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A GENDERED TRADE IMPACT REVIEW FOR AGRICULTURE AND MANUFACTURING IN BANGLADESH

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A TRADE IMPACT REVIEW FOR BANGLADESH

Greater Access to Trade Expansion (GATE) Project
Development & Training Services, Inc. (dTS)
4301 N. Fairfax Drive, Suite 215
Arlington, VA 22203

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GLOSSARY OF TERMS AND ACRONYMS

ADB	Asian Development Bank
ADP	Annual Development Plan
ATC	Agreement on Textiles and Clothing
BBS	Bangladesh Bureau of Statistics
BDT	Bangladeshi Taka
BGMEA	Bangladesh Garment Manufacturers' and Exporters' Association
BMET	Bureau of Manpower, Employment and Training
BRAC	Bangladesh Rural Advancement Committee
BRER	Bilateral Real Exchange Rate
CGE	Computable General Equilibrium
CPD	Centre for Policy Dialogue
Crone	10,000,000
EPB	Export Promotion Bureau
EPZ	Export Processing Zone
EU	European Union
FAO	Food and Agriculture Organization
FOB	Freight on Board
GCC	Gulf Cooperation Council
GSP	General System of Preference
GTAP	Global Trade Analysis Project
HIES	Household Income and Expenditure Survey
HORTEX	HORTEX Foundation
HS	Harmonized System
IFPRI	International Food Policy Research Institute
ILO	International Labour Organization
LDC	Least Developed Country
LFS	Labor Force Survey
MDGs	Millennium Development Goals
MFA	Multi-Fiber Arrangement
MMR	Maternal Mortality Rates
NBR	National Board of Revenue
RD	Regulatory Duty
RER	Real Exchange Rate
RMG	Ready-Made Garments
SD	Supplementary Duty
SPS	Sanitary and Phyto-Sanitary
TBT	Technical Barriers to Trade
US	United States
VAT	Value Added Tax
WRWC	Worker Representation and Welfare Committee
WTO	World Trade Organization

EXECUTIVE SUMMARY

The 2006 World Bank report “Assessing World Bank Support for Trade 1987–2004” contributes to the ongoing debate regarding the relationship between trade liberalization, economic growth, and poverty reduction. This report reviewed the World Bank’s programs in support of trade liberalization. The review found that trade liberalization alone was not sufficient to sustain economic growth and that employment and poverty outcomes associated with trade reforms were mixed.

Liberalizing trade is a complex process, and the effects of freer trade are multi-faceted; policymakers’ decisions concerning which sectors are opened and which remain protected may improve or erode the livelihoods of producers, workers, or consumers depending upon where they are located within the economy. Changes in the economy wrought by trade liberalization may be contradictory or complementary. Multiple effects take place simultaneously, and one may be helped by certain effects while concomitantly harmed by others.

Just as the effects of trade liberalization are multi-faceted, these effects are further complicated as countries sign bilateral, regional, and multilateral trade agreements. Certain effects may be amplified, while others are mitigated by newer precedent-setting trade commitments. As policymakers seek to harness the best aspects of trade liberalization and mitigate worker displacements and the loss of domestic markets, it is important they understand the effects of past liberalization policies on the poor, anticipate the potential effects of further trade commitments, and consider complementary policy and program initiatives to assist poor Bangladeshis in gaining from trade liberalization.

This report seeks to assist donors and policymakers in understanding the effects of trade policies on key sectors, as well as on poor producers, consumers, and entrepreneurs. Additionally, this analysis employs a gender perspective—assessing where men’s and women’s experiences under trade liberalization diverge, and suggesting actions that would create more gender-equitable opportunities for both men and women to gain from increased trade openness.

BANGLADESH AND GLOBAL TRADE

Bangladesh is an economy firmly in transition from a primarily agrarian economy to one dominated by services. The contribution of agriculture to gross domestic product (GDP) has declined from 56 percent of GDP in 1980 to 22 percent in 2003. Over the same period, value added in services has risen from 41 percent to 52 percent.

Between 1990 and 2003, real GDP in Bangladesh increased by almost 90 percent, averaging a sustained growth rate of about 5 percent per year. Yet total employment only increased by 2.3 percent per year, and the economy needs to grow about 7-8 percent per year to absorb the more than one million new entrants into the labor market.

Since 1992, Bangladesh has implemented a series of liberalization measures to increase trade openness, revise and reduce tariffs and quotas, and improve customs

and excise procedures. Bangladesh became a member of the World Trade Organization (WTO) in 1995, and has subsequently negotiated participation in a number of multilateral, regional, and bilateral trade agreements designed to lower tariff and non-tariff barriers.

These changes notwithstanding, Bangladesh remains heavily dependent on a limited number of exports to earn foreign exchange. Textiles, clothing, and footwear account for approximately 80 percent of all exports. Further liberalization, as well as changes in global agreements on textiles and clothing, will affect the Bangladeshi economy differently in the short and medium term. At the same time, trade remains an important component of the Government's economic and poverty reduction strategy. For example, the October 2005 National Strategy for Accelerated Poverty Reduction (NSAPR) relies on increased trade, private sector investment, export-led growth, and small enterprise development as important mechanisms for reducing poverty and increasing incomes for low-income Bangladeshis.

However, the ending of the Multi-Fiber Arrangement (MFA) in January 2005 and changes in the demand for agricultural exports are likely to affect the Bangladeshi economy negatively. Consequently, there will be winners and losers as Bangladesh adjusts to these trends. If jobs are lost in some sectors, or the workforce becomes informalized, this may result in reduced wages and increased insecurity.

LABOR COMPOSITION AND WAGES

Although the composition of the Bangladeshi economy is changing rapidly, men and women workers remain concentrated in agricultural activities: 59 percent of the total female labor force and 52 percent of the total male labor force was absorbed in agriculture in 2003. Manufacturing absorbs approximately 17 percent of the female and 10 percent of the male labor force, while services accounts for 24 percent of the total female labor force and 38 percent of the total male labor force. Given the predominance of female and male labor participation in agriculture, further declines in the sector will be particularly deleterious for the rural poor and for women in particular.

In Bangladesh between 1990 and 2000, skilled manufacturing workers saw real wages increase by 28 percentage points, while unskilled manufacturing workers experienced a rise of 46 percentage points. In contrast, agricultural workers saw their wages rise by only 6 percentage points in the same period. Under the recent trade liberalization, poor, rural agricultural workers gained the least.

GENDER AND TRADE IN BANGLADESH

For Bangladesh to achieve the level of growth needed to reduce poverty, labor must be deployed efficiently. If gendered social norms restrict women's participation in the paid economy, then the labor force is not functioning efficiently.

Besides expanding Bangladesh's economy and contributing to trade-led growth, the full participation of Bangladeshi women in the economy can generate multiple benefits in terms of human capital development. Numerous studies have demonstrated that women's income is more often spent on expenses related to their children and households rather than personal consumption. Bangladeshi female-headed households

(FHH) with lower incomes than male-headed households (MHH) still spend more on food and medical care than better-off MHHs.¹ Children from poorer FHHs in Bangladesh tend to be better nourished than children from less poor MHHs.² Similarly, other research in Bangladesh has found that for every 100 taka lent to a woman, household consumption increases by 18 taka as opposed to an 11 taka increase in consumption for every 100 taka lent to men.³ In addition, Bangladeshi women's participation in the labor force can lead to positive changes in women's lives, such as improved bargaining within the household, increased access to information, increased self-esteem and autonomy, and increased involvement in community decision-making.⁴

Yet a number of factors combine to impede women's ability to participate in export-led growth or benefit from other aspects of trade liberalization. These include:

- **Asymmetric rights and responsibilities**

Women in Bangladesh are expected to be responsible for the bulk of household provisioning: food and crop production; gathering water and fuel; caring for children and elders; and cleaning the house. This division of labor affects women's ability to participate in paid employment or gain access to education and training. According to 2003 labor force data, 68 percent of Bangladeshi women over the age of 15 report that they are primarily engaged in household work compared to 17 percent of men over the age of 15.

- **Fertility and reproduction**

Social attitudes affect what types of economic activities are considered appropriate for pregnant women or mothers to engage in. Caring for children may restrict a woman's mobility and may lead her to choose economic activities that will allow her to care for her children while earning an income. As a result, women may enter or exit the labor market more frequently, have lower job tenure, acquire fewer on-the-job skills, and seek jobs where tenure is less important (including in the informal sector). Labor Force Survey data from 2003 indicate that women make up 58 percent of unpaid family workers and 85 percent of domestic workers.

- **Gendered social norms**

In Bangladesh, gendered social norms reinforce discriminatory customary practices. For example, although the Constitution of Bangladesh guarantees every citizen "the right to acquire, hold, transfer, or otherwise dispose of property," Muslim and Hindu customary laws discriminate against women in inheritance. These customary laws and expectations are upheld throughout the judicial system. As a result, women have less title to land, which means they have less collateral when trying to obtain credit or loans. Lacking assets and land title, women have a more difficult time launching small enterprises or benefiting from export-led crop production.

- **Consumption patterns**

Household resources, including food, may be prioritized for wage earners, frequently men or boys. Furthermore, as primary caregivers who are responsible for household provisioning, women may be more affected than men by changes in the price of food, education expenses, or health care provision. When prices rise or service provisions decline, women may be required to compensate directly by reducing their

consumption, or indirectly by expanding their role as caregivers. A recent study found that in rural Bangladesh, preschool boys received a disproportionate share of animal and fish proteins. Adult women consumed roughly the same amount of animal and fish products that preschool boys consume, despite the greater need of adult women for these proteins.

- **Class, age, ethnicity, religion, and geography**

Class, age, ethnicity, religion, and location influence an individual's access to resources and ability to engage in economic activities. Even outcomes such as mobility and use of transport will vary for women from different socio-economic classes. Religious and ethnic minorities often have fewer social and economic opportunities, and women in these groups typically face even further reduced options. Women in urban and rural areas have different types of employment opportunities available to them. For example, urban women may find work as domestic servants or in the garment factories, while rural women are disproportionately employed as casual labor in agriculture.

Differences in ethnicity and location also affect outcomes for women in Bangladesh. Tribal women in the Chittagong Hill tracts, for example, were found to play a greater role in household decision-making than their Bengali counterparts. However, these tribal women live in isolated communities with few available services, and experience greater exclusion from sectors that have benefited from economic growth.⁵

TRADE IMPACT REVIEW METHODOLOGY

The aforementioned findings are readily familiar to donors and policymakers concerned with gender issues in Bangladesh. They do, however, provide an important context within which to view trade-related changes in the macro-, meso-, and micro-economy. The report draws from the McCulloch et al. framework⁶ for examining the impact of trade liberalization on the poor. The framework outlines three primary pathways through which trade liberalization can have a direct effect on poverty:

1. Price transmission. Trade liberalization changes the prices of liberalized goods and the relative prices of domestically produced and internationally traded goods. The price changes affect the poor and the non-poor differently depending on whether households are net consumers or net producers of the product whose price has changed. Price declines benefit consumers over producers, and price increments will benefit producers over consumers.
2. Enterprises. Trade liberalization affects households through its impact on profits and on employment and wages. If all factors of production are fully employed, price changes will be reflected in wage changes. If, however, there is a large pool of workers who move in and out of jobs, then trade liberalization is likely to cause changes in employment. How this affects poverty depends on the types of labor that poor households supply, and their ability to shift into other production and employment.

⁵ Since poverty is typically analyzed as a household phenomenon, the focus is on the household.

3. Taxes and spending. Trade liberalization can also affect poverty through changes in government revenues. Many governments are dependent upon trade taxation as an important source of revenue. If revisions in tariffs and duties affect public sector revenues, this has the potential to affect social spending and anti-poverty programs.

Expanding on the McCulloch framework, this report includes a gender analysis, reviewing the constraints which affect Bangladeshi women's economic agency, and investigating how trade liberalization reduces or reinforces existing gender inequalities.

To investigate these questions, this analysis draws from and synthesizes several other studies that the Greater Access to Trade Expansion (GATE) Project has undertaken regarding gender and trade in Bangladesh. These include: a Computable General Equilibrium (CGE) model; a gendered value chain analysis of the shrimp sector; and a legal and regulatory analysis.

- The CGE model is a gender-augmented model that differentiates between female and male workers in the labor market and accounts for non-market activities (household work and leisure) in addition to standard market activities. The model simulates the effects of trade changes in the Bangladeshi economy. The model emphasizes linkages among actors and sectors (both market and non-market) and provides quantification of direct and indirect results, offering insights from an economy-wide perspective to complement in-depth impact analysis of specific sectors.
- The gendered value chain analysis of the shrimp sector highlights the different positions and contributions of men and women across the value chain, and uncovers the economic, organizational, and asymmetric relationships among actors located along different points of the industry. The gendered value chain analysis consists of three discrete but complementary components: a segmentation analysis; an analysis of power and governance within the chain; and, an entitlements and capabilities analysis.

The segmentation analysis explores how the labor market is segmented throughout the value chain. Segmentation can be described in terms of sex, race, ethnicity, and immigration status at different points along the chain. A number of quantitative and qualitative indicators are used, including the degree of feminization and the degree of informality and insecurity of tenure by sex. Segmentation is related to wage, remuneration, and scale inequalities, as well as inequalities in exchange prices.

A gendered value chain analysis also addresses power within the production and exchange relationships. The analysis explores monopoly and monopsony power to set market prices, the power to bargain with buyers and sellers, indebtedness, and sub-optimal contracting. In addition to characterizing the market faced by workers and producers, how power may vary for particular workers and producers is considered, differentiating between men and women workers and entrepreneurs.

Additionally, the analysis considers entitlements and capabilities—those factors and characteristics that mediate men’s and women’s entitlements to productive resources, and their capabilities to deploy these resources. These entitlements and capabilities may feed into labor market segmentation or amplify and mitigate inequalities in power and governance.

- The legal and regulatory study analyzes Bangladesh’s major trade commitments and trade-related policies, laws, and institutions on three levels: 1) the *content* of these trade commitments and related laws, policies, and institutions; 2) their possible *interactions* with Bangladesh’s other international commitments, national laws and policies related to poverty reduction and gender equality, and societal norms and practices that influence women’s status and opportunities; and, 3) *law and policy changes* or other measures that could expand the benefits of trade liberalization or better mitigate the adjustment costs of trade liberalization for vulnerable groups, especially poor women.

Finally, this Trade Impact Review (TIR) includes additional original analysis of price data for key goods and services, wage data, a gender analysis of labor force survey data, a probability analysis of correlates of household poverty mapping import penetration and export orientation ratios, and a Duncan index calculation of key labor sectors.

KEY FINDINGS

TRADE AND POVERTY

- **Poor households spend significantly more on food than wealthier households.** Poor households spend 67 percent of total household expenditures on food. In contrast, the wealthiest households spend 46 percent of total household expenditure on food. In contrast to trade theory, food prices have risen in the past few years despite greater import penetration. Higher food prices will be particularly difficult for female-headed households and rural poor households, who may also be affected by import penetration in commodity sectors. Complementary measures to assist poor households in attaining adequate nutrition remain important.
- **Households that depend on agriculture for the majority of their income are disproportionately likely to be poor.** Such households experience poverty rates of 53 percent. Rural, landless households experience poverty rates of 60 percent. These households are also less likely to seamlessly move to other economic activities should trade expansion result in a contraction of their labor or a loss of livelihood. Programs and policies that focus on developing agricultural exports, diversifying rural livelihoods, and increasing small enterprise development and business clusters in rural areas would be beneficial.
- **Living in a rural area, being from a female-headed household, or from a large household increases the likelihood of the household being poor.** Female-headed households have a 7 percentage point increase in the likelihood of being poor. Rural households have a 17 percentage point increase in the

likelihood of being poor. Trade analysis and economic growth programs should consider the effects of policies on these vulnerable households. Particular programmatic attention should focus on drawing these households into productive sectors and increasing incomes and livelihood options for these households.

- **Working in an export-oriented sector slightly reduces the likelihood of being poor.** Similarly, working in an import-oriented sector slightly increases the likelihood of being poor. A one percentage point increase in import penetration increases poverty by about 0.4 percentage points. Policies and programs that provide a “cushion” for producers of import-sensitive items, assist small farmers in transitioning to more productive sectors, or provide short-term relief for families affected by import-penetration may be important.

TRADE, LABOR, AND WAGES

- **Although sex-segmentation in the labor force fell by 10 percent between 1990 and 2000, men and women continue to occupy very different jobs.** Women are less likely to be employers, employees, self-employed, day laborers, or apprentices than men, but are over-represented as unpaid family workers or domestic workers.
- **Women earn less than men in most occupations, even for the same number of hours of work.** This means that female-headed households must work longer hours to earn as much as male-headed households. Increased training for female workers as well as better labor monitoring and compliance, including issues of wage discrimination, are needed.
- **According to the CGE simulations, even if the textile industry were to maintain its competitiveness in the future, women would be at a higher risk of losing their jobs than men and face more restricted options.** This is due to the fact that if the industry switched to more higher-value items, these items would be more capital intensive and require more highly trained workers and supervisors. In other parts of the world, this type of switch has led to the “defeminization” of the labor force.
- **The CGE modeling exercise found that if women lose jobs in the garment industry, the actual decline in employment is greatest for women with primary education and the least for women with no education.** Women with no education are likely to find new employment in agriculture, especially vegetable production and livestock, although this is very low-waged and may even be unpaid labor. Women with primary education may be able to find other employment that is better paid than agricultural work.

TRADE AND AGRICULTURE

- **In agriculture, women are not located in sectors or tasks where they would benefit from increased trade liberalization.** Women are disproportionately engaged in growing cotton, horticulture, dairy farming, providing irrigation services, and sap production for tanning leather. The majority of these sectors

are neither export-intensive nor experience high import penetration. Efforts to move women into productive export opportunities, such as sericulture, horticulture, and production of vegetables and foods, should be encouraged.

- **Although women are a growing proportion of agricultural day laborers and workers, they earn a little less than 60 percent of male wages per hour.** This reflects sex-segmented tasks and sex-based mobility restrictions.
- **In shrimp exports, women receive lower wages than men for the same jobs throughout the sector.** Women shrimp fry catchers earn 64 percent of male catchers, 71 percent of men's wages in the packing section of processing plants, and 60 percent of men's wages in the cooking/breeding section of processing plants.
- **Women's employment throughout the shrimp sector is more casual or temporary than men's.** Although more men are working as shrimp farmers in the sector, 73 percent of women's labor is in temporary or casual employment. Similarly, within the processing plants, 92 percent of women's labor time is considered temporary or casual.
- **Workers in shrimp hatcheries and on shrimp farms may not be covered by national labor laws.** Although workers at shrimp depots and sorting stations are covered by national labor laws, agricultural workers are not.
- **Laws and regulations exist in Bangladesh to address many of the environmental and social risks in the shrimp sector.** However, inconsistencies and gaps in the regulatory framework and weak enforcement of existing laws and rules undermine efforts to improve the sector.

CONCLUSIONS

Bangladesh has benefited from increased trade openness. GDP has risen and the country sustained a nearly 5 percent growth rate between 1990 and 2000. Yet despite these strides, the economy is heavily dependent on exports in apparel and agriculture, two sectors which are vulnerable to exogenous changes. Moreover, throughout the economy the labor market is highly sex-segmented, and women are concentrated in lower-waged, more flexible, and contingent positions. This is problematic because it may indicate an inefficient labor market. Additionally, increasing women's income has beneficial spillover effects for the household and for increased human capital development.

RECOMMENDATIONS

- **Expand educational and vocational training programs for women** to reduce the sex-segmented labor market.
- **Encourage women's entry into the labor market** through job centers which could provide assistance to women in searching for, gaining, and accepting new employment.

- **Promote greater export diversity**, with a particular focus on activities that women can participate in. For example, working with the HORTEX Foundation and the Bangladeshi Rural Advancement Committee (BRAC) on their sericulture and horticulture projects would expand opportunities for women.
- **Encourage domestic sourcing** and forward and backward linkages among small producers along the value chain.
- **Revise the Industrial Policy** to address the needs and concerns of women entrepreneurs (e.g., through special incentives and other measures).
- **Help small businesses run by women form groups to import raw materials**, and allow women's business groups to open joint letters of credit.
- **Adopt a preferential Government policy** to procure local products from women-owned businesses.
- **Expand affordable and secure housing** for workers in the ready-made garment (RMG) sector.
- **Improve and expand access to health care for RMG workers** through the creation or provision of a medical allowance, group health insurance, NGO-provided health care, or access to medical facilities managed by the Bangladesh Garment Manufacturers' and Exporters' Association (BGMEA).
- **Establish an RMG workers compensation fund** to provide severance pay and benefits for workers whose factories are closed. Financing could come from factory owners that are members of BGMEA, who could each contribute to the fund. Such a fund could also be used to compensate survivors and victims of RMG factory fires or collapses.
- **Conduct an impact analysis of agricultural import liberalization.** Recent policy research studies indicate that domestic farmers, especially small farmers, have found it difficult to compete with agricultural imports, especially from countries that provide substantial agricultural subsidies. The Government should analyze the impact on small farmers and agricultural workers, disaggregated by sex, of any further liberalization of agricultural imports.
- **Support to small farmers.** These studies also indicate that the liberalization of agricultural inputs, such as fertilizer, irrigation water, and credit, has had a disproportionately negative impact on small farmers. To ensure the viability of small farms in a liberalized environment, it will be important for the Government to strengthen support programs for small farmers to ensure access to critical inputs, credit, improved technology, and marketing services. USAID and other development partners could provide substantial expertise and other support in this area.
- **New legislation on patents and plant varieties.** The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) and related decisions of WTO bodies provide important flexibilities to Bangladesh and other LDCs. The

Government should ensure that the new Patents and Designs Act and the Plant Variety and Farmers' Rights Protection Act take full advantage of the transition periods and flexibilities provided in the TRIPS Agreement, especially related to the patenting and compulsory licensing of pharmaceuticals and the protection of farmers' rights to save seeds. In line with the outcome of the recent WTO Ministerial Meeting in Hong Kong, development partners should ensure that their trade arrangements and development assistance programs support Bangladesh's rights under the TRIPS Agreement.

- **Protection of geographical indications.*** Handicrafts produced in particular regions of Bangladesh could benefit from legal protection, which would also enhance the internal and external marketing of these distinctive products. The Government could consider legislation to provide simple, transparent, and inexpensive procedures for establishing and protecting geographical indications for handicrafts and other artisanal products.
- **Capacity development on geographical indications.** In the event that geographical indications do receive protection, it would be important to provide practical information and training on geographical indications to artisans, especially women. Development partners and private sector trade bodies could assist the Government in providing this information and training.

INTRODUCTION

The 2006 World Bank report “Assessing World Bank Support for Trade 1987–2004” expands the ongoing debate about trade liberalization, economic growth, and poverty reduction. The report reviewed the World Bank's programs in support of trade liberalization. The review found that trade liberalization alone was frequently not sufficient to sustain economic growth. The report also observes that employment and poverty outcomes associated with trade reforms have been mixed.

Liberalizing trade is a complex process and the effects of freer trade are multi-faceted; policymakers' decisions concerning which sectors are opened and which remain protected may improve or erode the livelihoods of producers, workers, or consumers depending upon where they are located within the economy. Changes in the economy wrought by trade liberalization may be contradictory or complementary. Multiple effects take place simultaneously, and one may be helped by certain effects while concomitantly harmed by others.

Just as the effects of trade liberalization are multi-faceted, so these effects are further complicated as countries sign bilateral, regional, and multilateral trade agreements.

* Geographical indications (GIs) are defined in Article 22 of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) as: “indications which identify a good as originating in the territory of a Member, or a region or locality in that territory, where a given quality, reputation or other characteristic of the good is essentially attributable to its geographic origin.”

Certain effects may be amplified while others are mitigated by newer precedent-setting trade commitments. As policymakers seek to harness the best aspects of trade liberalization and mitigate worker displacement and the loss of domestic markets, it is important they understand the effects of past liberalization policies on the poor, anticipate the potential effects of further trade commitments, and consider complementary policy and program initiatives to assist poor Bangladeshis in gaining from trade liberalization.

As currently analyzed and regulated, trade liberalization is presumed to be gender neutral. However, seemingly neutral market mechanisms and macroeconomic policies can reinforce social biases and inequalities. Trade liberalization does not occur without adjustment costs. The removal of tariffs and quotas may expose previously protected sectors to competition and open up new areas to exchange and commodification. New trade policies are likely to produce changes in employment, price, income, and consumption patterns, which affect men and women differently. This report will address these effects using data from household and labor force surveys and drawing on literature and research commissioned by the GATE Project.

This report seeks to assist donors and policymakers in understanding the effects of trade policies on key sectors, as well as on poor producers, consumers, and entrepreneurs. The analysis employs a gender perspective—assessing where men’s and women’s experiences under trade liberalization diverge and suggesting actions that would create more gender-equitable opportunities for both men and women to gain from increased trade openness.

The primary goal of this Trade Impact Review (TIR) is to provide concrete policy recommendations for USAID, the Government of Bangladesh (GOB), and other stakeholders to maximize opportunities to integrate poor men and women into emerging sectors and to minimize the costs of dislocation and redundancy as Bangladesh adjusts to the new trade regime in the wake of the ending of the MFA.*

RATIONALE FOR A GENDER ASSESSMENT OF TRADE IN BANGLADESH

Bangladesh is an economy firmly in transition from a primarily agrarian economy to one dominated by services. The contribution of agriculture to GDP has declined from 56 percent of GDP in 1980 to 22 percent in 2003. Over the same period, value added in services has risen from 41 percent to 52 percent.

Since 1992, Bangladesh has implemented a series of liberalization measures to increase trade openness, revise and reduce tariffs and quotas, and improve customs and excise procedures. Bangladesh became a member of the WTO in 1995 and has subsequently negotiated participation in a number of multilateral, regional, and bilateral trade agreements designed to lower tariff and non-tariff barriers. Donors, in concert with the GOB, have directed funding to trade expansion activities and supported the growth of traded production.

* The MFA was scheduled for phase out on December 31, 2004.

Yet despite these initiatives, Bangladesh remains a country heavily dependent on a limited number of exports to earn foreign exchange. Textiles, clothing, and footwear account for approximately 80 percent of all exports. Furthermore, the principal exports, most notably RMG and shrimp, are dependent on a high level of intermediate and capital imports.* This dependency both increases imports and reduces net earnings from trade. Since 1992, both imports and exports have risen, but net exports (exports minus imports) have remained negative at about -6 percent of GDP.

Further liberalization, as well as changes in global agreements on quotas, will affect the Bangladeshi economy differently in the short and medium term. The ending of the MFA in 2005 and changes in the demand for agricultural exports are likely to affect the Bangladeshi economy negatively. Among the forecast effects is a decline in external demand or a decrease in prices for Bangladeshi exports—most notably RMG.† There are likely to be both winners and losers as Bangladesh adjusts to these trends. If jobs are lost in some sectors, or the workforce becomes informalized, this is expected to affect individuals and households negatively, reducing wages and increasing insecurity. Men and women are likely to be affected differently since they concentrate in different sectors, earn different levels of compensation, and have differential access to productive resources such as land and capital.

Liberalization has been accompanied by growth and the expansion of employment opportunities in certain sectors—most notably RMG and manufacturing. Poverty rates have also declined over the liberalization period from 59 percent nationally in 1991/92 to a little under 50 percent in 2000.⁷ Although rural poverty rates remain higher than those for urban areas, the same trend is observed over the liberalization period. Yet despite these declines, pronounced regional variations exist in poverty rates throughout Bangladesh. As Mujeri⁸ observes,

Such regional variations in poverty levels are influenced by many factors, including uneven expansion of socio-economic opportunities and differences in incidence of natural disasters. The incidence of poverty tends to be high in disaster-prone areas. Poverty is also high for the landless, especially those who have agricultural wage labor as their principal occupation and for those who are engaged in marginal occupations and skills. Similarly, poverty and social deprivations are higher for the hill people of the Chittagong Hill Districts and the tribal population in other parts of the country.

Trade liberalization opens up opportunities for workers in emerging and growing sectors; simultaneously, other sectors may decline, being unable to compete with cheaper imported goods or in export markets where foreign competitors can produce similar products more efficiently. The costs and benefits of trade-induced change vary for individuals and households. Those who benefit are frequently better educated and better able to adapt their skills for expanding sectors. The less educated and the poor are disproportionately more isolated from the opportunities afforded by liberalization.

* Shrimp production demonstrates significantly high backward linkages – since most raw materials are national in origin. The capital required to run processing plants however is largely imported.

† See for example Bhattacharya, Debapriya and Mustfizur Rahman. “Prospects for Internalising Global Opportunities,” 2001; Arndt et al. “Opportunities and Challenges in Agriculture and Garments,” 2002.

Additionally, persistent gender inequities in Bangladesh limit women’s potential to participate in opportunities afforded by trade liberalization. Women are generally less educated and more likely to be illiterate than men. Social norms limit women’s mobility and accordingly affect their ability to participate in the labor force. Highly sex-segregated labor markets underpin significant gender-related wage differentials. It is not surprising, therefore, that greater exposure to the world economy is likely to have uneven effects on men and women in Bangladesh.

METHODOLOGY

The TIR explores the impact of trade liberalization on particular sectors in Bangladesh, drawing on available household survey, firm, and national accounts data. Although the primary focus of the review will be the impacts of liberalization on agriculture and manufacturing, the report will also consider distributional impacts. In addition, the TIR explores how trade may have affected the labor market and household reproduction.

The TIR analyzes the terms and conditions of employment for men and women in sectors that have been affected by trade. The TIR does not undertake a causal analysis of liberalization, but highlights where poverty and inequality are persistent, and calls attention to the need for a gender analysis of these inequalities.

The research draws heavily on the McCulloch framework for examining the impact of trade liberalization on the poor. The framework outlines three primary pathways through which trade liberalization can have a direct effect on poverty:^{*}

1. Price transmission. Trade liberalization changes the prices of liberalized goods and consequently the relative prices of domestically produced and internationally traded goods. The price changes affect the poor and the non-poor differently depending on whether households are net consumers or net producers of the product whose price has changed. Price declines benefit consumers over producers, and price increments will benefit producers over consumers.
2. Enterprises. Trade liberalization affects households through its impacts on profits, and consequently upon employment and wages. If all factors of production are fully employed—that is, there is no unemployment or underemployment—price changes will be reflected in wage changes. If, however, there is a large pool of workers who move in and out of jobs, then trade liberalization is likely to cause changes in employment. How this affects poverty depends on the types of labor that poor households supply, and their ability to shift into other production and employment.
3. Taxes and spending. Trade liberalization can also affect poverty through changes in government revenues. Many governments are dependent upon trade taxation as an important source of revenue. If revisions in tariffs and duties affect public sector revenues, this has the potential to affect social spending and anti-poverty programs.

^{*} Since poverty is typically analyzed as a household phenomenon, the focus is on the household.

The TIR develops the analysis of these pathways and highlights how the impacts may be different for poor men and women. The analysis uses data from the Labor Force Surveys for 2000 and 2003, as well as the Household Income and Expenditure Survey for 2000. As part of the analysis, the TIR will draw on findings from three complementary trade policy analyses undertaken by the GATE Project on the shrimp and RMG sectors, nationally—through a general equilibrium analysis—and through a legal and regulatory analysis that considers the effect of trade agreements on domestic legislation and international commitments.⁹

GENDER ANALYSIS

Throughout the document a gender and development analysis is deployed, differentiating individual and household strategies in the face of liberalization and trade and technology shocks by their impacts upon poor men and women. There is ample evidence that poverty can be experienced differently by men and women. Men and women frequently have different entitlements to productive resources and different capabilities to deploy these resources.*

A number of factors mediate women’s entitlements to productive resources and their capabilities to deploy these resources. These factors shape their engagement in economic activities, their access to particular markets, and their ability to benefit from trade expansion.

- Asymmetric rights and responsibilities. Throughout many countries and regions, the gender division of labor within the household underpins fundamental differences in the rights and responsibilities of men and women. In many rural societies, for example, women are responsible for household provisioning: food crop production, gathering fuel, hauling water, and caring for children and the aged. In return, men are expected to meet certain cash requirements of the household. This division of labor affects women’s ability to participate in paid employment and access education and training, and influences their choice of productive activities.

Certainly, data for Bangladesh indicate substantial gender differences in the division of labor both within and beyond the household. In Bangladesh, data from the labor force survey for 2003 indicate that 66 percent of women over the age of 15 report that they are primarily engaged in household work, whereas 83 percent of men over the age of 15 report that they are primarily engaged in economic activities. Furthermore, 48 percent of all employed women report being unpaid family workers, while only 10 percent of men report the same status.

- Fertility and reproduction. Women bear most of the burden of reproduction. As a result of their biological ability to gestate and reproduce, social prescriptions shape what is considered to be acceptable for women during much of their

* This draws on Amartya Sen’s analysis of poverty in terms of a lack of entitlements and capabilities. Traditionally poverty was considered to summarize a lack of access to resources, productive assets, and income resulting in a state of material deprivation (Sen, 1999). The shift to a capabilities and entitlements analysis allows practitioners to focus on the processes that underpin or precipitate material deprivation—highlighting the causes and not just the symptoms.

reproductive life. Motherhood confers certain responsibilities upon women that can restrict their movement and labor market participation. Consequently, women may enter and exit the labor market more frequently, have lower job tenure, acquire fewer on-the-job skills, and earn lower wages. Women may, therefore, seek employment in sectors (including the informal sector) where job tenure is less important. As a result, fewer women may possess long-term contracts or work in the formal sector.

Although there are no consistent data on the size of the informal sector in Bangladesh, women make up 58 percent of all unpaid family workers and 85 percent of all domestic workers.* Data from the 2000 Household Income and Expenditure Survey underscore the fact that women earn less than men across all activities when we control for levels of education. Women with no education earn 44 percent of men's wages per hour, while women with less than 5 years of education earn approximately 45 percent of men's wages per hour. Although women with higher levels of education earn higher wages, even with more than 10 years of education, women earn only 63 percent of men's hourly wages.

- Gendered social norms. Although there are variations across countries, social norms strongly influence men's and women's work and working environments. Some tasks and jobs are considered more appropriate for men or women, and overt or covert screening filters out applicants who defy these norms. These same norms and expectations also influence women's access to productive assets and their ownership of wealth. For example, in many regions of Africa men hold formal land title, and women's land rights are contingent upon their status as a wife or mother. Any change in civil status for the woman, such as widowhood or marriage, alters her land rights and her access to a critical productive resource. Consequently, gendered social norms that restrict women's ownership of assets can have far-reaching implications for their ability to access other productive resources, limiting their productivity and ability to engage in economic activity.

In Bangladesh, gendered social norms reinforce discriminatory customary practices. For example, although the Constitution of Bangladesh guarantees to every citizen "the right to acquire, hold, transfer or otherwise dispose of property," Muslim and Hindu personal laws discriminate against women in inheritance. Even where women inherit property, social norms dictate that they waive their inheritance rights in favor of their brothers in order to ensure the brothers' support and protection in the event of divorce or abandonment by their husbands. These customary laws and expectations are upheld throughout the judicial system. McGill reports that in the face of corruption and the traditional biases of land administration officials, women have difficulty asserting their rights in land disputes, and poor women are at a particular disadvantage.¹⁰

The practice of purdah is another example of gendered social norms that affect women's productive and reproductive lives. Purdah is a practice that includes the

* Data from the Labour Force Survey for 2003.

seclusion of women from public observation by wearing clothing that conceals key body parts and by the use of walls, curtains, and screens in public places frequented by women, as well as in the home. The observance of purdah affects women's mobility and their ability to engage with non-family members. As a result, the practice also places constraints upon women's participation in all forms of markets and workplaces.

- Consumption patterns. Because of women's primary role as caregivers, their expenditure and consumption patterns may differ from those of men. Household resources, including food, may be prioritized for wage earners, frequently men or boys. Furthermore, as primary caregivers who are responsible for household provisioning, women may be more affected than men by changes in the price of food, education expenses, or health care provision. When prices rise or service provision declines, women may be required to compensate directly by reducing their consumption or indirectly by expanding their role as caregivers.

A recent IFPRI report finds that the distribution of food consumption is unequal in rural Bangladesh.¹¹ Preschoolers were favored, particularly preschool boys, who received a disproportionate share of animal and fish proteins. Adult women received less than their equal share of these foods. Although adult women consume substantially greater amounts of energy in the form of food than preschool children, their consumption of animal and fish products roughly equals the amount preschool boys consume. This gives cause for concern because women's requirements for iron and other micronutrients greatly exceed those of preschool boys.

- Time poverty. Women generally enjoy less leisure time than men due to their different responsibilities outside and within the household. Although both men and women divide their time between paid and unpaid work and leisure, women consistently work more hours in paid and unpaid work and enjoy less leisure time than men. Consequently, women may be time poor. Any policy changes that result in an increase in women's time burdens are likely to have a negative impact on women's welfare and well-being, and may also affect the welfare and well-being of other household members.

Fontana and Wood undertake an analysis of time use data for Bangladesh.¹² These authors find that of the hours not absorbed by minimal personal care, men spend 57 percent in market activities compared to 30 percent for women, and 31 percent in leisure, compared to only 8 percent for women. The proportions are reversed for household labor, which occupies only 12 percent of men's available hours, compared to 61 percent for women. The main market activity for both genders is agriculture, but particularly for women: employment in manufacturing and services occupies only 5 percent of their time, as compared to 21 percent of men's time.

¹¹ See for example United Nations Statistics Division, "Women's Indicators and Statistics Database," 2000; Floro, Maria. "Economic Restructuring, Gender and the Allocation of Time," 1995.

- Class, age, ethnicity, religion, and geography. Women (and men) are heterogeneous groups. Class, age, ethnicity, religion, and location mediate an individual's access to resources and ability to engage in economic activities. Even outcomes such as mobility and use of transport vary for women from different socio-economic classes. Religious and ethnic minorities often have fewer social and economic opportunities, and women in these groups typically face even further reduced options. Women in urban and rural areas have different types of employment opportunities available to them. For example, urban women may find work as domestic servants or in garment factories, while rural women are disproportionately employed as casual labor in agriculture.

Differences in ethnicity and location also affect outcomes for women in Bangladesh. Tribal women in the Chittagong Hill tracts, for example, were found to play a greater role in household decision-making than their Bengali counterparts. However, these tribal women live in isolated communities with few available services, and experience greater exclusion from sectors that have benefited from economic growth.¹³

These characteristics may overlap and many reinforce each other. The combination of women's asymmetric rights and responsibilities and their relative time poverty can mean that their own labor supply is frequently less flexible than that of men, and their responsiveness to market signals can be greatly limited. The net effect of the combination of these characteristics is that men and women may face different opportunities and constraints that affect their ability to enter markets and benefit from trade liberalization.

OVERVIEW OF THE REPORT

This report conducts a gendered analysis of the observed and potential effects of increasing integration with the global economy on poor men and women in Bangladesh. We deploy a McCulloch framework to explore the primary price, enterprise, and public sector effects of increasing integration with the world economy, highlighting how these transmission mechanisms may affect men and women differently. Finally, we use a gender analysis that comprises the entitlements and capabilities approach outlined above to explore how the gendered effects may be amplified or mitigated by men's and women's entitlements to productive resources and their abilities to deploy these resources to engage in labor and product markets. Section two develops an overview of trade liberalization and the macroeconomy in Bangladesh. Section three reviews the McCulloch framework and describes how the key mechanisms by which greater integration affect prices, enterprises, and the public sector in Bangladesh. This section also analyzes how these transmission mechanisms can and do affect men and women differently. Section four provides a legal and regulatory analysis of the content and potential conflicts between trade commitments and gender and poverty commitments. Section five summarizes the principal conclusions from the report, and section six outlines a series of recommendations for USAID and the Government of Bangladesh to maximize the benefits and minimize the costs from trade.

TRADE LIBERALIZATION AND THE MACROECONOMY IN BANGLADESH

Changes in trade openness have been accompanied by significant shifts in the composition of GDP in Bangladesh. The last two decades have seen a precipitous rise in the contribution manufacturing and services make to GDP, while agriculture has declined as a share of GDP. In 1980, agriculture accounted for 56 percent of GDP, manufacturing 13 percent, and services 31 percent. By 2003, agriculture had contracted, falling to 22 percent of GDP, while manufacturing and services had risen to a little over 27 percent and 52 percent respectively.

Manufacturing employment fluctuated over the 1980s and 1990s, rising and falling significantly.¹⁴ It is clear that over the course of the 1990s, services and manufacturing employment expanded much more rapidly than agriculture. Unfortunately, manufacturing employment rose and then declined significantly in the mid 1990s, following a rapid pace of expansion in the 1983/84–1990/91 period. Between 1983/84 and 1990/91, employment grew at 3.2 percent per annum. By the mid 1990s, employment growth had fallen to 2.8 percent per annum. Ahmed and Sattar report that the decline in manufacturing employment recorded in the Labor Force Survey is the reason for the observed slower pace of expansion of overall employment in the 1990s.¹⁵ The decline in manufacturing has also contributed to the view that trade liberalization coupled with privatization has exacerbated de-industrialization in Bangladesh and led to the development of export enclaves with limited backward linkages.*

Between 1990 and 2003, real GDP in Bangladesh increased by almost 90 percent, averaging a sustained growth rate of about 5 percent per year. Over the same period, total employment increased by only 2.3 percent per year. GDP per capita doubled between 1990 and 2003, fueled in part by the growth in traded goods and the expansion in services. Currently, the major exports are raw jute, jute goods, tea, leather, frozen fish and shrimp, and ready-made garments, while major imports are capital goods, food grains, petroleum and oil, yarn, and textiles. Clothing and textiles account for approximately 80 percent of Bangladesh's exports—with almost 40 percent of these exports going to the United States. To date, the annual growth rate for exports during the 1990s and early 2000s has marginally eclipsed the growth in imports. However, the current account balance remains negative, at about -6 percent of GDP.¹⁶

LIBERALIZATION IN BANGLADESH

Tariffs and duties are policy levers that can be deployed to protect domestic industries from competition from abroad, and to generate revenue by taxing goods entering and exiting the country. Some countries have employed a mix of tariffs and subsidies to foster infant industries and accelerate the growth of domestic production.[†] However, the past two decades have seen an incremental adherence to reduced tariffs and duties, with the goal of liberalizing economies and promoting trade worldwide.

* See for example Muqtada, M. "Promotion Of Employment And Decent Work In Bangladesh: Macroeconomic and Labour Policy Considerations," 2003.

† Most notably Brazil, India, and the East Asian economies.

CHANGES IN TARIFFS

Since 1992, Bangladesh has liberalized its trading regime by greatly reducing tariffs and eliminating some quantitative restrictions on imports.¹⁷ In 1995 Bangladesh joined the WTO. As part of its accession to the WTO, the Government undertook the progressive reduction of tariff and non-tariff barriers. By 1994, the share of quota-free import items rose to 94 percent of all Harmonized System (HS) 8-digit items and only 0.4 percent of imports remained banned.* It is clear that the pace of liberalization has varied for different types of goods. In particular, the reduction in restrictions on the import of intermediate and capital goods has been much faster than for consumer goods. In 1987, 76 percent of intermediate and 73 percent of capital goods were already allowed unrestricted import; this share increased to 97 percent and 93 percent respectively in 1994.

In addition to the dismantling of non-tariff restrictions, there has also been a significant reduction in nominal protection rates since joining the WTO. The number of tariff bands has fallen from 15 in 1992/93 to four in 2005, and the maximum tariff rate has fallen from an average of 300 percent to 37.5 percent, and subsequently to 25 percent in 2005.¹⁸ However, the average tariff rate is substantially lower because many of the non-competing imports—such as locally unavailable raw materials and machinery and capital equipment—enter at zero or very low rates (see Table 1). Competing imports face higher tariff rates, and finished products typically face the maximum tariff rate.

Notwithstanding these changes, tariff rates vary considerably across products and sectors, and their revision has not necessarily resulted in harmonization. Furthermore, a unilateral analysis of tariff revisions in Bangladesh fails to take account of regional changes in trade regimes. South Asian economies have made considerable progress toward simplifying their trading regimes and making them more transparent, eliminating most quantitative restrictions and simplifying customs schedules. There are, however, important exceptions to this trend. In some countries, most notably India, the strategic use of anti-dumping claims, specific duties, and sanitary and phyto-sanitary (SPS) regulations has increased technical barriers to trade.

Table 1. Measure of Liberalization, 1991–2003

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Number of tariff rates	17	17	14	11	5	6	6	6	6	5	5	4	4
IDS	--	--	--	--	--	--	--	2.5	2.5	2.5	3	3	3
Average license fee	--	1.2	1.4	1.5	1.5	1.2	1.3	1.3	1	--	--	--	--
Top customs duty rate	350	350	300	300	60	50	45	42.5	40.5	37.5	37.5	37.5	37.5

Notes: IDS is the Infrastructural Development Surcharge.

Source: World Trade Organization, "Trade Policy Review Bangladesh," 2000, Table 1, page 5; World Bank, "Bangladesh Growth and Export Competitiveness: Statistical Appendix," 2005, Table 1, page 151.

* The current statistical nomenclature embraced by the WTO is based on the Harmonized System agreed in 2002, which contains around 7000 8-digit commodity subdivisions: the first six digits correspond to the HS, the 7th and 8th digits are national subheadings established for the purposes of tariff, trade statistics, or trade policy measures.

In aggregate, there has been a decline in tariffs levied on traded goods. With the decline in tariffs in accordance with agreements with the WTO and bilateral negotiations, the composition and incidence of trade-related taxes and duties has shifted over time. Some analysts argue that Bangladesh's trade policy became more import-substituting in the late 1990s. The World Bank observes that cuts in customs duties were offset by the use of other protective taxes.¹⁹ These include a Supplementary Duty (SD) and Value Added Tax (VAT). Additionally, the Infrastructure Development Surcharge (IDS), an across-the-board import tax, was introduced in 1997/98, and has gradually been increased from 2.5 percent to its current level of 4 percent (of the 'assessable value' of imports). Moreover, a Regulatory Duty (RD) was introduced in 2000/01, and in 2003/04 it was levied on 334 tariff lines that included marine products, transport equipment, and electrical and non-electrical machinery—at rates ranging from 5 percent to 30 percent, with over 70 percent of the applied rates being at 30 percent.

In principle, the SD and VAT are protection-neutral taxes. Their neutrality depends, however, upon how they are implemented. In Bangladesh, the SD is levied primarily on imported products (e.g., imports of textiles), and the World Bank notes that when applied on domestically produced substitutes, the rates are generally lower.²⁰ Furthermore, because the SD is levied on the landed value (Free On Board (FOB) plus transport costs) plus customs duty, it has a compounding effect, with protection rates rising steeply with higher customs duty rates. In 2003/04, 691 tariff lines were subject to the SD at nine different rates ranging from 15 percent to 75 percent. Approximately 35 percent of SDs were on textiles, but other duties were levied on a diverse set of products covered by 41 different HS chapters, with the SD rate on imports averaging 30 percent. Similarly, VAT has been used to provide extra protection to certain import-competing industries (e.g., imports of textiles are subject to the general VAT rate of 15 percent, but domestically produced textiles are subject to a special lower VAT rate of 2.5 percent).*

EXCHANGE RATE REGIME

In addition to changes in tariffs and non-tariff barriers, the Bangladeshi economy has substantially liberalized the exchange regime. Until 1990, multiple exchange rates were allowed under different export benefit schemes such as the Export Bonus Scheme and Home Remittances Scheme. In 1991/92, Bangladesh unified the exchange rate, reducing the scope for parallel rates and black market exchanges. In 2003, Bangladesh floated the taka, allowing it to be freely determined in foreign exchange markets. Prior to the float, the taka was pegged to the dollar at a pre-announced value of between 57.4 and 58.4 BDT per US dollar.

The extent to which the taka remains over- or under-valued in both real and nominal terms with respect to trading currencies can significantly affect exports and sourcing decisions by companies purchasing ready-made goods and textiles. According to Bhattacharya, by March 2005 the taka was over-valued against the euro by 13.6 percent and against the US dollar by 10 percent.²¹ A trend toward over-valuation

* The use of such taxes may have little effect on the propensity to import textiles. Estimates from the Centre for Policy Dialogue report that between 1990 and 2005, although the share of imports of textiles in total imports declined from 16.2 percent to 12.3 percent in absolute terms, the value rose from \$695.2 million to \$1265.2 million.

appears to be persistent and may exacerbate the trade deficit, encouraging greater import dependency and discouraging exports.

EXPORT SUBSIDIES AND INCENTIVES

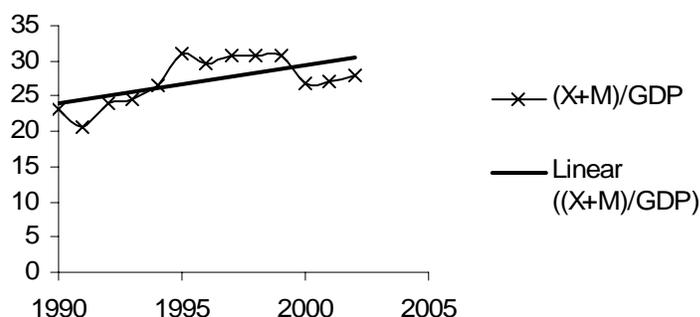
The Government of Bangladesh encourages export growth through measures such as duty-free status for a range of imported inputs, including capital machinery, and providing financing for exporters. Additionally, some sectors are provided separate customs facilities. RMG producers are entitled to bonded warehousing and back-to-back letter of credit facilities for imported cloth and accessories. The central bank also offers a 25 percent rebate to domestic manufacturers of fabric for RMG exports. Finally, exporters can exchange 100 percent of their foreign currency earnings through any authorized dealer without restrictions.

Direct subsidies have been significantly reduced in recent years in Bangladesh. For example, government-financed interest rate subsidies to exporters are not long term. Once extended, these subsidies are reduced in stages over five years. The number and type of products and activities eligible for these subsidies have been reduced since 2000. Subsidies applied to diesel fuel for irrigation and to fertilizer, however, are considered important for crop production—and particularly rice production. While rice is primarily a consumption item, these subsidies are also applied to crops for export production. But these subsidies have also been reduced over time. By 1999–2000, Rahman and Deb calculate that fertilizer subsidies had declined to a little over \$33 million, with a further \$7 million in indirect subsidies to electricity for use in irrigation.²²

MEASURES OF OPENNESS

As a result of these changes to the trade and exchange regime, Bangladesh appears to have become increasingly more open. Conventional measures of openness reveal that trade has increased in Bangladesh during the 1990s and early 2000s. One measure of openness is the ratio of the sum of imports and exports to GDP. Figure 1 reports this ratio for 1990–2003. Clearly the total volume of goods traded has increased over time as a proportion of GDP, rising from a little under 24 percent of GDP in 1990 to a little over 28 percent in 2002. The linear trend line indicates that the overall direction of change is positive.

Figure 1. Trade Openness in Bangladesh, 1990–2002 (Percent)



Source: Author's calculations using data from the Bangladesh Bureau of Statistics.

It is important to note, however, that measures of openness typically fail to take account of the institutions administering and mediating trade, particularly customs and excise institutions. Although Bangladesh has enacted some of its WTO commitments, a number of key institutional reforms remain outstanding. Among these are commitments to ensure greater consistency and transparency in customs administration, tariff concessions, advance income taxes on imports and exports, import surcharges, subsidies and other assistance, competition policy, and the regulatory framework.

The World Bank reports in its comprehensive analysis of trade and competitiveness that bribery and corruption significantly impede trade in Bangladesh.²³ Manufacturers must pay bribes both to clear imported materials through customs and to export finished products. Bribes typically amount to between 2 percent and 5 percent of the total import value, and sometimes as much as 10 percent. For example, the World Bank analysis of the impediments to trade for the RMG sector underscores that “[h]eavy corruption at the ports increases the cost of doing business substantially, thereby decreasing the country’s competitiveness. For instance, imported machinery costs as much as 10 percent more due to bribes that need to be paid at the point of import”.²⁴

Transparency International finds similar levels of corruption and bribery in customs,²⁵ reporting that in 2005, a total of 410 million taka was collected by customs officials as “speed money” to facilitate the loading and unloading of goods. The majority of the bribes were exacted for importing capital machinery that was destined for export production in textiles and ready-made goods.²⁶

MACROECONOMIC TRENDS

Liberalization of trade affects the domestic economy by lowering the prices of imported goods and reducing disincentives to export. A number of macroeconomic outcomes are amplified or dampened by changes in the trade regime and openness of the economy.

Much of the impact of liberalization is macroeconomic in nature. This section summarizes the effects on the overall level of economic activity, the inflation rate, and other key macroeconomic price variables, such as the real exchange rate, the real wage rate, the terms of trade, and the real interest rate. Without attributing causality, we observe that openness has been accompanied by significant changes in national savings, investment rates, and tax revenues in Bangladesh. Contrary to expectations, liberalization has not produced a major expansion of exports, and may have exacerbated imbalances in the current account, accelerating imports. Additionally, the types of incentives offered to national and foreign investors to expand traded activities have resulted in the creation of enclave production with comparatively weak backward linkages in RMG. Furthermore, productivity growth in the export sector has been disappointing at most. Weak employment growth in manufacturing and industry has prompted the expansion of the informal economy* and may have contributed to earnings inequalities in Bangladesh.²⁷

* Although consistent measures of the informal economy are not available for Bangladesh, the ILO estimates that 75 percent of workers in non agricultural employment are self-employed.

Changes in macroeconomic variables can have strong repercussions at the sectoral level and are visible in changes in output, employment, and wages. These aggregate and sectoral labor market outcomes affect individuals and households in different ways depending on their asset and human capital endowments. Using the McCulloch framework, we attempt to summarize some of these changes and highlight the potential gender impacts associated with these effects.

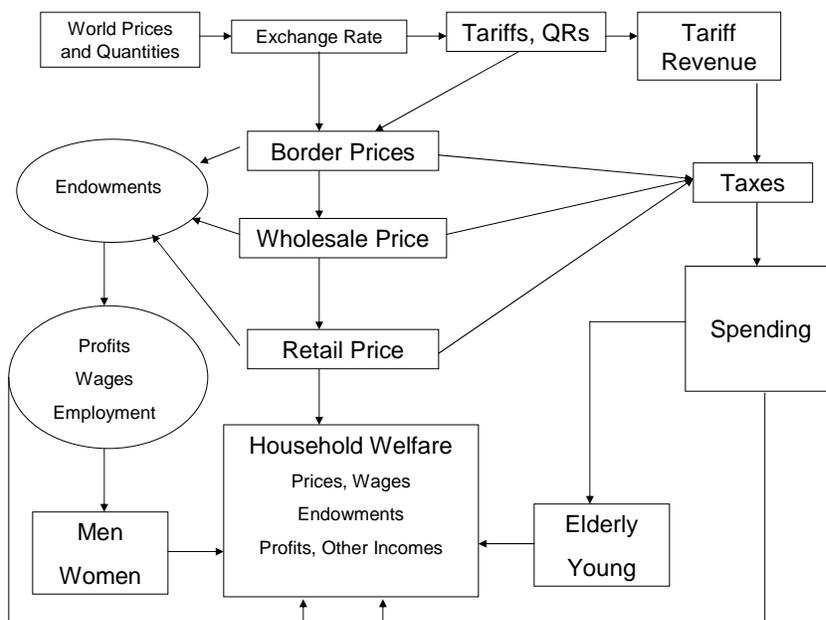
PRICE EFFECTS

Figure 2 describes the channels by which border prices are transmitted through the economy. An imported good has a price that is affected by both the exchange rate at which national currency is exchanged for the currency in which the good is denominated, and also any tariff that is applied to the good. Once the good has crossed the border, it is also subject to domestic taxes, and distribution from ports to wholesale outlets, as well as regulations that may add costs or control the price.

The good passes through wholesale distributors and is transported to retail outlets, where it potentially faces more taxes and regulations. The resulting retail price is paid by consumers and the good enters household use. Taxes are garnered through tariffs and value added levies. Figure 2 depicts an economy where taxes on profits and wages are difficult to collect—but in many developing countries, and particularly middle- and upper-income developing countries, taxes are also levied on wages and profits and on some household endowments such as land assets.

Taxes are used for public sector spending and affect individuals and households as the state provides public goods and services that are consumed.

Figure 2. Trade and Price Transmission



Source: Adapted from McCulloch et al. *Trade Liberalization and Poverty: A Handbook*, 2001, p. 73, figure 4.2.

The transmission of border prices is affected by a number of factors, including the exchange rate and the type of competition that prevails in the wholesale and retail sectors. The assumption is that lower tariffs will reduce border prices and that these lower prices will be passed on to the consumer. But these prices may not be passed on to the consumer. If there is imperfect competition, wholesalers and retailers may benefit from higher margins. Information is critical, and governments and consumer advocacy organizations can play a vital role in disseminating information about expected price changes as they publicize trade policy commitments.

Still other factors can inhibit price transmission. If the exchange rate devalues, then lower tariffs may not compensate for the sudden increment in prices as imported goods suddenly cost more. Poor infrastructure can also affect price transmission and create bottlenecks. As a result, consumers in remote parts of the country may not benefit from price reductions.

Ultimately, price changes affect household welfare and wellbeing. If the price of goods rise, households face a variety of options. They may either opt for cheaper goods instead of more expensive goods, or they may increase household labor supply to generate the required income to enable them to purchase goods whose relative price may have risen. As relative prices change, so too do profits, wages, and employment. The household can adjust to these changes in relative prices or employment opportunities by increasing or decreasing consumption and labor supply or shifting into different types of employment and income generation. These responses are typically not gender neutral. In response to loss of employment or declines in real income, households may increase labor supply, reducing the consumption of leisure. Frequently, it is women's time burdens that increase and women's leisure time that is reduced.²⁸

If liberalization is accompanied by a loss of tariff revenues, government budgets may be affected. Where a loss in tariff revenue results in fewer public services, households may be forced to compensate by providing for these services themselves. For example, if health care expenditures are reduced, caring for the sick and the aged is likely to take place at home. Similarly, if a reduction in tariff revenue affects the provision of water or the maintenance of public spigots, household work may increase as household members are forced to seek alternatives, such as hauling water themselves.

A household analysis that considers livelihood strategies in the face of price changes induced by liberalization, and explicitly focuses on the reproductive sector, sheds further light on how the costs and benefits of adjustment may be borne differently by men and women.

The transmission of prices does not just go from the border inwards. Producers and exporters must sell their products up the value chain until their goods leave customs for sale in foreign markets. If taxes are levied on exports, then this will increase their border price.

The net impact of price changes on the poor in response to liberalization will depend upon what goods the poor produce and consume, their dependence on state transfers and subsidies for production and consumption, and the importance of market

intermediation by state agencies.* Furthermore, if many goods are liberalized at once, the effects on individuals and households will depend on multiple price changes. If some of the goods affected are inputs into production processes, the demand for labor may change, and there will be second- and third-round effects as domestic prices and real wages change.

TRADE LIBERALIZATION AND PRICES IN BANGLADESH

There is insufficient evidence in Bangladesh to determine the net impact on the poor of price changes brought about by liberalization. Although the data exist to explore tariff incidence using household and expenditure surveys, no such study has been conducted to date. It is clear that tariffs have been revised downward in Bangladesh, but the distribution of the incidence of tariff payment *ex post* revision has not been explored.

Consumption patterns differ significantly across household income categories, with poor households spending relatively more of their income on tradable goods as opposed to services. Wealthier households spend a greater proportion of their income on services. As a result, it is likely that the poor spend disproportionately more of their income on tariffs than do wealthier households and, in particular, tariffs on food and clothing.† To evaluate expected price effects of tariff declines, it is necessary to know which goods are consumed by the poor and the extent to which the poor benefit from or are vulnerable to changes in border prices arising from tariff revision.

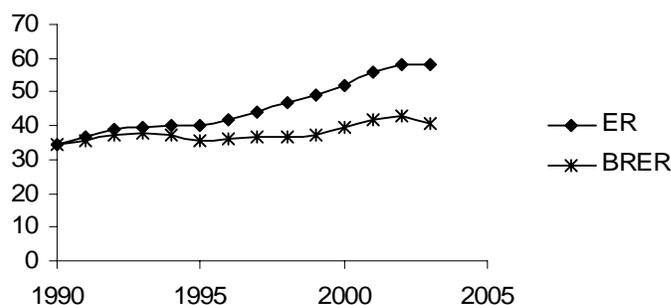
It is clear, however, that changes in the real exchange rate over time have affected the price of imported goods and the price at which exports are sold. Bangladesh has had a commitment to maintaining the real effective exchange rate‡ for some time. From the late 1980s, the real exchange rate was maintained within a relatively narrow band, mainly through periodic and small devaluations, until the taka was floated in May 2003. Figure 3 provides a simple graphic of the bilateral real exchange rate with the United States for the 1990s. While the nominal exchange rate (ER) reveals incremental and continual devaluation, the USD bilateral real exchange rate (BRER) remains largely stable.

* For example the role of state marketing boards that purchase agricultural produce from rural producers at guaranteed prices and sell these goods to urban consumers at lower prices.

† This result is confirmed by Reza Daniels for South Africa in “Gender Dimensions of Tariff Liberalization,” 2006.

‡ The real exchange rate between country *i* and the home country at time *t* is $rer_{it} = e_{it} \cdot \frac{P_{it}^*}{P_t}$ Where e_{it} is the nominal exchange rate (expressed in the number of domestic currency units per foreign currency unit), P_t is the price in the home country and P_{it}^* is the foreign price level.

Figure 3. The Nominal and Bilateral Real Exchange Rates (BDT to USD rate)



Source: Author's calculations using data from the Bangladesh Bureau of Statistics and World Development Indicators, 2005.

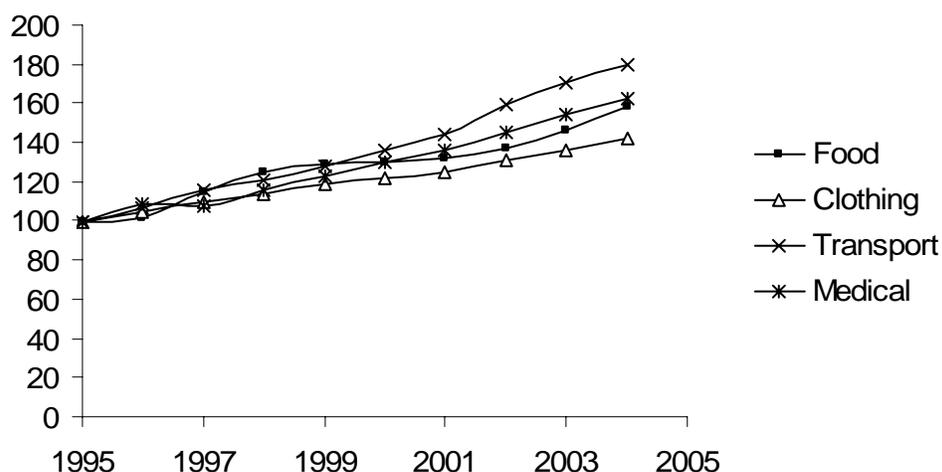
A simple bilateral exchange rate does not reflect the relative movements of the BDT against other countries' currencies, especially those of its competitors. India and China massively depreciated their currencies during the 1980s, and even though this devaluation has slowed down, Bangladesh's currency appears to be relatively overvalued when compared with other countries such as Pakistan and Thailand. There are indications that the real exchange rate has actually appreciated since the floating of the BDT in 2003. An overvalued exchange rate hurts exports and makes imports comparatively cheaper. This can exacerbate current account deficits, increase import competition, and worsen the overall trade balance.

The World Bank report explores the extent to which the BDT may be overvalued by comparing the ratio of the average effective exchange rate for imports to that of exports.²⁹ This measure also factors in the tariffs and levies that imports and exports face moving through customs. If the ratio exceeds one, then there is a bias against exports in favor of imports. The World Bank concludes that changes in tariffs and levies on traded goods in conjunction with the exchange rate movements has improved, but that some anti-export bias remains.

The impact of liberalization on domestic prices depends on exchange rates, the extent to which goods are domestically produced or imported, and the availability of substitutes. Without conducting a multivariate analysis, we cannot say unequivocally how liberalization has contributed to price inflation in Bangladesh. What is clear, however, is that prices of both domestic and imported goods have continued to rise over the liberalization period. Figure 4 reports consumer price data for a number of commodities, including food and beverages, clothing and footwear, transport and communications, and medical care and health expenses for 1995/96–2004/05. It is clear that over the period under consideration, transportation prices have risen the most, increasing by almost 80 percent in 10 years. This increment in prices reflects the fact that transportation relies heavily on imported capital (cars, trucks, and engines) and

petroleum products. Similarly, medical costs have risen by 63 percent, while food prices have risen by 58 percent over the same period. Since the majority of food consumed in Bangladesh is domestically produced, this reflects increments in prices garnered by food producers. Clothing prices have risen by 42 percent.

Figure 4. Index of Consumer Prices for Key Goods and Services, 1995/96–2004/05



Notes: 1995/96=100

Source: Bangladesh Bureau of Statistics, Statistical Bulletin, December 2000, July 2005, table 3.11.

Data from the 2000 Household Income and Expenditure Survey reveal that poor households in lower expenditure deciles^{*} spend significantly more on food than do households in higher expenditure deciles. Households in the lowest four per capita expenditure deciles spend approximately 67 percent of total household expenditures on food. The wealthiest deciles spend far less on food. Households in the top two per capita expenditure deciles spend 46 percent of total household expenditure on food (see Annex 1, Table 2).

While food price increments represent potential gains for producers, they represent costs for net consumers of food. Although the majority of Bangladesh's population is rural, few households are total net producers of food. Most households, even if they engage in food production as part of an income generation strategy, are net purchasers of food. Price increments in key consumer items therefore reduce any surplus available and impose a significant loss on households whose income has not risen concomitantly. Certainly, agricultural and construction workers have not seen their wages rise by the same amount as the general increase in prices over the same period. Unfortunately, we do not have a consistent series for household income over the same period—and it is possible that, in the face of rising prices and real wages that do not keep pace with these price increases, some households increase the supply of labor to generate more income. Increasing the supply of labor may involve increasing the labor effort of those

^{*} These deciles correspond to 10 percent intervals for per capita consumption expenditures per month.

currently employed or having household members who were not previously employed enter the labor market. At the very least, this will involve a net reduction in leisure time.*

Two principal food crops grown in Bangladesh are *aman* and *boro* rice. A recent article in the Daily Star³⁰ underscores the fact that high costs of fertilizers and increases in the price of diesel required for operating irrigation pumps have increased the production costs of *aman* and *boro* in the last four years. Another column in the Daily Star³¹ reported that "a farmer in Bangladesh procures fertilizer at \$176 per ton, compared to \$107 in Indian Punjab, \$126 in Andhra Pradesh, \$165 in Thailand, and \$170 in Vietnam." Similar differences prevail in the costs of irrigation, which are: \$51 per hectare in Bangladesh, \$32 in Punjab, \$18 in Thailand, and \$26 in Vietnam. As input costs have risen, so too have food prices, although there is evidence that producer margins may have been squeezed and that the full increment in input costs has not been passed on to consumers. Furthermore, import prices for rice have also been rising, indicating that other countries such as Thailand and India are experiencing similar price rises.

Increasing integration with the world economy may not have lowered food prices in Bangladesh. The potential gains to consumers may not have been as great as would have been expected *ex ante*, and the extent to which producers have gained has not been established, since a significant portion of the food price increments may be accounted for by rising input costs, most notably fertilizer and irrigation. It is likely that those producers who have been better able to weather increases in input prices are larger producers who own the land that they cultivate. Smaller producers and tenant farmers may be most at risk from declining profit margins.

GENDER IMPACTS OF PRICE EFFECTS

The net effects of trade-related price changes on the poor, and on men and women, depend on the extent to which consumption patterns are altered. The make-up of men and women within households may be complex and may encompass more than one family or kinship group. Households may treat their income and economic resources differently. Some may pool their income and make joint decisions about the use of their resources while others may bargain over resources. In those households, not all income earned by its members enters the household. Furthermore, income may not be shared equally. As a result, household measures of per capita income or per capita expenditure may not reflect the intra-household allocation of resources.

In households where resource use is contested and bargaining prevails, the welfare and wellbeing of all members may not be equal. Resources may be allocated unevenly, and choices may be made that privilege income earners over non-income earners. Consequently, how a household responds to price changes may affect the welfare and wellbeing of individuals differently. For example, household investments in education, health, and nutrition for women and girls may be more sensitive to changes in prices than similar investments for men and boys.[†]

* See Marzia Fontana. "The Gender Effects of Trade in Bangladesh: A General Equilibrium Analysis," 2006.

† See Lawrence Haddad, John Hoddinott and Harold Alderman. *Intrahousehold Resource Allocation in Developing Countries*. 1997.

At the same time, research shows that men and women have different preferences about the use and disposition of household income. For example, Kremer et al. find that even after accounting for different needs based on energy expenditure, women in Bangladesh consistently received less of their needed energy requirements than their children or husbands.³² Other research in Bangladesh found that the provision of credit was more likely to improve school enrollment for boys and girls, increase the labor supply of women and men, raise the asset holdings of women, and improve fertility and contraceptive use and the anthropometric status of children.³³ Furthermore, credit provided to women directly was even more likely to influence these outcomes positively. Similarly, further research in Bangladesh found that husbands' and wives' assets have different effects on the allocation of expenditures within the household. Wives' assets have a positive and significant effect on the share of expenditures on children's clothing and education. If prices rise on certain commodities, the effects on the household may differ depending upon whether household resources are shared equally. If resources are not shared, certain expenditures may be reduced or suspended that affect women's and children's access to food security, health care, or education.³⁴

Additional research in this area would allow a richer understanding of the differential effects of trade policy upon men, women, and children in Bangladesh.

ENTERPRISES: PROFITS, WAGES, AND EMPLOYMENT

This section discusses the actual and potential impact of liberalization on profits, wages, and employment.

Figure 2 on page 29 also portrays enterprises or firms. Enterprises include any production unit that produces and sells output and employs labor from outside the household. We distinguish between household production and enterprise production in the use of remunerated labor and markets to purchase inputs and sell all outputs. For example, in the case of the family farm, many household laborers are unremunerated and not all the output is sold, as some of it may be held for family consumption.

Firms supply to both home and export markets. Total output is determined by the relative prices that prevail in home and export markets and the costs that they face. These costs depend on the prices of the factors of production that are used: land, labor, and capital. Prices can also be affected by technology. Innovation in the way that goods and inputs are produced can also raise or lower costs. Furthermore, costs can depend on the scale of operation. Larger firms may be able to reap economies of scale, purchasing inputs in bulk, and negotiating lower costs for storage and warehousing. Larger firms can also engage in specialization, purchasing machinery that increases their productivity and hiring skilled labor.

Clearly, the expansion of demand for a traded good will increase the demand for the factors of production that this good requires. For example, if the demand for Bangladeshi shrimp were to rise on global markets, more ponds would be drawn into production and more labor demanded throughout the value chain. Since most of the inputs are nationally produced, with the exception of the processing machinery, this may increase the returns to labor and land. Since land is in fixed supply, it may also compete with other types of production—most notably rice—and this could potentially affect food

security and total rice production. Nevertheless, more production of shrimp is likely to increase profits for intermediaries (such as *aratdar* and *faria*) commercializing the shrimp and for processing plants.

The movement of factors between sectors plays a crucial role in the poverty effects of trade shocks or trade-related price changes. Unfortunately, most economic models rely on a number of restricted assumptions that permit the analysis to be tractable. They either assume fixed total employment and variable wages—what McCulloch et al. call the “trade approach”—or fixed wages and variable employment—the “development approach.” In reality, neither of these abstractions is true. In some markets there is an excess supply of labor and we observe unemployment and underemployed workers. In other markets the supply of skilled workers is limited and demand exceeds this supply. Wages are sticky in some sectors and flexible in others. Furthermore, labor markets can be segmented, by skill, gender, or location, which makes it difficult to substitute one type of labor for another. Finally, even if nominal wages are fixed by regulation or legislation, real wages can be flexible as price changes affect what can be purchased with these wages.

PROFITS, WAGES, AND EMPLOYMENT IN BANGLADESH

As Bangladesh opens its economy to trade and signs on to regional and international agreements, the impact of upswings and downturns in the global market for exports will radiate more quickly through the Bangladeshi economy. The net impact on profits, wages, and employment will depend acutely on how the Bangladeshi economy is positioned relative to competitors, which is a function of a mixture of firm-specific, infrastructure,[†] and human capital attributes[‡].

Table 2 provides a breakdown of male and female employment by sector for 2003. Of the total labor force[§], men and women are highly concentrated in agricultural activities: Fifty-nine percent of the total female labor force and 52 percent of the total male labor force was absorbed in agriculture in 2003. Manufacturing absorbs 17 percent of the total female labor force and 10 percent of the male labor force, while services account for approximately 24 percent of the total female labor force and 38 percent of the total male labor force. Since the majority of workers are concentrated in agriculture and manufacturing, trade-related impacts of liberalization in these sectors affect the greatest number of workers. Furthermore, since the majority of the poor are engaged in agriculture, further declines in agricultural output will be particularly deleterious for the rural poor and for women. In 1980, agriculture accounted for approximately 40 percent of GDP but had shrunk to less than 18 percent of GDP by 2003.

^{*} Here we mean the productivity, cost structure, potential efficiency, and scale economies of local producers and exporters.

[†] Including roads, rail, airports, seaports, and customs infrastructure.

[‡] Human capital includes formal education, skills, and training.

[§] Following the Bangladesh Bureau of Statistics and international definitions, the total labor force consists of the economically active population, which includes all persons over 15 years of age who are either employed or unemployed and searching for work during the reference period of the survey.

Table 2. Employed, Share of each Sector in 2003 in percentages

	Percent of each sector		Percent of total labor force		Total (in 1,000s)
	Women	Men	Women	Men	
Agriculture, forestry, and fisheries	25.2	74.8	58.7	51.8	22,948
Mining and quarrying	0.0	100.0	0.0	0.2	69
Manufacturing	39.4	60.6	17.3	9.8	4,323
Electricity, gas, and water	8.7	91.3	0.1	0.2	113
Construction	6.4	93.6	1.0	3.5	1,547
Wholesale and retail trade, restaurants, and hotels	3.5	96.5	2.2	13.8	6,112
Transport, storage, and communication	1.0	99.0	0.3	6.8	3,029
Financial, insurance, real estate, and business services	7.2	92.8	0.3	0.9	409
Community, social, and personal services	34.5	65.5	20.1	13.1	5,737
Total	22.2	77.8	100.0	100.0	44,322

Notes: Persons aged 15 and older.

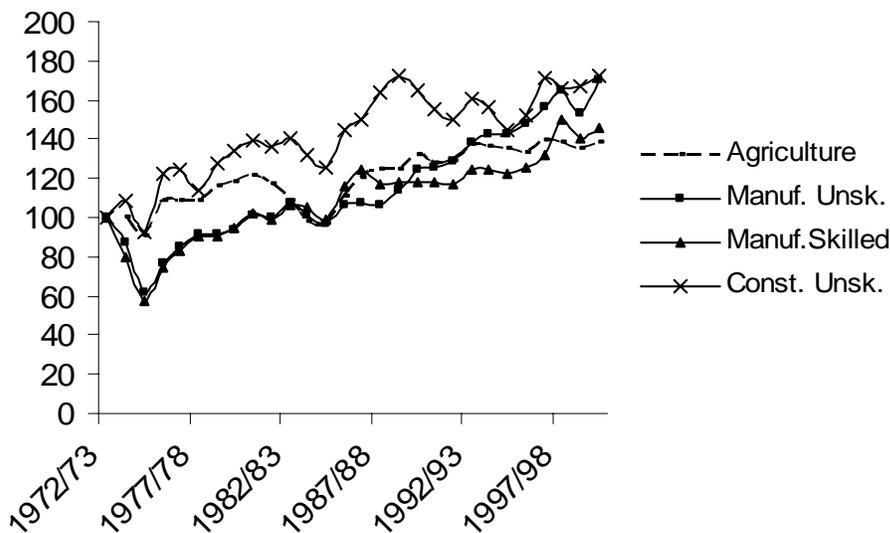
Source: Bangladesh Bureau of Statistics, "Labor Force Survey 2002-2003", p. 47, tables 4.5a and 4.5b.

Despite the fact that GDP growth was positive and sustained during the 1990s, the expansion of the labor force has the potential to outstrip job creation. The potential labor force is expected to grow by approximately 1.5 million new entrants per year over the next few years. If job creation in the formal economy is unlikely to be able to absorb these new labor market entrants, then we can expect a rise in the informal economy. Certainly, Rahman and Islam report that employment elasticities with respect to output or value added declined in a number of key sectors in the 1990s when compared with the 1980s.³⁵ The comparatively lower employment elasticities in the manufacturing sector indicate that job creation in the manufacturing sector, which is more likely to include formal employment, slowed in the late 1990s.

Wages have fluctuated significantly in the pre- and post-liberalization period. Between 1990 and 2000, skilled manufacturing workers saw an overall increase in their real wages of 28 percent (from an index of 118), while unskilled manufacturing workers experienced a rise of 44 percent (from a real wage index of 126). Agricultural workers experienced the lowest increment in real wages over the period, gaining only 10 percent

(from a real wage index of 128). Unskilled construction workers saw their wages fall and rise over the liberalization period, but the trend was largely upward (see Figure 5).

Figure 5. Real Wages in Agriculture and Manufacturing, 1972/73–1999/2000



Notes: Agricultural real wages are deflated by the rural consumer price index, while manufacturing and construction wages are deflated by the urban cost of living index. (1972=100)

Source: Muqtada, M. "Promotion of Employment and Decent Work in Bangladesh," 2003, based on data from Bangladesh Economic Review, 2001.

Looking at poverty rates by sector of employment of the household head or principal income earner provides an overview of where households are most vulnerable. The Household Income and Expenditure Survey for 2000 reveals that poverty rates are the highest in rural areas, with rural landless households experiencing poverty rates of upwards of 60 percent (see Annex 1, Table 2). By sector, households that depend on agriculture for the majority of their labor earnings are also disproportionately likely to be poor, experiencing poverty rates of approximately 53 percent (see Table 3).^{*} Households that derive income from textiles and garments report the lowest levels of consumption poverty. Consequently, where liberalization expands opportunities in agriculture, there is the potential to lift a significant number of households out of poverty. Similarly, if liberalization, and more particularly the ending of the MFA, reduces opportunities in the textiles and garment sector, households that were formerly above the poverty line may lose income earners and be vulnerable to poverty.

Measures of the depth and severity of poverty are given by the mean poverty gap (P1) and the mean poverty gap squared (P2) respectively. The poverty gap can be interpreted as an average per capita measure of the total shortfall of individual income or consumption below the poverty line; it is the sum of all the shortfalls divided by the population in that household group or sector, and expressed as a percentage of the

^{*} The sectors disaggregated here are those identified as being of particular interest to USAID because of the likely impact of trade liberalization upon workers and enterprises.

poverty line. For example, a poverty gap of 20 percent means that the average income shortfall by which all the households fall below the poverty line is approximately 20 percent of the poverty line. A poverty gap of zero indicates that no household has a per capita income below the poverty line. The poverty gap squared yields a poverty measure which captures the severity of poverty by giving more weight to the poorest of the poor. By squaring the poverty gap for each household, this measure gives greater weight to those observations that fall far below the poverty line than those that are closer to it. The larger the poverty gap squared, the greater the proportion of households at the very lowest end of the income or consumption distribution.

Table 3 reveals that these measures of inequality (P1 and P2) are also higher for households whose income derives primarily from agricultural activities than for those in manufacturing of textiles and wearing apparel.

Table 3. Consumption Poverty Per Capita in Bangladesh by Sub-Sector, 2000

Primary household employment sector	Poverty ^a	P1 ^b	P2 ^c
Agriculture	52.89	14.15	5.10
Fisheries	47.10	10.47	3.16
Textiles	37.50	8.78	2.45
Wearing apparel	21.40	6.00	2.50
Construction	48.06	10.84	3.29

Notes: ^aPoverty is given by the headcount ratio which denotes is the fraction of the population below the poverty line. Poverty is calculated using all consumption expenditures. The urban poverty line is 724.56 per person per month, while the rural poverty line is 634.48 per person per month. Results are weighted by household size.

^bThe poverty gap, P1, is the average shortfall of per capita income or consumption below the poverty line all households. P1 can be interpreted as a per capita measure of the total shortfall of household welfare below the poverty line. It is the sum of all the shortfalls, nonzero and zero, divided by the total number of households and expressed as a ratio of the poverty line.

^cP2 measures the severity of poverty and captures the gradient or steepness of the cumulative distribution of individuals or households that fall below the poverty line.

Source: Author's calculations from the Household Income and Expenditure Survey, 2000.

It is clear that most households in Bangladesh derive the majority of their income from labor earnings. In order to consider the specific effects of trade liberalization on earnings and poverty, we conduct a simple probability analysis of the correlates of household poverty, mapping import penetration and export orientation ratios from the CGE model for Bangladesh. Import penetration ratios are calculated by dividing imports of a given commodity by the total domestic supply of that commodity. This measure tells us how much of final demand is imported. Total domestic supply is made up of imports and gross output of the domestic producers of that commodity minus exports of that commodity. In order to calculate import penetration ratios, imports and exports need to be classified by the same industrial classification as is used for domestic industries. These measures of export orientation and import penetration have been calculated for a series of sectors and sub-sectors (see Table 4).

Table 4 reports the structure of the Bangladeshi economy in 2000, giving a number of key measures of openness: export intensity and import penetration. The import penetration ratio is the ratio of imports to total demand. Export orientation reports exports as a share of total output in the sector. Clearly, export orientation is the highest

in knitwear and RMG, which have export intensities of 89 and 78 percent respectively. Jute and leather goods also report export intensities of more than 65 percent. Import penetration is the highest in yarns and mill cloth, and slightly lower for RMG. The import penetration ratio tells how much of the final product value is imported. It does not tell of the import content of sectoral output. RMG relies on imported yarn and cloth; mill cloth is a key input into RMG. Given the sectoral breakdown reported in Table 4, the import content of the final product is attributed to mill cloth, which is then subsequently regarded as an input into RMG.

Table 4. Structure of the Bangladeshi Economy in 2000

	Net output (% of GDP)	Export intensity	Import penetration	Female intensity	Female labor (% of total)	Male labor (% of total)
All market sectors, of which:	100.0			20.1	11.4	46.4
Rice and grains	7.6	0.0	4.5	16.0	1.72	9.3
Jute	0.3	16.2	0.0	6.6	0.05	0.7
Sugarcane	0.4	0.0	0.0	4.5	0.02	0.3
Commercial crops	2.2	1.0	14.2	1.6	0.01	0.7
Vegetables	5.6	0.7	9.5	34.7	1.36	2.6
Livestock	2.5	0.1	22.7	48.2	2.99	3.3
Poultry	0.5	0.0	0.3	76.4	0.29	0.1
Shrimps	0.5	36.2	0.0	32.1	0.06	0.1
Fish	5.6	0.0	0.0	29.8	0.44	1.1
Rice and grain processing	2.9	0.0	1.5	35.8	0.16	0.3
Edible oil	0.3	0.0	44.4	0.2	0.00	0.0
Sugar	0.3	0.0	6.9	2.8	0.01	0.2
Other food	0.6	11.1	12.5	10.6	0.02	0.2
Tobacco products	0.5	0.1	2.0	32.4	0.02	0.0
Leather	0.2	69.5	11.0	2.0	0.00	0.0
Jute textiles	0.2	66.1	29.1	0.5	0.00	0.2
Yarn	0.3	0.2	68.0	9.5	0.02	0.2
Mill cloth	0.2	0.0	82.2	1.9	0.00	0.2
Other cloth	1.0	0.0	0.0	11.5	0.13	1.0
RMG	2.8	77.7	19.3	80.2	1.22	0.3
Knitwear	0.6	88.5	21.6	0.0	0.00	0.0
Other textiles	0.1	0.2	22.6	43.4	0.05	0.1
Other industries	2.8	0.4	65.0	15.5	0.22	1.2
Infrastructure	12.6	0.0	0.0	1.8	0.02	1.3
Trade and hotels	16.7	0.0	0.0	3.7	0.39	10.3
Transports	11.1	0.0	0.0	0.8	0.05	6.7
Communications	0.8	0.0	0.0	4.0	0.01	0.2
Public sector	11.9	0.0	0.0	15.9	0.32	1.7
Domestic services	3.7	0.0	0.0	39.5	1.81	2.9
Financial services	5.2	0.0	0.0	1.5	0.02	1.1

Notes: Export intensity is measured as the share of exports in gross output, while import penetration is measured as the share of imports in domestic use.

Source: Fontana, Marzia. "The Gender Effects of Trade in Bangladesh: A General Equilibrium Analysis," 2006.

The concentration of Bangladeshi exports in a narrow range of activities, and particularly in RMG—a sector which is likely to be significantly affected by the ending of the MFA—is worrisome. Diversifying exports could significantly reduce the risk of any loss of foreign exchange earnings in response to changes in external demand.

The goal of the trade and poverty analysis is to explore those characteristics that are associated with household consumption poverty. Whether the household is consumption poor* is regressed on a series of variables, including female headship, rural location, household size, and the measures of import penetration and export orientation.

Table 5 reports these regressions. We compare the results for agriculture, manufacturing, and services with those for agriculture and manufacturing. Since virtually no services are traded in Bangladesh, the CGE model reports that export orientation and import penetration are zero for services and public administration. The model estimated is a probit, or probability model, where the coefficients reported give the estimated percentage point changes on the average probability of being poor (50 percent) by changing the characteristic under consideration. The variables perform as expected. In the distribution that includes agriculture, manufacturing, and services in specification (3), female-headed households are associated with a 7 percentage point increase in consumption poverty. Households in rural areas have a 17 percentage point increase in the likelihood of being poor. The larger the household, the greater the likelihood that the household is consumption poor. Finally, households with heads working in an export-oriented sector are slightly less likely to be poor. Holding all else constant, a 1 percentage point increase in the export orientation ratio reduces poverty by 0.3 percentage points. Similarly, households with heads working in a sector with higher import penetration are slightly more likely to be poor. Holding all else constant, a 1 percentage point increase in import penetration increases poverty by about 0.4 percentage points. The trade effects are small but significant. These findings are consistent with standard trade theory, which argues that trade liberalization brings about greater allocative efficiency by shifting factors of production from less competitive to more competitive sectors. If factors of production move seamlessly from one sector to another, then the net impact on poverty is minimal. If, however, factors of production do not respond to these price signals because of rigidities or bottlenecks,[†] households whose income is concentrated in sectors facing higher rates of import penetration are likely to experience higher rates of poverty.

* Poverty is a 0.1 variable. The regression uses probit in STATA.

[†] For instance, a worker in a rural area with low levels of education may not be able to relocate to an urban area and find work in manufacturing.

Table 5. Probit Regression of the Correlates of Per Capita Consumption Poverty in 2000 (standard errors in parentheses)

Variable	Agriculture, Manufacturing, and Services			Agriculture and Manufacturing		
	(1)	(2)	(3)	(1)	(2)	(3)
femhead	0.074 * (0.033)	0.066 * (0.032)	0.072 * (0.033)	0.038 (0.037)	0.031 (0.037)	0.038 (0.037)
rural	0.184 ** (0.015)	0.187 ** (0.016)	0.169 ** (0.016)	0.153 ** (0.023)	0.179 ** (0.022)	0.155 ** (0.023)
hsize	0.019 ** (0.003)	0.019 ** (0.003)	0.019 ** (0.003)	0.016 ** (0.004)	0.016 ** (0.004)	0.016 ** (0.004)
exint	-0.002 ** (0.001)	--	-0.003 ** (0.001)	-0.003 ** (0.001)	--	-0.004 ** (0.001)
impint	--	0.002 (0.001)	0.004 ** (0.001)	--	0.001 (0.002)	0.005 * (0.002)
Chi ² (5)	196.99	185.92	206.44	96.92	81.19	102.22
Prob>Chi ²	0.000	0.000	0.000	0.000	0.000	0.000
N	5117	5117	5117	3774	3774	3774

Notes: * indicates significance at p<0.05; ** indicates significance at p<0.01.

This analysis uses only those export and import penetration ratios from the CGE model for 30 distinct sub-sectors.

The descriptive statistics for the independent variables are reported in Annex 1, Table 4.

femhead=whether the household is de jure female headed

rural=whether the household is in a rural area

hsize=size of the household

exint=export orientation of the sector of employment of the household head

impint=import intensity of the sector of employment of the household head

Chi²(5)=Chi square test of the overall fit of the regression

Prob>Chi²=probability value given for the Chi square test

N=number of households included in the regression

Source: Author's calculations using the 2000 household income and expenditure survey.

SECTORAL ANALYSIS OF PROFITS, WAGES, AND EMPLOYMENT IN BANGLADESH

Ready-Made Garments. It is clear that Bangladesh exports a narrow range of goods, with almost 80 percent of all exports concentrated in RMG, clothing, and textiles.

Consequently, the ending of the MFA in 2005, and changes in the demand for agricultural exports, are likely to affect the Bangladeshi economy negatively. Among the forecast effects is a decline in external demand or a decrease in prices for Bangladeshi exports—most notably textiles.*

The RMG sector has been nurtured since the early 1980s and is subject to an incentive structure that was achieved through systematic liberalization, which embraced tariff revision, stimulation of the capital market, and the floating of the taka. Additionally, this

* See for example Bhattacharya, Debapriya and Mustfizur Rahman. "Prospects for Internalising Global Opportunities," 2001; Arndt et al. "Opportunities and Challenges in Agriculture and Garments," 2002.

sector has benefited from specific export measures that included duty-free access to imported inputs, export subsidies, preferential financing of exports, corporate tax rebates, and other fiscal incentives. As part of an evolving package of export promotion measures, Bangladesh established a series of Export Processing Zones (EPZs).^{*} The EPZs were developed to encourage and promote foreign investment, diversify foreign exchange earnings, and increase employment opportunities in export-oriented sectors. Investors benefited from duty-free access to imports of capital and intermediate goods used within the EPZs. The EPZs afforded foreign and local investors the benefits of infrastructure, electricity, and bonded warehouses. They also allowed enterprises freedom from industrial regulations that applied elsewhere in the country. RMG makes up a significant proportion of the production located in EPZs.

The contribution of RMG to exports rose from 1.5 percent between 1980 and 1984 to 77.5 percent between 2000 and 2003, although its direct contribution to GDP remains at about 5 percent.³⁶ Razzaque observes that the rapidly rising share of RMG in total exports has resulted in a high degree of commodity concentration, making Bangladesh particularly vulnerable to changes in the global market for RMG.³⁷ The rise in RMG exports has also been dependent on a number of national and international incentives, including quota-free market access and special privileges. Currently, Bangladesh enjoys quota-free and duty-free access to the EU. This means, as Mlachila and Yang have pointed out, that exporters will not have quota rents or margins[†] to cushion price falls as competition rises in the wake of the MFA phase-out.³⁸ As a result, price declines will directly affect profits.

RMG comprises woven garments and knitwear. Woven garments typically require imported threads and cloth. Recent investments in backward linkages in knitwear mean that this sub-sector sources almost 90 percent of its finished fabric needs domestically.[‡] The woven garments sub-sector sources about 25 percent of finished fabric needs domestically and is heavily dependent on imports.

The ending of the MFA has clearly reduced the number of countries sourcing buyers in garments and textiles. As a result of concerns about the loss of manufacturing employment, Bangladesh has joined a group of 15 countries lobbying the United States Congress for trade preferences that would offset the advantages gained by China and India since the lifting of the quotas on textiles and apparel.³⁹ The World Bank estimates that based on the Global Trade Analysis Project (GTAP) model, Bangladesh will lose about \$370 million per year as a result of the ending of the MFA and could potentially gain \$93 million per year as a result of the imposition of safeguard measures against China.⁴⁰ Bhattacharya and Rahman observe that there is “growing concern that in a more liberal trading environment, as envisaged by the post-Uruguay Round provision,

^{*} The EPZs were created through Bangladesh Export Processing Zone Act No. XXXVI in 1980, which was subsequently amended by Ordinance No. XLIX in 1984 and Ordinance No. LII in 1988.

[†] Quotas can be equivalent to an export tax. In order to export, a firm in a quota constrained-country must purchase a quota. As a result, entry into the market is restricted and firms pay for access. With the removal of quotas, a payment that was once borne by the firm is removed. These quota rents or margins will cushion the firm against declines in price brought about by greater competition.

[‡] Data from the Bangladesh Knitwear Manufacturers and Exporters Association. Accessed February 2006. http://www.bkmea.com/strength_of_knitwear.htm

Bangladesh's RMG sector may not be able to sustain and enhance its export capacity".⁴¹ Furthermore, these authors note that the cost structure of textile and RMG exports will not ensure that Bangladesh can assert a competitive advantage based on comparatively cheaper labor because of the modest share of labor in overall costs and the marginal presence of backward linkages in processing activities.

Textile and garment manufacturers and exporters are already concerned about the squeeze in profits, with some manufactures reporting up to a 30 percent decline in export prices and profits.⁴² Despite the apparent squeeze in profits, total export earnings in the sector remained strong, with the Export Promotion Bureau reporting the estimated annual earnings from garments and textiles at over \$8.5 billion in 2005. Moreover, knitwear manufacturers report that they have experienced more than 30 percent growth in demand for their product in the post-MFA era.⁴³ Three factors may have insulated Bangladesh from sudden changes in external demand for textiles and garments: the lagged nature of contracts in the industry; safeguards and preferential treatment;^{*} and the cost structure of firms. Many manufacturers in Bangladesh operated throughout 2005 on contracts they had acquired in 2004. The US and the EU imposed temporary safeguards on Chinese imports and China negotiated directly with both entities to ease the post-MFA transition. As a result, the industry has responded with a lag to the ending of the MFA. Finally, the unit cost of production is comparatively low in Bangladesh. The BGMEA reports that the unit cost of shirt production is approximately 11 cents, which compares with 26 cents for India, 43 cents for Pakistan, and 79 cents for Sri Lanka. A study by the Harvard Center for Textile and Apparel Research⁴⁴ highlights Bangladesh's comparative advantage, confirming that Bangladeshi garment workers earn 39 cents an hour, while the hourly wage for sewing and stitching in coastal China is 88 cents.

RMG is a particularly labor-intensive industry, employing about 40 percent of all manufacturing workers. Employment rose consistently between 1980 and 2001. In 2004, it was estimated that there were around 1.9 million workers in the sector, 80 percent of whom were women. The industry supports between 10 and 15 million people in households where principal earners are engaged in RMG or in activities that are linked to RMG production. Over the past 20 years, the number of manufacturing units has increased from 180 to over 4,107, 95 percent of which are locally owned.⁴⁵ The typical firm employs 200–1,200 workers,⁴⁶ with an average of about 480 workers. The majority of factories (90 percent) are located in and around the capital, Dhaka, and the port of Chittagong. Between 2003 and 2004, one worker was employed in the sector for every \$2,600 of RMG exports. There is evidence that the employment–output elasticity has declined substantially over the last 20 years, attributable in part to rising labor productivity and a rise in the contribution of knitwear, which is less labor intensive.

Mlachila and Yang develop a CGE model for Bangladesh and compare the effects of the MFA phase-out using the Global Trade Analysis Project (GTAP) model.^{47†} The

^{*} Abernathy et al. (2005) note: "Bangladesh topped the EU list of suppliers, parlaying its very low wage rate with its preferential tariff treatment as a least developed nation." Similarly the Daily Star (2005) reports that safeguards have been deployed in importing countries and that these safeguards may have contributed to cushioning the negative impact of the MFA phase-out.

[†] The Global Trade Analysis Project (GTAP) model used in this paper is a comparative static, global general equilibrium model based on neoclassical theory. Firms maximize their profits while consumers maximize their utility.

authors conduct a number of simulations with different elasticities of substitution between countries of origin to reflect changes in sourcing for clothing and textiles. The simulation results confirm a widely held belief that Bangladesh is likely to be adversely affected by the phase-out of textile and clothing quotas. Under the first scenario, in which nominal wages are assumed to be fixed, clothing exports fall substantially, while textile exports contract only moderately. However, because of the great weight of clothing in total exports, overall exports fall considerably. Overall imports also fall, largely as a result of the declines in textile imports. On balance, the trade account deteriorates by 1.2 percent of GDP. Despite the relatively weak backward linkages of the garment industry with the domestic textile industry and the rest of the economy, the effects of quota removal on GDP and employment are large—perhaps larger than the current share of textile and clothing in GDP would suggest. GDP contracts by 2.3 percent, while employment declines by 4.5 percent.

These simulations are particularly sensitive to elasticities of substitution from different countries of origin. When imposing lower elasticities of substitution that may more closely reflect bilateral agreements to continue to provide preferential market access to Bangladeshi exports, total employment declines by 2.5 percent. The authors observe that “an increase in productivity would help offset the adverse effects of the quota phase-out. Simulations indicate that to maintain the baseline level GDP, Bangladesh would need to increase its total input productivity in the textile and clothing sector (relative to its competitors) by 4–5 percent (cumulatively) in 2007.”⁴⁸

Stuart Smith and Khatun Shefali⁴⁹ report that labor productivity is indeed low in RMG and could be improved by better training and management, improved infrastructure, and better facilities. This concern is also echoed in the recent World Bank report on Growth and Export Competitiveness. The World Bank calculates total factor productivity (TFP) growth in Bangladesh has fluctuated around a mean of 0.5 percent since 1980. Although the variance in the growth has reduced, growth rates have frequently been negative.

Ahmed and Sattar’s analysis indicates, however, that productivity improvements alone may not be sufficient to compensate for downward pressure on prices in RMG.⁵⁰ Despite producing at relatively low costs, the Bangladesh RMG sector fares relatively poorly in terms of quality, delivery lead times, and market orientation. Improvement in customs and excise may help secure a greater competitive advantage for producers and exporters.

A consistent time series of the cost structure of RMG units is not available. However, a number of studies have been conducted (see Table 6) which indicate that the wage bill makes up a small portion of the total costs and that, in fact, this proportion may be falling—limiting the potential to squeeze wages to mitigate price declines. In effect, price declines in the wake of the MFA phase-out are most likely to lead to declines in revenues and profits, and to prompt labor shedding or informalization.

All markets are assumed to be perfectly competitive, and constant returns to scale prevail in all production and trading activities. See <https://www.gtap.agecon.purdue.edu/>.

⁴⁸ TFP measures the relationship between the outputs of goods and services and the inputs used to produce them. Higher TFP indicates the more efficient utilization of resources, materials, and inputs.

Table 6. Cost Structure and Profit Margin of RMG Units (Percent)

Indicators	ISS Study (1992)	BIDS Study (1995)
Value of output	100	100
Costs	87	76
Industrial costs*	73	64
Non-industrial costs**	3	5
Wage bill	11	7
Gross value added	23	31
Profit margin	13	24

Notes: *Industrial costs include expenditures on raw materials, packaging materials, fuel and electricity, spares, and sub-contracting; ** Non-industrial costs include expenditures on overheads (i.e. costs other than direct material and labor expenditures, which include advertisements, selling and distribution costs, interest payments, and taxes).

Source: Bhattacharya, Debapriya and Mustafizur Rahman, *Prospects for Internalising Global Opportunities in the Apparel Sector in Bangladesh*, 2001, p. 241, table 6.10.

Kabeer and Mahmud analyze a report produced by the Asia Foundation in 2001.⁵¹ The report notes that Bangladesh was sixth of the largest 18 countries in terms of its share of the imports of garments and textiles. Comparisons of the value of apparel exports per square meter equivalent of fabric, however, revealed that Bangladesh ranked the lowest of all of these countries.

The net effect of the MFA phase-out on employment and wages in the sector is as yet unclear. Preliminary data indicate that employment in the sector has hovered at around 1.9 million. But there is evidence that jobs are more insecure and that flexible contracting is increasing, particularly outside the EPZs.

It is likely that employment will not fall significantly in the coming year, but that hours may become more variable and employment more flexible. Furthermore, anecdotal evidence would indicate that employers, and particularly those outside the EPZs, will try to speed up production and reduce labor costs*—a strategy which may negatively impact productivity, prompting coordination failures, machinery overuse, worker stress, and exacerbating other causes of internal diseconomies of scale and intensity.

The impact of the MFA phase-out on poverty rates remains unclear. It is clear that garment and textile workers contribute income to households with lower overall poverty rates. Households where some of the income derives from the garment sector are typically less poor than households where income derives from agriculture. Despite this advantage, the impact of job loss and informalization in the RMG and textile sector could greatly reduce incomes in these households. Khondker undertakes a variety of simulations of the impact of the MFA phase-out on the RMG sector.⁵² In scenario one, he considers a decline of 20 percent in the demand for finished garments. In scenario two, he considers a slight rise in the demand for garments, reflecting the fact that both EU and US markets are expected to expand slightly after quota removal. This second

* Based on interviews with BGMEA officials, October 2005.

scenario considers an increment of about 15 percent in the demand for finished garments. The simulations consider impacts on value added and income across six broad categories of the economy in agriculture, manufacturing, and services. Under the first scenario, the output in woven goods and knitwear declines substantially. The indirect effects of changes in export demand radiate through the economy but primarily affect the transport sector. Khondker finds that the total indirect income loss is actually larger than the direct effects. He reports a decline of almost 10 percent in manufacturing employment and a loss of about 200,000 jobs for women workers and 230,000 transport workers, the majority of whom are men. Approximately 1.2 million people are likely to fall into poverty in this scenario. Scenario two reveals positive impacts of the rise in external demand. The employment elasticities are smaller, however in this case, the net increment in jobs is only about 260,000 in total, with about 70,000 new jobs created in the garment sector, primarily for women. Although the employment effects are limited, the earnings effects are comparatively larger. As a result of the increase in external demand, Khondker estimates that 2.6 million people would be lifted out of poverty.

Jute and Shrimp. Liberalization in agriculture in Bangladesh has been accompanied by deregulation and the removal of price controls. Since the 1980s, the markets for fertilizer and irrigation have been privatized, and public marketing of food grains has been reduced.^{*} Much of the liberalization focused on agricultural input markets. Simultaneously, most forms of food rationing were abolished along with the state monopoly on the import and export of food grain. Deregulation prompted the rapid adoption of high yielding varieties of rice.⁵³ Yet, as Ahmed and Sattar underscore, the performance of the agriculture sector remains heavily dependent upon the contribution of rice, which seems to have been limited by the slowdown in growth of domestic demand. The authors attribute this slowdown in the agricultural sector to a low income elasticity of demand and the lower population growth rate.⁵⁴

It is clear that agriculture absorbs a significant number of workers. A little over 50 percent of the total workforce is engaged in agriculture, forestry, and fishing. This corresponds to about 23 million workers in 2003. The majority of these workers do not produce for export. Import penetration in agriculture is relatively low, with an average ratio of less than 10 percent. For many workers, however, loss of employment in traded sectors can be compensated for by increasing their engagement in agriculture and in informal employment. A fallback option for the displaced is subsistence and low-productivity work in agriculture, construction, and petty trade.

Crops account for about 73 percent of total production in agriculture.⁵⁵ Rice alone occupies three-quarters of the 14.3 million hectares of cultivated land and contributes about two-thirds of the agriculture and forestry sector GDP.⁵⁶ Although Bangladesh has significantly increased its production of staples and made progress towards greater food sovereignty, it is a net importer of rice and wheat.[†] Productivity in the rice sector remains low and is unlikely to rise without significant investment in infrastructure.

^{*} Although the state still engages in some market intermediation.

[†] Some analysts raise the concern that the removal or reduction in US wheat subsidies could potentially affect Bangladesh negatively by raising food import prices. This claim needs to be analyzed in the context of a general equilibrium model that also considers the impact of subsidy removal on producer prices and the composition of agricultural output and employment.

Three-fifths of all farmers cultivate less than an acre of land. The World Bank calculates that the ratio of fertilizer prices to farmgate prices for rice has risen over the last decade. In some cases it has risen almost threefold.⁵⁷ This is in part a function of the deregulation of the fertilizer market and the removal of subsidies.* The higher price of material inputs relative to price of outputs makes crop production a low-earning and low-profit activity. Irrigation and labor account for most of the production costs. The World Bank observes that under these conditions the “[n]et return from family labour engaged mainly in crop farming is too low for it to provide adequate sustained livelihood.”⁵⁸

It is not surprising that rural workers and those concentrated in domestic agriculture are the most prone to poverty. Sen analyzes the fortunes of rural households in Bangladesh between 1987/88 and 2000 using a livelihoods approach and focusing upon the assets of the poor.⁵⁹ The assets that Sen considers include natural assets, human assets, physical assets, financial assets, and social/political assets. Sen finds that households that escape poverty and realize significant improvements in their livelihoods do so by pursuing multiple strategies that include crop intensification, agricultural diversification, and diversification into off-farm employment and migration which allow them to accumulate a variety of assets. Descents into poverty were frequently associated with an exogenous event such as flooding and ill-health. The ability of a household to overcome such exogenous events is closely linked to the diversity of their income-earning activities. The data clearly reveal that the proportion of the workforce engaged in nonagricultural activities has increased from 38 percent to 56 percent for households that escaped poverty and from 36 percent to 61 percent for households that were never poor. Households that remained poor or transitioned into poverty were more likely to be working in agriculture.

Export agriculture comprises a small proportion of total agricultural production. Notwithstanding, two key agricultural exports are jute and jute products and shrimp and fisheries products. While the shrimp and fisheries sector has expanded in the last decade, jute and jute products have witnessed a slowdown.

Agricultural exports from Bangladesh will continue to face stiff competition for access to global markets. The WTO Ministerial meeting in December 2005 did not produce significant change in terms of market access and subsidies to agriculture in developed countries. Although the European Union agreed to phase out its export refunds, this was on condition that its trading partners also remove their export subsidy programs. Progress is being made on this issue, but all parties must continue to show determination to establish new rules for eliminating export subsidies. In the absence of significant changes in preferential agreements, and given the stringent regulations applying to certain agricultural exports, the immediate forecast is an increase in some agricultural exports to Europe and the United States.

The market for jute, an export that contributes 4 percent of all exports, is facing increasing competition in the short and medium term. Bangladesh, India, and Thailand account for over 90 percent of world production.⁶⁰ Jute is processed in the producing

* Fertilizer subsidies have been reapplied somewhat erratically to certain types of imported fertilizers.

countries themselves, and is used for the manufacturing of traditional products such as hessian cloth, food-grade bags, carpet backing, and other floor coverings. Jute accounts for a minimal proportion of the value of world trade, but its cultivation and processing are labor-intensive and secure livelihoods throughout Bangladesh.^{*} The FAO estimates of the impact of changes in the global jute market indicate that India is likely to increase its dominance in the market because of scale economies and its greater comparative advantage. In Bangladesh, the area under jute production is forecast to contract from 447,000 hectares to 387,000 by 2010, as producers respond to lower market prices and allocate land to competing food crops. The contraction of the land devoted to jute production will be partly offset by rising productivity in the sector, which will increase yields. Yields are projected to increase from the 1998/2000 average of 1.70 tons per hectare to 1.76 tons per hectare in 2010. Nevertheless, production is expected to decline by 1.9 percent annually from 768,000 tons in 1998/2000 to 681,000 in 2010.⁶¹

Currently there are about 200,000 workers employed directly in jute production and a further 200,000 workers in textile manufacture that uses jute fiber. A decline in the cultivated area devoted to jute is likely to bring about the loss of up to 80,000 jobs, 35 percent of which are held by women working in textile manufacture and processing.[†]

The frozen fish and seafood market, which has been a sector targeted for expansion in Bangladesh, continues to grow. In 2004/05, Bangladesh exported frozen shrimp worth approximately \$360 million, which contributed almost 5 percent of total export earnings. The sector may employ as many as 1.2 million workers, over 65 percent of whom are seasonal or temporary flexible workers. Unfortunately, low productivity, poor infrastructure, and quality concerns have hampered exports. Stricter import requirements and compliance regulations have meant that Bangladesh has had to invest in improving the safety and quality of its fish and seafood exports to avoid products being detained and rejected at point of entry into foreign markets.[‡] IFPRI notes that “the only way Bangladesh can improve its export position in the shrimp market is to improve the safety and quality of its exports.”⁶²

According to Fahmida,⁶³ however, incremental compliance with sanitary and phytosanitary (SPS) measures has changed the composition and location of employment opportunities—particularly for rural women. Compliance with Hazard Analysis and Critical Control Point (HACCP) regulations has increased the technological requirements associated with shrimp processing. Processing has shifted to higher technology sites, disproportionately in urban and peri-urban areas under factory conditions. This may have resulted in a net loss of employment for rural women. Furthermore, as more sanitary processing requires higher technology, better

^{*} Reflecting declines in the sector and as part of the restructuring of the state-owned sector, 28 jute mills were closed in 2003. This led to the retrenchment of several thousand employees, primarily men.

[†] This applies a constant estimated employment elasticity of 0.32. It is possible that women will be shed from jute production at a faster rate than men, since they disproportionately occupy casual employment as part of the seasonal labor force. As a result, the job loss for women may be greater than their proportion in the total workforce in jute production.

[‡] Bangladeshi shrimp has been rejected at the port of entry into the European Union and the United States for salmonella, urea, and antibiotic contamination. See Cato, James and S. Subasinge. “Food Safety in Food Security,” 2003.

infrastructure, and more machinery, more men are being employed in the sector, changing the sex ratio of employment in processing.

Despite initiatives to expand traded production in agriculture, there appears to be a consensus among donors and government that improving outcomes for workers and producers in agriculture requires a strategy of diversification within agriculture and a gradual shift into off-farm employment and non-farm activities in rural areas. A number of reports emphasize the need to increase production of other non-rice cereal crops, especially maize and oilseed, in addition to high-value horticultural crops such as fruits, vegetables, flowers, and ornamental and medicinal plants.^{*} It is important to note, however, that crop diversification in combination with a shift to high-value agriculture should not be done at the expense of staple production (primarily rice), which could jeopardize national food security.

Labor Migration. An increasingly open national and global economy tends to foster labor migration. Liberalization increases the porosity of national borders. As the flow of traded goods increases, so too does the potential for labor export: the same channels that convey goods can also be used to convey people. It is not surprising, therefore, that labor migration is increasing in the post-liberalization era. Not only do the processes of liberalization accelerate economic dislocation, displacement, and labor migration from declining sectors, but they also provide an infrastructure for the movement of goods and people within and between countries. If people do not move seamlessly into traded production in expanding sectors locally, they may seek employment elsewhere. Many migrate internally in search of work, while some seek employment abroad.

It is clear that in the case of Bangladesh, job creation is insufficient to absorb new labor market entrants. In 2000, there were 17 million[†] 15–19 year olds. While not all 15–19 year olds were working, an average of 1.5 million job seekers enter the labor market each year. The Bangladesh Institute for Labour Studies (BILS) estimates that 80 percent of jobs in Bangladesh are informal, that is they lack contracts, mandatory benefits, and stipulated minimum wages do not apply.[‡] Underemployment in low-productivity sectors is pervasive.

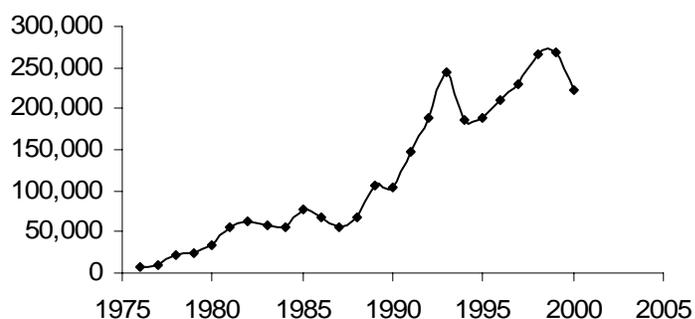
Labor migration has been rising since the mid 1970s but has taken off since the late 1980s in a period that coincides with increasing liberalization (see Figure 6). Currently more than 84 percent of all migrants seek residence in the Middle East. For most workers, the goal of migration is to secure employment and send remittances to family at home. Bangladesh received almost \$2 billion in remittances in 2000, almost all of which came from Arab states, especially the Gulf Cooperation Council (GCC) countries. Only 15.4 percent of remittances to Bangladesh were received from countries other than GCC countries. By 2003/04, migrants abroad were sending a little over \$3.4 billion in remittances back to households in Bangladesh.

^{*} See for example World Bank. "Poverty in Bangladesh: Building on Progress," 2004; World Bank. "Bangladesh Growth and Export Competitiveness," 2005.

[†] Data from the International Database of the US Census Bureau.

[‡] See for example BILS <http://www.bils-bd.org/tor.html>.

Figure 6. Migration of Bangladeshi Labor Overseas, 1976–2000



Source: Data from the Bangladesh Bureau of Statistics and the International Organization for Migration.

GENDER IMPACTS OF ENTERPRISE EFFECTS

The analysis of changes in the gender composition of the labor force is hampered by the lack of comparable statistics over time. It is clear that over the period of liberalization the economically active population rose from 30.9 million in 1985/86 to almost 46.3 million in 2002/03 (see Table 7). Women have seen the greatest percentage increase during this timeframe.

Table 7. Economically Active Population (in millions)

	1985/86	1995/96	1999/2000	2002/03
Total	30.9	36.1	40.7	46.3
Male	27.7	30.7	32.2	36.0
Female	3.2	5.4	8.5	10.3
Urban	4.6	8.3	9.2	11.3
Male	4.0	6.8	7.1	8.6
Female	0.6	1.6	2.1	2.7
Rural	26.3	27.7	31.5	35.0
Male	23.7	23.9	25.1	27.4
Female	2.6	3.8	6.4	7.6

Notes: Aged 15 and older.

Source: Labor Force Survey, Bangladesh Bureau of Statistics.

A host of social norms and expectations contribute to a highly sex-segmented labor market—men and women are not distributed evenly across all sectors and occupations in proportion to their participation in the total labor force. The Duncan Index* calculated for 10 sectors, and used to measure labor market segmentation by sex, was 31 in

* The Duncan Index is $D = 100 * \frac{1}{2} \sum_{i=1}^N |f_i - m_i|$, where $i = (1, 2, \dots, N)$ is the total number of sectors, industries or

occupations and f_i and m_i are the sectoral employment ratios of men and women to their respective labor force. We use 10 sectors defined by their 2 digit ISIC codes.

1990.* It fell to 27 in 2000—registering a decline of over 10 percent in sex-segmentation over the 1990s. This improvement notwithstanding, men and women occupy very different statuses in employment. Table 8 reveals that women are far less likely than men to be employers, employees, self-employed, day laborers, or apprentices. Women are, however, over-represented as unpaid family workers and domestic workers. Women’s over-representation as unpaid family workers and domestic workers is particularly pronounced in urban areas. The impact of liberalization in a highly sex-segmented labor market is likely to produce uneven opportunities for men and women. Expansion of one sector may benefit men over women and vice versa.

Table 8. Employed Persons by Status in Employment

	Total		Urban		Rural	
	Male	Female	Male	Female	Male	Female
Employee	78.4	21.6	78.7	21.3	78.2	21.8
Employer	91.1	8.9	89.4	10.6	92.2	7.8
Self-employed	87.8	12.2	87.7	12.3	87.9	12.1
Day laborer	89.3	10.7	84.9	15.1	90.3	9.7
Unpaid family worker	41.9	58.1	38.9	61.1	42.7	57.3
Domestic worker	14.7	85.3	9.9	90.1	18.3	81.7
Apprentice	85.7	14.3	78.5	21.5	89.2	10.8
Other	77.1	22.9	74.7	25.3	78.1	21.9
Total	77.8	22.2	76.6	23.4	78.2	21.8

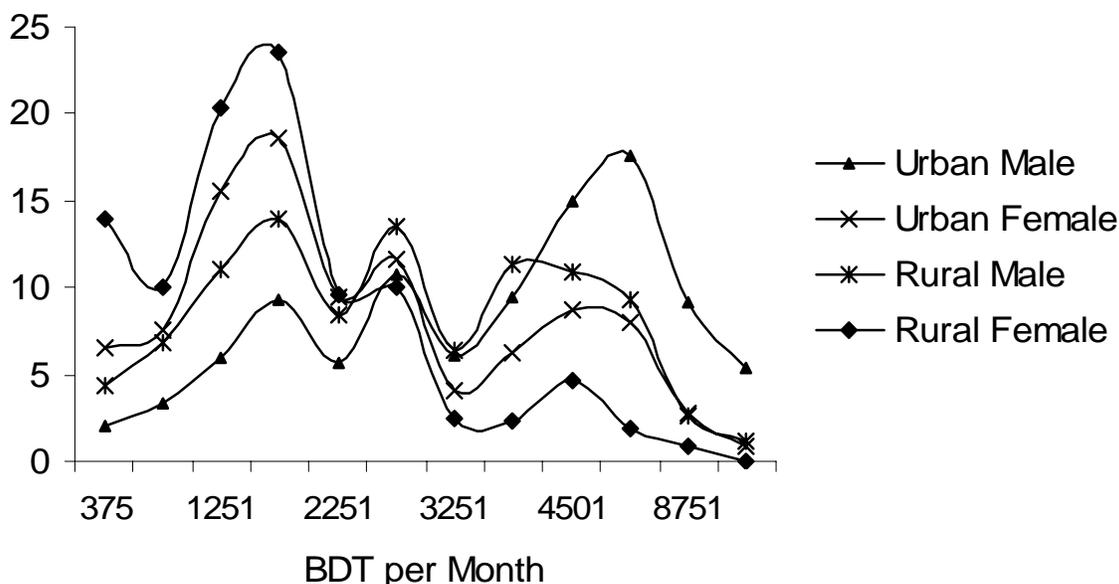
Notes: Persons aged 15 years or more.

Source: Author’s calculations using BBS data for 2002/03.

Although women are entering the labor force, persistent gaps in the terms and conditions of their employment remain. A sex-segmented labor market is more likely to be associated with gender differences in pay and benefits. Women earn less than men in most occupations, even for the same numbers of hours of work. Figure 7 provides a graphic of the distribution of earnings per month in BDT for male and female workers. The graphic clearly shows that persistent earnings differentials exist between men and women in both rural and urban settings. The distributions are trimodal and have three distinct peaks. The greatest proportion of rural and urban women is concentrated at the lower end of the earnings distribution, while urban males have a clear concentration at the upper end of the earnings distribution.

* These data are from the International Labour Organization statistical database. Data from the Labour Force Survey (LFS) for Bangladesh 1990 and 2000 indicate that the Duncan Index is substantially higher, on the order of 60 percent, but that the tendency over time is towards a decline in labor market segmentation by sex. The LFS data are not strictly comparable because of differences in the number and definition of the sectors.

Figure 7. Distribution of Salaried Workers' Earnings per Month, 2002–2003 (by percent)



Gender wage differences narrow slightly with education—but remain visible. Table 9 computes gender wage differentials by levels of formal of education. It shows that women earn less than 50 percent of what men earn in all groups, except for the highly educated group, in which women’s wages are about 70 percent of men’s wages. The smaller gap in earnings between female and male workers with a university education can be explained by the fact that most highly educated women are employed by the public sector, where gender disparities in wages are less marked than in other sectors.

Table 9. Gender Wage Gap in 2000 by Years of Education

	No Education	Less than 5 years of Education	5-10 years of Education	More than 10 years of Education
Average female hourly wages as percentage of male wages	46	48	52	72
Average wages (BDT per hour)				
Female	3.82	5.63	7.83	22.52
Male	8.25	11.76	15.04	31.16

Source: Fontana, Marzia. “The Gender Effects of Trade Reforms in Bangladesh,” 2006.

Gender and Manufacturing. Liberalization affects the pattern of employment by increasing demands for workers in export-oriented sectors and displacing workers in import-competing sectors. One sector which has been expanding consistently since liberalization is RMG. Seventeen percent of the total female labor force is absorbed in manufacturing where the majority of workers, over 60 percent, are in RMG. However, the ending of the MFA has the potential to affect both the competitiveness and composition of production and employment in this sub-sector. As prices decline and

profits are squeezed, the non-EPZ industry has reacted by reducing hours and increasing informalization. This is likely to disproportionately affect women workers.

The changing gender composition of the RMG sector mirrors the rise of knitwear as a sub-sector which now contributes to 43.9 percent to total apparel exports.^{*} While women make up approximately 60 percent of all manufacturing employment and approximately 80 percent of RMG employment, they are approximately 23 percent of knitwear employment.[†] As knitwear expands, the proportion of women absorbed in RMG is declining. RMG also engages in more subcontracting than knitwear. Recent research confirms that 83 percent of all RMG enterprises regularly resort to subcontracting as compared with 63 percent of knitwear enterprises.⁶⁴

McGill undertakes an overview of compliance with labor laws and standards in RMG.⁶⁵ She finds the following:

- Outside the EPZs, RMG workers rarely receive appointment letters. Only about 19 percent of female workers are treated as permanent workers, compared with about 33 percent of male workers.⁶⁶ Without proof of continuous employment for at least a year, workers are not entitled to annual leave, severance pay, or other benefits.
- About 32 percent of female RMG workers receive less than minimum wage (BDT 930), compared with 5 percent of male workers. About 75 percent of RMG factories are late in paying wages, and overtime pay is commonly understated or not paid at all. On the other hand, RMG factories generally pay their workers Eid bonuses, as well as attendance and productivity bonuses.⁶⁷
- On average, workers in RMG factories outside the EPZs work 12 hours a day, compared with about 10 hours in EPZ factories. Non-EPZ workers have an average of one day off each month, compared with three days off for EPZ workers.⁶⁸ In non-EPZ factories, sick leave, casual leave, and annual leave are generally nonexistent.
- Working conditions in non-EPZ factories are generally substandard. On average, there is only one toilet for every 61 female workers, compared with one for every 31 male workers. Very few factories have rest rooms, lunch rooms, or children's rooms. Only 20 percent of women in non-EPZ factories have access to a medical doctor during working hours, compared with 90 percent of women in EPZ factories. Most non-EPZ factories are overcrowded and poorly ventilated, and do not have proper fire exits, fire alarms, or other fire protection measures.⁶⁹ Fire accidents in garment factories are commonplace, and often result in injury or death. The collapse of the Spectrum-Shahriyar factory in April 2005, which left 65 workers dead and about 80 workers injured, also illustrated in graphic terms the lack of compliance with building construction and safety requirements.

^{*} Data from BGMEA and BKMEA.

[†] Data from Bangladesh Bureau of Statistics for 2002-2003.

- Outside the EPZs, very few female RMG workers are able to claim full maternity leave and benefits. About 50 percent claim 6 weeks paid leave (half the time and amount stipulated in the Maternity Benefit Act 1939), while about 33 percent take unpaid leave, and the remaining 17 percent are not able to return to work following the birth of their child.⁷⁰
- Outside the EPZs, only 3 percent of female RMG workers have access to a provident fund, compared with 18 percent of male workers.⁷¹ In contrast, EPZ factories are required to maintain a provident fund for their workers.
- While EPZ firms generally provide transport and accommodation allowances to their workers, non-EPZ firms rarely provide these benefits. Transport and safe accommodation are especially important for female garment workers, most of whom report harassment on their commute to and from work.
- Finally, workers in most of the EPZ factories recently elected representatives to the new Worker Rights Welfare Committees (WRWCs) in their factories. Only about 21 percent of the committee members are women. While the legislation authorizing the WRWCs has been criticized by the ILO and others as restrictive, EPZ workers now have more freedom of association in practical terms than most non-EPZ workers. Outside the EPZs, only 3 percent of female RMG workers belong to a union, compared to 16 percent of male workers, and RMG factory owners strenuously resist efforts to organize workers.⁷² Moreover, very few women hold leadership positions in unions (except for the Bangladesh Independent Garment Workers Union, founded in 1994 by female garment workers frustrated by the lack of attention to women's concerns by the established unions).⁷³

These findings are echoed by other studies. A study by Kabeer and Mahmud⁷⁴ analyzes the terms and conditions of employment for women in export and local markets. The study concludes that EPZ workers are consistently better off than non-EPZ workers. The authors draw on data from a survey of 1,322 women workers that was undertaken in 2001. The sample consisted of two broad categories of workers: 862 women working in the garment export sector and 460 women working in the domestic market as wage workers or self employed. The garment workers were also differentiated between those that worked in EPZs and those that worked outside the EPZs. This study reveals that the majority of garment workers migrated from rural areas to work in the sector. Ninety eight percent of workers in the EPZs had migrated from a rural location and had been in Dhaka for an average of 5 years. Average monthly earnings for workers in the sample were the highest for those in the EPZs (see Table 10). Although wages were variable and hours long, EPZ workers reported earning on average 4.2 times the urban poverty line in 2000.

Table 10. Average Monthly Income by Category of Worker

	Average Monthly Income (BDT)	Multiples of Urban Poverty Line
EPZ garment workers	3014	4.2
Dhaka garment workers	1706	2.4
Self-employed workers	1799	2.5
Other wage workers	919	1.3

Notes: Urban poverty line was 725 BDT in 2000.

Source: Adapted from Kabeer, Naila and Simeen Mahmud. "Globalization, Gender and Poverty," 2004, p. 191, Table 6.

Kabeer and Mahmud also note that "the EPZ factories most closely approximate formal conditions of work. Their workers are more likely than the rest to be given a test on entry, to receive a contract letter of some sort, to enjoy paid leave and maternity leave, to receive overtime pay, tiffin* at work, transport facilities, accommodation facilities, medical care at work, and child care facilities."⁷⁵

Notwithstanding these optimistic conclusions about the EPZs, the majority of RMG workers are not in factories in the EPZs. Since women are disproportionately in RMG where they occupy lower occupational and comparatively more flexible positions, they may be more vulnerable to trade shocks.[†] Certainly, women's comparative insecurity of job tenure in the RMG sector would explain Khondker's findings on the differential effects of the MFA phase-out on men and women. Khondker⁷⁶ reports that in simulations of a decline in export demand workers, earnings also decline. The decline in worker earnings affects high-skilled male and female workers as well as low-skilled workers. Khondker shows, however, that the decline is highest for low skilled female workers who are disproportionately absorbed in the garment sector. Khondker findings suggest that low-skilled female workers are the most vulnerable to trade shocks.

Fontana⁷⁷ undertakes a series of simulations using a CGE model of the Bangladeshi economy. Fontana models a 20 percent decline in the world price for ready-made garments. This causes the volume of garment exports to decline by more than 35 percent, because of the severe fall in profitability of garment production. Exports in all other sectors increase, especially in leather, jute textiles, and vegetables (although this latter from a very small initial base) due to the significant depreciation of the exchange rate (by 15 percent).[‡] As a result, garment exports fall to 44 percent of total exports. Knitwear exports increase slightly, so that the combined share of knitwear and RMG in total exports remains high (about 66 percent). Because of the exchange rate depreciation, imports decline (by 10 percent) in all market sectors and especially in mill cloth, a major RMG production input. Output falls by 30 percent in the garment sector and increases for agricultural goods, especially livestock and jute, which are major inputs into the expanding jute textile industry and leather industry respectively. All services, which are non-traded sectors, experience a moderate output fall, as do most

* Tiffin is a meal provided in the workplace which includes a beverage.

† The degree of sex-segmentation in occupational hierarchies in RMG underscores that women occupy lower-wage and lower-productivity employment within the sector. For example, Majid and Hussain (2005) report that women overwhelmingly populate the lower rungs of occupational hierarchies within the RMG sector. Women make up 89 percent of all helpers, 85 percent of all machine operators, and 18 percent of all supervisors. In the authors' sample of 545 respondents working in the RMG sector, none of the managers were women.

‡ The exchange rate depreciation is required to restore the trade balance, which is held constant in the model.

of the non-market sectors due to declines in domestic demand. However, in small and larger farmer households and in non-agricultural rural rich households, time spent on household work and leisure increases. These households gain from policy changes as land and agricultural capital (the only factors of production for which returns increase in the experiment) provide their main source of income.

Employment in the garment sector falls by about 50 percent for both women and men, but the absolute decline is higher for women than men, reflecting their larger initial share of garment employment. Although there is an increase in female employment in other market sectors, the net effect for all women is a decline in labor market participation. Female workers with different skills are affected differently. The decline in market employment is largest for women with primary education (four percent), and slightly less for female workers with tertiary education (3.5 percent) and secondary education (2.5 percent), while labor participation declines (less than one percent) for women with no education. In this group, a larger proportion of those previously employed in the garment sector finds low or unpaid employment in agriculture, especially vegetable production and livestock.

Thus, for all women, non-market time increases and time spent in social reproduction increases on average more than leisure time. Many of these changes are involuntary and reflect their unemployed status. These overall changes in social reproduction and leisure, however, mask differences between households. For example, while women in rural landless households and most urban households reduce the time they spend on social reproduction and leisure, women of the same skill level in rural rich households increase both.

For men of all educational groups, there is a small increase in market participation (less than one percent) because the sectors which expand are more male intensive.

Because the decline of female intensive sectors reduces the economy wide demand for female labor in relation to male labor, women's wage rate declines both in absolute and relative terms compared to men. For all women but the unskilled group, wage declines more than four percent in absolute terms, and by about three percent in relative terms to that of men with similar skills.

Total consumption of both market and non-market goods rises slightly for large farmers due to receiving higher returns on land and agricultural capital, but falls for all other households. All other households experience a decline in their income. Urban households, both poor and rich, are more negatively affected than the rural households.

The price of non-market activities falls for all households because the cost of labor declines, and the price of social reproduction falls more than the price of leisure because it is more female intensive. The share of social reproduction and leisure in total consumption increases in all households, but their absolute level of consumption declines in most of them. The positive substitution effect on consumption from lower relative prices is smaller than the negative income effect, resulting in most households being worse off.

The impact on women's well being is unambiguously negative, especially for women with primary education. Unskilled female workers experience the smallest decline in market participation but move to low productivity agricultural activities for which, in some cases, they may not receive a remuneration (the model would record earnings accruing to activities such as raising poultry or helping with the livestock but evidence suggests that such earnings are often appropriated by male members of the household). Thus a shift from the manufacturing sector to agriculture could have negative effects, even when there are net increases in participation, since manufacturing generally offers better terms and condition of work and provide women with independent sources of income. Overall, the increase in women's non-market time is taken up more by social reproduction activities than by leisure or idle time.

The policy experiments undertaken by Fontana confirm that women in Bangladesh are more vulnerable than men to the likely decline of the garment industry, as employment opportunities available to them outside of the textile sector are very limited. The distribution of female employment across formal sectors is extremely skewed and the labor market is highly segmented. This requires emphasis on interventions to provide incentives to firms outside the RMG sector to hire women and foster labor mobility.

Gender and Agriculture. Women work in agriculture as family workers on farms and in subsistence production. Women are also hired as agricultural laborers to undertake specific tasks such as weeding, sowing seeds, cleaning, and post-harvest preparation. Table 11 reports the gender composition of particular sub-sectors of agriculture. Women are disproportionately engaged in growing cotton, horticulture, dairy farming, providing irrigation services, and in extracting, concentrating, and distilling sap for tanning. Interestingly, the majority of these sectors is neither export intensive nor experience high import penetration—with the exception of cotton production where 85 percent of the final demand is imported for the RMG sector. Total employment in cotton production was estimated to be approximately 49,406 in 2002-2003. This sector may expand slightly if the WTO Hong Kong agreement that developed countries would eliminate their export subsidies on cotton during 2006 is upheld.

Table 11. Gender Composition of the Workforce in Particular Sub-Sectors of Agriculture

	Bangladesh		Urban		Rural	
	Male	Female	Male	Female	Male	Female
Crops (paddy, barley, jower, etc.)	85.4	14.6	76.3	23.7	86.4	13.6
Growing of oil seeds	51.1	48.9	47.1	52.9	51.7	48.3
Growing jute and fiber crops	64.8	35.2	43.0	57.0	68.2	31.8
Growing cotton	12.7	87.3	12.5	87.5	12.8	87.2
Growing vegetables (potato, tomato)	56.0	44.0	40.1	59.9	57.5	42.5
Growing horticultural varieties (flowers)	12.6	87.4	25.0	75.0	9.6	90.4
Growing tea	47.4	52.6	26.1	73.9	48.1	51.9
Growing spice crops	47.6	52.4	27.3	72.7	49.3	50.7
Farming cattle, sheep, and goats	45.5	54.5	48.6	51.4	44.0	56.0
Dairy farming	19.6	80.4	19.0	81.0	19.8	80.2
Poultry farming	47.5	52.5	58.9	41.1	43.4	56.6
Irrigation services	24.2	75.8	46.2	53.8	18.6	81.4
Extracting, concentrating, and distilling sap for tanning	12.0	88.0	20.8	79.2	10.0	90.0

Notes: Sectors disaggregated to 4 digit BSIC codes.

Source: Author's calculations using Bangladesh Bureau of Statistics, Labour Force Survey 2002-2003.

Women's contributions in agriculture are disproportionately concentrated in domestic production. However, they are engaged in some key activities which contribute to traded production, even though their products are not exported directly: growing cotton; livestock rearing; providing irrigation services; and, extracting tannins for leather goods. The Asian Development Bank estimates that women's engagement in post-harvest activities contributes at least 50 percent of value added to production.⁷⁸ Although women are a growing proportion of day laborers and workers in agriculture, they earn a little under 60 percent of male wages per hour.* This significant inequality in remuneration reflects highly sex-segmented tasks and mobility restrictions which limit women's productive activities and compound an existing underinvestment in female education. Where women earn less, the incentives to invest in their education are diminished. Poorly educated women face highly restricted opportunities and are more frequently confined to highly feminized tasks that command lower wages. Certainly, women working in agriculture report the lowest levels of formal education completed in Bangladesh in 2000. Self-employed women in agriculture report an average of six years of formal education compared with 7.5 years for men (see Annex 1, Table 5).[†]

A growing sub-sector in agriculture includes vegetables and horticulture which are increasingly oriented towards export markets. Export volumes for these products, although modest in relative terms (about \$40 million in 2002), have been rising rapidly (exports in 2000 were five times those of 1990).⁷⁹ Bangladeshi vegetables that are exported are primarily demanded in countries where Bangladeshi migrants have taken up residence. For example, there is a noticeable and rising demand for Bangladeshi vegetables in the UK and Middle East.⁸⁰ Bangladesh has successfully developed new

* Data from Bangladesh Bureau of Statistics, Labour Force Survey 2002-2003.

† These data are from the 2000 Household Income and Expenditure Survey. Significantly more women than men do not have the education category reported: 65 percent of women as compared with 41 percent of men in the sample do not have any data recorded for whether they have received any formal education. See Annex 1, Table 3.

markets for vegetable exports in France, Belgium, Singapore, Hong Kong, Dubai, and the Maldives.⁸¹

A number of projects have focused on expanding and diversifying vegetable production. HORTEX, a foundation that has received funding from a variety of bilateral and multilateral donors, has been engaged in promoting vegetable cultivation and providing training and resources to small farmers throughout Bangladesh. Similarly, the Bangladeshi Rural Advancement Committee (BRAC), an NGO operating throughout Bangladesh, has been engaged in promoting vegetable cultivation providing seeds, fertilizer, training, and financing to small producers. Women are engaged as farmers and laborers in packaging and processing vegetables.

BRAC contracts with more than 1,000 farmer households and provides them extensive technical assistance to produce and deliver export-quality vegetables, including potatoes, to BRAC's packing houses. Approximately 10-15 percent of these farmers farm 1-2 hectares of land, while another 50–60 percent farm 0.4-1.0 hectares of land. The remainder are tenant farmers. BRAC provides training, finance, seeds, fertilizer, and centrally controlled pesticides to their farmers with buy-back guarantees for their produce. BRAC exports approximately 98 percent of all export products sold to supermarkets overseas.⁸² Unfortunately, no wage and earnings data are available by sex.

Additionally, BRAC is engaged in sericulture. Sericulture is a particularly female-labor intensive agro-industry which has the potential to link rural producers with urban markets.* This link provides an opportunity for the transfer of money from the urban rich to the rural poor. BRAC's purpose in promoting sericulture is to provide income-generating activities primarily for poor, landless women. The main components of the BRAC sericulture program include: sapling production; silkworm seed production; mulberry cultivation (roadside, homestead, and bush); silkworm rearing; reeling; weaving; and, marketing. Other components of the sericulture program include raw silk production, cocoon production, silk seed production center, a sericulture resource center (SRC), and spool-reeling center. At present, BRAC operates 18 silk seed production centers, six sericulture resource centers, and three spool-reeling centers. The SRC provides practical training to rearers on mulberry cultivation and silkworm rearing. In 2004, there were 7,875 silkworm rearers, the majority of whom were women, and the project produced over 1.08 million Disease Free Laying (DFL) silkworm eggs for distribution.† Esim⁸³ estimates that over 25,000 women were engaged in different components of sericulture production through the BRAC program in 1998, earning between 2,700 and 30,000 BDT per year. In agricultural labor markets where many women earned less than 35 BDT per day in 1998, these earnings represented a significant contribution to household income.

Shrimp is another agricultural sub-sector that has also been targeted for donor support to increase production and raise yields. Shrimp is primarily an export crop, since less

* Silk contributes to the handloom sector in Bangladesh which has experienced a revival in the late 1990s. Khan (2005) reports that "Bangladeshi handloom products with their distinctive design and superior quality have created a niche for themselves in the overseas markets."

† See http://www.brac.net/coreprogs_files/incomegenerationtext.htm.

than 10 percent of processed shrimp is consumed domestically. Exports garner a little more than \$360 million per year. The shrimp value chain reveals a highly sex-segmented labor market where women and men cluster in different activities and their time is used unequally. Women and girls comprise 40 percent of all fry catchers and 62 percent of all processing plant workers. Very few women act as intermediaries in this sector buying and selling inputs or supplying credit.⁸⁴

Men and women receive markedly different wages along the value chain. Women fry catchers and sorters earn about 64 percent of what male fry catchers and sorters earn. While women receive 82 percent of men's wages in pond repair and casual agricultural labor, they only receive 71 percent of men's wages in the packing section of the processing plants and a mere 60 percent of men's wages in cooking/breeding section of the processing plants.

Inequality in women's participation is also evident in the security of their tenure and the work relationships that they engage in along the shrimp value chain. In most segments where women are employed or engaged as workers, a greater proportion of female time is in temporary or casual employment. In shrimp farming, although there are more men reported to be working, 73 percent of women's labor time is concentrated in temporary or casual employment as compared with 31 percent of men's time. Similarly, in processing, where estimates reveal that women outnumber men, 92 percent of the women's labor time used is considered temporary or casual.⁸⁵ These data underscore, that even where women are employed in expanding sectors, further expansion of the sector under liberalization does not necessarily lead to improvements in the terms and conditions of employment in the short term.

Gender and Migration. There are distinct gender dimensions to migration. Gender plays a dominant role in determining who migrates and when, under what circumstances, and with what resources. Gender is also likely to shape the fortunes of migrants in the host country—determining how rapidly migrants are incorporated into labor markets, what types of labor markets they seek out or are eligible for, the types of visas and protective status they enjoy, and whether they experience any mobility to higher paying higher status employment.

In Bangladesh, the demand for labor in the Middle East fuels substantial flows of workers. In 2000, 65 percent of all migrants leaving the country sought visas in Saudi Arabia. Disproportionately those who migrate are men. Official data report that less than 2 percent of all labor migrants are women. As Siddique⁸⁶ observes, “[these] figures do not give a true picture of female migration from Bangladesh. Many women continue to migrate for employment, but the process remains undocumented. Almost all women of the unskilled and semi-skilled categories migrate unofficially, since the Bangladesh Government has banned unskilled female migration.”

The Government of Bangladesh has espoused different approaches towards female migration over the last decade. In 1991, the Government lifted a ban on unskilled women's migration which it then re-imposed in 1998 on the grounds that restriction was

the best approach to protection from labor rights violations.* Concerns about the vulnerability of women as migrants motivated these bans. The effect has been to slow women's labor migration but not to stem it altogether. Many women do not register as labor migrants, but migrate with family members or as part of family reunification.

Data for the US indicate that among Bangladeshis immigrating into the United States in the 1990s, 35 percent are women. In the UK, a little under 50 percent of recent Bangladeshi arrivals are women.⁸⁷

Many Bangladeshi women migrate to the Gulf States as domestic workers where they frequently receive the lowest remuneration.⁸⁸ It is difficult to obtain accurate statistics on domestic migrant workers in the Gulf States. The ILO⁸⁹ reports that in 2002 there were 160,000 Bangladeshis working in Kuwait as cooks, housemaids, gardeners, and drivers for private households. Approximately 25 percent of these workers were women.

Working conditions are hard, hours are long and employers retain substantial control over the migrants.⁹⁰ Eighty percent of Bangladeshi women and 86 percent of men in Kuwait reported that their sponsor or employer held their passports.⁹¹ While they may receive living assistance, health care, and bonuses, the workers' receipts of these benefits is erratic and inconsistent. Many workers, both men and women, report experiencing both verbal and physical abuse.

In the Middle East, domestic workers are exempt from most national labor laws. Migrant workers rights are limited. In some countries, women are subjected to mandatory pregnancy and HIV/AIDS tests each year. If test results are positive for either, employers assume no responsibility and the female workers are deported home.⁹²

Migrants earn disproportionately lower wages than native born workers and women earn lower wages than men. Despite this, the ILO reports that both men and women working in Kuwait remit as much as 73 percent of their basic wages* home.

TAXES AND SPENDING

Another mechanism by which trade shocks or changes in border prices can be transmitted throughout the economy is through changes in revenues that the Government earns from tariffs and levies on trade. Grunberg⁹³ calculates that in developing countries over one third of all tax revenues are from trade-related taxes, the majority of which are levied on imports. Certainly, this level rises for lower income developing countries, with many Heavily Indebted Poor Countries relying extensively on trade taxes to generate revenues. Madagascar generates 51 percent of all revenues from trade taxes, Sierra Leone raises 44 percent, and the Congo 38 percent.[†] Even countries that have been hailed as successful liberalizers have found themselves constrained by a loss of trade tax revenue as they revise tariffs downwards. Grunberg reports that in Chile in 1997, a two stage reduction in import tariffs from 11 percent to 8 percent was postponed because of concerns about an anticipated loss of \$420 million in public sector revenue.

* The ban has been relaxed, but the remaining restrictions are unevenly applied.

† See McCulloch et al. *Trade Liberalization and Poverty: A Handbook*, 2001.

Trade taxes are typically fairly easy to administrate and collect. The scope of tax evasion in lower income countries combined with an expanding informal economy have contributed to dwindling formal tax bases. Hence the popularity of trade taxes with many developing country governments. Yet, the implied welfare loss from the application of trade taxes and the concomitant disincentives for production are seen as limiting sectoral growth and reducing foreign exchange earnings. As a result, many countries have embarked on liberalization initiatives. Unfortunately, the potential welfare gains and resultant export-sector growth have yet to fully compensate for the loss of tax revenue—particularly in low income countries. In practice, the growth and efficiency gains from liberalization have been insufficient to garner additional revenue or even to achieve fiscal neutrality.⁹⁴

Additionally, other liberalization-related measures have compounded tax revenue losses for developing countries. Devaluation, a practice designed to make exports comparatively cheaper and imports more expensive, has placed further pressure on developing country governments by increasing the cost of their debt repayments and debt-servicing costs. Moreover, devaluation had the additional benefit of boosting trade tax related revenues on imports as their price increased. Since import tariffs are being phased out, this additional benefit is being lost.

TAXES AND SPENDING IN BANGLADESH

Current liberalization commitments in Bangladesh entail converting quantitative restrictions (QR) and regulations into tariffs and reducing high tariff rates. Since trade taxes are an important source of revenues, this is likely to reduce government receipts and affect budgets. Certainly Khattry and Rao⁹⁵ and Baunsgaard and Keen⁹⁶ find that the reduction in revenues from tariffs has significantly affected low income countries' revenue collection. Baunsgaard and Keen⁹⁷ observe “[t]hat middle income countries ultimately lose about 45-65 cents of total revenue for each dollar of lost trade tax revenue. Low income countries, more starkly still, recover almost nothing: revenue losses from trade liberalization have been permanent.” This concern is echoed in the National Strategy for Accelerated Poverty Reduction which notes that any liberalization of import tariffs could have a negative effect on the national budget, and must be offset by the increased collection of revenue from other sources.

The Government of Bangladesh currently operates a customs tariff that is the principal source of government revenue, accounting for over one quarter of total taxes. Revenues from trade related taxes are significant. Customs duties and a supplemental import tax net around 40 percent of all revenues and a further 16 percent of revenue comes from value added tax on imported goods.

A recent report by CPD⁹⁸ highlights the low levels of revenue collection in Bangladesh. Although the average revenue to GDP ratio has increased steadily from 8.5 percent between 1991-1995, it has risen to a little over 10 percent in 2001-2004. Tax revenue contributes about 82 percent of government revenue through the National Board of Revenue (NBR).

Table 12 reports the breakdown of tax revenues from different sources for 2000-2003. The proportion of revenues derived from customs levies has remained largely stable

over the period, while that for excise duty has fallen. The supplemental tax on imports has actually risen over this period.

Total government revenues have risen slightly since the 1980s from an average of 8.8 percent to approximately 10 percent of GDP, aided by fairly strong economic growth in the late 1990s which averaged about five percent (see Table 13). The budget deficit has fluctuated over this period and hovers at around four percent of GDP. Nevertheless, the total public debt has risen from approximately 45 percent of GDP in the early 90s to almost 51 percent in 2003.

The Government is under increasing pressure to rein in the fiscal deficit and reduce recurrent expenditures. The Annual Development Plan has been continually adjusted downwards to accommodate requests to limit government spending and stabilize these imbalances. Domestic financing has been cut, monetary accommodation of the fiscal deficit has been contained, and the composition of domestic financing has shifted from largely monetary to non-monetary sources.*

Table 13 reports the composition of current expenditures (exclusive of capital expenditures) over time as a percentage of GDP. Total current expenditures fluctuate as a percentage of GDP rising from approximately 7 percent of GDP in 1984/85 to a little over 10 percent of GDP in 1994/95 and falling subsequently. The same is true for education and health spending (see Table 14). One category that rises consistently over time is interest payments on domestic and foreign debt, indicating that debt servicing responsibilities are rising—placing an incremental burden on the budget.

* See the World Bank Country Assistance Strategy Progress Report, 2003.

Table 12. Composition of Revenue Sources

Year	Customs	Excise Duty	Income Tax	VAT		Supplemental Tax			Registration	Land Revenue	Forest Revenue	Post Office	Total
				Domestic	Import	Domestic	Import	Others					
2000	26.6	1.4	18.3	19.2	14.1	6.5	11.0	0.8	1.0	0.6	0.4	0.1	100.0
2001	26.4	0.1	18.5	18.4	15.8	6.5	11.1	0.7	1.0	0.5	0.3	0.6	100.0
2002	27.5	1.3	17.5	17.0	15.1	5.2	12.9	0.9	1.1	0.6	0.3	0.5	100.0
2003	26.6	0.6	17.3	16.5	16.0	6.3	13.3	1.1	1.1	0.6	0.3	0.4	100.0

Source: Bangladesh Bureau of Statistics.

Table 13. Government Revenues and Expenditures as a Percent of GDP

Central Govt. Budget (% GDP)	Avg. 1980s	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Total Revenue	8.8	8.3	9.1	9.3	9.3	9.0	9.2	9.3	9.0	8.5	9.0	10.2	10.4
Total Expenditure	17.2	12.7	13.3	13.8	14.6	13.4	13.5	13.3	13.8	14.7	14.1	14.9	14.6
Overall Budget Deficit	8.3	4.5	4.4	4.5	5.2	4.5	4.3	4.1	4.8	6.2	5.0	4.7	4.2

Notes: includes current and capital expenditures.

Source: World Bank. "Growth and Export Competitiveness," 2005.

Table 14. Government Expenditures by Ministry (Percent of GDP)

Category of Expenditure	1984-85	1990-91	1994-95	1999-00	2000-01	2001-02	2002-03
General Public Services	0.97	1.29	1.79	1.23	1.39	1.29	1.42
Defense	1.22	1.60	1.83	1.36	1.34	1.25	1.19
Public Order and Safety	0.54	0.61	0.60	0.69	0.68	0.64	0.68
Education	1.22	1.60	1.95	1.37	1.41	1.40	1.42
Health	0.39	0.52	0.86	0.41	0.43	0.47	0.47
Social Security and Welfare	0.62	0.91	0.72	0.37	0.39	0.33	0.33
Housing and Community Services	--	--	--	0.24	0.25	0.11	0.13
Recreation, Culture, and Religious Affairs	--	--	--	0.09	0.09	0.09	0.11
Fuel and Energy	--	--	--	0.00	0.00	0.00	0.00
Agriculture, Fisheries, and Livestock	0.27	0.38	0.44	0.32	0.33	0.31	0.34
Mining, Manufacturing, and Construction	0.02	0.04	0.04	0.02	0.02	0.04	0.05
Transport and Communication	0.13	0.16	0.24	0.15	0.16	0.54	0.55
Other Services	1.07	1.64	0.56	0.02	0.02	0.21	0.22
Interest	0.78	0.43	1.17	1.50	1.63	1.66	1.95
Total Current Expenditure (% GDP)	7.23	9.19	10.19	7.78	8.15	8.35	8.87

Notes: Based on revised budget estimates for broad details of revenue expenditure.

Other services contain food subsidies and other subsidies and contingencies before 1998. Thereafter, these categories are broken out more explicitly and included in agriculture, housing, and community services.

Source: World Bank. "Bangladesh Public Expenditure Review Summary," 1996; Ministry of Finance, <http://www.mof.gov.bd/>.

Although total nominal expenditures on health and education are projected to rise in Bangladesh, they may not be rising fast enough to ensure that the Millennium Development Goals (MDGs) will be met by 2015. According to official estimates undertaken for the United Nations Millennium Project by the World Health Organization, Bangladesh needs to more than double its health spending per capita, from approximately \$12 per person per year to \$27 by 2015, in order to meet objectives laid out under the MDGs.⁹⁹ Similarly, Bangladesh needs to add another 326,000 teachers by 2010, roughly twice the total number currently employed in the public education system, in order to meet the MDGs for education.¹⁰⁰

In this light, any loss of tariff revenue may limit the ability of the GOB to meet health and education targets and as a result may affect the delivery of critical services to the poor.

GENDER IMPACTS OF CHANGES IN TAXES AND SPENDING

The pressures on the GOB to rein in expenditures at a time when trade liberalization increasingly exposes the economy to competition from abroad, reduces the ability of the state to respond to those who may be temporarily or permanently displaced as a result.

Cagatay¹⁰¹ highlights the potential impact on women of fiscal retrenchment in a liberalizing economy. When social services are reduced or user fees are charged, poor people and women suffer. Women may suffer doubly because they frequently benefit less from publicly provided services, such as education and health care, and their work burden in the form of unpaid household work and caring responsibilities may increase to make up any short-fall in the provision of public goods and services.

Certainly, gender gaps in receipt of health care and education indicate that household resources are frequently prioritized for men and income earners over women and non-income earners.¹⁰² Women exhibit much lower literacy rates than men. The data for 2000 reveal that nationally only 38 percent of women and 54 percent of men over the age of 15 were literate.¹⁰³ Official data also report that the female-male gap for severely stunted children increased from 10 percent in 1996/1997 to 16 percent in 1999/2000, a period during which the index of food prices increased by 44 percentage points. Similarly, the male-female gap for severely underweight children increased from 19 percent to 26 percent over the same period.¹⁰⁴

Hallman¹⁰⁵ reports that boys may be more likely than girls to be taken to health care centers to seek medical treatment. Hallman also reports that women with higher shares of personal wealth and dowry wealth are able to exert greater influence over the use of household resources, thereby improving health outcomes for girls. The Bangladesh Nutritional Surveillance Project reports for 2000 that 45 percent of rural mothers had a low body mass index, a rate that is amongst the highest in recent surveys in Asia.¹⁰⁶ Maternal mortality rates (MMR) in Bangladesh have fallen, but remain among the highest in South Asia.* These high rates reflect a combination of poor nutrition, insufficient investment in women's health, and the low status of women in the family.

* National statistics report that there were 420 maternal deaths for every 100,000 births in 1999. See Asian Development Bank. *Country Gender Strategy*, 2004.

Indeed, the number of births attended by trained health professionals was reported to be only 13 percent in 1997.¹⁰⁷

The Asian Development Bank¹⁰⁸ observes that consistent attempts have been made to ameliorate gender inequalities in health and education outcomes: “Allocations in the annual development plan (ADP) for social sector programs that include women and youth, education, health, and family welfare have increased from 12.48 percent to 24.7 percent.” These attempts notwithstanding, the decline of tax revenues from tariffs is likely to affect total receipts. Any resulting declines in revenues may affect the provision of critical services such as health and education. In a country where women’s access to resources is unequal, women are likely to suffer disproportionately. Furthermore, under conditions where the gender division of labor within the household is markedly unequal, women’s caring responsibilities are likely to rise in response to any declines in expenditures on health care and education.

Finally, declines in tariff revenues and any ensuing fiscal squeeze could prompt a reduction in the size of the civil service. Women make up more than 27 percent of all employees in education services and 29 percent of all employees in health and social work. Their numbers in public administration are far fewer, with only 9 percent of all employees in public administration being women.* Since the terms and conditions of employment in the public sector are better for women than in almost all other sectors, declines in revenue could result in the disproportionate loss of good quality jobs for women.

MACROECONOMIC FEEDBACK

Poor employment outcomes and gender inequality affect the type and sustainability of growth paths that can be achieved. Highly sex-segmented labor markets and production may compound or accentuate macroeconomic imbalances. For example, gender-based wage differences can create a competitive advantage for some semi-industrialized countries, providing a stimulus to growth—particularly for countries that have invested in assembly production with substantial, flexible, low-wage work in traded goods. Seguino¹⁰⁹ finds a positive link between gender wage inequality and growth: countries with greater gender wage inequality grow faster than those where gender wage inequalities are minimal. This finding is likely to be true for short- and medium-term growth, but gender wage inequalities may lead to lower long-term growth and efficiency losses.[†]

A competitive advantage that is based primarily on low cost labor with few backward linkages to other sectors is unlikely to foster sustainable and broad-based growth. Furthermore, low wages can make firms “lazy” since their competitive advantage is secured on the basis of lower wages instead of productivity enhancing investment under conditions of uncertainty. Seguino¹¹⁰ finds empirical evidence that downward pressure

* Data from the Bangladesh Bureau of Statistics, 2002-2003, Labour Force Survey for employed persons 15 years and older.

† See for example Zafiris Tzannatos (1999); Stephanie Seguino (2000, 2005); Ranis, Stewart, and Ramirez (2000); and Klasen (1999).

on wages can induce negative productivity effects, as firms face less competitive pressure to technologically upgrade.

Strategies based on gender wage and gender production inequalities can also result in a slow but steady deterioration in the terms of trade as a whole vis-à-vis industrialized countries, particularly if economic activities are concentrated in low value-added production where competition in the value chain exerts downward pressure on wages and labor costs.¹¹¹ As the terms of trade decline, the cost of importing capital and retooling or diversifying production rises. Declining terms of trade also mean declining reserves which can lead some economies to require balance of payments support or even default on debt service.

In Bangladesh the terms of trade have been deteriorating since 1997. The overall terms of trade index has declined by four percent while the index for textiles and textile articles has declined by 18 percent since 1997 (see Annex 1, Table 7). This reflects in great measure the dependence on low-cost and low-quality garment exports and a failure to upgrade processes and products to export higher value-added goods. Low wages and highly sex-segmented markets in combination with cost-minimization strategies have allowed the final product prices to be lower than they might otherwise have been. As a result, this has reduced the value-added generated in international markets and contributed to the deteriorating terms of trade.

Finally, gender inequality can also affect savings. Floro and Seguino¹¹² test the hypothesis that shifts in women's relative income, can affect their bargaining power within the household, have a discernible impact on household saving and, by extension, gross domestic saving. The results indicate that, as measures of women's relative income and bargaining power increase, gross domestic saving rates rise. The gender disparity in saving propensities may be linked to differences in saving motives based on gender roles, as well as divergent experiences of economic vulnerability. Women appear to have a higher propensity to save out of earned income. As a result, countries that pursue low wage employment in industries that are particularly feminized may eventually inhibit their mobilization of savings and, as a result, the resources available domestically for investment.

The overall mobilization of savings in Bangladesh remains pallid. Savings as a percent of GDP have risen from a little over five percent in 1980 to 20 percent in 2003. These figures compare poorly with other South Asian and East Asian countries. An analysis of how gender inequality can affect savings in Bangladesh has not been conducted, but may prove worthwhile in the endeavor to broaden the financial sector, increase financial service delivery for the poor, and bank the unbanked.

LEGAL AND REGULATORY ANALYSIS

As trade agreements expand into new sectors and trade-related areas such as services and intellectual property rights, and as greater attention is paid to “behind-the-border” issues such as sanitary and technical standards, the scope of trade concerns increasingly overlaps with domestic legal and regulatory systems. However, domestic

laws and regulations are also critical tools for addressing important national objectives such as poverty reduction, racial and gender equality, full employment, public health, and environmental improvement.

This section draws on a report by McGill¹¹³ analyzing Bangladesh's major trade commitments, and trade-related policies, laws, and institutions, on three levels: 1) the *content* of these trade commitments and related laws, policies and institutions; 2) their possible *interactions* with Bangladesh's other international commitments, national laws and policies related to poverty reduction and gender equality, and with societal norms and practices that influence women's status and opportunities; and, 3) *law and policy changes* or other measures that could expand the benefits of trade liberalization more widely, or better mitigate the adjustment costs of trade liberalization for vulnerable groups, especially poor women.

BANGLADESH'S COMMITMENTS TO POVERTY REDUCTION AND GENDER EQUALITY

Bangladesh has made broad international and regional commitments to human rights (including gender equality and labor rights), poverty reduction, and sustainable development. It is a party to most of the major international human rights treaties, including the Convention on the Elimination of All Forms of Discrimination Against Women and its Optional Protocol, and is a party to over 30 ILO conventions. Through its membership in the South Asian Association for Regional Cooperation, Bangladesh has also made regional commitments to broad-based social development.

At the national level, the Constitution of Bangladesh provides the broad legal framework for Government action to promote sustainable development and equality between women and men. The National Strategy for Accelerated Poverty Reduction (NSAPR),¹¹⁴ approved by the Government in October 2005 also provides a comprehensive policy framework for reducing poverty and pursuing equitable development. The NSAPR's strategy for women's rights and advancement builds on Bangladesh's international commitments to gender equality, as well as the National Policy for the Advancement of Women adopted in 1997. Bangladesh's commitments to gender equality and women's empowerment are also reflected in a number of specific policies and laws, including land allocation policies, labor laws, laws to eliminate discriminatory practices in the areas of marriage, divorce and child custody, and laws to discourage and punish acts of violence against women. Despite these progressive measures, gender discrimination persists in many areas and is reinforced by discriminatory personal laws, lax enforcement of gender-equitable laws, and traditional norms, practices, and biases.

BANGLADESH'S MAJOR COMMITMENTS TO TRADE EXPANSION

Bangladesh is a party to an increasing number of international, regional, and bilateral trade agreements. As a founding member of the WTO, Bangladesh is a party to all of the multilateral trade agreements included in the Uruguay Round of trade negotiations (excluding the plurilateral agreements), and it has taken a number of steps to bring its trade laws and policies into compliance with these agreements. As a LDC, Bangladesh has been able to take advantage of the various provisions in the WTO agreements that

accord special and differential treatment (SDT) to LDCs and other developing countries. The report reviews the status of Bangladesh's original commitments under the main WTO agreements, and also considers some of the implications for Bangladesh of the decisions taken at the recent WTO ministerial meeting in Hong Kong.

Bangladesh is a party to several regional trade arrangements, including the Asia-Pacific Trade Agreement (formerly the Bangkok Agreement), the Agreement on a South Asian Free Trade Area, the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation, and the Framework Agreement for a Trade Preferential System for the Organization of the Islamic Conference. It has also entered into a large number of bilateral agreements related to trade, investment, development cooperation, avoidance of double taxation, and other matters. Bangladesh's exports receive market access preferences in several countries—17 countries as of 2000—under the Generalized System of Preferences (GSP). However, the potential benefits to Bangladesh of the GSP are undercut by importing countries' exclusion of key Bangladesh exports from their preference schemes and by complex rules of origin for GSP-eligible imports.

Many of Bangladesh's trade liberalization measures have been undertaken as conditions for loans from multilateral financial institutions such as the International Monetary Fund and the World Bank. Trade-related issues are also addressed in some of Bangladesh's development cooperation arrangements with bilateral donors. Some of these development loans and cooperation arrangements include undertakings that go beyond Bangladesh's WTO commitments.

Bangladesh's membership in the WTO entitles it to certain rights and flexibilities, especially as an LDC. However, WTO membership has also entailed substantial implementation costs, especially related to customs valuation. Regional and bilateral trade agreements and GSP schemes can provide additional trade benefits to Bangladesh, especially when they accord preferential treatment to Bangladesh as an LDC. However, the negotiation and implementation of multiple agreements can also strain the capacity of the Government. Inconsistencies in rules of origin among importing countries are especially burdensome for small exporting businesses. WTO-plus conditions in bilateral agreements can also undermine the SDT provisions already negotiated and accepted by all WTO members. To date, Bangladesh has received relatively little technical assistance to implement its WTO commitments, and the assistance provided has been fragmented among various donors. Few donor-supported programs related to trade include poverty or gender analysis, or measures to integrate poverty or gender concerns in program activities.

TRADE-RELATED POLICIES, LAWS, AND INSTITUTIONS

Bangladesh's trade commitments are implemented through several national policies and laws. Key policy documents include the NSAPR, the Import Policy 2003-2006, the Export Policy 2003-2006, and the Industrial Policy 2005. The main laws governing cross-border trade and investment in Bangladesh include the Imports and Exports (Control) Act 1950, Customs Act 1969, Foreign Exchange Regulation Act 1947, Foreign Private Investment (Promotion and Protection) Act 1980, Bangladesh Export Processing

Zone Authority Act 1980, and Bangladesh Private Export Processing Zone Act 1996, all as amended. These acts have been supplemented by various rules and regulations.

The NSAPR posits that increased trade can contribute to poverty reduction by generating substantial employment opportunities in export sectors such as the RMG sector. On the other hand, the NSAPR notes that any liberalization of import tariffs could have a negative effect on the national budget, and must be offset by the increased collection of revenue from other sources. The policy matrix for the NSAPR includes a number of specific actions to be taken to diversify and promote exports, further liberalize imports, improve the procedures for remittances from overseas workers, and develop capacity for trade negotiations. The matrix also identifies several measures to address gender concerns related to trade expansion.

The Industrial Policy 2005 is the only trade-related policy that specifically identifies women entrepreneurs as a priority group for support, and it outlines a comprehensive program for promoting women-owned businesses (see Box 1). It also provides for the participation of the Ministry of Women and Children Affairs and a representative of women-owned businesses in the National Council for Industrial Development (NCID).

Box 1: Industrial Policy Support for Women Entrepreneurs

Chapter 11 of Bangladesh's Industrial Policy 2005, "Participation of Women Entrepreneurs in Industrialization and their Advancement," includes commitments to:

- Identify promising women entrepreneurs;
- Provide women entrepreneurs with pre-investment advice;
- Consider various incentives and other types of financial support for women establishing small or cottage industries;
- Provide technical training to women entrepreneurs through institutions such as the Bangladesh Industrial and Technical Assistance Centre, the Bangladesh Institute of Management, and the Small and Cottage Industries Training Institute;
- Give preference to women entrepreneurs in service industries;
- In particular, provide technical and financial assistance to women entrepreneurs in "thrust" sectors such as agro-processing, garments, electronics, ceramics, hosiery, frozen food and cold storage, and to women establishing cottage industries to produce leather goods, embroidery, bamboo and cane handicrafts, and other decorative items and gifts;
- Reserve plots for women entrepreneurs in industrial parks in all areas of the country;
- Improve the standard of goods produced by women entrepreneurs, and provide marketing support in local and foreign markets;
- Ensure the participation of women entrepreneurs in industrial policymaking; and,
- Establish a separate public or private bank to provide women entrepreneurs with easy access to equity capital and working capital, including collateral-free loans.

Source: McGill, Eugenia. "Bangladesh Trade Impact Review: Legal/Regulatory Analysis," 2006.

Recent studies note that Bangladesh's trade-related laws, policies, and practices present a number of obstacles for small businesses. These include complex and nontransparent duties and other trade-related taxes, continuing delays in customs clearance, burdensome paperwork requirements, and demands for informal payments. A recent study under the Policy Leadership and Advocacy for Gender Equality (PLAGE) Project of the Ministry of Women and Children Affairs found that current trade policies and practices pose particular problems for women-owned businesses. For example, the study found that the requirement to obtain and renew import and export registration

certificates is unnecessary and burdensome for women entrepreneurs whose mobility may be limited. At the same time, lower import tariffs and rampant smuggling have made it difficult for certain women-owned businesses to compete with cheaper imports. Based on this analysis, the PLAGE study made several recommendations for Government and private sector action (see Box 2).

Box 2: Recommendations to Support Women’s Import/Export Businesses

Based on its study of laws, rules, and policies affecting women entrepreneurs involved in import and export activities, the Policy Leadership and Advocacy for Gender Equality (PLAGE) Project of the Ministry of Women and Children Affairs has made several recommendations, including that:

- The system of import and export registration should be abolished;
- Women importers should be allowed more flexibility to form import groups, including both industrial and commercial importers;
- An information window for women traders should be opened in the Department of Imports and Exports within the Ministry of Commerce, and a customs official should be designated in each port of clearance to handle women importers’ cases as a priority;
- Pre-shipment inspection should be waived as a requirement for women-owned businesses, which tend to import relatively small quantities of goods;
- The interests of women-owned businesses should be represented in the Import Trade Control Committees that adjudicate disputes between importers and the customs authorities; and,
- Measures should be taken to discourage smuggling, and the overall tax structure applicable to imports should be rationalized to meet the needs of women entrepreneurs (for example, with exemptions for small businesses).

Source: McGill, Eugenia. “Bangladesh Trade Impact Review: Legal/Regulatory Analysis,” 2006.

A large number of public and private institutions are involved in formulating and implementing trade laws and policies in Bangladesh. Within the Government, these include the Ministry of Commerce (specifically the Chief Controller of Imports and Exports, the Export Promotion Bureau, the Bangladesh Tariff Commission and the WTO Cell), the Ministry of Finance (mainly the National Bureau of Revenue and its customs and VAT departments), the Board of Investment, the Bangladesh Export Processing Zone Authority, and the Bangladesh Free Trade Institute (BFTI). Several advisory bodies also provide input to national trade policy, including the Import Advisory Committee, National Committee on Exports, Export Promotion Council, WTO Advisory Committee, and NCID. Registered trade organizations also have a voice in trade policy, especially the Federation of Bangladesh Chambers of Commerce and Industry, the Dhaka Chamber of Commerce and Industry, and trade associations for key export industries. Under the Industrial Policy 2005, business promotion councils are also being formed for certain “thrust” sectors.

Key trade policy units of the Government, including the Bangladesh Tariff Commission and WTO Cell within the Ministry of Commerce and the newly established BFTI, have limited capacity and resources. It has, therefore, been suggested that trade policymakers and negotiators should make greater use of the trade economics and trade law expertise in the non-government and private sectors.

The interests of small farmers, small business owners, artisans, and workers, especially women, are not well represented in national trade-related institutions. For example, of the various trade advisory bodies, only the NCID includes a representative of women-

owned businesses. In the main private sector trade organizations, small businesses and women-owned businesses also have little representation. In contrast, several women's business associations that have been established recently are providing a variety of services to their members.

SELECTED SECTOR LAWS AND POLICIES

Many other laws, policies and regulations of Bangladesh are related directly or indirectly to particular trade-related issues (such as sanitary measures, technical standards, or intellectual property rights), to cross-cutting issues (such as labor conditions or land tenure), and to particular export sectors. Trade expansion can have different impacts on business owners, workers, and consumers in particular sectors, depending in part on their status and rights under relevant policies, laws, and regulations. With this in mind, the report reviews selected laws, policies, and regulations relevant to two key export sectors—RMG and shrimp processing—and a third priority sector—small and medium-sized enterprises (SMEs)—with export potential. These sector discussions overlap to some extent. For example, the discussion of labor standards and social compliance issues in the RMG sector is also relevant to shrimp processing firms and to small manufacturers in all sectors.

SMALL AND MEDIUM-SIZED ENTERPRISES

Estimates of the number of small businesses in Bangladesh vary significantly, but it is widely recognized that SMEs play an important role in the economy, especially in generating employment. At the same time, SMEs face numerous obstacles, including lack of information about regulatory requirements, nontransparent regulations, rent-seeking behavior of government officials, as well as limited access to finance, technology, and markets. The PLAG Project and other studies have documented that small women-owned businesses are at a particular disadvantage because of the owners' lack of acceptable collateral for business loans; burdensome and nontransparent business regulations and tax rules; biased treatment by government officials, bank officers, and landlords; and, restrictive social norms that limit their mobility and public activities. The NSAPR, the Industrial Policy 2005, and a proposed SME development policy include broad commitments to address the needs of SMEs, with particular attention to women-owned businesses. The PLAG Project has also made a number of specific recommendations for law and policy changes to assist women entrepreneurs (see Boxes 2 and 3). In addition, SMEs need technical support to improve their compliance with national labor, environmental, and product quality standards. Moreover, SMEs engaging in export activities also need support to ensure compliance with the various standards on imports imposed by overseas buyers and importing countries.

Box 3: Recommendations to Address Constraints on Women Entrepreneurs

Based on its study of the law and policy environment affecting women entrepreneurs in Bangladesh, the Policy Leadership and Advocacy for Gender Equality (PLAGE) Project of the Ministry of Women and Children Affairs has made several recommendations to improve this environment:

Industrial Policy

- Revise the Industrial Policy to address the needs and concerns of women entrepreneurs (e.g., through special incentives and other measures);
- Include representatives of the Ministry of Women and Children Affairs and women-owned businesses in the National Council of Industrial Development;
- Restructure the Board of Investment to pay greater attention to the needs of women's enterprises (e.g., by setting up an exclusive desk to service women entrepreneurs, maintaining records on women-owned businesses, and exploring with the Bangladesh Export Processing Zone Authority (BEPZA) and Bangladesh Small and Cottage Industries Corporation (BSCIC) the possibility of designating industrial plots for women entrepreneurs); and,
- Conduct a nationwide survey to collect current information on women-owned businesses.

Regulatory Requirements

- Simplify requirements for registering with the Registrar of Joint Stock Companies, BSCIC, Board of Investment and other entities, and for obtaining a taxpayer identification number (TIN), trade license, and other licenses and permits; and,
- Eliminate any unnecessary requirements (e.g., import and export registration certificates).

Credit Policies and Practices

- Establish a coordination committee on credit for women entrepreneurs, chaired by a deputy governor of Bangladesh Bank, and a consortium of banks to lend to women-owned businesses;
- Through Bangladesh Bank circulars, specify a certain percentage of commercial lending to be channeled to women entrepreneurs;
- Establish special desks for women clients in public and private banks;
- Remove or replace the current guarantee requirements on commercial loans to women (e.g., by establishing a credit guarantee scheme through Bangladesh Bank to support women entrepreneurs, and/or arranging for chambers of commerce, or other private trade bodies to act as guarantors);
- Restructure the boards of public sector banks to include at least 25 percent women, and consider appointing a female deputy governor of Bangladesh Bank;
- Consider establishing a separate bank to provide comprehensive financial services to women entrepreneurs;
- Require banks to monitor their lending operations on a sex-disaggregated basis; and,
- Arrange gender training for bank officers.

Land and Utilities

- Modify inheritance rules to remove gender discrimination (e.g., by enacting a uniform family code);
- Allocate BSCIC and BEPZA industrial plots to women entrepreneurs on a preferential basis; and,
- Assess lower utility charges for women's businesses at least during the first five years of operation.

Tax Rules and Procedures

- Simplify the procedures for obtaining a TIN (e.g., eliminate the requirement to first file an income tax return and decentralize the TIN-issuance process);
- Simplify the process for advance assessments of income tax against imports;
- Revise current income and gift tax rules that disadvantage women entrepreneurs who finance their businesses from informal loans and gifts;
- Provide tax holidays or other tax relief to women-owned businesses, or to industries in which women entrepreneurs are active;
- Establish taxpayer information units, launch taxpayer information programs, and employ women staff at all levels of tax offices, especially in positions where staff are likely to interact with women taxpayers; and,
- Harmonize tax structure with other policies and measures to support women entrepreneurs,

and avoid frequent changes in tax rates and tax rules.

Marketing

- Establish a one-stop service center for women-owned businesses;
- Help small women's businesses form groups to import raw materials and allow women's business groups to open joint letters of credit;
- Adopt a preferential government policy to procure local products from women-owned businesses;
- Conduct research to identify promising backward and forward linkages with women-owned businesses;
- Encourage the formation of more women's business associations and the participation of women entrepreneurs in existing associations;
- Establish more joint marketing outlets for women-owned businesses, such as the MIDAS-supported Mini Marts*; and,
- Allocate separate stalls for women's businesses (or groups of women's businesses) in domestic and overseas trade fairs.

Note: *Another model that has been introduced successfully in rural infrastructure projects implemented by the Local Government Engineering Department is the allocation of space for women's stalls or a women's trading area in rural market centers.

Source: McGill, Eugenia. "Bangladesh Trade Impact Review: Legal/Regulatory Analysis," 2006.

READY-MADE GARMENTS

Although Bangladesh is taking steps to diversify its export base, the RMG sector still generates about 75 percent of export earnings. The sector is seen as critical to the Government's poverty reduction and gender equality goals because of its predominantly female workforce, drawn mainly from rural areas. Although the majority of workers in the RMG sector are women, there is significant gender segregation by subsector and occupation, with women working primarily in woven-wear factories and at lower skill and compensation levels. The dismantling of import quotas under the MFA has not yet had a dramatic impact on the RMG sector, but factories are under increasing price pressure and there appears to be a trend toward employing more workers on a temporary or piece-rate basis. At the same time, overseas buyers are demanding that factories improve compensation and working conditions for their employees, particularly in the wake of a recent factory collapse and fires that resulted in large numbers of deaths and injuries. The RMG sector benefits from a wide range of incentives and other supports under the Import Policy 2003-2006, Export Policy 2003-2006, and Industrial Policy 2005. Additional measures are identified in the NSAPR and a Post-MFA Action Programme to improve the competitiveness, social, and environmental compliance of RMG firms, and to provide support to any retrenched workers.

This report focuses in particular on Bangladesh's legal framework for labor standards and workplace safety, including provisions specifically related to women workers, the special labor rules that apply in export processing zones, as well as "codes of conduct" that have been introduced by some overseas buyers and buyer groups. Bangladesh's labor law framework is comprehensive and generally consistent with its international commitments under ILO conventions. However, the enforcement of labor laws and rules is extremely weak, due in large part to the small number of labor inspectors (only 62 inspectors were responsible for 18,900 factories in 2000). Recent surveys have found that compliance with labor standards in the RMG sector is highest in EPZ factories. Among non-EPZ firms, compliance with labor standards appears highest in factories

that have a direct relationship with overseas buyers, and lowest in the small factories that operate as subcontractors or sub-subcontractors for larger firms. Labor conditions also vary substantially by gender. The new Labour Code, which has been under consideration by the Government for over 10 years, has the potential to simplify and strengthen the labor law framework in Bangladesh. Labor law experts have proposed a number of changes in the draft Labour Code to address the current needs of workers, especially women, and they have also recommended measures to strengthen the general enforcement of labor standards. This report also recommends more public and private initiatives to address the needs of RMG workers for affordable and secure housing, safe transport, health care, savings mechanisms, and payment of accrued wages and benefits in the event of sudden factory closures.

SHRIMP FARMING AND PROCESSING

With support from external agencies and generous incentives from the Government, the shrimp sector has expanded rapidly over the past two decades. Over a million workers and traders may be engaged in the entire shrimp production chain, and shrimp represent close to five percent of Bangladesh's exports. Despite its promise as an export sector, shrimp processing is vulnerable to food safety and quality issues, and shrimp farming is also associated with environmental damage, displacement of landless and landpoor farmers, and hazardous conditions for workers. As in the RMG sector, the labor market for shrimp farming and processing is highly segregated by gender, with women much more likely to be employed for lower wages and as temporary or casual workers.

The shrimp sector implicates a number of Government policies and strategies related to fisheries, water, the environment, land use, industry, imports, and exports. Several sets of laws and regulations also apply to the sector, including laws and rules related to fisheries, the environment, land allocation and use, business, and labor conditions. However, inconsistencies and gaps in the regulatory frameworks, and weak enforcement of existing laws and rules, undermine efforts to promote the shrimp sector as a viable export sector that is also socially and environmentally responsible. Legal and regulatory weaknesses are particularly noticeably in the areas of land use, environmental protection and labor conditions in shrimp hatcheries, farms, and processing plants (including gender issues). To address these inadequacies, several industry codes of practice and certification systems have been piloted, including the "Shrimp Seal of Quality" certification standards developed with USAID support. The Government is also considering a number of regulatory, institutional, and other changes to be incorporated in a new shrimp strategy. The McGill¹⁵ report suggests that additional measures should be undertaken by the Government and donor agencies to foster the participation of stakeholders in oversight of the shrimp industry, to ensure the protection of vulnerable groups' access to *khas* (government) land, to improve working conditions in the sector, and explore the feasibility of any new traceability or certification requirements for small shrimp farmers.

CONCLUSIONS

In an open and liberalizing economy, efforts should be made to diversify exports and increase forward and backward linkages to maximize employment opportunities. The concentration of Bangladeshi exports in textiles and agriculture gives cause for significant concern.

Furthermore, the gender composition of employment in export oriented sectors in Bangladesh indicates that women concentrate in temporary, casual, and flexible labor primarily because of their subordinate social and economic status. Women are seen as secondary wage-earners whose income supplements male earnings. Additionally, their dual role as mothers and caregivers limits their engagement in productive and remunerated activities, and is seen as a reason why their participation in paid employment is secondary. The primacy of male earnings confers more protected status upon men and allows women's employment to be seen as a buffer against risk and not part of an essential and co-equal strategy to generate household earnings. Where women's earnings are secondary, and in labor markets where tasks are highly gendered, women typically command lower wages. Finally, women are actively recruited as cheap, compliant labor that can be hired and fired more easily, and a host of gendered social norms reinforce their compliance.

Trade liberalization in Bangladesh is occurring in a highly sex-segmented labor market where the terms and conditions of men and women's employment vary greatly. Highly segmented labor markets allow firms to take advantage of labor that may be under-priced increasing their competitive advantage in the short run. This is particularly true of the RMG sector. A competitive advantage that is based primarily on low cost labor with few backward linkages to other sectors is unlikely to support sustainable and broad-based growth. Furthermore, low wages can make firms "lazy" since their competitive advantage is secured on the basis of lower wages instead of productivity enhancing investment under conditions of uncertainty.

Additionally, as Cagatay (2000:27) observes "while gender-based wage differences can create a competitive advantage for some semi-industrialized countries, if such a strategy is adopted by all of these countries, it may result in a slow but steady deterioration in their terms of trade as a whole vis-à-vis industrialized countries. " Low wages and highly sex-segmented markets in combination with cost-minimization strategies have allowed the final product prices to be lower than they might otherwise have been. As a result, this has reduced the value-added generated in international markets and contributed to the deteriorating terms of trade for goods produced in female-intensive industries.

Productivity is of concern in export production in Bangladesh. RMG manufacturers and shrimp farmers exhibit comparatively lower productivity in Bangladesh than among their competitors. Squeezing wages is unlikely to enable exporters to compete. Donors and firms should concentrate on activities to promote collective efficiency and stimulate upgrading. Upgrading can encompass process upgrading (transforming inputs into

outputs more efficiently), product upgrading (moving to more sophisticated product lines), and functional upgrading (acquiring new functions such as design and marketing and adding higher value added production). Efforts to improve the terms and conditions of employment for workers should go in tandem with efforts to raise yields and productivity. If the incentive to upgrade is limited, Bangladesh is likely to face increased competition for sourcing, the negative effects of the MFA phase-out are likely to be amplified, and they will be unable to maintain their position in shrimp export markets.

Finally, efforts should be made to diversify exports and increase forward and backward linkages to avoid narrow dependence on enclave export niches. Where possible, attention should be paid to stimulating investment in higher value added production and in industries and sectors that demonstrate the least sex-segmented labor markets.

The legal and regulatory analysis highlights that the interests of small farmers, small business owners, artisans, and workers, especially women, are generally not well-represented in Bangladesh's trade-related institutions. As a result, Bangladesh's trade-related policies, laws, and regulations do not consistently reflect the interests and concerns of these groups. The policies, laws, and regulations that apply to key export sectors such as RMG and shrimp processing, and generally to small businesses involved in import and export activities, also suffer from gaps, inconsistencies, and lax or inequitable enforcement. These factors limit the benefits of trade expansion for small businesses, small farmers, artisans, and workers. Biases in some laws, rules, business practices, and discriminatory social norms further limit the opportunities of women to benefit from trade-related activities. To ensure more equitable distribution of the benefits of trade expansion, the report suggests that:

- Poverty and gender concerns should be addressed more consistently in the development of Bangladesh's trade-related policies and laws, in their implementation, and in the negotiation of trade commitments;
- The Government's recent policy commitments to poverty reduction, gender equality, and social compliance, particularly in the NSAPR, the Industrial Policy 2005, and the Post-MFA Action Programme, should be implemented promptly and with adequate resources; and,
- Greater attention should be paid to "behind-the-border" issues of inequality and gender discrimination in the implementation of key policies, laws and regulations in trade-related sectors (including the simplification of regulations applicable to small businesses, and the equitable and effective implementation of land and labor laws).

RECOMMENDATIONS

The recommendations below encompass a series of sectoral initiatives to improve outcomes in export sectors for poor men and women and some additional data collection and research. The policy action matrix (see Table 15) prioritizes those activities that could be undertaken immediately and which would yield significant improvements in outcomes for poor men and women affected by trade liberalization.

Table 15. Policy Action Matrix

Constraints	Actions	Activities	Indicators	Responsible Agencies
Highly sex-segmented labor markets	<p>Invest in women's education and training</p> <p>Reduce women's mobility constraints</p>	<ul style="list-style-type: none"> Expand education and vocational training initiatives Encourage labor market intermediation through job centers Encourage the expansion of sex-segregated transportation services to enable women to commute to work Include women in planning and project design of rural road projects to increase women's mobility and security 	<ul style="list-style-type: none"> Number of women trained Number of women placed in employment Retention of workers trained Increase in the number of firms and services offering sex-segregated transportation 	<ul style="list-style-type: none"> Government of Bangladesh Donors USAID
Potential for job loss in RMG	Create initiatives to hire and provide training to retrenched garment workers	<ul style="list-style-type: none"> Create incentives for firms to hire retrenched garment workers Incorporate gender concerns in training Foster savings schemes to provide "rainy day" funds Expand coverage of existing provident funds 	<ul style="list-style-type: none"> Number of retrenched workers hired and retained for a minimum of one year Number of savings schemes adopted Increased coverage of savings schemes and provident funds—particularly outside of the EPZs 	<ul style="list-style-type: none"> Government of Bangladesh BGMEA and BKMEA Unions
Low productivity in RMG	Foster upgrading and investment	<ul style="list-style-type: none"> Work with small and medium sized enterprises to identify opportunities 	<ul style="list-style-type: none"> Number of companies and enterprises improving 	<ul style="list-style-type: none"> Government of Bangladesh BGMEA and

Constraints	Actions	Activities	Indicators	Responsible Agencies
		for upgrading <ul style="list-style-type: none"> • Promote process and product upgrading • Support development of innovative management techniques to improve worker productivity and working conditions 	infrastructure, investing in machinery, and raising the quality of their product <ul style="list-style-type: none"> • Increase in value added per unit of production • Increase in value added per worker 	BKMEA <ul style="list-style-type: none"> • Unions
Poor compliance with labor laws and regulations	Provide additional resources to the Ministry of Labour and Employment	<ul style="list-style-type: none"> • Train inspectors and garment manufacturers on compliance • Train RMG owners/managers and RMG workers on labor standards and workplace safety • Train shrimp processing factory owners/managers and workers on labor standards and workplace safety • Promote ethical trading initiatives • Promote health care coverage through employer associations for workers in shrimp processing, RMG, and knitwear • Establish welfare fund for 	<ul style="list-style-type: none"> • Number of inspectors trained, both men and women • Number of firms where owners and workers have received training • Number of firms adopting ethical trading initiatives • The creation of a medical allowance, group health insurance, NGO provided health care, or access to medical facilities 	<ul style="list-style-type: none"> • Government of Bangladesh • Donors • USAID • BGMEA • Unions • Civil society

Constraints	Actions	Activities	Indicators	Responsible Agencies
		<p>shrimp fry collectors and farmers from a tax on revenues of shrimp export to provide social provisioning for rural Bangladeshis engaged in shrimp production</p>		
<p>Concentration of exports</p>	<p>Promote greater export diversity</p>	<ul style="list-style-type: none"> • Work with HORTEX Foundation and BRAC to develop horticulture, sericulture, leather, and other women-intensive sectors • Provide credit and training to SMEs and women farmers in horticulture and sericulture • Promote clustering of SMEs • Encourage domestic sourcing and invest in forward and backward linkages, using training and technical assistance delivery • Expand focus on the nostalgic and diaspora market for crafts, textiles, horticulture, and foods • Expand smallholder shrimp and polyculture 	<ul style="list-style-type: none"> • Number of women engaged in export-oriented production • Increased take-up of micro-credit in horticulture and sericulture • Change in household income or consumption measures 	<ul style="list-style-type: none"> • Government of Bangladesh • Donors • USAID • HORTEX Foundation • BRAC • Grameen Bank • PROSHIKA

Constraints	Actions	Activities	Indicators	Responsible Agencies
		<ul style="list-style-type: none"> production Promote domestic fish and poultry feed production to employ more rural entrepreneurs and workers Promote trade fairs Increase focus on marketing services for SMEs Promote links to organics/fair trade initiatives to increase value added for women 		
Inadequate port and customs infrastructure	Reform customs and excise	<ul style="list-style-type: none"> Expand bonded warehouses Train customs and excise officials Conduct operations research to improve efficiency and accountability in customs and excise 	<ul style="list-style-type: none"> Number of bonded warehouses in operation Number of customs and excise officials trained in transparent and accountable methods Reduction in time to move goods through customs 	<ul style="list-style-type: none"> Government of Bangladesh Donors USAID
Limited participation in trade negotiations or understanding of gendered impacts of trade	Increase participation in trade policy analysis and input into trade negotiations	<ul style="list-style-type: none"> Expand membership of trade advisory bodies to include representatives of small farmers, small businesses, artisans, and workers 	<ul style="list-style-type: none"> Increased participation of representatives of small farmers, small businesses, artisans, and workers in trade 	<ul style="list-style-type: none"> Government of Bangladesh Donors USAID

Constraints	Actions	Activities	Indicators	Responsible Agencies
policy		<ul style="list-style-type: none"> • Improve capacity of trade-related institutions to collect and analyze trade-related data, disaggregated by sex and other relevant factors • Ensure that future trade-related development assistance to Bangladesh includes poverty and gender analysis, and that future support to national trade institutions strengthens their capacity to analyze trade policy issues from a poverty and gender perspective 	<ul style="list-style-type: none"> • advisory bodies • Improved data collection and more consistent gender disaggregation by key agencies (Ministries of Health, Education, Finance, Labour, Fisheries, Food, Environment, Bureau of Statistics) • Gender and poverty analysis included in requests for proposals for trade policy analysis 	
Inadequate legislation on patents and geographic indicators	Support the development of a variety of legislation that is coherent with TRIPS	<ul style="list-style-type: none"> • Ensure that the new Patents and Designs Act and Plant Variety and Farmers' Rights Protection Act takes full advantage of the transition periods and flexibilities provided in the TRIPS Agreement to extend protection to indigenous plants and other items. • Develop simple, transparent, and inexpensive procedures 	<ul style="list-style-type: none"> • The development of Patents and Designs Acts and Plant Variety and Farmers' Rights Protection Act which includes all aspects of transition periods and flexibilities provide for in TRIPS • Simple, applicable, and inexpensive procedures for geographic indicators • Participatory consultations 	<ul style="list-style-type: none"> • Government of Bangladesh • Donors • USAID • NGOs • Civil society organizations • Private sector groups

Constraints	Actions	Activities	Indicators	Responsible Agencies
		<p>for establishing and protecting geographic indications for handicrafts and other artisanal products</p> <ul style="list-style-type: none"> • Include small farmers, artisans, and civil society organization representatives in consultations to develop these legal instruments and protocols • Conduct training on geographic indications to artisans, especially women 	<p>conducted with a broad range of organizations</p> <ul style="list-style-type: none"> • Number of trainings conducted on geographic indications with artisans, small farmers, and women entrepreneurs 	

SECTORAL INITIATIVES

IMPROVE PRODUCTIVITY IN RMG AND MANUFACTURING

The evidence presented here and summarized from other studies highlights the importance of investing in upgrading and job training. Upgrading spans a variety of activities. Process upgrading is transforming inputs into outputs more efficiently by reorganizing the production system or introducing superior technology. Product upgrading involves moving into more sophisticated product lines with higher unit values. Functional upgrading would require Bangladeshi firms acquiring new and superior functions in the chain, such as design or marketing, and focusing on integrating higher value added activities. Inter-sectoral upgrading is applying the competence acquired in a particular function in the global value chain to a new sector. This could be considered in the case of shrimp processing factories where there is significant under-utilization of capacity. In the absence of sufficient demand or in the face of inadequate or intermittent supply of shrimp, some processing factories could switch to vegetable processing to service the horticultural sector. The same technologies are easily adapted to vegetable processing and this could prove a worthwhile shift in inter-sectoral focus.

Upgrading should be accompanied by skills training and investment in the workforce. On-the-job training is essential if the current workforce is to be retained. If not, the process of upgrading will entail significant displacement as unskilled workers are let go in favor of new hires that are comparatively better skilled.

While these investments are primarily the responsibility of the private sector, there are distinct benefits to donor and public sector involvement, particularly for small and medium enterprises that service the RMG sector and form part of outsourced and flexible production. Furthermore, the Government of Bangladesh may need to develop incentives for training and on-the-job skills acquisition for women workers, who may be more likely to be shed in the process of upgrading and accommodating the post MFA environment. Additionally, donors and the government could consider commissioning operations research on the types of management and organizational techniques that can improve productivity and working conditions.

RETRAIN DISPLACED RMG WORKERS

The phase-out of the MFA is likely to affect employment in the RMG sector. There is every indication that low-skilled women will be most affected, either through job loss or further informalization of their employment. Efforts to retrain displaced RMG workers will be essential—particularly if those workers are young, rural-urban migrants with few alternative opportunities for employment.

Specific gender considerations will need to be taken into account when developing retraining curricula. Women will need to be hired as trainers, sex-segregated courses may need to be offered, and the timing of courses should be arranged to accommodate women's dual roles or any household obligations that they maintain. In some cases, transportation may need to be provided.

FOSTER SAVINGS SCHEMES FOR GARMENT AND TEXTILE WORKERS

One initiative that could prove useful in the absence of social insurance is a flexible savings scheme for garment and textile workers. Workers could have access to a savings scheme with preferential interest rates that encourage them to save a portion of their wages. A variety of incentives could be developed, including matching funds from a small tax levied on profits in the sector. The savings plans could be individual or collective. A collective savings scheme would be owned, governed, and managed by its members. The members could agree to save their money together in the savings association and to make loans to each other at reasonable rates of interest. Interest is charged on loans to cover the interest cost on savings and cost of administration. No payment or profit would be made available to non-members. Such schemes could link to ongoing savings and credit initiatives through NGOs, such as BRAC and GRAMEEN, or labor associations.

REFORM CUSTOMS AND EXCISE

Careful and systematic reform of customs and excise may play as important a role as any further revisions in tariffs and non-tariff barriers. Generalizing the success of bonded warehouses and the efficient transfer of exports from the EPZs through sea and airports could greatly enhance Bangladeshi competitiveness. Reducing the lead time for RMG and textiles could greatly diminish the negative impact of the MFA phase-out. Corruption and inefficiency in the ports contributes to long lead times. A long lead time affects RMG exports by raising the cost of production and undermining competitiveness. In the post MFA environment, buyers are likely to increase the frequency with which they source garments to reduce inventory and ensure that their stock is more responsive to changes in consumer tastes and preferences. Customs and excise that are bureaucratic, corrupt, and inefficient reduce the ability of Bangladesh to be responsive to more frequent sourcing. Investment in greater transparency, accountability, and faster export procedures could greatly enhance Bangladesh competitiveness.

ADOPT ETHICAL TRADING STANDARDS

Particular efforts should be made to adopt ethical trading standards as a means of distinguishing Bangladeshi production and protecting workers. A number of multi-stakeholder initiatives exist including the Fair Labor Association (FLA) in the US, the Ethical Trading Initiative in the UK, and the Fair Wear Foundation in the Netherlands. These represent key markets for Bangladeshi goods. Some companies in Bangladesh are adopting codes of conduct and agreeing to independent monitoring. A recent initiative between the ILO and the Bangladesh Garment Manufacturers and Exporters Association includes 200 factories. This project will include efforts to eliminate child labor, improve the terms and conditions of employment, address occupational safety and health concerns, review management systems, and address trade union concerns. The goal is to demonstrate that improving outcomes for workers also improves productivity and earnings.

Such initiatives, however, should include the core labor rights and the right to bargain collectively. For example, significant advances have been made in the EPZs. The EPZ

factories recently elected representatives to the new Workers Representation and Welfare Committees (WRWCs) in their factories. Although the legislation authorizing the WRWCs has been criticized by the ILO and others as restrictive, EPZ workers now have more freedom of association in practical terms than most non-EPZ workers. The same could be achieved in shrimp processing; efforts are underway to define ethical trading standards that include safety, hygiene, and worker rights and benefits. Efforts should be made to link ethical trading standards with worker representation and collective bargaining rights and to ensure that women are properly represented through these mechanisms.

PROVIDE MORE RESOURCES FOR COMPLIANCE WITH LABOR MARKET POLICY

Insufficient investment in monitoring and regulating work environments hampers productivity and encourages evasion and informalization by unscrupulous employers. There is evidence that the Ministry of Labour and Employment has inadequate numbers of inspectors. In 2000, for example, there were only 62 labor inspectors responsible for inspecting over 18,900 factories.¹¹⁶ The Government of Bangladesh should invest resources in training inspectors and provide funds for their mobilization. Furthermore, there is an urgent need to increase the capacity of the Ministry of Labour to collect data on the terms and conditions of employment as well as to track employment generation and remuneration across multiple sectors.

More broadly, the Government of Bangladesh needs to foster education and training for women to reduce labor market segmentation. Inequality in education contributes to highly sex-segmented labor markets and compounds women's low earnings and continued under-investment in their skills. With lower expected earnings, investment in girls and women's education continues to lag behind that of men in Bangladesh. Moreover, women's lower earning potential reinforces the gender division of labor within the household, since the opportunity cost, in terms of foregone income, and of specializing in unpaid household work, is lower for women than for men. Where women are confined disproportionately to household tasks, their dependency upon male breadwinners is heightened and their risk of poverty increases.

LINK PRODUCERS TO EXPORTERS THROUGH ASSOCIATIONS

There is a need to link women producers to exporters through associations like HORTEX and BRAC. Both BRAC and HORTEX have been successful in expanding traded production. In agriculture, women are concentrated in sub-sectors which are neither particularly export-oriented nor import-intensive. Consequently, they have been largely shielded from the direct impacts of trade liberalization on their activities. But as a result, they also have not benefited as much from any expansion of trade opportunities. USAID could support projects that expand microfinance, training, increase access to inputs such as seeds, and provide direct links to export markets for women householders and workers through programs offered by BRAC and HORTEX.

PROMOTE STRATEGIC CLUSTERING AND NETWORKING

Groups of women producers may be able to access services collectively which they might not be able to purchase as individual entrepreneurs. This is particularly true in the

informal economy. Clusters and networks of women can facilitate access to resources and achieve economies of scale. Additionally, groups of entrepreneurs requiring the same service are usually in a better negotiating position with potential suppliers or can bargain more effectively with buyers than they could alone. Furthermore, it may be easier for groups of entrepreneurs in strategic clusters to link up with ethical and fair trade initiatives ensuring the volume required for buyers of particular products.

Donors could foster projects that focus on maximizing forward and backward linkages within clusters. Such projects could be modeled on innovative approaches such as the DANIDA GOLDA project^{*} which links a variety of shrimp farmers, feed producers, nurseries, and processing plants to maximize economic spillovers from expansion of the sector. For instance, maximizing local sourcing through HORTEX for packaging and linking small farmers to credit and training initiatives through BRAC illustrates another means of increasing the economic spillovers across the value chain from donor led projects.

INCREASE FOCUS ON THE NOSTALGIC AND DIASPORA MARKET

The nostalgic and diaspora market affords a potential market for Bangladeshi goods such as arts, crafts, textiles, and vegetables. Providing support to exporters and producer associations to enable them to target specific diaspora markets in the Gulf states, the US, and Europe can contribute to diversifying exports. Women are visible as artisans and producers in these markets, but they may face different constraints accessing productive resources and marketing their goods. Undertaking a gender differentiated diagnostic analysis of small entrepreneur needs as producers and potential exporters will also yield concrete recommendations for how to expand their activities and increase market access.

BRAC and other NGOs have been working to link producers and develop artisans markets in countries with a significant Bangladeshi presence. In some cases, limitations have been imposed by the complexity of negotiating customs in home and host countries. Support to these organizations to reduce the time their goods spend in customs could increase their ability to export goods.

PROVIDE SUPPORT TO WOMEN MIGRANTS

Government efforts to protect women migrants may have resulted in their clandestine labor migration. Although the ban on women's labor migration has been relaxed, it has not been completely repealed. Lifting the ban on the migration of unskilled women will facilitate family reunification and enable women to seek employment abroad. More open labor migration will enable Embassies to track labor migrants and better protect their interests overseas. More open labor migration for women may also help with their re-integration upon return. Additionally, more open labor migration will reduce predatory hiring and the potential trafficking of women and minors.

^{*} See DANIDA Private Sector Development Program, <http://www.psdbangladesh.com>.

INCREASE PARTICIPATION IN TRADE POLICY ANALYSIS AND INPUT INTO TRADE NEGOTIATIONS

To better ensure that the benefits of trade expansion are equitably shared, it would be desirable for the Government to expand the membership of key trade advisory bodies to include representatives of small farmers, small business owners, artisans, and workers, especially women.

Additionally, there is a well recognized need to enhance the general capacity of trade-related institutions, such as the Tariff Commission, the WTO Cell within the Ministry of Commerce, and the Bangladesh Free Trade Institute, to systematically collect and analyze trade-related data. This would enhance the ability of the Government to develop trade policies, negotiate new trade agreements, and exercise its rights under existing trade agreements. The collection of trade-related data, disaggregated by sex and other relevant factors, is also a prerequisite for sound gender and poverty analysis of trade policies and trends. USAID and other development partners, private sector trade bodies, universities, and research institutions could all make important contributions to this endeavor.

Past trade-related development assistance to Bangladesh has been criticized as fragmented and inadequate. However, the recent needs assessment supported by several donors should provide a platform for more coordinated and comprehensive support going forward. It will be important for USAID and Bangladesh's other development partners to ensure that their future trade-related development assistance includes poverty and gender analysis, and that their future support to national trade institutions (such as EPB, the Tariff Commission, the WTO Cell within the Ministry of Commerce, and the BFTI) strengthens the capacity of these institutions to analyze trade policy issues from a poverty and gender perspective. For example, development partners could support training in poverty and social impact analysis, including both qualitative and quantitative techniques.¹¹⁷

Under the WTO's Trade Policy Review Mechanism (TPRM), periodic assessments are carried out jointly by individual WTO members and the WTO secretariat to "examine the impact of a Member's trade policies and practices on the multilateral trading system."¹¹⁸ Bangladesh's last trade policy review was completed in 2000. There is growing recognition of the need to expand the scope of trade policy reviews, especially in the case of LDCs, to consider their capacity to implement their WTO commitments, their need for trade-related technical assistance, and the impact of trade liberalization on domestic producers, workers, and consumers. Commentators have also recommended that these more "domestically oriented" trade policy reviews should include gender assessments.¹¹⁹ In view of the links made in the NSAPR between trade expansion, poverty reduction, and gender equality, it will be important for the Government to analyze the domestic impacts of its trade commitments, including poverty and gender analysis, in any future trade policy reviews. To enhance the quality and completeness of these reviews, the Government should invite input from a wide range of domestic stakeholders, including private sector trade bodies, trade unions, civil society organizations, and research institutions. Development partners and donors can

contribute to these reviews by sharing their own research and supporting domestic research and consultations.

DEVELOP LEGISLATION ON PATENTS AND GEOGRAPHIC INDICATORS

The TRIPS Agreement and related decisions of WTO bodies provide important flexibilities to Bangladesh and other LDCs. The Government should ensure that the new Patents and Designs Act and Plant Variety and Farmers' Rights Protection Act take full advantage of the transition periods and flexibilities provided in the TRIPS Agreement, especially related to the patenting and compulsory licensing of pharmaceuticals and the protection of farmers' rights to save seeds. In line with the outcome of the recent WTO Ministerial Meeting in Hong Kong, development partners should ensure that their trade arrangements and development assistance programs support Bangladesh's rights under the TRIPS Agreement.

Handicrafts produced in particular regions of Bangladesh could benefit from legal protection, which would also enhance the internal and external marketing of these distinctive products. The Government, therefore, could consider legislation to provide simple, transparent, and inexpensive procedures for establishing and protecting geographic indications for handicrafts and other artisanal products.

In the event that geographic indications do receive protection, it would be important to provide practical information and training on geographic indications to artisans, especially women. Development partners and private sector trade bodies could assist the Government in providing this information and training.

RESEARCH AND DATA COLLECTION

UNDERTAKE A TARIFF INCIDENCE ANALYSIS

A full analysis of the impact of trade liberalization on relative prices does not exist in Bangladesh. In particular, no analysis of the net incidence of tariff revision has been undertaken that focuses on the poor. Cheaper imports of consumer goods may not have benefited rural consumers because of price rigidities and bottlenecks in distribution. Furthermore, tariff liberalization may have affected import competing industries negatively, precipitating employment loss and income decline in these sectors. Unemployed and underemployed workers in declining sectors may not move seamlessly into expanding sectors because their skills may not be in demand. Additionally, the effects of employment decline may not fall equally on men and women. Such an analysis would be particularly helpful in informing the timing and sequencing of future liberalization and targeting assistance to the displaced to facilitate their integration into expanding sectors.

CONDUCT A REVIEW OF THE IMPLICATIONS OF TARIFF REVISIONS AND PUBLIC EXPENDITURES ON HEALTH AND EDUCATION

To date, no comprehensive analysis of the impact of tariff revision on government budgets has been undertaken. Since tariff earnings contribute a significant portion of total government revenue, efforts should be made to expand the tax base if Bangladesh maintains WTO commitments to reduce tariffs. An analysis of the impact of tariff

revision on government budgets should include how changes in the allocation of public resources affects men and women differently. Additionally, the research should consider alternatives for expanding the tax base such as a tax on foreign exchange conversion which could be set above a specific amount per week to avoid taxing private unilateral transfers which are most likely remittances. A tax on foreign exchange is neither biased against imports nor exports and could be a minimal levy on transactions over \$1000 per week. Such a tax might contribute to discouraging foreign exchange speculation. If this tax was levied in return for a commitment to improve ports and customs, and reduce corruption and inefficiency, the private sector may not object to its introduction.

COLLECT BETTER DATA AND MAKE THEM PUBLICLY AVAILABLE

Policy needs to be informed by good research. There is extensive capacity to undertake research in Bangladesh, but data are spotty and inadequate. Important surveys exist such as the Household Income and Expenditure Survey, the Labour Force Survey, as well as numerous other smaller surveys on specific industries and sub-sectors. Yet the quality of the data remains low, many of the variables are missing, and the datasets are not managed in a way that preserves the maximum information about employment, earnings, and wellbeing for all household members. USAID could invest in upgrading the survey infrastructure and training enumerators and data entry specialists to generate high quality data, including the training of women.

ANNEX 1

Table 1. Consumption Poverty Per Capita in Bangladesh by Household Type, 2000

	Poverty	P1	P2
National	43.30	13.09	4.68
Urban	29.59	7.46	2.68
Rural	49.72	13.09	4.68
Urban			
Female Head	31.26	9.42	4.01
Male Head	29.45	7.30	2.57
Rural			
Female Head	46.27	13.43	5.16
Male Head	49.93	13.07	4.65
1. Agricultural landless	60.77	16.23	5.85
2. Agricultural small	40.56	9.17	2.94
3. Agricultural large	19.28	3.89	1.08
4. Non-agricultural poor female-headed	56.88	11.41	3.18
5. Non-agricultural poor male-headed	56.42	14.26	4.98
6. Non-agricultural rich	28.96	6.22	1.94
7. Urban low educated	29.62	6.26	1.85
8. Urban medium educated	15.84	3.29	1.03
9. Urban highly educated	1.84	0.24	0.05
10. Urban education missing	52.32	14.17	5.34

Notes: Poverty is calculated for all consumption expenditures. Urban poverty line is 724.56 per person per month; rural poverty line is 634.48 per person per month. Results are weighted by household size.

Source: Household Income and Expenditure Survey, 2000.

Table 2. Food Consumption as a Percent of Total Monthly Expenditures by Per Capita Consumption Decile

Decile	1	2	3	4	5	6	7	8	9	10
Percent	68.8	68.0	66.9	64.5	63.7	62.1	59.7	57.3	51.7	40.1

Source: Household Income and Expenditure Survey, 2000.

Table 3. Consumption Poverty Per Capita by Type of Employment, 2000

	Poverty ^a	P1 ^b	P2 ^c
<i>Urban</i>			
Wage employment	33.97	8.56	3.03
Self employment non agriculture	25.39	6.55	2.42
Self employment agriculture	33.85	7.04	2.25
<i>Rural</i>			
Wage employment	64.05	18.98	7.22
Self employment non agriculture	42.23	10.58	3.62
Self employment agriculture	41.75	9.59	3.09

Notes: ^aPoverty is given by the headcount ratio which denotes is the fraction of the population below the poverty line. Poverty is calculated using all consumption expenditures. The urban poverty line is 724.56 per person per month, while the rural poverty line is 634.48 per person per month. Results are weighted by household size.

^bThe poverty gap, P1, is the average shortfall of per capita income or consumption below the poverty line all households. P1 can be interpreted as a per capita measure of the total shortfall of household welfare below the poverty line. It is the sum of all the shortfalls, nonzero and zero, divided by the total number of households and expressed as a ratio of the poverty line.

^cP2 measures the severity of poverty and captures the gradient or steepness of the cumulative distribution of individuals or households that fall below the poverty line.

Source: Author's calculations from the Household Income and Expenditure Survey, 2000.

Source: Household Income and Expenditure Survey, 2000.

Table 4. Descriptive Statistics for Independent Variables in the Probabilistic Regression of the Correlates of Per Capita Consumption Poverty

	N	Mean	Std. Dev.	Min	Max
femhead	5117	0.052	0.222	0	1
rural	5117	0.742	0.437	0	1
hhsz	5117	5.168	2.139	1	25
exint	5117	2.415	11.252	0	79.729
impint	5117	6.810	5.364	0	23.901

Source: Household Income and Expenditure Survey, 2000

Table 5. Gender Differences in Mean Levels of Education in Bangladesh in 2000

Highest level of school completed by Household Heads				
	Men	Women	Significance	
Urban	8.79	6.09	**	Ha: diff > 0
Rural	7.34	6.11	**	Ha: diff > 0
Highest Level of School Completed by Individuals				
	Men	Women		
All individuals	8.22	7.39	**	Ha: diff > 0
Individual is in Wage Employment	8.05	8.5	**	Ha: diff < 0
Individual is Self Employed in Non Agricultural Activities	8.05	6.49	**	Ha: diff > 0
Individual is Self Employed in Agriculture	7.47	6.08	**	Ha: diff > 0
Individual works in agriculture	7.19	6.3	**	Ha: diff > 0

Individual does not work in agriculture	8.25	8.26		
Education level missing in survey data (0,1)	0.41	0.65	**	Ha: diff < 0

Notes: ** significant at $p > 0.001$

For individuals aged 15-65.

Source: Household Income and Expenditure Survey, 2000.

Table 6. Gender Differences in Average Wages per Hour by Sub-Sector (BDT)

	Men	Women	Ratio (W/M)%
Agriculture	9.15	5.44	59.5
Forestry	15.24	--	--
Fishing	11.07	5.81	52.5
Manufacture of Food Products and Beverage	12.35	3.51	28.4
Manufacture of Tobacco	9.3	--	--
Manufacture of textiles	12.02	5.79	48.2
Manufacture of Wearing Apparel	11.77	5.79	49.2
Tanning Leather	33.61	--	--
Manufacture of Wood and Wood Products	14.83	--	--
Manufacture of Paper and Paper Products	17.99	--	--
Printing	15.40	15.95	103.6
Manufacture of Chemicals	17.35	15.86	91.4
Manufacture of Furniture	11.01	5.43	49.3
Recycling	14.40	3.06	21.3
Construction	19.37	11.06	57.1
Wholesale Trade	12.22	--	--
Hotels and Restaurants	19.20	3.68	19.2
Water Transport	24.35	4.63	19.0
Air transport	17.50	--	--
Post and Telecommunications	16.48	--	--
Finance	28.46	24.3	85.4
Insurance	49.45	--	--
Real estate	39.93	14.86	37.2
Public Administration and Defense	17.05	12.11	71.0
Education	18.66	12.78	68.5
Health and Social Work	22.34	7.66	34.3
Sewage	23.42	2.55	10.9

Notes: Individuals aged 15 and older.

Source: Household Income and Expenditure Survey, 2000.

Table 7. Terms of Trade for Bangladesh, 1997-2003

	General Index			Textile and Textile Articles			Cereals		
	PI _x	PI _m	TOT	PI _x	PI _m	TOT	PI _x	PI _m	TOT
1997/98	168.04	162.99	1.03	200.59	197.81	1.01	114.16	155.72	0.73
1998/99	178.54	178.50	1.00	215.02	225.76	0.95	132.01	169.41	0.78
1999/00	178.46	180.07	0.99	217.65	238.53	0.91	116.71	167.83	0.70
2000/01	182.75	190.82	0.96	196.42	252.72	0.78	109.73	168.48	0.65
2001/02	183.06	191.43	0.96	189.30	240.37	0.79	120.02	213.63	0.56
2002/03	190.11	191.55	0.99	202.67	245.02	0.83	133.14	214.04	0.62

Notes: The terms of trade (TOT) report the ratio of the index of export prices to the index of import prices; a decline reveals a deterioration in the terms of trade. The TOT for cereals expresses index for domestic wholesale prices/import price index. Base year for indices: 1988-89=100.

Source: Bangladesh Bureau of Statistics 2005, Tables 7.2 and 7.3; Rahman, Mustafizur and Uttam Kumar Deb. "Trade Liberalisation, Agricultural Development and Food Security," 2005.

NOTES

1. Asian Development Bank. Country Gender Strategy, 2004.
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