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Trade, Development and Poverty Linkage: A Case Study of Ready Made Garment Industry in Bangladesh

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I. Introduction

For a long time developing countries have strived for a development paradigm that would achieve high economic growth leading to employment generation and poverty alleviation. Severe trade restricting measures through inward-looking import substitution strategies have been tried in the past without accomplishing the desired outcomes. Many poor nations also had to rely on foreign aid, which, however, on the one hand failed to help growth performance in most cases, and pushed the recipient countries into debt crises on the other. In this backdrop the slogan of "trade not aid" was catapulted into prominence. It is generally believed that international trade can potentially be beneficial to growth and poverty reduction. How trade is good for growth and development has been a subject matter of research and discussion for a long time, but the trade-poverty nexus is relatively a recent issue. International trade may result in more efficient allocation of a country's resources, greater efficiency due to competition, increased capacity utilization, expansion of employment of labour and other natural resources, and acquisition of better technology. It is through these routes trade is thought to influence growth performance positively, which, in turn, is likely to ameliorate the poverty situation.[1]

The empirical evidence, as available in the academic literature, concerning the trade and growth relationship is mixed.[2] Nevertheless, when it comes to the question of poverty alleviation, the role of trade driven by the RMG export sector of Bangladesh cannot be overemphasized. This is mainly because of the nature of operation of the export-oriented RMG firms. Although a significant portion of RMG exports is critically dependent on imported inputs, making its domestic value added relatively low, its extremely labour intensive mode of production process has an enormous role in poverty alleviation.

The basic objective of this paper is to provide a case study of the RMG sector of Bangladesh with a view to highlighting the effective role that international trade can play in poverty alleviation. While doing so, the case study considers the structural and labour issues influencing various dynamics associated with exports, growth and poverty relationships. This paper also makes use important stakeholders' perception on how to enhance the role of the sector in the promoting the trade-growth-poverty relationship in Bangladesh.

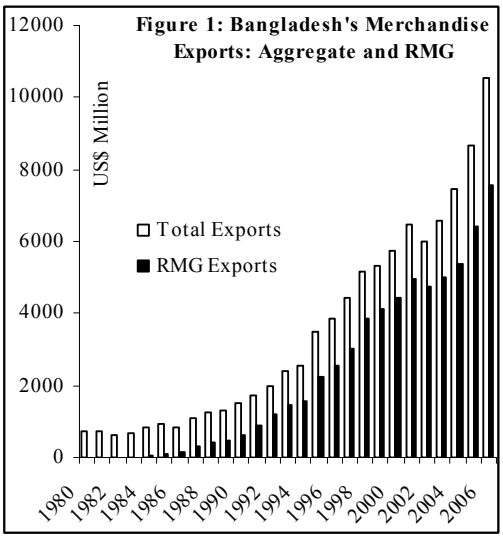
[1] However, if higher growth is accompanied by increasing inequality its favourable effect on poverty reduction may be reduced.

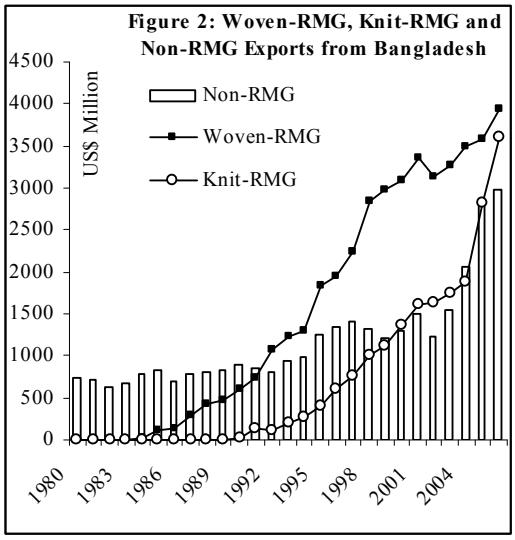
[2] Most of the studies on trade-growth relationship actually attempt to find out the effect of trade liberalization on economic performance. And, all the influential studies generating positive effects of trade (or trade liberalization) on economic growth have been challenged indicating that the relationship is not yet settled. Dollar (1992), Ben-David (1993), Edwards (1992), Sachs and Warner (1995), and Sachs and Warner (1995) are the four most important studies providing support to the positive effect of trade liberalisation on economic growth. The favourable effects of trade liberalisation as demonstrated in the aforementioned studies have been strongly and convincingly criticised by Rodriguez and Rodrik (2001). Amongst others, the study by Harrison and Hanson (1999) also provide support to the sceptics. Winters (2004) is the latest review of the literature on the subject who somewhat interestingly concludes, "[T]his paper has documented the strong presumption that trade liberalization contributes positively to economic performance. For a variety of reasons, the level of proof remains a little less than one might wish but the preponderance of evidence certainly favours that conclusion (p. F18).

The case study is organized as follows: after this brief introduction, Section II highlights the importance of the RMG sector in Bangladesh's economy; Section III summarises various structural and policy factors that have influenced the growth of the sector; Section IV deals with the labour issues considering both the demand and supply side effects; Section V summarises stakeholders' perception on making the trade-poverty link more effective in the sector; Section VI concludes.

II. RMG and Bangladesh Economy

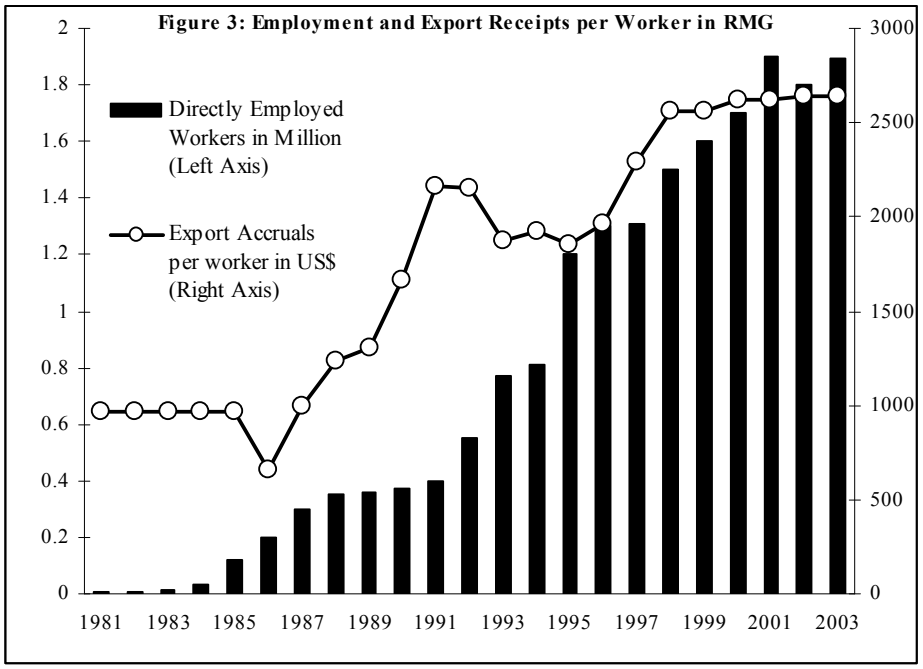
In the decade of the 1980s, Bangladesh's exports doubled from US$0.9 billion to US$1.8 billion, which in the next decade increased to just over US$ 5 billion on its way to reach US$10 billion by the end of the fiscal year 2005-06 (Figure 1). Since the beginning of the 1990s exports in US dollars have increased at a rate of 14 percent per annum as against a comparable GDP growth rate of about 5 per cent. This apparently impressive performance of export trade has been single-handedly driven by the RMG sector, which has witnessed its share in total exports rising from virtually nothing in 1980 to 75 percent in 2006. RMG exports comprise woven and knitwear products. Although woven items have traditionally dominated RMG exports, knitwear items, as shown in Figure 2, has demonstrated a very robust growth performance in recent times, increasing its share in total RMG exports from as low as 10 percent in 1992 to 48 percent in 2006.





Highly labour-intensive nature of production process characterises the garment industry. Even as late as in 1985, just about 0.1 million people were employed in RMG industry, but within the next 20 years it grew rapidly to reach about 1.9 million, accounting for 35 per cent of all manufacturing employment in the country – 80 per cent of whom were women (Rahman, 2004). The trend growth rate of employment for the period 1980-2004 has been estimated to be 24 percent per annum (Razzaque, 2005). It has been suggested that if one considered the jobs created in the complimentary enterprises as a result of the growth in this sector, the number of people either directly or indirectly depending for their employment on the existence and expansion of the RMG sector would rise to three millions (Ahmed and Sattar, 2004). Currently, for every US$3,600 worth of RMG export there is one worker in the

industry and over the past two decades the employment elasticity of RMG export has decreased considerably. This is mainly attributable to rising labour productivity and partly due to the changing composition of clothing exports as reflected in the growing share of knit-RMG, which is relatively less labour intensive. The woven sector with an export volume of US$3.5 billion in 2004 employed 1.4 million workers, while there were 0.5 million people in the US$1.9 billion knitwear industry.[3]



The growth of RMG exports has certainly had favourable effects on macroeconomic balances. It has helped maintain a sustainable trade deficit, which has declined from around 10 per cent of GDP in the early-1980s to around 5.5 per cent. On the other hand, the current account balance, on average, was close to 3 per cent of GDP during the 1980s, but for the 1990s the comparable figure was only 0.3 per cent. In fact, the reduced dependence on foreign aid has been a remarkable development for Bangladesh's economy, which is mainly attributable to the RMG-led robust export growth and a surge in the inflow of remittances. The rising trend in foreign exchange flows in the economy brightly contrasts the declining significance of foreign aid, which now constitutes only about 3 per cent of GDP as against of 19 per cent of exports and remittances taken together. It is in this context, the RMG-led export growth is argued to have transformed Bangladesh from a predominantly aid-dependent country to a largely trade-dependent nation (Rahman, 2002).

It is often argued that the RMG sector has a weak backward integration into the national economy. Particularly, the woven-RMG sector is critically dependent on imported raw materials. Currently, the domestic value added in the woven-RMG is 25-30 per cent. However, over time quite a strong backward linkage industry has grown up for the knit-RMG sector, which at present accounts for 70-80 per cent of the total raw material requirements for

[3] If the domestic value added per worker is compared, woven-RMG becomes even more labour intensive. In 2004, net exports of the RMG industry were US$2.35 billion, of which US$1.3 billion (or, 55 per cent) was contributed by the knitwear sector.

exports. According to one estimate, the domestic content (in terms of local fabric use, wages and salaries, payments to government, linkages, etc.) in the aggregate RMG exports is at about 46 percent of the total export receipts – i.e., about 5 per cent of GDP. Despite the much talked about low integration, out of a total of 85 sectors in the National Input-Output Table, the sector ranks 17th in terms of backward linkage effects (Appendix A). The total backward linkage multiplier for the RMG industry is estimated to be 2.1, indicating that a one unit increase in its final demand would lead to an economy-wide output increase of 2.1 units (Razzaque, 2005). When this multiplier effect is decomposed to find out the marginal effects on the outputs of different industries, sectors such as clothing, yarn, professional services, housing services, bank and real estate, storage, and machinery are found to have strong links with the RMG activity.

The RMG sector has a profound positive impact on poverty and incomes of the poor, which is reflected in the growth in employment in the industry. From a constructed Social Accounting Matrix (SAM) for Bangladesh that allows for different types of households with labourers of various skill types, it is found that the basic needs multiplier of the RMG output shows an increase in expenditure on nutrition by 0.76 taka for every taka extra demand for RMG.[4] Amongst all other sectors, the RMG multiplier, as derived from the SAM, for the female low-skilled workers is found to be the highest. [5] The SAM framework also allows capturing the changes in income (and thus poverty) by various household types as a result of shocks in different sectors. Amongst the rural households the income effect of RMG activity appears to be the highest for non-agriculture households (see Appendix B). In the urban areas, it is the low education households that benefit most from the increase in RMG expansion (Appendix C).[6]

Recently, the validity of the 'export-led growth' hypothesis has been called into question. The basic argument is that when the share of exports in GDP is very low, export may not act as an engine of growth. Furthermore, in the context of LDCs, neither has the growth of exports been always associated with positive economic growth, nor has export growth been a guarantee for poverty reduction (UNCTAD, 2004). In terms of domestic value added the share of exports in Bangladesh GDP is very low – just about 7 percent – making it unconvincing that such a small sector in the economy can boost overall economic growth.[7] Nevertheless, the Bangladesh case seems to suggest even without becoming the "engine" of

[4] The SAM is constructed by extending the national I-O framework, which then shows the circular flow in an economy in general, and inter-dependence and feedback mechanisms involving various activities, factors and institutions in the process of income generation, consumption, savings and investment. The constructed SAM for Bangladesh includes 43 activities, nine household groups (five in the rural areas i.e., landless, small, medium, large farming and non agricultural households and four in the urban areas i.e. illiterate, low education, medium education and high education households), four types of labour (skilled and unskilled workers by gender) and other factors (such as land and capital). The total basic needs multiplier of RMG is computed to be 1.73. Amongst others, important effects are associated with housing (0.17), transport (0.17), other household expenditures (0.37), and clothing (0.10).

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[6] In the SHD SAM the rural households are defined in terms of agricultural occupation of the household head. On the other hand, for urban areas, the level of education of the household head is used to classify the households.

[7] At present the ratio of merchandise exports to GDP is about 15 percent. Because of an overwhelming dominance of RMG, which critically depend on imported intermediate inputs, the value added in the export sector is quite low. Note that, as GDP is a measure of value added (i.e. final goods and services less intermediate inputs), while export is not, the export-GDP ratio can aggerate the potential of exports a growth engine.

growth there can be substantial poverty alleviation effects of the export sector because of the high employment intensity of the export activity.

III. Structural Factors and the Growth of the Sector

3.1. International Trade Environment: The Demand Side

The international trade in textiles and clothing was long restricted in developed countries and the resultant quota system for controlling imports caused global dispersion of production in the sector by limiting imports from countries that would have a larger volume of exports were they not constrained by their quota allocations.[8] While the intention was to provide protection to domestic manufacturing units in the importing countries from the relatively efficient producers in developing countries, the operation of the 'managed trade' regime in the process led to exporting opportunities in countries where textile and clothing were not traditional export items. Many international business firms, in particular those from the Asian newly industrialising economies (NIEs), facing binding quota restrictions in their own countries, relocated part of their production and trade to other relatively poor developing countries including Bangladesh. As the process of production was labour intensive in nature, especially in the production of apparels, the availability of cheap and easily trainable labour in these countries facilitated the growth and development of the sector. The quota system ensured a reserved market status for the new suppliers and gave them some time to develop and learn the skills required in the production and marketing.

3.2. Domestic Trade Policy and Producers' Response: The Supply Side

Apart from the international trade environment, the growth of the RMG sector in the country coincided with Bangladesh's changing trade policy regime, providing the much needed policy support to the export sector. Up till the early 1980s Bangladesh followed a very rigid import-substituting trade regime. This generated a highly distorted incentive structure resulting in widespread allocative and productive inefficiency, which not only inhibited the prospect for growth but also led to a policy induced anti-export bias thereby undermining the potential for export growth. In the face of serious macroeconomic imbalances and stagnating export performance, the policy of reforms for stabilisation and structural adjustment was undertaken. This policy reversal introduced generous promotional measures for exports so that the erstwhile bias against the export-oriented investment could be reduced significantly. Important export-promotion schemes include, *inter alia*, allowing exporters to open letter of credit (L/Cs) for the required imports of raw materials against their export L/Cs (popularly known as the back-to-back L/Cs), bank credit at a subsidised rate of interest, duty free import of machinery, providing intermediate inputs at world price either by bonded warehouse or by duty draw back facilities, cash subsidies, and exemption from value-added and other taxes. Appendix D summarises the most important incentive schemes that Bangladesh has so far undertaken for the promotion of RMG exports in particular. Along with these promotional schemes, duty-free and quota-free access to the EU market greatly contributed to the growth of the RMG sector. These incentives available to exporters to a large extent mitigated the problem of policy induced anti-export bias especially against the RMG sector.

[8] The MFA evolved through four successive phases: MFA-I(1974-77), MFA-II(1978-81), MFA-III(1982-86) and MFA-IV(1986-94).

Amongst other supply side issues, infrastructure has always been and continues to be a prime cause for concerns for industrial and export growth. Inefficiencies in ports and inland transportation along with the industry's critical dependence on imported raw materials (especially for woven RMG products) would imply much longer lead time i.e. the time between the receipt of export orders and their reaching the importing countries' ports. Currently, the average lead-time for Bangladesh's export consignment varies between 90-120 days in comparison with an envisaged ideal situation of 30-45 days. When a significant proportion of the raw materials for the finished products have to be imported from abroad, which is usually procured under a back-to-back L/C, the delivery chain involves a two-way shipping, requiring a relatively long delivery time. This problem is exacerbated by poor management and lack of equipments in ports. Bangladesh's main seaport, Chittagong, handles about 100-05 lifts per berth a day, which is far below the standard 230 lifts a day as suggested by UNCTAD. Ship turnaround time is five to six days compared about one day in efficient ports thus causing severe congestion (World Bank-BEI, 2003). All this makes the Chittagong port as one of the most expensive routes to international trade.

Another major supply side issue has long been affecting the Bangladeshi producers and overtime has only deteriorated is the inadequate and unreliable electricity supply. According to one survey, firms in Bangladesh experience power interruptions 247-250 days a year causing 3-3.3 percent output loss. More than 80 percent of the producing units therefore have to rely on generators for uninterrupted power supply. Since electricity produced from the generators are much more expensive than the supplies from the national grid, excessive costs undermine the competitiveness of the exporters.

Shortage of skilled labour is another problem. As Bangladesh mainly produces low value added bulk products with relatively unskilled workers, entrepreneurs so far have managed to tackle this problem through low-paid on-the-job training. However, in the absence of readily available skilled workers and managers the task of diversifying into high-value added items has proven to be difficult. Apart from the above-mentioned factors, invisible costs of doing business, and poor institutions, political unrest and natural calamities have affected the business of RMG firms in Bangladesh.

Since Bangladesh's exports of RMG grew taking the advantage of MFA quotas that restricted the export supply from many other relatively efficient and advanced developing countries (such as India and China) and since supply side factors did not show any marked improvement, there had been a great deal of apprehension about Bangladesh's continued success in clothing exports after the expiry of MFA. In fact, several academic exercises predicted severe consequences for Bangladesh. However, after two years of the quota elimination, Bangladesh has managed to maintain it past growth performance. Safeguard measures slapped on China by the EU and US are thought to have protected sourcing from Bangladesh. From 2008 when these measures will have to be withdrawn, it is now feared that, the real pressure on the country will begin to emerge.

IV. Labour Market Effects

4.1. The Demand and Supply Sides and Their Effects on Wages and Workers' Welfare

Labour issues (such as, regulations, unrest, unionism) have not been any major problem for the sector until very recently. It goes without saying that low wage cost is the most important advantage of Bangladesh and the entrepreneurs have enjoyed the labour market flexibilities. In fact, ineffective labour and compliance regulations regularly result in widespread violation of labour laws. In this backdrop, very recently the RMG sector has seen a serious labour unrest and it is now passing through a critical time when the demand for better labour standards has to be dealt with in the face of an increased competitive pressure resulting from the MFA phase-out.

The demand and supply sides of the labour market have important implications for labour standards including wages. With the growth in RMG supplies, there is a demand for labour, and particularly of female workers. The demand side is confronted with a very large supply of labour which makes the market-clearing wage very low. While in the skilled labour market there is somewhat scarcity of workers, making this group of workers relatively better-off. Therefore, it is the low-skilled jobs where 'appropriate' or 'fair' wages may not be determined in the market.

The employment in the RMG sector is characterized by low wages and there is hardly any controversy over the fact that the decent work record of Bangladesh's RMG industry is far from satisfactory. In fact, Bangladesh is a country with one of the lowest wage rates in the world (Abernathy *et al*., 2004). While the low wage rate reflects large supplies of workers relative to demand, what is striking is that the legal minimum wage for this sector was not increased during since 1994. Employers often argued that despite the unchanged legal rate, the actual minimum wage in the sector had increased in response to the adjustment with the increased standard of living and inflation. However, such a claim is grossly overstated as full inflation adjustment was never undertaken.

In spite of many significant contributions, the RMG industry is known for a wide variety of deprivations of women workers, which include, *inter alia*, lack of proper infrastructure facilities and safety at workplace, non-compliance with the minimum wages, very low wages, wage discrimination, lack of provision of essential service benefits to workers, housing facilities, and lack of skill development and training opportunities (CPD, 2003). Many point out that if these issues can be addressed, the poverty alleviation effects of trade can be strengthened further. On the other hand, employers have long argued that such measures would undermine their competitiveness. Although the workforce of the industry is overwhelmingly dominated by women, provisions available in the sector are not gender sensitive at all.[9]

The issue of competitiveness attracted a lot attention particularly in the discussion on the possible future implications of MFA phase-out. With the anticipation of increased

[9] Rare availability of baby-crèches at the factory premises, irregularities associated with granting of maternity leave and benefits to the eligible workers, insufficient number of toilets, congested workplace in unsafe buildings, non-issuance of any formal contract of employment, non-compliance with overtime works and allowances are some of the serious regular allegations. During the entire lifetime of the industry in Bangladesh, there has been very little improvement with regard to minimum basic provisions.

competition, there is some apprehension that a number of countries would not be able to withstand the world-wide free competition. Bangladesh was always pointed out as a country that suffered from many supply side bottlenecks and, given these, improved labour standards would further weaken the competitive position.

In contrast, other observers argued that the grounds of competitiveness in the global market were no longer limited to technical and economic standards (such as cost competitiveness, product quality, in-time delivery, etc.), but included social standards, especially labour standards and environmental issues. Therefore, apart from the factors associated with the improvement of price competitiveness, it is also important to bring about positive qualitative changes in the environment of production that includes the nature of production process, working conditions, environmental aspects, and social welfare. There has also been the argument that if the decent work environment will make the workers more productive, which will eventually offset the increased costs due to the introduction of the better standards.

Therefore, the issue of enhanced poverty alleviation effect through higher wages and better working conditions has a very striking and interesting context in Bangladesh. The end of MFA regime has exerted a worldwide business environment marked by serious price competition in which the sustainability of Bangladesh's exports is under some question. Nevertheless, Bangladeshi exporters have been under continuous pressures for complying fully with international labour standards, putting them into a dilemma: on the one hand, in the face of price competition with rivals they need to be more competitive, on the other hand the strict compliance with standards would increase the costs of production thus weakening their competitive position further. These apparently conflicting matters can be resolved by productivity gains. Many business enterprises are however of the view that, neither does the improvement in standards necessarily lead to better returns from investments nor can they secure export market share. In this regard, a number of factors that need to be taken into consideration in order to better understand the issues related to competitiveness and better pay and poverty alleviation are discussed in the following.

4.2 Wage, productivity and competitiveness of the industry

The principal economic argument behind better working condition (including higher wages) is its positive effects on labour productivity. In the labour economics literature, this argument is postulated through the so-called efficiency wage theory. It also has a strong empirical relevance. While the traditional neoclassical economics emphasizing on the market-clearing mechanism cannot explain why many firms are actually paying much higher than the going wage rate, the efficiency wage theory provides the rationale for such behaviour.

Although low in an absolute sense, the existing wages in the RMG industry of Bangladesh, are above the market clearing ones, as there is the problem of excessive supplies of labour (relative to demand), and in this sense one could characterise the sector as the one which is already providing efficiency wages. However, the issue becomes far more complicated over the discussion on what efficiency wage is a fair wage and what is not.

Many entrepreneurs try to rationalize the existing low wages with low productivity of workers. This reasoning is, however, absolutely wrong. The wage-productivity relationship holds when there is full employment. In the presence of an excess supply of labour, wages will be low irrespective of the productivity level. It is also important to remember that workers' remuneration in one industry is mainly determined what similar workers are

receiving in other sectors. Therefore, even if some of the garment manufacturing units achieve very high labour productivity, wages would still not rise very much in those factories. Similarly, if the productivity of the whole garment industry rises to a very high level, comparable rise in wages may not take place if the productivity associated with jobs that can be performed by workers with similar skills as garment workers do not increase.

In the context of Bangladesh, the relationship between better working environment and labour productivity has been examined by Ahmed *et al.* (2004), where decent work is found to have a positive effect on the total factor productivity.[10] This result suggests that, the positive effects could outweigh the increased costs associated with the implementation of better working environment. The data used in Ahmed *et al.* (2004) did not include any garment manufacturing units and, in fact, one might question the relevance of the finding to the RMG industry. The share of labour in the RMG value chain is very low and hence a rise in workers' productivity might not result in substantial competitiveness gains for firms. For example, the integrated value chain analysis, undertaken by World Bank (2005), shows that for a $1.28 T-shirt produced in Bangladesh, the labour cost associated with sewing and assembly accounts for only 4.7 per cent of the entire value chain (i.e., $0.06).[11] It can be calculated then, remaining all other things constant, a doubling of labour productivity (i.e., a 100 per cent improvement in labour productivity) would result in the reduction of cost by just $0.03, which is likely to have not much effect on the competitive position of Bangladesh in the world market.

Whenever the issue of low labour productivity is discussed, the reason behind it is implicitly attributed to workers. Given their low level of education and skills, most Bangladeshi workers are likely to be less productive than their counterparts in other developed and relatively advanced developing countries. Nevertheless, when Chinese workers, for example, are considered to be three times as productive as those of Bangladeshis, it does not imply that only the differences between the characteristics inherent in the workforce of these two countries explain the productivity difference. It could be that investment on capital is much higher in the countries with high productivity. In terms of annual average capital intensity, Bangladeshi garment factories spend less than $1,500 per worker in comparison with more than $4,000 spent by Chinese firms (World Bank and BEI, 2003).[12] Another important related point is the managerial efficiency or management productivity. Some firms are not in a position to move to high value added items, or expand their current capacity of production because of their management inefficiency.[13] This may have some implications for overall low productivity. Yet another factor needing to be recognized is the extremely limited scopes of training and skill development for factory workers. Investment on workers' skill development is something that has not become a part of firms' production and market expansion strategy.

[10] The study found that given the capital-output ratio, firms that have features of decent work environment also enjoy higher labour productivity.

[11] According to the said value chain analysis, material costs including the cost of raw materials and port-related charges and accessories constitutes 77.96 per cent of the value chain. The second largest cost area is the administration, which accounts for about 12 per cent of the FOB cost. Note that, administration includes the profit margin of the entrepreneurs. Low share of labour in final goods' prices have also been shown in Bow (2001) and Rahman (2004).

[12] Average wages in China are considerably higher than that of Bangladesh. In fact, there is some suggestion that between the two countries productivity adjusted wage rate could be lower in Bangladesh (Razzaque, 2005).

[13] During a recent UNDP project informal discussion, some participants thought that a part of the long lead time problem could be due to management inefficiency.

4.3. The demand for higher wages

Working conditions are supply side issues related to workers involved in the production process. Their ideal demand side, i.e. whether workers are willing to accept the existing wages is not of much relevance given the widespread unemployment problem. Instead, the demand for decent work, until very recently, has traditionally come from the buyers and consumers. Bangladesh is known to be the cheapest source of the types of products that it manufactures and the consumers in the developed countries have so far benefited from the low prices. Despite the demand for decent work arising from the buyers, it is almost certain that rising prices of products, even if it results as a direct consequence of the implementation of a better working environment, would adversely affect Bangladesh's competitiveness and export receipts. That is, the demand for decent work itself does not guarantee market success or increased export revenues in a competitive global market following the MFA phase-out.

Despite the pressure from the buyers, most of Bangladesh's garment manufacturers managed not to improve their labour standards substantially. However, given the very recent labour unrest, serious thoughts are now being given to the problem. The manufacturers' association has now agreed to a pay rise in line with the recommendations made by a Commission that was formed to address the issues low wages and other work place related standards. The manufacturers association also emphasised it would also take necessary measures to improve the situation on other non-wage fronts.

V. Factors for Promoting Trade-Poverty Linkages further

Given the highly labour-intensive nature of the production process, the development of the RMG sector is to be considered as a route to desirable development process. Most stakeholders in Bangladesh recognise a number of important issues that need to be taken into consideration for strengthening the trade-poverty linkages in the RMG sector. During the perception interviews, labour representatives argued that if trade was to promote development and poverty alleviation, their concerns have to be addressed. On the other hand, exporters emphasised on protecting the competitiveness of the sector. According to them, if the sector cannot survive in the global market the consequences would far worse than the existing situation. By analysing the views and perception of various stakeholders, the following key points can be highlighted.

(a) The Critical Role of Government

Most stakeholders seem to agree on the critical role that government can play in promoting the trade-poverty linkages associated with the RMG industry. When the scope of productivity gains is relatively low, at least in the short-run, and the demand for better work place cannot guarantee increased exports and market success, appropriate wages and better work environment may be ensured by a more pro-active role of the Government. There is no denying that standards related to work conditions will differ across countries. Nevertheless, many stakeholders interviewed emphasised the need for setting standards with regard to minimum wages and other working conditions. Even when people are willing to accept lower wages, there should be some minimum standards for working environment. The specification of these conditions has been argued to be considered as the provision of what is known as 'merit' goods (Khondker and Razzaque, 2005). As in the cases of all other merit goods, the

Government plays an important role either in establishing or facilitating the process of setting suitable codes of conduct by striking a delicate balance between the realistic country scenario and the need for protecting its workers. Enforcement of these conducts will be most important in ensuring the credibility of the official machinery and wining the confidence of buyers and consumers. An effective initiative by the Government in this regard can also provide a basis for negotiating with buyers for a unique set of codes of conduct that is based on national laws and core standards. Taking into consideration of increasing pressures from the buyers, while employers' associations in collaboration with various donors and agencies have already taken some steps, without the Government support and cooperation their enforcement and sustainability over the long-run are uncertain. During our perception survey, workers' representatives pointed out that on most issues good laws were already in place, but their implementation had always been overlooked.

(b) Setting-up Realistic Standards

The stakeholders interviewed were of the view of the need for improving the working conditions. However, some of them were concerned about setting-up unusually high compliance standards, pointing out that the prevailing socio-economic conditions in Bangladesh would have to be assessed realistically. Besides, standards used in evaluating the working environment and conditions differ considerably amongst buyers. Compiling with different standards set up by different buyers is extremely difficult for the entrepreneurs. To overcome this problem, a number of initiatives have been launched to develop a common set of codes of conduct for the sector, on which individual firms' work environment record can be assessed.[14] It is yet not clear, if and when these standards are specified, whether they will be acceptable to all parties involved. Employers usually point out that setting unusually high compliance standards for the RMG industry would be unwarranted given the prevailing situation in other industry and non-tradable sector. They argue that the garment sector has a much better working environment than many of the state run industries and other export-oriented sectors, which is partly attributable to textile and clothing buyers' compliance requirement. Employers were also concerned that, the investment on better codes of conduct can have immediate cost-raising effects, while the gains associated with improved competitiveness via enhanced productivity can only be achieved with a time lag. Therefore, how firms are going to adjust the implication of rising costs at a time of increased competitive pressure is an important issue.

(c) Trade Preference and Labour Standards

During the perception survey, an issue of disagreement could be noticed on the potential role of trade preferences in promoting labour standards. Bangladesh currently does not have duty-free access to the US market while such access has been granted by the EU for a long time now.[15] The EU preferences have been subject to the fulfilment of some stringent rules of

[14] For example, BGMEA has drafted and proposed a single code of conduct to replace multiple codes of conduct, which has received support from one trade union centre or federation. BGMEA also has set up a compliance cell to monitor and improve compliance by members. It was learnt that GTZ has also taken initiative to develop a common set of compliance indicators particularly for the European buyers.

[15] Zero-tariff market access in textile and clothing products from LDCs are currently available in a number of developed countries including Australia, Canada, the EU and Japan. The US does provide such access to a large

origin (ROO), which most of Bangladeshi exporters are unable to comply with.[16] Therefore, despite the provision zero-tariff access, the non-tariff barriers remain. Garment exporters from Bangladesh argue that if duty-free access to the US market is obtained and if the EU relaxes the ROO requirements, complying with standards will be easier, as the preferences will help the country protect its competitive advantage in the quota-free world.

Views expressed by workers' representatives and other stakeholders differed in this respect. They point out that the mere availability of preferences will not ensure workers' getting some benefits out of this favourable treatment. According to workers representatives, the fast expansion of the sector over the past two decades or so shows the profitability of the business although workers' interests have been completely ignored. Most stakeholders, however, agree that favourable treatment in the export markets will help maintain Bangladesh's competitiveness, but benefits accruing to workers may not be guaranteed.

(d) Higher Wages and Poverty Alleviation

Will higher wages paid to workers contribute the further poverty alleviation? This important question resulted in some serious controversy during the perception survey. Business representatives argued that increased wages would not have any direct effect on the extent of absolute poverty, as workers with their existing wages were already above the poverty line. Under such a circumstance, only when business expands, more fresh jobs are created, ameliorating the poverty situation through employment generation. Workers on the other hand argued that better pays will make them more productive and will improve their standards of living, which is in line with the arguments of trade-led development strategy. Economists and trade analysts while agreeing with the fact that a rise in wages itself may not have any direct impact on poverty alleviation, if the workers and their households were already above the poverty line and the way absolute poverty line is constructed in Bangladesh, were prompt to point out the possible secondary effects of better pays in terms of increased spending on basic goods and services which would contribute to other economic activities. However, they also mentioned that jobs to fresh workers were likely to have greater poverty alleviating effects. The best possible poverty alleviation action combines both the rise in the wage rate and the expansion of employment and trade analysts were of the view that the RMG industry of Bangladesh was capable of achieving both of them.

(e) Improving skill of labour to enhance competitiveness

Although the rise in labour productivity might not result in significant competitive gains, many stakeholders thought that improvement in labour and management productivity should be considered as a strategy for improving competitiveness, particularly in the medium to longer terms. Skill development will also allow vertical mobility for some workers, resulting positive effects and their poverty and welfare status. Trade experts argued that diversifying into high value added items will require improved skills of the workers and that Bangladesh has not been able to specialise in such items is due to shortage skilled workers and managers.

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number of countries – both LDCs and non-LDCs – under various trade pacts, but so far it has refrained itself from extending such offers to Asian LDCs.

[16] Briefly, the EU ROO requires a two-stage domestic value addition in order to qualify for duty free access. Bangladesh has the necessary backward integration in the case of knitwear products for fulfilling the EU requirements, but bulk of woven products

(f) Costs of doing business

Some stakeholders were of the view that if the costs of doing businesses could be reduced, its effect on competitiveness would have been positive, which in turn could help provide higher pays and better working environment. But, this again should not be considered as a necessary association given the reasons mentioned above. However, most of the stakeholders suggested that reduced costs of doing business would have contributed to further growth of the sector resulting in more employment.

(g) Mechanisms for supporting workers in the face of export shock

Most stakeholders were of the view that any shock in RMG exports will have disastrous consequences on poverty. Although there has not been any adverse impact during within the first two years of MFA phase-out, the situation from 2008 could be different when all safeguard measures against China in the EU and US markets will be discontinued. Therefore, the safety nets for workers, particularly women, losing jobs from

(h) Role of Various Stakeholders in Promoting Trade-Poverty Linkages

Representatives participating in the perception survey broadly agreed on a number of issues related to roles of various stakeholders in promoting the trade-poverty linkages in the RMG sector. These are summarised below:

- The government has to play a crucial role in assessing the working environment and their improvement from a perspective realistic to a poor developing country situation. It should establish its credibility in terms of setting up standards and its effective enforcement. Without the implementation of the standards related rules and regulations the workers in the excessive supply side labour market is unlikely to get fair wages and decent work environment. There was also an agreement amongst the representatives that in many cases the non-wage working environment was much more appalling than the problem of low wages.

- Employers/entrepreneurs are central to improved living standards and working environment in their firms. Ideally, the employers themselves should first identify their problems and find out means to address them effectively. In that sense, they need to play an active role rather than passively implementing the codes of conduct.

- Buyers can also have an important role in promoting trade-poverty alleviation nexus in Bangladesh. While operating purely on profit-maximizing motive, demanding high standards without taking into consideration of the realities and cost structures of the firms is to be considered as unfair. One frequently hears the threat of 'boycott' from buyers, but such an action will do more harm than good to workers. On the other hand, the buyers may offer some incentives to help improve the factory working condition.

- The role of multilateral agencies in promoting trade-poverty nexus in Bangladesh cannot be overemphasized. Disseminating knowledge about labour standards, campaigning the need for good working environment, facilitating dialogues and

exchange of ideas amongst stakeholders, etc. are important areas where their involvement can be instrumental. They can also extend technical assistance with regard to the improvement of standards. Many small and medium scale RMG factories find it difficult to comply with the codes of conduct. Helping these enterprises can be an crucial in lifting the decent work record of Bangladesh. Multialteral agencies can also work with the employers in motivating the buyers about offering generous incentive packages to the firms complying with labour laws and standards.

VI. Concluding Observations

Notwithstanding the debate about whether international trade can act as an engine of growth, the role of Bangladesh's export-oriented RMG sector in establishing a link between trade and poverty alleviation cannot be overemphasised. The highly labour intensive nature of the production process has meant jobs for a large number of unskilled workers, particularly those of the women, thereby having a direct impact on poverty. Restricted global textiles and clothing trade regime along with EU trade preferences were most important factors for the country to achieve a rapid growth in the sector, which had been effectively aided by generous export incentives provided by the government. Supply side problems have always characterised the production and exporting of RMG from Bangladesh, nevertheless, the country has so far been able to maintain a robust growth of the sector. With the abolition of MFA quotas while RMG exporters are now exposed to a more difficult and competitive global business environment, labour unrest has also added a new challenge to the industry that is currently at crossroads from the pressures for improvement in competitiveness on the one hand and for providing higher pays and ensuring better working conditions on the other. Given these, the trade-poverty nexus through the RMG industry is currently under intense focus.

It is rather unfortunate that despite the striking growth record of more than past twenty years, supply side bottlenecks and poor working conditions continue to feature the industry prominently. Because of lack of improvements in these sectors, exporters have now come under sudden pressures, especially following the abolition of MFA quotas. As the workers have been subject to gross deprivation of their basic rights along with low wages, the issue of better working environment cannot be considered as something of less priority. On the other hand, if the implementation of better environment has to compromise with the country's international competitiveness, trade-led poverty alleviation may come under serious threat.

For Bangladesh, therefore, it is imperative to exploit every possible means to promote competitiveness of the sector. Reducing the costs of doing business is the one principal route through which some immediate gains can be materialised. With regard to setting up labour standards and their implementation, the Bangladesh case illustrates the important role that the government can play in promoting trade-poverty linkages. Certainly, addressing the issues related to working conditions will greatly open up the possibilities for further improvement in workers' welfare and human development. However, the growth and expansion of the industry further by creating more employment opportunities is the likely key to achieve faster poverty reduction through trade. How much of the scopes can be exploited in the future, to some extent will be dependent on the country's export prospect in the post-MFA period. It is expected that safeguard measures will remain on China until the end of 2008 giving Bangladesh less than a couple of years before entering into an unabated competition regime.

In this regard, accessing duty-free access to the US market can be instrumental in promoting the trade-poverty alleviation link in Bangladesh. According to one estimate, such access to the US market could increase annual jobs of up to about 0.2 million (Razzaque, 2005). If withdrawal of restrictions from China adversely affects Bangladesh's RMG exports, the positive trade-poverty link could be reversed, with millions of women workers losing their jobs and being compelled to accept undesirable works in the informal sectors under deplorable conditions.

Better export prospect in the future may make the task of addressing the constraints to further poverty alleviation effects in the RMG industry easier. However, this should not be taken as a guaranteed outcome since even with a somewhat reserved market status for more than 20 years now, not much has been achieved with regard to various infrastructural and labour problems. This is where the government will have to play its role.

Finally, all stakeholders including the donors also have important roles to strengthen the trade-poverty nexus in Bangladesh. Collaboration amongst stakeholders is needed in almost every aspect of the RMG industry from addressing the problem of supply side bottlenecks to raising awareness amongst the workers and employers about their roles and responsibilities.

References:

Abernathy, F.H., Volpe, A. and Weil, D. (2004). "The Apparel and Textile Industries after 2005: Prospects and Choices", Harrand Centre for Textile and Apperal Research.

Ahmed, S., and Satter, Z.,(2004), 'Impact of Trade Liberalisation Looking at the Evidence', Economics and Polictical weekly, September 4, 2004.

Bayes, A., Hussain, I. And Rahman, M. (1995) 'Trends in the External Sector: Trade and Aid', Chapter 8 in Sobhan, R. (ed.) Experiences with Economic Reforms: A Review of Bangladesh's Development 1995, Centre for Policy Dialogue and University Press Limited, Dhaka, pp.243-297.

BDXDP (2002), 'A Study on Constraints to Growth and Diversification in the Export Sector in Bangladesh', paper prepared for the Ministry of Commerce, Dhaka, Bangladesh.

Bow, J. (2001). 'Bangladesh's Export-Apparel Industry: Into the 21st Century - The Next Challenges', Study Prepared for the Asia Foundation.

Cookson, F. E. (2000), 'Trade and Development Act 2000 and the Bangladesh Garment Industry', Dhaka, November, 2000.

Elbehri, A., (2004), 'MFA Quota Removal and Global Textile and Cotton Trade: Estimating Quota Trade Restrictiveness and Quantifying Post-MFA Trade Patterns', Prepared for the 7th Annual Conference on Global Economic Analysis, Washington D.C.

Hossain, I., Rahman, A. and Rahman, M. (1997), 'Current External Sector Performance and Emerging Issues', Chapter 6 in Sobhan, R. (ed.) Growth or Stagnation? A Review of Bangladesh's Development 1996, Centre for Policy Dialogue and University Press Limited, Dhaka, pp.161-219.

Majumder, P. and Zohir, S. (1994). *Garment Workers in Bangladesh: Economic, Social and Health Condition*, Bangladesh Institute of Development Studies.

Mlachila, M and Yang, Y. (2004). "The end of Textiles Quotas: A case Study of the Impact on Bangladesh', IMF Working Paper, WP/04/108, Washington, DC.

Nordas, H. K. (2004), 'The Global Textile and Clothing Industry post the Agreement on Textiles and Clothing', WTO Discussion Paper, WTO, Geneva.

Quddus, M., and Rashid, S. (2000), *Entrepreneurs and Economic Development: The Remarkable Story of Garment Exports from Bangladeh*, University Press limited, Dhaka.

Rahman, M. (2004), "Surviving In a Quota-free World: Will Bangladesh Make It?", Paper presented at a dialogue on 18 March, 2004.

Rahman, M. (2002), "Bangladesh's External Sector in FY2001: Review of Performance and Emerging Concerns", in Sobhan, R. (ed) *Bangladesh Facing the Challenges of*

Globalisation: *A Review of Bangladesh's Development 2001*, Centre for Policy Dialogue, Dhaka.

Razzaque, M. A. (2005). "Sustaining RMG Exports after MFA Phase-Out: An Analysis of Relevant Issues with Special Reference to Human Development", Report Prepared for UNDP, Dhaka.

UNCTAD (2004), *Linking Trade with Poverty Reduction,* The Least Developed Countries Report 2004, UNCTAD, Geneva.

World Bank and Bangladesh Enterprise Institute (2003), Improving the Investment Climate in Bangladesh, Washington, D.C.

Appendix A:

Backward Linkage Multipliers by the Activities in the National I-O Table

Activity	Backward Linkage	Rank	Activity	Backward Linkage	Rank
Tannery and Finishing	3.1380	1	Paper Industry	1.8200	44
Leather Industry	2.7570	2	Potato Cultivation	1.8180	45
Food Processing	2.7500	3	Glass Industry	1.8150	46
Poultry Rearing	2.6420	4	Canal Dyke Other Building	1.8110	47
Livestock Rearing	2.5540	5	Oilseed Cultivation	1.8020	48
Sweetener industry	2.4950	6	Cement Manufacturing	1.7490	49
Rice Milling	2.4940	7	Jute Cultivation	1.7380	50
Hotel and Restaurant	2.4260	8	Saw and Plane	1.7350	51
Fish Processing	2.4040	9	Furniture Industry	1.7300	52
Grain Milling	2.2780	10	Communication	1.7290	53
Tea Production	2.2380	11	Bidi Industry	1.7260	54
Oil Industry	2.2060	12	Metal Manufacturing	1.7200	55
Earth ware Industry	2.1560	13	Yarn Industry	1.7190	56
Dyeing and Bleaching	2.1460	14	Rural Road Building	1.7190	57
Shrimp Farming	2.1200	15	Other Crop Cultivation	1.7100	58
Salt Refining	2.1130	16	Air Transportation	1.7030	59
RMG	**2.1000**	**17**	Pulses Cultivation	1.6910	60
Jute Fabrication	2.0690	18	Fruit Cultivation	1.6770	61
Petroleum Refining	2.0560	19	Storage	1.6650	62
Printing and Publishing	2.0380	20	Urban Building	1.6530	63
Clay Industry	2.0070	21	Rural Building	1.6460	64
Chemical Industry	1.9980	22	Basic Metal Manufacturing	1.6440	65
Sugarcane Cultivation	1.9820	23	Entertainment	1.6230	66
Baling	1.9810	24	Cotton Cultivation	1.6080	67
Wheat Cultivation	1.9660	25	Electricity and Water Generation	1.6070	68
Cloth Milling	1.9610	26	Water Transportation	1.6030	69
Handloom Cloth	1.9500	27	Cigarette Industry	1.6000	70
Spice Cultivation	1.9470	28	Other Grain Cultivation	1.5970	71
Mining and Queering	1.9380	29	Railway Transportation	1.5930	72
Information Technology and Ecommerce	1.9370	30	Forestry	1.5830	73
Fishing	1.9300	31	Professional Service	1.5760	74
Pharmacy Manufacturing	1.9260	32	Transport Equipment	1.5630	75
Basic Chemical	1.9240	33	Health Service	1.5610	76
Power Plant Building	1.9140	34	Housing Service	1.5570	77
Toiletries Manufacturing	1.8830	35	Fertilizer Industry	1.5390	78
Bank Insurance and Real estate	1.8770	36	Land Transportation	1.5350	79
Port Road Railway Building	1.8620	37	Other Service	1.5310	80
Miscellaneous Industry	1.8610	38	Wholesale Trade	1.4250	81
Paddy Cultivation	1.8390	39	Public Administration and Defense	1.3900	82
Tobacco Cultivation	1.8350	40	Education Service	1.3740	83
Vegetable Cultivation	1.8330	41	Gas Extraction and Distribution	1.3620	84
Tea Cultivation	1.8310	42	Retail Trade	1.2940	85
Machinery and Equipment	1.8250	43			

Note: Computed from the National Input-Output Table 2000 as constructed under the Sustainable Human Development (SHD) Project of the Planning Commission of Bangladesh.
Source: Razzaque (2005).

Appendix B: Marginal Effects of Various Sectoral Activities on the Incomes of Different Types of Rural Households

	Landless Households		Marginal Farmers		Small Farmers		Large Farmers		Non-agri Households	
Rank	One unit injection in different Activities	HH Income Increase	One unit injection in different Activities	HH Income Increase	One unit injection in different Activities	HH Income Increase	One unit injection in different Activities	HH Income Increase	One unit injection in different Activities	HH Income Increase
1	Trade Services	0.1781	Trade Services	0.0912	Forestry	0.2490	Forestry	0.3709	Public Administration	0.7957
2	Transport Services	0.1684	Transport Services	0.0871	Jute	0.2478	Commercial Crops	0.3414	Education	0.7901
3	Jute Textile	0.1674	Jute Textile	0.0858	Commercial Crops	0.2457	Paddy	0.3384	Trade Services	0.7845
4	Jute	0.1663	Wood Products	0.0823	Paddy	0.2445	Fish	0.3368	Professional Services	0.7790
5	Commercial Crops	0.1568	Jute	0.0820	Public Administration	0.2364	Jute	0.3322	Housing	0.7486
6	Other Services	0.1557	Housing	0.0806	Grains	0.2356	Grains	0.3163	Transport Services	0.7450
7	Paddy	0.1553	Rural Building	0.0802	Fish	0.2353	Poultry	0.3142	Other Services	0.7417
8	Wood Products	0.1548	Iron and Steel Basic	0.0794	Trade Services	0.2349	Tea	0.3077	Information Technology	0.7371
9	Hotel and Restaurant	0.1545	Machinery	0.0792	Tea	0.2339	Livestock	0.2955	Communication	0.7342
10	Rice and Grain Milling	0.1527	Other Services	0.0790	Education	0.2334	Rice and Grain Milling	0.2844	Jute Textile	0.7218
11	Grains	0.1519	Rice and Grain Milling	0.0787	Livestock	0.2309	Other Food	0.2524	Bank Insurance and Real Estate	0.7215
12	Tea	0.1481	Commercial Crops	0.0786	Poultry	0.2307	Jute Textile	0.2344	Health	0.7137
13	Rural Building	0.1474	Paddy	0.0783	Rice and Grain Milling	0.2305	Hotel and Restaurant	0.2308	Wood Products	0.7106
14	Other Food	0.1471	Hotel and Restaurant	0.0782	Professional Services	0.2305			Fertilizer	0.6991
15	Housing	0.1470	Other Food	0.0772	Jute Textile	0.2266	Leather Product	0.2254	Rural Building	0.6938
16	Machinery	0.1453	Public Administration	0.0768	Housing	0.2240	Wood Products	0.2183	Leather Product	0.6871
17	Livestock	0.1444	Leather Product	0.0766	Transport Services	0.2236	Education	0.2183	Jute	0.6871
18	Poultry	0.1436	Grains	0.0766	Information Technology	0.2199	Professional Services	0.2174	Machinery	0.6828
19	Iron and Steel Basic	0.1434	Urban Building	0.0765	Other Services	0.2198	Public Administration	0.2166	Iron and Steel Basic	0.6812
20	Urban Building	0.1415	Tea	0.0762	Communication	0.2186	Health	0.2116	Commercial Crops	0.6676
21	Construction	0.1413	Construction	0.0761	Wood Products	0.2178	Rural Building	0.2110	Paddy	0.6671
22	Fish	0.1400	Miscellaneous Industry	0.0760	Bank Insurance n Real Estate	0.2151	Housing	0.2093	Other Food	0.6667
23	Leather Product	0.1396	Livestock	0.0754	Leather Product	0.2144	Communication	0.2082	Livestock	0.6661
24	Miscellaneous Industry	0.1384	Tea Product	0.0744	Health	0.2128	Information Technology	0.2080	Construction	0.6633
25	Public Administration	0.1383	Health	0.0741	Hotel and Restaurant	0.2116	Bank Insurance and Real Estate	0.2073	Clay Products	0.6617
26	**RMG**	**0.1370**	Poultry	0.0737	Rural Building	0.2114	Transport Services	0.2057	Hotel and Restaurant	0.6610
27	Forestry	0.1330	Fertiliser	0.0734	Fertiliser	0.2089	Miscellaneous Industry	0.2057	Tea	0.6609
28	Clay Products	0.1316	Clay Products	0.0731	Other food	0.2186	Other Services	0.2049	Miscellaneous Industry	0.6596
29	Other Textiles	0.1298	Fish	0.0725	Machinery	0.2044	Fertiliser	0.2010	Urban Building	0.6581
30	Cement	0.1287	Information	0.0722	Iron and Steel Basic	0.2042	Trade services	0.2136	Grains	0.6553

			Technology							
31	Printing and Publishing	0.1282	Cement	0.0714	Miscellaneous Industry	0.2021	Iron and Steel Basic	0.1963	Petroleum Products	0.6546
32	Fertiliser	0.1252	Professional Services	0.0713			Machinery	0.1954	Forestry	0.6495
33	Information Technology	0.1242	Bank Insurance and Real Estate	0.0713	Construction	0.1996	Construction	0.1917	Printing and Publishing	0.6449
34	Health	0.1237	Education	0.0712	Clay Products	0.1982	Urban Building	0.1894	Cement	0.6448
35	Professional Services	0.1227	Communication	0.0710	Urban Building	0.1976	Clay Products	0.1891	Rice and Grain Milling	0.6784
36	Education	0.1225	**RMG**	**0.0708**	Petroleum Products	0.1959	Other Textiles	0.1881	Poultry	0.6384
37	Bank Insurance and Real Estate	0.1225	Forestry	0.0706	Printing and Publishing	0.1947	Printing and Publishing	0.1878	**RMG**	**0.6351**
38	Petroleum Products	0.1213	Printing and Publishing	0.0705	Cement	0.1930	Petroleum Products	0.1875	Fish	0.6294
39	Communication	0.1208	Other Textiles	0.0700	**RMG**	**0.1886**	Chemical	0.1853	Chemical	0.6137
40	Chemical	0.1172	Petroleum Products	0.0694	Chemical	0.1866	**RMG**	**0.1833**	Utility	0.6098
41	Utility	0.1144	Utility	0.0662	Other Textiles	0.1861	Cement	0.1829	Other Textiles	0.6093
42	Yarn	0.1057	Chemical	0.0659	Utility	0.1822	Utility	0.1771	Yarn	0.4971
43	Tobacco Products	0.0771	Yarn	0.0567	Yarn	0.1581	Yarn	0.1733	Tobacco Products	0.3503

Source: Computed from the Social Accounting Matrix (SAM), as constructed under the Sustainable Human Development (SHD) Project of the Planning Commission of Bangladesh.

Appendix C: Marginal Effects of Various Sectoral Activities on the Incomes of Different Types of Urban Households

	Urban Illiterate Households		**Urban Low Education**		**Urban Medium Education**		**Urban High Education**	
sl no	Activities	change in HH income	Activities	change in HH income	Activities	change in HH income	Activities	change in HH income
1	Trade Services	0.2945	Trade Services	0.3524	Education	0.4550	Education	0.1573
2	Transport Services	0.2808	Transport Services	0.3390	Professional Services	0.4476	Professional Services	0.1553
3	Jute Textile	0.2791	Jute Textile	0.3318	Public Administration	0.4350	Public Administration	0.1543
4	Other Services	0.2714	Wood Products	0.3299	Communication	0.4160	Forestry	0.1541
5	Jute	0.2706	Housing	0.3283	Information Technology	0.4125	Communication	0.1487
6	Wood Products	0.2697	Rural Building	0.3267	Bank and Real Estate	0.4060	Information Technology	0.1484
7	Rural Building	0.2635	Health	0.3265	Health	0.4052	Health	0.1472
8	Rice and Grain Milling	0.2602	Iron and Steel Basic	0.3262	Housing	0.3917	Bank Insurance and Real Estate	0.1451
9	Machinery	0.2597	Machinery	0.3232	Fertiliser	0.3862	Paddy	0.1439
10	Commercial Crops	0.2597	Other Services	0.3183	Trade Services	0.3763	Commercial Crops	0.1438
11	Iron and Steel Basic	0.2592	**RMG**	**0.3180**	Other Services	0.3758	Housing	0.1434
12	Paddy	0.2587	Public Administration	0.3174	Transport Services	0.3599	Jute	0.1426

13	Housing	0.2576	Leather Product	0.3136	Leather Product	0.3581	Fish	0.1416
14	Hotel and Restaurant	0.2574	Fertiliser	0.3136	Wood Products	0.3562	Fertiliser	0.1411
15	Other Food	0.2533	Miscellaneous Industry	0.3118	Petroleum Products	0.3552	Livestock	0.1409
16	Grains	0.2527	Urban Building	0.3100	Rural Building	0.3543	Tea	0.1404
17	Urban Building	0.2508	Information Technology	0.3082	Iron and Steel Basic	0.3504	Trade Services	0.1402
18	Tea	0.2507	Professional Services	0.3081	Machinery	0.3483	Rice and Grain Milling	0.1391
19	Miscellaneous Industry	0.2499	Rice and Grain Milling	0.3078	Clay Products	0.3475	Grains	0.1389
20	Leather Product	0.2497	Construction	0.3075	Jute Textile	0.3457	Poultry	0.1384
21	Construction	0.2484	Jute	0.3075	**RMG**	**0.3410**	Other Services	0.1380
22	**RMG**	**0.2482**	Education	0.3071	Forestry	0.3409	Leather Product	0.1370
23	Livestock	0.2480	Bank Insurance and Real Estate	0.3064	Miscellaneous Industry	0.3402	Wood Products	0.1351
			Communication	0.3062	Cement	0.3375	Jute Textile	0.1347
24	Health	0.2441	Other Food	0.3053	Printing and Publishing	0.3374	Transport Services	0.1343
25	Poultry	0.2436	Hotel and Restaurant	0.3020	Livestock	0.3366	Rural Building	0.1340
26	Public Administration	0.2396	Clay Products	0.3018	Construction	0.3364	Other Food	0.1337
27	Fish	0.2390	Paddy	0.2990	Rice and Grain Milling	0.3350	Iron and Steel Basic	0.1308
28	Clay Products	0.2371	Commercial Crops	0.2985	Urban Building	0.3331	Petroleum Products	0.1302
29	Fertiliser	0.2360	Livestock	0.2976	Other Food	0.3325	Machinery	0.1298
30	Forestry	0.2334	Tea	0.2960	Utility	0.3323	Miscellaneous Industry	0.1291
31	Other Textiles	0.2320	Tea Product	0.2951	Chemical	0.3285	Clay Products	0.1284
32	Cement	0.2314	Cement	0.2941	Tea	0.3274	**RMG**	**0.1279**
33	Information Technology	0.2290	Grains	0.2932	Paddy	0.3233		
34	Printing and Publishing	0.2279	Petroleum Products	0.2924	Jute	0.3227	Construction	0.1255
35	Bank Insurance and Real Estate	0.2272	Printing and Publishing	0.2889	Commercial Crops	0.3215	Printing and Publishing	0.1251
36	Communication	0.2252	Poultry	0.2863			Hotel and Restaurant	0.1250
37	Petroleum Products	0.2238	Other Textiles	0.2854	Grains	0.3177	Cement	0.1248
38	Professional Services	0.2219	Fish	0.2822	Hotel and Restaurant	0.3165	Urban Building	0.1246
39	Education	0.2199	Utility	0.2818	Poultry	0.3165	Utility	0.1222
40	Utility	0.2159	Forestry	0.2810	Fish	0.3153	Chemical	0.1219
41	Chemical	0.2124	Chemical	0.2740	Other Textiles	0.3112	Other Textiles	0.1178
42	Yarn	0.1861	Yarn	0.2286	Yarn	0.2536	Yarn	0.0989
43	Tobacco Products	0.1331	Tobacco Products	0.1600	Tobacco Products	0.1753	Tobacco Products	0.0701

Source: Computed from the Social Accounting Matrix (SAM), as constructed under the Sustainable Human Development (SHD) Project of the Planning Commission of Bangladesh.

Appendix D: Major Export Incentives in Bangladesh

Schemes	Nature of Operation
Export Performance Benefit (XPB)	This scheme was in operation from the early 1980s to 1992. It allowed the exporters to encash their XPB entitlements at a higher exchange rate, known as the Wage Earners Scheme (WES), which was on offer to attract remittances from Bangladeshis working abroad. The entitlement varied from 30 per cent of export earnings to 100 per cent according to the percentage of local value added in exports. With the unification of the exchange rate system in 1992, the XPB scheme was abolished. The incentives under XPB were available only to non-traditional exporters.
Bonded Warehouse	Exporters of manufactured goods are able to import raw materials and inputs without payment of duties and taxes. The raw materials and inputs are kept in the bonded warehouse. On the submission of evidence of export orders, required amount of inputs is released from the warehouse. Mainly available for exporters of non-traditional items such as RMG, specialised textiles, leather, ceramics and printing materials.
Duty Drawback	Exporters of manufactured products are given a refund of customs duties and sales taxes paid on the imported raw materials that are used in the production of goods exported. Exporters can also obtain drawbacks on the value added tax paid on local inputs going into production. Jute goods and leather exporters are main beneficiaries from this scheme.
Duty Free Import of Machinery	Import of machinery without payment of any duties for production in the export sectors.
Back to Back Letter of Credits (L/Cs)	It allows the exporters to open L/Cs for the required imports of raw materials against their export L/Cs in such sectors as RMG and leather goods.
Cash Subsidy	The scheme was introduced in 1986. This facility is available mainly to exporters of RMG who choose not to use bonded warehouse or duty drawback facilities. Currently, the cash subsidy is 25 per cent of free on board export value.
Interest Rate Subsidy	This allows the exporters to borrow from the banks at lower bands of interest rates of 8-10 per cent against 14-16 per cent of normal charge.
Income Tax Rebate	Exporters are given rebates on income tax. Recently this benefit has been increased. The advance income tax for the exporters has been reduced from 0.50 per cent of export receipts to only 0.25 per cent.
Retention of Earnings in Foreign Currency	Exporters are now allowed to retain a portion of their export earnings in foreign currency. The entitlement varies in accordance with the local value addition in export items. The maximum limit is 40 per cent of total earnings although for low value added products such as RMG the current ceiling is only at 7.5 per cent.
Special Facilities for Export Processing Zones (EPZs)	Currently a number of EPZs are in operation. The exporting firms located in EPZs enjoy various incentives such as tax holiday for 10 years, duty free imports of spare parts, exemption from value added taxes and other duties.
Nominal Devaluations	Devaluation of the taka has been a major instrument in the whole incentive programme. Frequent but small dosage of devaluation has been a characteristic of Bangladesh's trade policy since the mid-1980s.

Source: Bayes *et al*. (1995), Hussain *et al*. (1997), and Razzaque (2005).