liberalization of the world markets for the principal exports of Bangladesh, viz., frozen food, jute, leather and tea is relatively small mainly because import duties on these products were already low. Total effects on export receipts therefore can at best be small. The erosion of preference cannot be very significant either. *Trade creation effects can thus be expected to exceed trade diversion effects.* Empirical studies also indicate that the world prices for these products will experience only a modest increase. The MCCI study estimates that the world price for leather, jute goods, tea, shrimp and raw jute will rise by as little as 0.37%, 0.25%, 0.30%, 0.7% and 0.25%, respectively, as a result of the Uruguay Round. The welfare-increasing effects of these small price increases will therefore be small. A detailed study will be needed to arrive at the net results of the Round on the country's export earnings.

### **Effects on Imports**

For Bangladesh, the major effects of agricultural liberalization in the Uruguay Round will be at the cost of imports, especially of foodgrains, viz., wheat, edible oils, sugar, milk and spices. These food items account for two-thirds of Bangladesh's agricultural imports. Other prominent imported commodities are raw cotton and oilseeds which, respectively, account for about a quarter and about 8 percent of total imports (see Table 3-2). World prices of the food products are expected to rise significantly, leading to a sizeable increase in the country's import costs. Despite the projected self-sufficiency of rice production during the Fifth Plan, one cannot discount the possibility for additional rice imports, particularly when natural disasters, droughts and floods and hence occasional crop failures are a regular feature of Bangladesh's economy. In the absence of increased food aid to respond to such disasters, food import costs will then rise further, with a concomitant worsening of the trade balance.

To sum up, agricultural liberalization in industrialized countries and regions through reduction of export subsidies, tariffs and domestic supports will lower supplies on world markets and exert upward pressure on prices. Bangladesh as a net importer of food items is thus going to be an immediate loser. On the positive side, higher prices may induce favorable supply response by producers. That will however depend on elasticities. There is considerable uncertainty about the supply response. The only consensus is that, in the short run, supply elasticities are low.

### **Policy Implications**

In the agriculture sector, Bangladesh can expect minor increases in market access, but an erosion of preferential treatment and higher import costs as a result of the Uruguay Round. This increases, not reduces, the need for increased commitment to liberalization.

and openness Uruguay Round creates definite opportunities for export expansion. If it does not auger well for the existing exports, attention should be given to developing new, non-traditional, high income-elastic exports. At the same time, removal of structural, institutional and infrastructural impediments on the domestic front to export growth can generate important new opportunities. Diversification of both the range of products exported, with an eye on product quality, and in terms of new market destinations will be keys to maximizing the benefits Bangladesh and other countries gain in export success.

An attraction of the Uruguay Round is that it will increase world incomes, which means that developing countries will have opportunities to expand exports only if they can produce and supply exportables with high income elasticities. Government policies should therefore be directed to encourage production of quality products that have high demand in the growing markets. Appropriate policy orientation will be needed to improve supply response to price increases in the world market. As an LDC, Bangladesh is in an advantageous position in that it can undertake domestic agricultural programs without violating the WTO rules on agriculture.

The need for continued and volatile food imports will remain a challenge. This would have been the case with or without the URA. Bangladesh is and is likely to remain a net food importing country in the foreseeable future. The projected increase in food prices will thus add to the import bill. At the same time, the volume of food aid is also projected to decline. In the current crop year, Bangladesh is benefiting from food aid and other types of assistance even though the problems result from acts of nature. Nonetheless, for the future, looking for mechanisms to control food import costs or increase resources with which to pay for imports will be necessary. The following section specifically addresses the nature of food insecurity in Bangladesh, the importance of various factors, including trade liberalization in explaining that variability, and what to do about it.

### **Assessing Food Insecurity in Bangladesh**

Developing countries are concerned about world cereal market instability and the availability of cereal imports at reasonable prices. At times of low world cereal prices, food aid becomes more available and hence the total cost of imports becomes lower. In periods, however, of world scarcity and high prices, food aid availability lessens, and the cost of imports rises. This phenomenon is especially clear in looking at the experience of world commodity markets over the last two years. The issue of NFIDC food insecurity and the best way to deal with world cereal price instability has been debated for years. However, *most of the variability in food imports costs for poor countries has not, historically, come from fluctuations in world market prices.* Thus, it is important to examine what factors are important for the food security problem in Bangladesh.

There are two main causes of macro level food insecurity

- Shortfalls in domestic production from trends (which are usually weather induced and can be substantial) and

- Shortfalls in countries' capacity to import due to sudden increases in world prices for imported goods and/or decreases in the prices of exports used to cover the cost of food imports

Domestic production shortfalls occurring in a year of adverse world prices devastate the ability of Bangladesh to meet target consumption levels. The results of food insecurity for developing countries are disturbing. In a given year, per-capita consumption levels are likely to be forced downward from already low levels. The burden of adjusting to consumption levels is likely to fall on the poorest segment of the population in the country. Food insecurity also has an adverse impact on scarce foreign exchange and capital resources. In order to finance high food import costs, the country must forego other required imports and/or reduce investments.

This section presents a broad quantitative assessment of the magnitude of food insecurity in Bangladesh during the period 1980-1995. The first section examines the extent of food insecurity, discussing food consumption patterns and consumption variability. As a device that assesses the foreign exchange constraint, this section emphasized the weight and variability of food imports in Bangladesh's balance of trade. The next section discusses the domestic production variability and fluctuations in import quantities. Then, food insecurity is examined in terms of its importance to, and correlation with, the country's export revenue. Fluctuations of a country's food import bill may coincide with fluctuations of its export earnings, and thus a country might be able to finance higher import costs.

In this analysis we have focused on food, mainly on cereals since the average share of cereals in total food consumption (measured in calorie equivalents) is very high and most governments concerned with food security focus on grains. Thus, cereals constitute a reasonable approximation by which to measure the variability of food consumption in most situations. However, the role of non-cereals in consumption has increased in importance in recent years (for example, fish consumption in Bangladesh has increased significantly) and future studies should include non-cereals in their analysis.

Consumption of cereals for a given year,  $t$ , is calculated as production of cereals, plus net cereal imports, and food aid. A time series for total cereals consumption for the period 1980-95 was devised. Consumption may fluctuate from year to year depending on the degree of production variability and the extent to which this variability has been compensated by changes in cereals imports and food aid. Indicators of the observed variability of consumption from trend levels during 1980-95 are presented in Table 3-4. In this analysis consumption instability is measured around the long-term trend, using the coefficient of variation as a measure of variability. The observed trend refers to actual cereals consumption rather than nutritional requirements, thus, even meeting the deficits would not necessarily result in a nutritionally satisfactory level of per-capita consumption. As observed in column 2 of Table 3-4, the coefficient of variation for Bangladesh is around 4 percent, however, absolute magnitude of variability is high. In Bangladesh where consumption of rice constitutes over 80 percent of total cereal

consumption, variability in rice is a significant factor which can influence overall variability in cereal consumption

**TABLE 3-4 Variability in Cereals Consumption, 1980-95**

Product	STDV 000 MT	Coefficient of variation
COARSE GRAINS	24 01	27 23
MILLED PADDY RICE	1,019 54	3 96
WHEAT AND WHEAT FLOUR	632 64	16 87
CEREALS,TOTAL	1,292 28	4 41

### Foreign Exchange Constraints

In addition to adequate domestic infrastructure to cope with unforeseen import demand in years of production shortfalls – including adequate statistical reporting systems for the planning of grain imports – foreign exchange availability is critical if a country is to be able to stabilize food consumption through imports. To what extent do food imports burden the balance of trade, and by how much can the cereals imports bill increase in years of unfavorable production and/or world prices, given fixed supplies of foreign exchange in any particular year? To what extent have the observed fluctuations in cereals imports been substantially smaller than fluctuations in grain production due to lack of foreign exchange?

As an indicator of these relationships, the average ratio of the actual value of food imports to total export revenues for the period 1980-95 and the upper limit of this ratio during the same period are presented in Table 3-5. The food import/export ratio is used as an indicator of the pressure put on foreign exchange supplies to finance cereals imports. Based on this measure, Bangladesh is shown to have severe constraint on foreign exchange even in normal years and in unfavorable years, this ratio has reached an intolerable high of 48 percent. However, the trend indicates the country's foreign exchange position improved significantly over the period of 1980-95 due to strong growth in export earnings. *These findings underscore a key issue in looking at the Marrakesh Declaration relative to NFIDCs. Food import costs and assurance of the availability of food are critical issues but impacts of the URA are often only a small contributor to a larger overall problem.*

**Table 3-5 Ratio of Food Imports Costs to Total Export Earnings**  
(1980 -95)

	(Millions of \$)		Mean	Maximum
	1985/87	1993/95	1980-95	1980
Food Import Costs	237	283		
Export Earnings	1,004	2,671		
Ratio of import to export	27%	11%	23%	48%

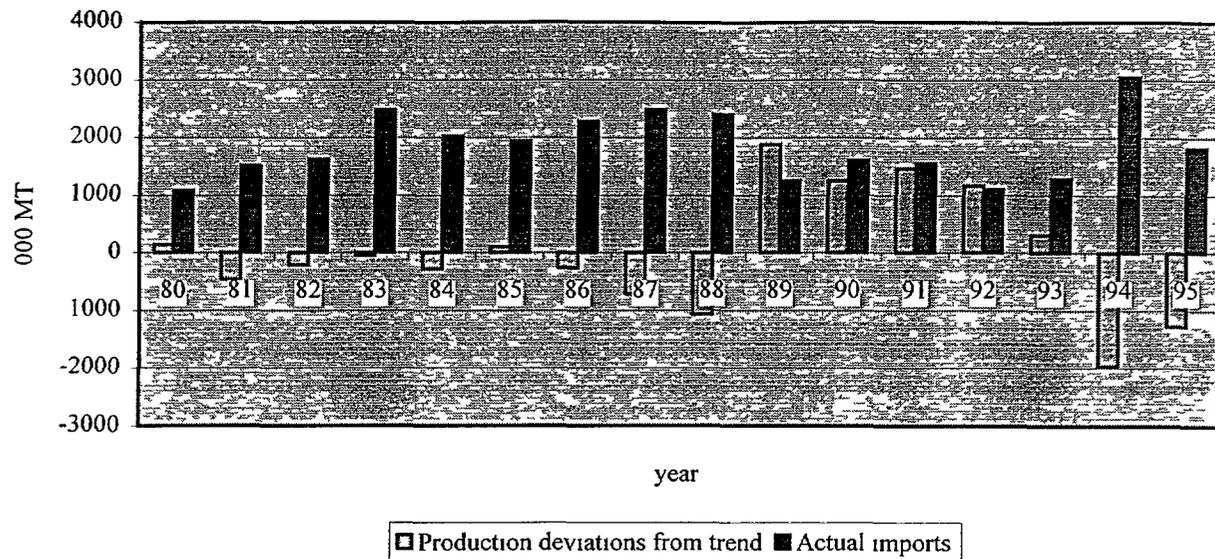
### Production Variability

Historically, annual food consumption has varied considerably. For Bangladesh, changes in stock levels are not sufficient to balance the inter year consumption variability. Thus, fluctuations in consumption result from fluctuations in the levels of production and/or imports.

Production has been relatively stable in most large commodities, as measured by the coefficient of variation of production presented in column 2 of Table 3-6. These include rice and lentils. For these commodities, the coefficient of variation of production is around 4 percent. In contrast, in almost half of the commodities – mostly produced in small quantities – this figure is 8 percent or more, as high as over 45 percent. A relatively low level of overall instability in food production (2.9 percent) is caused by the low coefficient of variation in cereals production, mainly that of the rice, of 3.9 percent. However, although Bangladesh has a relatively low level of instability, it has a high value of absolute variability (over 1 million mt).

Results in Table 3-6 suggest that production variability has been high in most of the smaller commodities. Although production included cereal and non-cereal commodities, it is the variability in cereal production that explains most of the variance in total food production. The correlation coefficient between cereal availability and total production is 99 percent. This reflects the high share of cereals in total production and the relatively higher variability of production of cereals. Thus, for Bangladesh, consumption of food fluctuates with cereal production, and the relationship is a proportional one. A policy of consumption stability requires that imports reflect a highly negative correlation with production. Conversely, if imports did not cover production shortfalls, consumption would display a high positive correlation coefficient with production. Figure 3-1 indicates import and production shortfalls are strongly correlated with correlation coefficient of -0.71. However, *positive correlation between consumption and production indicates imports did not cover sufficiently against production shortfalls*. Our analysis shows a significant correlation (Table 3-7) consistent with the observed instability in consumption presented in Table 3-4. Thus, *as a general rule for Bangladesh fluctuations in food consumption follow closely the fluctuations of domestic cereal production*.

**Figure 3-1. Correlation between Production and Imports in Cereals, 1980 - 95**



**TABLE 3-6. Variability in Food Production, 1980-95**

Product	STDV 000 MT	Coefficient of variation	Correlation with total food production
WHEAT	145 08	13 53	0 09
RICE PADDY	1 096 28	4 27	0 99
BARLEY	2 46	23 32	-0 36
MAIZE	0 73	32 41	0 60
MILLET	24 37	34 28	-0 05
SORGHUM	0 23	25 92	-0 69
<b>CEREALS,TOTAL</b>	<b>1,040 38</b>	<b>3 86</b>	<b>0 99</b>
POTATOES	85 60	7 11	0 71
SWEET POTATOES	26 89	4 56	-0 89
SUGAR CANE	277 78	3 91	0 71
SUGAR CROPS NES	31 47	10 09	-0 90
BEANS, DRY	6 06	6 76	-0 66
PEAS DRY	2 84	8 57	-0 69
CHICK-PEAS	3 84	4 94	-0 84
PIGEON PEAS	0 51	16 61	-0 92
LENTILS	6 83	4 26	-0 17
PULSES NES	16 74	8 84	-0 49
CASHEW NUTS	0 02	45 16	0 46
ARECA NUTS (BETEL)	1 15	4 82	0 19
GROUNDNUTS IN SHELL	4 63	12 84	0 71
COCONUTS	4 08	4 70	0 48
CASTOR BEANS	0 04	17 35	-0 72

RAPESEED	19 29	8 12	-0 09
SESAME SEED	3 35	6 56	-0 45
COTTONSEED	5 75	42 90	0 81
LINSEED	2 82	6 30	0 95
OILSEEDS NES	0 11	32 93	0 19
<b>TOTAL FOOD</b>	<b>1,071 66</b>	<b>2 88</b>	<b>1 00</b>

**Table 3-7. Correlation Coefficients for Variables**

Shortfalls in	Actual					
	Food aid	Volume of imports Cereals	Values of imports			Consumption Cereals
			Cereals	Food	Food & Animals	
Export earnings	-0 64	-0 06	0 41	0 41	0 26	
Production	0 09	-0 71				0 42
Imports	0 4					
<b>Actual</b>						
Export earnings						
Production		0 4	0 15	0 18	0 54	0 96

### The Variability of Food Import and Export Earnings

The food insecurity problem of Bangladesh should be analyzed within the context of its foreign exchange position. A large cereal import bill could be small relative to a country's total export earnings. Similarly, the fluctuations of a country's cereals import bill may coincide with fluctuations in its export earnings. In both of these cases the country should have no problem in financing needed cereals imports. Obviously, the food security problem of a country is more severe the higher the cereals import bill relative to total export earnings and/or the lower the correlation between the cereals import bill and foreign exchange earnings. Virtually any country can finance food security imports in any given year. However, drawing heavily on foreign exchange reserves or destabilizing other imports to finance adequate food supplies may hamper economic development plans. Thus, the food insecurity problem can be examined in a context of a 'burden'. Burden is defined as an additional cost required to maintain the food consumption level caused by shortfalls in production and/or other factors in import markets, export markets, and/or other exogenous factors. Shortfalls in production lead to requirements in extra food imports which must be financed by export earnings. The

larger the burden, the greater the cost required to finance food requirement To facilitate this analysis, we define the Burden as followings

$$B_t = f(V_t, X_t, \delta_t)$$

and

$$V_t = f(M_t, Q_t)$$

where

$$M_t = \hat{M}_t + m_t$$

$$Q_t = \hat{Q}_t + q_t$$

$$X_t = \hat{X}_t + x_t$$

Where  $B_t$  is the country's burden at time  $t$ ,  $V_t$  is extra food import costs,  $M_t, \hat{M}_t$  are actual and trend food import, respectively, in year  $t$ ,  $Q_t, \hat{Q}_t$  are actual and trend production of cereals at time  $t$ ,  $X_t, \hat{X}_t$  are actual and trend export earnings, respectively, at time  $t$ , and  $\delta_t$  represents other exogenous factors (food aid, policy, etc) which influence the levels of burden We assume the random disturbances are assumed normally distributed with

$$E(m_t) = E(q_t) = E(x_t) = 0,$$

$$E(t_i^2) = \sigma_i^2$$

where  $i = m, q, x$ , respectively

Thus, the variability of additional food import costs ( $V_t$ ) is a function of the variability of actual imports ( $M_t$ ), the variability of the actual production ( $Q_t$ ), and the correlation coefficient between import and production shortfalls Ceteris paribus, the variability of additional import cost decreases, as the variability of the food import and variability in production decreases and as the correlation coefficient becomes smaller Thus, a country can afford to import additional food caused by shortfalls in production when its food import cost variability is low and/or in years when high import bills coincide with high export earnings

In Table 3-8, column 1 presents the sum of a shortfalls of export earnings and column 3 presents the shortfalls in imports, both in reference to trend values For Bangladesh, the absolute variability of the food import costs is smaller than the variability of export earnings A positive correlation between export earnings and import costs indicates positive correlation between world prices of food imports and major export commodities, which implies that in years when the food import costs are higher as a result of higher import prices of food and/or higher import volumes, foreign exchange earnings are also higher Thus, Bangladesh may be able to afford higher import costs In analyzing the sources of the variability in the food import cost, we find that the variability in the import volume explains most of the historical variability of import costs (Table 3-9) Also a higher food-self-sufficiency ratio in recent years indicates that world price instability may not the major concern for this country

**TABLE 3-8. Variability  
in trade, 1980-95**

Total export earnings		Food import cost		Correlation coefficient
STDV 000 \$	Coefficient of variation %	STDV 000 \$	Coefficient of variation %	
294,313 02	40 83	98,658 99	36 60	0 54

**TABLE 3-9. Variability in Food  
Imports, 1980-95**

Product	Values		Quantity	
	STDV 000 \$	Coefficient of variation	STDV 000 MT	Coefficient of variation
WHEAT (041)	57,849 74	27 18	430 41	28 32
FLOUR OF WHEAT (046 01,02)	302 31	127 08	0 96	143 30
MACARONI	44 48	78 44	0 06	78 18
BREAD	13 32	581 22	0 01	242 00
PASTRY	164 03	1 024 09	0 17	207 54
RICE PADDY	833 85	222 90	5 74	248 21
RICE HUSKED	434 38	82 98	1 25	82 98
MILLED PADDY RICE	49 946 65	105 87	269 22	104 17
RICE, BROKEN	67 51	361 70	0 25	361 70
BRAN OF RICE	0 28	82 98	0 00	82 98
RICE FLOUR	4 75	82 98	0 01	82 98
BREAKFAST CEREALS	22 69	59 14	0 03	84 03
BARLEY (043)	52 79	45 67	0 13	24 54
BARLEY, PEARLED	4 42	75 56	0 03	85 17
MALT OF BARLEY (048 2)	18 42	161 38	0 05	150 62
MALT EXTRACTS	1 997 03	52 20	0 93	55 71
BEER OF BARLEY (112 3ex)	194 79	211 06	0 15	40 70
MAIZE (044)	47 30	1,931 98	0 18	262 02
FLOUR OF MAIZE	0 84	82 98	0 00	82 98
BRAN OF MAIZE	4 22	171 12	0 00	168 24
OIL OF MAIZE (424 9ex)	10 19	87 15	0 01	87 47
OATS (045 2)	5 23	104 93	0 00	95 76
OATS, ROLLED	21 49	55 27	0 01	56 88
<b>FOOD IMPORT COST</b>	<b>98,658 99</b>	<b>36 60</b>	<b>606 73</b>	<b>34 00</b>
CEREALS (041 A 046)	97 345 42	36 76		
FOOD AND ANIMALS -0	104 537 31	25 32		
MEAT AND MEAT PREP -01	492 93	60 24		
DAIRY PRODUCTS+EGGS-02	14,503 67	21 85		
PULSES (054 2)	14,614 83	107 15		
LARD+FAT,PIG+POULT (091 3)	0 24	165 05		
FOOD EXCL FISH	123 873 56	21 35		

A country's burden might be influenced by exogenous factors, for example, food aid might reduce the Burden if such aid is applied appropriately. Examining food aid in relation to WTO Decision countries indicates Bangladesh has larger instability measured by the coefficient of variation relative to other least-developed countries (Table 3-10 and Table 3-11 and 3-12). Also negative correlation between food aid and deviations in export earnings indicates that food aid is residual. Thus, when the country's export earnings are higher, the world market price is high which leads to reduction in availability of food aid. *Positive correlation between food aid and deviations in production and deviations in imports indicates that food aid does not necessarily improve the food security position of the country. This is an important finding for importing country decision makers, as well as those who manage foreign assistance. It underscores the importance of looking to alternatives to food aid as mechanisms to increase food security. One goal of the URA and a worthy objective of the upcoming trade round should be to take maximum advantage of new market opportunities being opened by freer trade. As discussed below, foreign assistance aimed at strengthening the competitiveness of local export industries, particularly those that will create opportunities with the greatest threats to food security, will be a key to increased growth and food security.*

**TABLE 3-10. Variability in Food Aid, 1980-95**

Product	STDV 000 MT	Coefficient of variation
MILLED PADDY RICE	51.81	69.79
WHEAT AND WHEAT FLOUR	290.84	25.85
COARSE GRAINS	1.00	361.70
CEREALS, TOTAL	309.09	25.72
NON CEREALS TOTAL	11.89	63.59

**Table 3-11 Variability in Imports, 1980-95**

(000 tons)

Country	CEREALS TOTAL		COARSE GRAINS		RICE		WHEAT	
	STDV Y - YHAT	Coefficient of variation						
BANGLADESH	570 83	30 73	3 86	74 32	345 63	97 98	381 07	25 25
LDC	1,042 40	10 37	532 85	31 82	342 26	16 53	691 32	11 15
WTO 18	1,509 10	6 89	1,033 01	18 58	152 44	11 00	970 73	6 72
WTO 67	2,100 93	6 72	1,402 61	19 57	369 04	10 64	1,150 84	5 91
Developing total	8,784 01	6 40	4,109 11	8 36	2,163 02	17 34	6,647 24	8 64
Developing - WTO 67	9,052 20	8 68	3,914 59	9 49	1,926 64	22 64	6,922 53	12 38

Note WTO 67 is the Decision countries which is equal to WTO 18 (net food importing countries) plus LDC (least developed countries)

**Table 3-13 Variability in  
Food Aid, 1980-95**

(000 tons)

Country	CEREALS TOTAL		COARSE GRAINS		RICE		WHEAT	
	STDV Y - YHAT	Coefficient of variation						
BANGLADESH	309 09	25 72	1 00	361 70	51 81	69 79	290 84	25 85
LDC	1,114 72	22 18	419 38	31 63	139 22	21 65	899 60	29 19
WTO 18	914 69	29 96	168 13	51 56	41 29	27 34	813 77	32 04
WTO 67	1,933 18	23 07	518 39	31 04	167 86	20 97	1,674 18	28 85
Developing total	2,265 00	21 25	704 45	32 72	181 10	17 18	2,050 97	28 32
Developing - WTO 67	522 32	22 40	285 75	68 41	202 52	60 17	501 62	37 56

Note Food aid by total donors

## Implications

Bangladesh became a perennially food-deficit country in the late 1950s. Population pressures together with natural disasters have led to continued strong dependence on food imports and, in particular, food aid. Food imports in Bangladesh until the most recent natural disasters represented approximately 18 percent of total imports (down from 26 to 30 percent during the 1980s) and absorbed 34 percent of total export earnings (down from 50 to 70 percent during the 1980s). In 1990/91, food aid represented 98 percent of total food imports but was reduced considerably to 30 percent of total food imports in 1995/96.<sup>3</sup> Thus, it has been one of the concerns of government of Bangladesh to increase self-sufficiency in food grains, and, in particular, rice production.

The empirical evidence presented here documents the magnitude of food insecurity in Bangladesh. It shows that production instability is relatively small, however, the absolute value of deviation is large for the country. The large negative correlation between production shortfalls and cereals imports indicate strong relationship between these two variables. For Bangladesh, the absolute variability of the food import cost is smaller than the variability of export earnings. *A positive correlation between export earnings and import bills indicates positive correlation between world prices of food imports and major export commodities, which implies that in years when the food import bill is higher as a result of higher import prices of food and/or higher import volumes, foreign exchange earnings are also higher. Thus Bangladesh could afford a higher import bill if changes in prices were the only concern. In analyzing the sources of the variability in the food import cost, we find that the variability in the import volume explains most of the historical variability of import costs due to higher food-self-sufficiency ratio for Bangladesh indicates that world price instability is not the major concern for this country. Thus while the need to address food security is high, the problem is not primarily attributable to the URA. In other words our findings show that the effects of the URA on world prices are less important factors for the food security issues in Bangladesh than many including some of the authors of this paper would have expected.*

Valdes and Konandreas demonstrated that for a sample of developing countries over the period 1961-76, three quarters of all food import cost variability came from fluctuations in import volume, not price.<sup>4</sup> A recent study by Sarris shows that annual cereal prices seem to be described by Trend Stationary process thus, any temporary shocks to the world cereal markets do not leave permanent effects on prices and the structure of world price behavior does not seem to have changed much in the past two decades.

The analysis of the foreign exchange constraint suggests that, during 1980-1995 the mean ratio of food import to total export earnings does not indicate a severe constraint during normal years. However, the total Burden for Bangladesh is relatively high due to

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<sup>3</sup> WFP 1997 Bangladesh Foodgrain Digest – February 1997 Dhaka

<sup>4</sup> Valdes A, and P Konandreas 1981 'Assessing Food Insecurity Based on National Aggregates in Developing Countries,' pp 25-52, in Valdes ed *Food Security for Developing Countries* Boulder Colorado Westview Press

relatively large variability in export revenue and import of cereals even though variability in domestic production is small

For planning the operation of an international food security scheme, the absolute magnitude of the shortfall is critical. A policy of consumption stability requires that imports reflect a highly negative correlation with production. Conversely, if imports did not cover production shortfalls, consumption would display a high positive correlation coefficient with production. Our analysis shows significant correlations consistent with the observed instability in consumption presented. Thus, fluctuations in cereals consumption flow closely the fluctuations of domestic cereals production. Moreover, although production included different commodities, it is the variability in rice production that explains most of the variance in total cereal production in Bangladesh. The correlation coefficient between rice and total cereal production is 99 percent. This reflects the high share of rice in total food production and the relatively lower variability of production of rice leads to smaller overall variability in production. Production variability in food products has declined from 6.4 in 1961-76 to 2.9 in 1980-95 period as a result of the government policy to accelerate and stabilize the growth rate of domestic food production, mainly that of rice, and a decreased dependence on or elimination of food aid in the long term.

At the same time, increases in absolute deviation in production from 0.8 million tons in 1961-76 to 1.1 million tons in 1980-95 reflect the country's largest foodgrain shortfalls in 1994/95, owing in part to a severe fertilizer crisis and leading to a resurgence of large food imports and high cereal prices. In both 1994/95 and 1995/96, Bangladesh imported (through food aid, private sector imports and commercial imports by the government) approximately 2.5 million tons of foodgrains. (With the 1998 floods, imports of rice and wheat hit new records, 1.9 and 2.6 mmt respectively.) As a result of the heavy emphasis on rice production, yields of other non-cereal crops such as pulses, potatoes, oilseeds and vegetables have stagnated. High concentration on one commodity leads to lower variability with larger absolute deviation, thus a country might increase the risk when that commodity faces production shortfalls. Thus, in order to achieve overall stability in food security, it may be important to diversify the mix of commodities produced to reduce dependency on one commodity. Put another way, pursuit of a self-sufficiency objective for rice may not be the most cost effective route to food security.

Whether conclusion of URA leads to less stable world cereal prices or not is less important when considering food security issues of Bangladesh. As mentioned above, other key dimensions of URA impacts to be considered are the impact on preferential market access for products from Bangladesh and thereby, Bangladesh's export earnings, due to possible erosion in preferential margins caused by the reduction in Most-Favored-Nation (MFN) tariff rates under the URA. That the potential value of preferences is estimated fall by around US\$0.1 million for Bangladesh for selected agricultural commodities from the three largest preference-giving importers (EU, Japan and the USA). Possible losses in export revenue resulting from the URA are of significant importance for consideration of food security issues in Bangladesh since food aid does not help to reduce the Burden for this country. In addition, the relatively large coefficient

of variation for food aid in Bangladesh of 26 percent relative to other Decision countries (23 percent) indicates that food aid may not have been sufficient to adequately reduce consumption shortfalls in Bangladesh

The food self-sufficiency objective must be viewed in terms of compatibility with other needs of the economy, including foreign trade. Conclusion of the URA leads to a more liberal market structure and there is an opportunities to compete in the world market. In order to achieve food security in Bangladesh it will be necessary to diversify the production base to include several non-rice crops, such as vegetable and horticulture crops, based on better exploitation of international markets. Thus, agricultural research and the identification of comparative advantage of agricultural products have to be re-examined in light of the need for diversification. Although Bangladesh has approached foodgrain self-sufficiency at a national level, food security has yet to be concretized, especially at the household level. *Access to food remains a significant problem and food insecurity in Bangladesh is closely linked to poverty. Improvement in other factors, such as inadequate transportation networks, insufficient storage facilities which create barriers to food distribution and social structural issues which prohibit some segments of the population from participation in commercial markets. Thus, Bangladesh requires policies to develop rural infrastructure, investments in export-based and labor-intensive sectors, and specialized technical support to ensure that its agribusiness and rural industries are well positioned to take advantage of new opportunities resulting from the URA.*

## 4. Micro Implications of Trade and Market Liberalization: Some Anecdotal Observations

In recent years Bangladesh has witnessed a flurry of policy packages aimed at restructuring and liberalizing the national economy so that market forces are enabled to respond to economic incentives and the broad trends in macro aggregates are more aligned with those in the global setting. These policy packages have come with different labels though structural adjustment, *getting prices right*, *getting policies right* (*sectoral reforms, etc*), and lately trade liberalization measures in the Post Uruguay Round.

While there is an appreciable volume of literature based on past and current research on the macro impacts of these intervention measures, less is known at the micro householder level, where important distributional consequences have remained unexplored. Precious little is also known about the economic environment (the so-called *meso-conduits*) under which most households base their decisions. Once these conduits are linked up with the macro-micro transmission mechanism, the analysis assumes a more complicated form since, as Thorbecke<sup>5</sup> argues, there is always the difficulty segregating the myriad effects of a given macro policy from those sourced from within.

When food security concerns are primarily addressed, the analysis gets especially complex, for in addition to the above complications, the concept itself has recently undergone a metamorphosis of its own. Thus, Maxwell<sup>6</sup> identifies three main strands in the changing emphasis put to food security from the global and national to household and the individual, from a food first perspective to a livelihood perspective, and from objective indicators to a more subjective ones. Implicit in this changing paradigm is Amartya Sen's<sup>7</sup> characterization of the food security problem as one of access and entitlement. This entitlement, of course, can be traced either through direct channels involving the food producers, or through indirect channels, as when consumers benefit through falling prices, or through both, when, for example, producers are also net buyers of food.

Although the change in emphasis from the national to the household and the individual level has given richer insights into the micro-dynamics of these entitlements and access, a critical yet unresolved issue hovers around the question as to what the appropriate unit of analysis should be—the household or the individual. While recent research seems to argue that individuals' access to food interacts through a complex web of relationships involving control, authority, and income earning potentials, it stops short of suggesting how those who do not possess any of these traits fare in this seemingly uptight situations. There is a need therefore to explore in more details these *intra-household* characteristics that impinge on food security status. Such a framework must recognize, of course, that

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<sup>5</sup> / Thorbecke E. 1988 *The Impact of Stabilization and Structural Adjustment Measures and Reforms on Agriculture and Equity* in *Policy Reforms and Equity: Extending the Benefits of Development*. Sequoia Institute, California.

<sup>6</sup> / Maxwell, Simon. 1996 *Food Security: a post-modern perspective* in *Food Policy*, Vol 21, No 2. Pergamon Press.

<sup>7</sup> / Sen A. 1981 *Poverty and Famines: An Essay on Entitlement and Deprivation*. Clarendon Press, Oxford.

there are complex inter-linkages working at the individual, household, the community, the national and international levels

At the policy level, there is a need to move away from a single minded concern with food availability at the national level to a recognition of the multiple sources of food insecurity at the household level and their probable causes, and in giving priorities to expanding the range of choices for individuals through the development of appropriate, secure and sustainable *livelihood* strategies. The state in Bangladesh continues to assume a dominating role in the conduct of targeted programs and food price stabilization measures that impinge on the status of food security at the household level. In recent years though, there has also been a significant contribution from the very active and large NGO community in providing an enabling environment so that the poor and the vulnerable can better access opportunities for strengthening their livelihood potentials (through various income generating projects). For those who are left out of this process (and their number, unfortunately are very large) because of their extremely precarious nature of their living, the *safety net* measures inherent in the targeted programs serve no more than a fraction of these poor.

At the macro policy level, the results presented in the previous chapter document that while Bangladesh faces major food security challenges, the impact of the URA alone may actually be net positive – creating benefits in terms of potential value of exports that offset the price effects on imports, and potentially contribute to increased agricultural production and incomes. To the extent that policies could actually serve to cushion the direct and indirect negative effects on the Bangladeshi macro economy (as is the likely scenario of increased food import bill and reduced future food aid inflow), an important food security concern will have been addressed. Nonetheless, food items like wheat, edible oils, sugar, milk and spices make up a considerable portion of agricultural imports. Even abstracting from natural disasters and occasional crop failures, these could be very de-stabilizing at the household or individual level, even if the macro analysis presented in the previous chapter indicates that increased export income may offset increased import costs.

This makes it especially important to ensure that positive gains are reaped by Bangladeshi exporters, which will require that policies and market signals induce a strong supply responses in key export commodities like frozen food (shrimp), raw jute and jute goods, leather, and tea. The net result will also depend on the extent to which Bangladeshi exporters penetrate world and regional markets. The government of Bangladesh therefore has a high stake in ensuring that the resulting *trade creation effects* propel the growth of these export industries. Technical assistance can play an important role in making sure that this can happen.

While it is admittedly difficult to separate URA impacts from others when it comes to food security. Case examples of impacts on different stakeholder groups, drawn from previous experience of one of the authors, provide some useful insights. It is important to underscore that resources devoted to this exercise did not permit any primary field interviews, so findings draw on the experience of Dr. Mohammad Fatmi, including insights gained in a similar initiative undertaken by the Dhaka office of the World Bank.

in collaboration with the Bangladesh Institute of Development Studies and Proshika, a national NGO. This exercise called the Structural Adjustment Participatory Review Initiative (SAPRI), Bangladesh, involved participatory discussions with all concerned stakeholders: government functionaries, consumers, producers, trade unions and business groups, comprising both *beneficiaries* and *losers*. One interesting insight this initiative provided was a clear articulation of micro-level impacts of recent policy measures enacted under the structural adjustment program. Not all of these impacts are appropriately attributed to the URA.

### **Anecdotal Evidence of Some Recent Experience**

The following provides some glimpses of the experience of different groups in society as to how they felt and perceived the GATT/reform/adjustment packages to have affected their everyday lives, first with respect to the basic concern with food security, and with respect to the larger societal dimensions. These groups comprise farmers, consumer groups, businesses, workers, trade unions, NGO (non-governmental organizations) groups, professionals, the media, women organizations, and local government representatives. For ease of exposition, we take these important groups in turn.

#### ***Farmers and Consumers***

Bangladesh has a recent history of conflicting policy initiatives aimed at meeting the needs of both agricultural producers (through what is labeled as incentive prices and/or input subsidies) and consumers, largely urban (through maintaining affordable food (mainly rice) prices). The overwhelming body of evidence seems to suggest that while the government has succeeded in moderating the fluctuations in the prices of rice, it was at the expense of farmers' incentives.

Some policies seeking to mitigate the effects of one measure could lead to other unintended effects (as when food security concerns force government to stabilize food prices but create disincentive effects on agricultural producers in the longer term). Also some recent developments in the agricultural sector, particularly in relation to the withdrawal of subsidies, do not augur well for the long term sustainability of food production. While diversification away from rice does not appear to have made any headway, yields have remained fairly static. Both of these developments would have had a detrimental impact on the households' ability to ensure food security were it not for the fact that the government promptly allowed the private sector to import foodgrains in response to the initial upward movements in the price of rice (it even waived the 2.5% import surcharge on rice).

Farmer groups, in particular, were critical of the much-heralded privatized input delivery system, especially for fertilizer. One immediate impact of the removal of input subsidies was to increase the cost of production while other policies capped product prices. Some say that this has increased *marginalization* of small farmers.

### *Workers and Trade Unions*

Most of the impacts on workers and trade unions are attributed to demand reduction associated with adjustment and liberalization packages. These policies include cuts in government expenditures, higher taxes and credit restraint. The most obvious and visible signs of government cutbacks are seen among urban workers in the public sectors and those in the large private sector. There are indirect impacts on the informal sector as the cutbacks in the formal sector spill into this sector (when, for example, the ranks of the jobless swell, and market opportunities diminish). One might hypothesize that although the rural sector is not entirely insulated (because of migration and remittance network), the overall impact depends on who the poor are. One might expect subsistence farmers to be relatively insulated (unless they are net buyers of food) while the urban (poor) workers, particularly hard hit. It would be valuable to be able to test this hypothesis in order to be in a position to provide useful guidance to policy makers.

With respect to changing monetary policies as part of the adjustment/liberalization package, Stewart<sup>8</sup> has argued that if devaluation succeeds in bringing about a real exchange rate change, improved terms of trade between tradables and non-tradables would tend to improve income distribution. This is based on the supposition that the poor are heavily concentrated in primary production, and that labor intensive manufactures form an important price elastic part of the economy and source of employment and income for the poor.

Again, the impact stemming from liberalization would, as Stewart argues further, depend upon the initial condition taken as a point of reference. If the initial condition was one of unequal access to credit, employment, foreign exchange, etc., then the impact of market liberalization would in part depend on its impact on increased access by the poor. Work by Timmer and others has underscored the importance of access to resources in the ability of liberalization to benefit the poor.

Informal discussions with representatives of the workers, trade unionists and management reveal a considerable convergence of opinions notwithstanding the many conflicting positions held by these groups. Most seem to suggest that a healthy industrial base has not come about despite years of experimentation with liberalization and privatization. The conventional view espoused is that the privatization process has resulted in state-owned enterprises being sold off at low prices, bought with money borrowed from banks, window-dressed for some time before they are ultimately shut down by the new owners. The consequences include retrenchment of workers, adding to the already swelling numbers of unemployed, selling off land and other assets by the new owners, and increasing number of new loan defaults. Also mentioned are unintended effects on many indigenous industries, especially small and cottage industries (handloom, for example) that have had especially difficult times adjusting to new market liberalization policies. This project was not able to measure the degree to which these

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<sup>8</sup> / Stewart, Frances (1998) Adjustment and Poverty in Asia: old solutions and new problems. Paper presented at the International Conference on Adjustment and Beyond: the Reform Experience in South Asia, jointly organized by the Bangladesh Economic Association and the International Economic Association. Dhaka, March/April 1998.

perceptions match reality. The findings do, however, underscore that in the absence of technical assistance to help industries adjust to changed market realities, whether from public or private sources, the pain of adjustment may be larger than necessary.

### *Other Interest Groups*

Other stakeholder groups with special interest in liberalization impacts include the media, various professional and trade association groups, women groups, NGOs and the local government representatives. Their views and perspectives on the different dimensions of market liberalization measures, most of which go beyond direct URA impacts, are captured in the following observations:

- One of the manifestations of the adjustment package is the donors' inclination towards delivery of social sector services through private sector participation. For the NGO community that has worked at the micro level, new requirements mean that they must behave much like the commercial contractors in bidding for the delivery of social and community services. This requires a different set of priorities and skills. The alternative for many otherwise well-intentioned NGOs is to wrap up their activities and lay off their workers.
- In minimizing the role of the state through the implementation of adjustment/liberalization packages, many health and education programs now suffer from under-funding. The reform package is viewed as being short on effective safety nets.<sup>9</sup>
- Reform measures have not adequately addressed key issues of governance.

### **Some Reflections on Public and Private Safety Nets**

Safety nets are measures that are typically undertaken by the government to protect and support the purchasing power and living standards of vulnerable groups in society. They are most often intended as temporary measures although they often go on for quite a length of time. Sometimes they are activated to tide over temporary exigencies like harvest failures, natural disasters or even unanticipated consequences of certain policies such as structural adjustment policies. But they could also be, as the Bangladesh case demonstrates, part of the continuing effort of the government to extend such assistance to the most vulnerable segments of the population: destitute women and children.

Whatever their genesis, safety nets are intended to provide protection to the very poor. In operational terms, it means directly distributing food (mostly rice and wheat) through heavily subsidized outlets (the ration shops in Bangladesh), undertaking feeding programs for destitute, pregnant and lactating women, and pre-school children (the Vulnerable Group Development program in Bangladesh), and operating targeted programs for the poor funded by the food aid program (the Food-for Work, Rural Maintenance Program, and the like). It

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<sup>9</sup> / see note on safety net appended with this draft

also includes in its fold, the emerging emphasis on augmenting the subsistence resource base of the very poor through the provision of micro credit for income generation purpose and crop insurance schemes

Publicly provided safety nets are not the only ones in existence though. For one thing, the most vexing issues of governmental provision of such assistance pertains to the meager coverage and the "system-leakages" involved. Existing resources do not permit more than just "scratching the surface" while a substantial portion of these scarce resources eventually find their way to the homes of the unintended beneficiaries of such programs. Conceptually, it remains at best a complex (and by no means a fool-proof) exercise as to who are the ones eligible for inclusion in the safety nets.

In the extended family system prevailing in most of South and South East Asia, there have evolved over time, many informal ways to circumvent the vulnerability of its distressed members. In times of sickness, family emergencies and other similar occurrences, the larger family usually pitch in with their resources to help mitigate suffering. Many conscientious household heads force themselves to save and acquire assets which they then use as their own safety nets. There is also growing literature on migration that attests to the risk reducing behaviour of family members when they migrate out of their homes in anticipation of larger future income accruals for their family.

To the extent that all of these succeed in protecting and even augmenting family income, there appears to be a prima facie ground for their continuation. But what does it imply in terms of family, household and individual nutritional consequences? Given the fact that a significant portion of the Bangladeshi targeted programs are sustained by food aid given in kind (wheat) it would seem apparent that those families participating in income supplementing measures denominated in wheat or rice would register increased food intake and hence would improve their nutritional welfare. But more fundamental question would still remain unanswered.

First, it is not immediately apparent that those who receive incomes in-kind use them for their final consumption. Instances are very common where those who receive their wage goods swap them for money to pay for the family's other more pressing needs. Those needs are not necessarily linked to food or nutrients, and this brings into the fore the question of the demand and acquisition for non-nutrient non-food categories by the households. Many studies have shown that with increases in household income, there occurs a shift from nutrient to non-nutrient components within the food categories and from food to non-food in general. If this is indeed the case, then income policies that purport to attempt to enhance the nutritional status of households could be grossly mis-targeted. The upshot of all this is that nutritional consequences of safety net measures are uncertain. Improved empirical information on their impacts is essential to designing programs that will actually reach the poor and achieve desired nutritional impacts.

Second, even if we were to assume that at the household level, increased food intake have led to higher nutrient intake, the next logical point of inquiry is, higher nutrient intake for whom? When the question of intra-household food distribution is confronted, many

complex issues arise. There is a growing body of evidence on the dynamics of asymmetrical distribution of entitlements within the household. A pervasive and built-in bias towards a proportionately larger share for working male, and for boys in preference to girls is almost always noticeable.

Some of these problems might be obviated if targeting were done in a way that the beneficiaries themselves self-select a nutritionally improved diet (fortified food) offered directly rather than making them available to the household heads for in-house distribution later. This is of course easier said than done, since the resource and the administrative costs could be prohibitively high. This is where the role of Non-Governmental Organizations (NGOs) should come in handy given their hierarchy of local level networks and the relative flexibility with which they can maneuver and move their resources into particular focus areas on short notice.

### **Observations on Cash and In-Kind Transfers**

Although a large number of government bodies and non-governmental organizations are involved in providing safety nets for the very poor and the vulnerable, low coverage and high program costs plague their operations. The Food-for-Work (FFW) program involving the rural poor, the Rural Maintenance Program (RMP) involving destitute rural women, and the Vulnerable Group Development (VGD) together comprised no more than two per cent of total available foodgrains in 1995. FFW in particular, raised program costs by 25 per cent, mainly due to bulk commodity handling costs. Compared with RMP which is a cash-based operation, system leakages amounted to approximately 35 per cent.

There appears to be an asymmetrical and ambiguous result from the operation of the RMP and FFW. Thus while RMP succeeds in increasing the real income of the participating women, the resulting implications for nutritional improvement are uncertain given the fact that the program size is small and whatever benefits accrue to them are somewhat marginal in its effect. On the other hand, FFW is paid in kind so that the resulting impact on the family's real income remains uncertain since the effects do not necessarily filter down to those who need such supplements most, the pre-school children and pregnant and lactating mothers.

In conclusion, the micro level observations presented here underscore the need for an improved empirical basis for assessing impacts of market and trade liberalization programs at the household and individual level. Anecdotal findings indicate that perceptions of results and impacts specifically associated with the URA are easily confused with impacts of general market liberalization, and more importantly, the general challenge of addressing poverty and food insecurity in a country where more than half of the population is poor.

## 5. Conclusions and Recommendations

Despite significant economic and social progress over the past 20 years, Bangladesh remains among the poorest countries in the world. With a per capita gross domestic product (GDP) of \$300, less than that of either Pakistan or India, Bangladesh ranked as the 13<sup>th</sup> poorest among 133 countries covered by World Bank<sup>10</sup> rankings in 1996. With a population of 128 million living within a limited land area of 147,570 km<sup>2</sup>, Bangladesh is one of the most densely populated countries in the world. Fifty percent of the Bangladeshi population lives below the absolute poverty line<sup>11</sup>.

Bangladesh became a perennially food-deficit country in the late 1950s, from then population pressures together with natural disasters lead to strong dependence on food imports and, in particular, food aid. Food imports in Bangladesh currently represent approximately 18 percent of total imports (down from 26 to 30 percent during the 1980s) and absorb 34 percent of total export earnings (down from 50 to 70 percent during the 1980s). In 1990/91, food aid represented 98 percent of total food imports but this has been reduced considerably to representing 30 percent of total food imports in 1995/96. Thus, it has been one of the concerns of government of Bangladesh to increase self-sufficiency in food grains, and, in particular, rice production.

The Uruguay Round Agreement has several sets of implications for food deficit least developed countries, of which Bangladesh is one.

- First, it has some market access impacts that may create new export opportunities for Bangladesh, generating income and growth that can help pay for food imports. Results of our empirical analysis indicates that export growth and higher export prices have been sufficient to offset the price impacts alone of increased food import requirements. A positive correlation between export earnings and import bills indicates positive correlation between world prices of food imports and major export commodities, which implies that in years when the food import bill is higher as a result of higher import prices of food and/or higher import volumes, foreign exchange earnings are also higher. Thus, Bangladesh could afford a higher import bill if changes in prices were the only concern. In analyzing the sources of the variability in the food import cost, we find that the variability in the import volume explains most of the historical variability of import costs due to a higher food-self-sufficiency ratio. For Bangladesh, this indicates that world price instability is not the major concern.
- Secondly, because the URA gives other countries improved market access under MFN, it indirectly reduces the value of preferential market access through the GSP.

<sup>10</sup> World Bank 1996 *World Development Report*, 1996 New York, Oxford University Press

<sup>11</sup> The poverty line in Bangladesh is defined by the 1991-1992 Household Expenditure Survey and is calculated on the basis of a per capita minimum daily intake of 2 122 kcal (as recommended by WHO) with a 30 percent allowance for non-food basic needs. Those defined as the "hard-core" poor have a daily intake of <1 805 kcal (M O Hossain 1991 *Poverty alleviation*. In R Sobhan ed *Report of the task forces on Bangladesh development strategies for the 1990s* Vol I Dhaka)

and other agreements that LDCs like Bangladesh have enjoyed. Because duties on many of Bangladesh's exports were already low, our analysis indicates that this is not a major cost. The potential value of preferences is estimated to fall by around US\$0.1 million for Bangladesh for selected agricultural commodities from the three largest preference-giving importers (EU, Japan and the USA). Possible losses in export revenue resulting from the URA are of significant importance for consideration of food security issues in Bangladesh. Food aid statistics indicate that it is driven more by availability than need. The relatively large coefficient of variation for food aid in Bangladesh of 26 percent compared to other Decision countries (23 percent) indicates that food aid was not sufficient to cover consumption shortfalls in Bangladesh.

- Third, because Bangladesh is among the LDCs, it is exempted from some of the URA's requirements to open markets and face increased competition from imports. On the negative side, this may insulate Bangladesh industries from becoming more competitive as well.
- Fourth, in looking at food imports and food insecurity, our analysis found that production instability is relatively small, however, the absolute value of deviation is large for the country. The large negative correlation between production shortfalls and cereals imports indicates a strong relationship between these two variables. For Bangladesh, the absolute variability of the food import cost is smaller than the variability of export earnings.
- Additionally, our findings indicate that the most important food security issues facing Bangladesh are rooted in bigger issues than the Uruguay Round Agreement. That does not make them any less important, it simply means that they should be addressed in a broader context.

Even with the reduced value of concessions such as the GSP, the Uruguay Round is creating important opportunities through which Bangladesh can create income, employment and growth. The country's food self-sufficiency goal would be well addressed in the context of increasing food security through some combination of productivity increases in agriculture and related business. Addressing structural, institutional and infrastructural impediments on the domestic front to export growth will be one part of the solution. Diversification of the range of export products and development of new markets will both be important.

The analysis conducted herein focused primarily at the macro level. The paper also included some anecdotal reports on micro level issues and impacts, although the scope of work did not include primary fieldwork. Based on this evidence it is clear that it is even more difficult to separate URA impacts from the impacts of other market liberalization and natural phenomena at the micro level.

With a new round of trade negotiations scheduled to begin in late 1999, the findings of this analysis indicate that Bangladesh has important interests in targeted successful liberalization along with efforts to strengthen its export industries in order to take

maximum advantage of new opportunities USAID in Bangladesh is already providing some technical assistance to export oriented agribusiness, and could consider ways to ensure that this has maximum impact

Additionally, Bangladesh has an interest in preparing for the next WTO round The IMF, ITC, UNCTAD, UNDP, World Bank and WTO have developed a framework for consultations aimed at determining the trade related technical assistance needs of LDCs (See Appendix) This is another area where USAID should examine possibilities to provide useful support

Finally, the findings presented here raise some troubling concerns about food aid as a tool for achieving food security This subject should be investigated in further detail

## **Appendix**

### **World Trade Organization Integrated Framework for Trade-Related Technical Assistance to Least-Developed Countries**

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**Sub-Committee on Least-Developed Countries**

**INTEGRATED FRAMEWORK FOR TRADE-RELATED TECHNICAL ASSISTANCE  
TO LEAST-DEVELOPED COUNTRIES**

Trade-Related "Round Table Meetings"/Consultations Outline Suggested to Assist the  
Least-Developed Countries in Preparing their Documentation for Trade-Related Round  
Tables/Consultations and an Indicative Timetable for the Preparation of such Meetings

*Note by the Secretariat*

The attached suggested outline has been prepared by the secretariats of the six agencies most directly involved in the Integrated Framework (IMF, ITC, UNCTAD, UNDP, World Bank and WTO) and the Integrated Framework's Administrative Unit. It is meant to assist the least-developed countries in preparing their documentation for trade-related Round Tables/Consultations, as foreseen in paragraphs 5(e) and (f) of the Integrated Framework (document WT/LDC/HL/1/Rev 1), in order to maximize the usefulness of these events. Annexed to the outline is an indicative Timetable for the preparation of such meetings. Both the outline and the indicative Timetable can be found on the website of the Integrated Framework [www.ldc.org](http://www.ldc.org). They are hereby circulated for information.

The Integrated Framework stipulates that the least-developed country will schedule a Round Table meeting at which it will present the conclusions of its needs assessment and its proposed agenda of trade-related technical assistance projects to meet the needs, indicating for which it has received definitive or provisional offers of technical assistance. Subject to the availability of resources, the Round Table meeting will provide the opportunity to endorse a multi-year specific programme of trade-related technical assistance activities and to designate implementing/executing agencies, including from among intergovernmental agencies other than the six core agencies involved and bilateral development partners and, where appropriate, the private sector. It will also provide an occasion for a least-developed country's development partners to announce interest in financing and/or providing technical assistance and expertise to support elements of the programme.

The attached suggested outline is meant to assist the least-developed countries in preparing for these Roundtable meetings. Assistance, upon request, of any of the six agencies and/or the Administrative Unit to prepare for the Round Table meeting will of course remain available. The indicative Timetable provides an indicative chronology of events leading up to the actual "Round Table meeting", attached for purposes of assisting least-developed countries in their planning.

**GOVERNMENT OF**  
(name of country)

**REPORT**

Prepared<sup>1</sup> for the

**ROUND TABLE MEETING ON TRADE**

[or Donor Consultation on Trade-related Assistance]<sup>2</sup>

[or Round Table - or Consultation – or Sectoral Meeting- on Trade-Related Technical Assistance]

[or Round Table – or Consultation – or Sectoral Meeting - on Trade  
and (e g the Private Sector, Investment, etc )]

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<sup>1</sup> This report has been prepared [by the Ministry of Commerce and Industry in consultation with other concerned Ministries and organizations of the private sector] or [jointly by the Ministries of [Planning] [Finance] [Trade] [Tourism]] It has been cleared by [the Council of Ministers][an inter governmental committee [task force] chaired by XXX]

<sup>2</sup> This title could be selected if the consultation is part of the World Bank Consultative Group meetings. On the other hand, if it is intended to invite partners such as other developing countries the word donor might not be appropriate

**[SECTORAL ROUND TABLE ON TRADE]**  
(same title as cover page)

Table of Contents

I	INTRODUCTION
II	MACRO ECONOMIC CONSIDERATIONS
III	RECENT TRENDS IN FOREIGN TRADE
IV	TRADE STRATEGY
V	CONSTRAINTS TO TRADE
VI	INVENTORY OF EXISTING TRADE-RELATED PROJECTS <sup>3</sup>
VII	SUMMARY OF PRIORITY PROJECTS [SUBMITTED FOR FUNDING ]
ANNEX	PROJECT PROFILES

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**OTHER ANNEXES**

The following additional Annexes are optional. It is desirable to keep the main document relatively short. For instance, the 7 sections may take up not more than 30 pages and the project profiles another 25 pages. Some or all of them can be circulated separately.

- [ANNEX \_\_\_      Integrated Framework for Trade-Related Technical Assistance to Support Least-Developed Countries (document WT/LDC/HL/1/Rev 1)]
- [ANNEX \_\_\_      Needs Assessment of (name of Country), and Integrated Responses of IMF, ITC, UNCTAD, UNDP, the World Bank, and WTO [Available as a document in the series WT/COMTD/IF/ , and on the IF website [http //www ldc.org](http://www.ldc.org)]
- [ANNEX \_\_\_      Note on the Round Table concerning [name of country] [This applies only to the 12 LDCs which had individual meetings with the development partners on the occasion of the October 1997 HLM] [Available as document WT/LDC/HL/M/1/Add 1, and on website [http //www ldc.org/hlmadd.htm](http://www.ldc.org/hlmadd.htm)]

[Other material, e.g. in-depth sectoral studies, policy frameworks, may be made available as Background Documents]

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<sup>3</sup>Could be placed in Annex

## I INTRODUCTION (maximum four pages)

It is suggested to start directly with a statement of Government's objectives - a summary of the trade strategy (based on section 4 below, openness of the economy and the role of the private sector might be particularly mentioned) - and how specifically the Integrated Framework (IF) is to support that strategy as a part of the overall development strategy. This should explain why the Government (not just the Ministry of Trade) considers that trade is important in the development of the country, and what strategy it intends to follow to ensure that trade contributes to the overall development objectives, for instance through resource mobilization, employment creation, poverty alleviation, while maintaining or enhancing environmental sustainability.

### A THE INTEGRATED FRAMEWORK

Illustrative language to introduce the Integrated Framework could be as follows

*(Quote)* It is generally recognized that many developing countries are faced with major challenges in the context of globalization. This is particularly the case for the poorest and weakest among them - the Least Developed Countries. It is against this background that the First WTO Ministerial Conference in Singapore in December 1996 adopted an Integrated Plan of Action for the Least Developed Countries (LDCs).

Pursuant to the Plan of Action, it was agreed by six multilateral agencies - IMF, ITC, UNCTAD, UNDP, World Bank and WTO - that an *Integrated Framework* (IF) for the provision of trade-related technical assistance to LDCs should be drawn up. This IF has been adopted by the *High-Level Meeting on Integrated Initiatives for Least-Developed Countries = Trade Development*, organized by the WTO in October 1997. It has subsequently been endorsed by the Boards of UNDP, the World Bank and UNCTAD.

*[Note]* However, it is important to note that, as the Chairman of the High-Level Meeting has recommended

" (b) Application of the Integrated Framework should not be limited (emphasis added) to IMF, ITC, UNCTAD, UNDP, the World Bank and WTO. In the country-specific process starting already with drawing up the initial needs assessment, continuous dialogue should be sought with other relevant multilateral agencies, such as FAO, the Common Fund and others that have expressed their interest, with bilateral development partners. In this process, also the private sector should be taken fully aboard, "(WTO document WT/LDC/HL/23)]

In the context of the IF, the Government of [redacted] prepared an assessment of its trade-related technical assistance needs. This needs assessment was subsequently considered by the six IF core agencies, which prepared an integrated response to these needs. The Needs Assessment and the Integrated (agency) Responses are available as [Annexes documents x and y] (*Unquote*)

*[Note]* For the following 12 LDCs only (Bangladesh, Chad, Djibouti, Guinea, Haiti, Madagascar, Mali, Nepal, Tanzania, Uganda, Vanuatu, Zambia-), it might be desired to recall the individual meetings held in Geneva during the October 1997 HLM and refer to any significant points made on that occasion. (The Report of each of these meetings is available on the IF website <http://www.lcds.org/hlmadd.htm>. Hard copies may be obtained from the Administrative Unit)

*(Quote)*

## B THE ROUND TABLE [CONSULTATION] AND ITS OBJECTIVES

As foreseen in the IF, Government has decided to schedule a Round Table meeting in (name of city) on **Trade-Related Assistance** [provide exact title, same as in cover page] with the following objectives "*(Unquote)*

The objectives of the meeting are stated in paras 5(e) and 5(f) of the IF

- (a) However, country circumstances differ, and it may be decided by an LDC, in consultation with its main development partners, that the RT/Consultation should have a wider scope. For instance, it could deal also with enterprise development, investment, (or even employment creation or poverty alleviation<sup>4</sup>). In such cases, the objectives described above will need to be correspondingly modified. It is for each LDC – in consultation with its main development partners – to determine the scope of the trade-related programme to be addressed at the particular meeting and to reflect it in the objectives.
- (b) A possible statement of the (immediate) objective<sup>5</sup> of the meeting could be along the following lines
  - (i) To present the government priorities to overcome the constraints to trade
  - (ii) To provide an occasion for the development partners to announce interest in financing and/or providing assistance and expertise to support the government in overcoming trade constraints
  - (iii) To provide the opportunity to endorse a multi-year programme of trade-related assistance activities ”

## C CONSULTATION PROCESS

It is important to describe the consultation process which has led to the preparation of the document (Inter-ministerial, with the private sector, NGOs, pre-consultations with the main development partners – multilateral and bilateral - represented locally, etc ). It should be ensured that the document reflects the national point of view, including those of the private sector, and is not the emanation of just one Ministry. This should be made clear here-and throughout the document. (See also the footnote on the cover page )

A mention of which agency(ies) assisted in the preparation of the document, and which, if any, acted as lead agency should be included. It is important, as foreseen in paras 5(e) and (f) of the IF, to explain the link between this sectoral RT/consultation and the (past and future) World Bank Consultative Group Meetings or the UNDP (overall) Round Tables.

At the end of the introduction, the structure/contents of the rest of the document - and its Tables, or Annexes, if any, should be announced.

<sup>4</sup> However, in order to maintain a clear focus, it is recommended to include only topics which can be shown to be closely and directly linked to trade.

<sup>5</sup> These immediate objectives could be preceded by a statement of a long-term/broader development objective, e.g. to promote the social and economic development of (country) through enhancing its trade opportunities.

## II MACRO ECONOMIC CONDITIONS (maximum one page)

[The IMF representative in each LDC stands ready to assist in drafting this section ]

The main national macro variables and policies relevant to trade (e.g., exchange rate regime, rates of interest, inflation, indebtedness) should be presented (one or two paras). Any policy framework agreed upon with the IMF, and the performance under such a framework should be indicated. It is considered that the hallmarks of a trade-friendly environment include low fiscal and current account deficits, low inflation, competitive exchange rates, and high savings rates. However, it is understandable that few LDCs will be able to claim excellence in these areas. Yet efforts or progress made in the right direction should be highlighted.

## III RECENT TRENDS IN FOREIGN TRADE (maximum three pages)

Period could be most recent 3 years. Perhaps 2-3 Tables. Role of trade in the economy. Information on composition and direction of merchandise trade and invisibles (e.g., tourism) should be included - also important BOP items such as remittances. Given the increasing link between trade and FDI, a short statement on the FDI record would be useful. (Note: One of the IF core agencies may be able to provide this data. If data is not available or is of poor quality, it would be appropriate to include technical assistance in this area among the projects presented to the RT.) Notable changes over the past few years - and prospects. Some brief mention of high export-potential products/services can be made here (to be further developed in '4 Trade Strategy).

## IV TRADE STRATEGY (maximum three pages)

Closely linked to the macro-economic considerations in '2 above, this section could describe the main elements of the country's trade policies and export strategies **relating them to the overall development strategy**. These could include subjects such as

- Openness - nature and extent of tariffs and NTBs. Sectors which are protected
- Attitude *vis-a-vis* WTO membership and multilateral agreements and participation in negotiations
- Policies on direction of trade, e.g. preferential trade arrangements, custom unions, regional integration
- Commercial aspects of governance (e.g. arbitration of commercial conflicts), copyright legislation and enforcement
- Environmental/spatial policies related to trade and location of economic activities

- Export strategy What results or targets are set? What strategy does Government intend to follow in this regard towards traditional exports (e.g., Is the country boxed in the production of commodities whose overall value/quantity are declining in the world market? What is proposed for diversification, processing?), non-traditional domestic exports, manufacturing based on imported inputs/free zones, services exports. Particular activities/sectors where the country is thought to have comparative advantage or high export potential should be mentioned. Are these targeted, and how?
- Respective role of Government, para-statal and the private sector in trade and production (in the light of the capacity of the national/international private sector to innovate and take risk). Any policy/institutional arrangements to encourage cooperative behaviour (intra-private sector, and private sector/government)
- Investment policy - National, regional, investment codes, international treaties, institutional arrangements and support (e.g. one-stop shop), any special programmes towards SMEs and micro-enterprises

- Note
- (i) In each case, it should be explained how the policy/strategy is part of the overall development strategy, and supports basic development objectives, such as poverty alleviation
  - (ii) In drafting this section, specific consideration should be given to the constraints (as well as facilitating aspects) which the macro-setting (§2 above) impose on trade policy

## V CONSTRAINTS TO TRADE (maximum six pages)

The main constraints/obstacles to trade expansion should be spelt out. These constraints should be related to development objectives, not just to the (intermediate) trade objectives.

The Needs Assessment document already presents these constraints. What is needed is just an update or modifications that take into account in particular the views of the rest of the administration, the business sector, other trade players.

To facilitate the update the outline should follow the Check-List for conducting the Needs Assessments. It might be convenient to classify these constraints under the following sub-headings:

- 1 Supply Constraints Physical, institutional, human resources. Bottlenecks to export diversification, investment flows, foreign/domestic, research and development. (Note The supply constraints are usually the most severe, in most LDCs. They include transport and telecommunications infrastructure, energy, water, etc.)
- 2 Trade Promotion and Trade Support Services Constraints
- 3 Market Access Constraints
- 4 Compliance with/Participation in the Multilateral Trading System – if not included in item 3 above

[In identifying and documenting the constraints, it is usually possible to draw upon the assessment and advice of international agencies.]

[It is often expected when presenting constraints to flag opportunities at the same time. This can be referred to very briefly here, but the opportunities/perceived competitive advantage could be better discussed under the Trade Strategy section ' 4 above ]

## VI INVENTORY OF EXISTING TRADE-RELATED PROJECTS

(could be placed in an Annex)

Before moving to the submission of activities for which support is requested, it would be useful to present an inventory of ongoing projects and activities (including those that have ended over the past 12 months)<sup>6</sup>. A first partial inventory (covering the six core agencies) has been prepared for the HLM in 1997 (document WT/LDC/HL/9). This will be updated and reflected in the IF website. The lead agency selected would request inventories from other development partners. The inventory must include projects supported by all development partners – bilateral and multilateral. Projects, which are not firmly funded, even those in advance stages of discussion, should not be included here – they are preferably presented under ' 7 and in the project profiles. The description of the projects in this inventory can be very succinct. An illustrative example

*(Quote)*

### TEXTILE AND GARMENT SECTOR STUDY

USD 0.23 million

IFC

Under implementation (Jan-June 1999)

*Objective/Activities* A study to identify the strengths and weaknesses of the Textile and Garment Manufacturing Sector in (Country X) *(Unquote)*

These projects could be grouped by category, for instance according to the type of constraints which they address, with sub-headings as per ' 5 above. These projects can be referred to in the individual Project Profiles in the Annex, to the extent that the new projects would be expected to build upon and complement existing ones.

## VII SUMMARY OF PRIORITY PROJECTS (SUBMITTED FOR FUNDING) (maximum four pages)

The multi-year programme to be presented and endorsed at the RT consists of the ongoing IF-related projects (' 6 above) and the new projects for which additional support is needed (or need to be confirmed) - the latter summarized in this section -, preferably in one Table. This Table could be accompanied by a very brief introduction, which should show what synergies/complementarities exist among the projects. The overall strategy of Government and the constraints having been described above, at this point there needs only to be a reference to the constraint addressed by each project. In the selection of projects, it should be ensured that they are realistic, are transparently presented in a way which enables harmonization of initiatives. The sub-headings - or modules - should preferably be the same as those of ' 6. It might be possible for easier comprehension to also prepare a synthetic table including the on-going projects and the proposed ones together. The actual project profiles - constituents of the Summary Table - should be left for the Annex. Priorities should be indicated.

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<sup>6</sup> Any evaluation of the impact/result of the ongoing/recently terminated projects would be of interest

ANNEX IProject Profiles

The presentation should as far as possible follow the same sub-headings/modules as those of sections 6 and 7. If a modular approach is chosen, it might be found useful to provide a more general introduction to each module (e.g. broad objective, situational analysis, institutional set-up), leaving more specific considerations to the individual project profiles. It is important that the projects presented be clearly seen as to be demand driven by the country itself (government - with private sector, as appropriate) <sup>7</sup>

Illustrative Example of a Project Profile

## PROJECT PROFILE No K

Title            Promotion of calcium carbonate

Objective        Production and export of calcium carbonate

Beneficiaries    Directly, the operators of the industry and their employees

(Note In cases where there are external benefits, indirect beneficiaries can also be mentioned )

National Agency(ies) and institution(s)    Ministry of Commerce and Industry, Ministry of Public Works (Mining section), Export and Investment Promotion Unit of the Chamber of Commerce

Funding requested        USD 200,000

(Studies and support for the establishment of a joint venture)

Potential partner/source of funding (if any)    Preliminary discussions have been held with the (e.g. Development Bank)<sup>8</sup>

Recent or ongoing Assistance (if any)    A survey of mining resources has been undertaken in 1998 with the assistance of the government of

## Justification

Large Calcium Carbonate deposits of a very high degree of purity (>96%) and whiteness (>90%) exist in the province of    They have not been exploited so far, in spite of the very favourable conditions in the international market. This product may be utilized as an input in the manufacturing of paper, paint, plastic, as well as pharmaceutical and food products. Exports at say

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<sup>7</sup> Although project proposals developed by some international agencies (e.g. FAO, UNIDO, WIPO, UNCTAD, ITC) may be considered a priority by the Government, provide the material for presenting a project profile. It is strongly recommended to avoid referring to them as project of agency X.

<sup>8</sup> Note It is important that the project be (and be perceived to be) a national project and not a project of agency X. However, it might be indicated in a footnote that Agency X has assisted in developing this project and would be prepared to implement it.

USD 180 per tonne fob could give rise to foreign exchange earnings of some USD 2 million per month jobs are expected to be created in this depressed area The deposits are located away from a population centre, so that any pollution (dust) from the operation would not create a major problem A small crushing plant would be required, and the capital requirements would be some USD 2 million

Output and Activities

Output/ Expected Result	Conditions in place for the exploitation of the calcium carbonate de calcium deposits, probably as a joint-venture
Activities	Preparation of a feasibility study and provision of support in all phases of negotiations for the creation of a joint venture for the extraction, processing and export of Calcium Carbonate at , located in the province of

## ANNEX II

Indicative Timetable for the Preparation of Trade-Related Meetings (TRMs)

Time Months	Statement of Intent & Preparatory Steps	Establishment of Steering Committee  Launch Workshop (optional)	Preparation of draft document	Comments/ Consultations	Finalization of the document	Logistics/ Dissemination	TRM
T-6	x						
T-5		x	x				
T-4			x				
T-3			x	x			
T-2				x	x		
T-1						x	
T							x

T = the month of the TR Meeting (TRM)

Indicative Chronology of Events

Statement of intent and preparatory steps THE DECISION TO SCHEDULE A TRM IS MADE BY THE LDC CONCERNED It would be expected that a decision to start preparation be communicated to one of the core agencies and/or the IF Administrative Unit This information will be reflected on the IF website and widely circulated In order to give that decision operational significance, a number of interrelated preparatory matters would need to be addressed up front

- Determine the **link** (e.g. in terms of substantive content, of timing, of logistics) of the proposed TRM with the **UNDP Round Table** process or the **World Bank Consultative Group Meetings** [IF, paras 5(e) and 5(f)] It is recommended that this link be explicitly made at an early stage and be reflected in the documentation
- Closely related to the above is the question of which **lead agency(ies)**, if any, should be designated and what would be its role (e.g. help in preparing the documentation, in logistics, in co-chairing the meeting) In practice, in view of the experience of the World Bank and UNDP in matters of Round Tables/CGs and of the necessary link between these mechanisms and the TRM, the main lead agency would be either of these agencies - with the possibility of other agencies - or other parties, or the IF Administrative Unit, assisting with the documentation or other aspects Together with the lead agency the **assistance** the LDC might require to **prepare** itself for and organize the TRM (consultant(s), logistical support etc.) should be determined
- Careful consideration needs to be given to the **objective and scope of the meeting** (this will depend on country situations - see §1 of the suggested outline in this respect) This has to be defined very clearly since it will guide the nature of the documentation, the selection of the contents of the multi-year programme to be presented and endorsed, the agenda of the TRM and its outcome

**Stakeholders Group/Steering Committee** In order to steer the TRM process, it is desirable to set up at an early stage a **stakeholders group/steering committee** (selected from the relevant ministries, active private sector and local donor/agency representatives) This group could participate in the

decisions above and be consulted at various stages in the process. The objective here is to achieve as much consensus as possible, spread knowledge of the IF process and avoid the pitfall of presenting the views of just one Ministry – or sub-group

**Launch Workshop (optional)** It may be found appropriate to organize a launch workshop to "kickstart" the preparations. This workshop would be a half-day, informal meeting aimed at raising awareness of the IF process among all stakeholders. It would firm up the preparatory steps (1, 2, 3 above) and establish the Steering Committee of stakeholders (if not already in place). This workshop could be attended by a member of the core agencies or of the Administrative Unit

**Preparation of draft document** The Government, with the involvement of the relevant stakeholders, and help of a consultant(s) where necessary, prepares a first draft of the document for the TRM. An outline for TRM document as a possible guideline is available for this purpose from the IF Administrative Unit

**Comments/Consultations** The draft when prepared should be circulated in electronic format (where possible) to the main development partners and the six core agencies for comments. The Administrative Unit could assist in this regard. The draft documentation could also be the basis of informal consultations with potential donors, who could even at this stage be sounded out for possible funding/implementing of elements of a Multi-Year Programme

**Finalization of the Document** The draft document should be finalized in light of the ongoing comments/consultations, preferably concurrently with them. Apart from the stakeholders group/steering committee involvement, the formal approval of Council of Ministers or a high-level Government body is recommended

**TRM Logistics/Dissemination/ Issuing of Invitations** The date of the TRM should be finalized only once it is clear that the documentation is or is about to be in an acceptable shape. Invitations should be issued two months before. Dissemination of the documentation to the invitees as well as the agenda should be done at least 4 weeks (by electronic means) prior to the TRM meeting date to give participants (including those in capitals) time, to study the document and come forward with specific positions and proposals at the TRM meeting. Translation, at least of an executive summary, may be necessary if the language is other than English

**TRM** The meeting (at the T month) takes place. A record or report of the meeting indicating the precise conclusions of policy dialogue, interest shown/commitments, etc. would be prepared by the Government in cooperation with the lead agency to facilitate follow-up and enable reporting to a wider audience. This report should thus be drafted in an operational manner. It will be published [c f I F , para 5(f)], and disseminated by the I F Administrative Unit

**Follow-up** Based on the results of the TRM, the LDC's Multi-Year Programme (MYP) as endorsed can be implemented. It is important to have an active follow-up mechanism. In this respect, the Inter-Agency Working Group and the I F Administrative Unit will assist in monitoring, but "the role of coordinating the implementation and monitoring of activities conducted under the Integrated Framework shall be primarily the responsibility of the least developed country concerned" [I F , para 5(l)]. The Stakeholders Group/Steering Committee could have a major role. "Where possible the proceedings will be included in the World Bank Consultative Group Meetings and in the UNDP Roundtables" [I F , para 5(e)], and "the results should be incorporated into World Bank Country Assistance Strategy documents and into UNDP Country Strategy Notes" [I F , para 5(f)]

**Agricultural Policy Analysis Project (APAP)**  
**Selected Publications, 1984-99**

- Ref No <sup>1</sup>
- PN-ABX-246 Abbott, Richard, David Kingsbury, et al 1995 *Haiti Agribusiness Assessment*  
Report No 1004, Volume I Main Report and Volume II Supplementary Reports (Also  
available in French)
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