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## Some Trends in Terms of Negative Impacts of Globalisation on Agriculture in Bangladesh

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Nazmul Islam\*\*

*According to the definition of WTO, Globalisation generally implies the meaning of freeing the forces of competition that help to channel the energies of people and the resources of countries into activities where they are likely to be most productive. Some proponents think that as a consequence of globalization, the trend toward free movement of goods, service, capital and technology is being strengthened. But many also see globalization as threatening because many countries are unable to adapt with the accelerated change of global economy. Many governments consider it as undermining their policy sovereignty, not only vis-à-vis other governments but also vis-à-vis the market. It is well known that agriculture is the principal sector of LDCs and this sector provides food and nutrition to millions of people to the respective countries. Nevertheless, the long run impact of adopting a globalised economy will severely hamper the agricultural structure of Bangladesh. This paper has discussed the idea that globalization forces have failed to remove hunger and poverty from Bangladesh to a large extent.*

### Introduction

Globalisation is a new addendum in the history of political economy that the globe ever experienced. The process is the new form of plundering capital that has been launched after and legitimised by the Uruguay round talks and became operational with the start of the world trade organization. Globalisation has its own positive or negative effects on every sector of the least developed countries (LDCs). As agriculture accounts for 70 percent of employment in LDCs, agriculture certainly plays a pivotal role in improving the respective countries' socio-economic condition, sustainable development, food security and achieving self-sufficiency in food production. It is also the main source of potential domestic surplus for investment in other sectors with higher value added that is crucial for human development. Therefore, in order to

analyse the effects of globalization on the most vital sector of LDCs, this paper concentrates on Bangladesh as a standard representative.

There are many excellent papers about the effects of globalization on agriculture in world literature. The difference between globalism and globalisation from a farmer's perspective is explained by Ritchie (1999). He opined that globalism is the idea that we all live on the same planet and that we need to cooperate to survive and thrive. On the other hand globalisation is the idea that we all live in one market where the strongest deserves to thrive and the weakest deserves to go bankrupt. Again the goal of globalisation is to make every single person a competitor with every other. Conversely, the goal of globalism is finding ways to cooperate to solve the ecological, social and economic challenges that we face as a whole planet.

According to Mellor (2002), globalisation can greatly enhance the role of agriculture as an engine of growth in low-income countries by making it possible for agriculture to grow considerably faster than domestic consumption. Storm *et al.* (2002) in their paper aim to provide a descriptive and analytical account of the extent to which agriculture in the developing economies has become integrated with external markets through globalisation. Shiva (1997) in her paper analyses the impact of global agriculture in terms of food security and farmers' rights and offers an alternative model of liberalisation for producers and consumers. She also asks the justification of globalisation and liberalisation that are the two greatest threats to farmers. Barker (2003) demands special treatment for developing countries, quantitative restrictions and eliminating export subsidies to minimize the threats of liberalising agriculture policies.

The effect of trade globalisation on agriculture is explained by Mellor (2003). He argued that trade globalisation through adopting new technology is irreversible and more research is necessary in agriculture sector to make this sector more applied to newer technology so that direct benefit from agriculture can be ensured to the poor.

The impact of commercialising agriculture is described in a FAO report (2005). This report explains the impacts of "environmental externalities" caused by waste from commercial livestock units on developing countries' soil and water. FAO (1999) indicates the advantage of introducing biotechnology in the agriculture sector of poor countries. This report argues that biotechnology can solve many problems regarding crops and livestock production in developing countries. For example, biotechnology-derived solutions for biotic and abiotic stresses, built into the genotype of plants, can reduce use of agrochemicals and water, thus promote sustainable yields.

The objective of this paper is to analyse the adverse effects of globalisation on Bangladesh agriculture. There is no distrust that

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increasing rice and other cereal production. But it will be unwise to justify the idea of globalisation from this view point as this is only the short run effects of globalization. This paper concentrates on the long term devastating effects of globalisation on Bangladesh agriculture that will be helpful for inspiring new dimensions of thinking to concerned persons about the consequences of globalisation on agriculture.

This paper is organised as follows. Section 2 provides a very brief idea about the introduction of globalisation in the world and Section 3 narrates the effects of globalisation on poverty and hunger issues in Bangladesh. Section 4 describes the consequences of withdrawing subsidy from agriculture of Bangladesh and how it leads to more poverty. Section 5 concentrates on the loss of biodiversity because of seed marketing by transnational corporations (TNCs). Section 6 delineates various environmental challenges that are introduced by using agrochemicals in agriculture. Section 7 discusses whether globalisation has introduced long term food security in Bangladesh and Section 8 narrates the ethical concerns about biotechnology and genetic engineering recently introduced in agriculture. Section 9 concentrates on how the effects of globalisation are conducive to annihilate tribal and indigenous communities. Section 10 shows how globalisation can create inequity in the society. Section 11 provides some policy suggestions and the last chapter concludes the overall discussion.

#### **New Tool of Globalisation: WTO Policies in Agriculture**

Until the Uruguay Round agriculture, food security and price stability of agricultural products were kept out of GATT. In the 1950s, US government first gave veto for including agriculture in the GATT. Without providing any time limit for US, other developing countries liberalise their agricultural policies. The developed economies at that time started to protect their agriculture sector by providing various supports to their farmers. As a result, these developed countries turned them as major exporting countries from importing countries with their food surplus. Considering the food security as the most important issue for developed countries (DCs), there was a broad adoption of import substituting strategy. In this process, several international organisations such as IMF and World Bank imposed various restrictions and obligations on developing countries agriculture in the name of structural adjustment. As a result, the world share of agricultural export from developing countries to developed countries came down to 40 per cent in

2001 from 60 percent in 1961.<sup>1</sup> There are only three policies that make TNCs to dominate the world agricultural market. These are: a) Subsidised rich countries' export, b) High tariff barriers for export to developed countries, and c) Downward pressure on primary commodity world prices.

It can be noted that the above policies by developed countries disaffected the poor countries. For example, it can be found that the United States paid farmers almost \$15.7 billion in subsidies during 2002 and European Union annually spends roughly \$50 billion, nearly half of its annual budget, on its common agricultural policy and rural development. This protectionism and subsidies by industrialised nations cost developing countries about \$24 billion annually in lost income (The Washington Times, December 08, 2003). Taking tariffs and tariff-equivalent of subsidies in agriculture, Cline (2004) estimates that the overall protection in agriculture is about 20 per cent for US, 46 per cent for EU, 52 per cent for Canada and 82 per cent for Japan. The annual loss to developing countries from agricultural tariffs and subsidies in rich countries is estimated from a static CGE model and the GATP trade and protection database by Cline to be about \$45 billion.

#### **Trading with Hunger and Poverty in Agriculture**

People in favor of globalisation thinks that it will lead to production with better efficiency, so offering best prices and not leaving space for protectionism of any kind. However, ground experiences have shown differently because of the existence of great dissimilarities between countries, for example, of production conditions, location and distances, environment, population and community profile, etc. This makes impossible to apply the same notion of globalization to benefit poorer communities and states throughout the world.

In Bangladesh, one should not use food trading for maximising profit because still around 60 million Bangladeshi cannot afford even 1,805 calories per day which is less than the prescribed daily minimum calorie intake. The burden is doubled for women because they eat the least and they are much more malnourished than men are (Barkat and Masud 2001).

But in reality one can find that profit maximising trading practice has been already introduced in Bangladesh agriculture. It has frequently been reported that peasants have filed cases being cheated using "Suphola Bij" (The brand name of BRAC marketed seeds) purchased from BRAC, ACI

<sup>1</sup> WTO, 2002. International Trade Statistics 2002 and UNCTAD 1999. "Agricultural Trade Barriers, Trade Negotiations and Interests of Developing countries" TD9X/RT. 1/8.



and Macdonald company. They reported that although it was written on the package of "Alok Suphola Bij" (brand name of paddy seed) that the average yield from this seed would be 30-40 mounds (1 mound = around 37.5 kg.) in one acre but in reality they got 4-6 mounds per acre. In the way the farmers get deprived when they try to produce onion, tomato and other vegetables using hybrid seeds. The reported loss of using hybrid seed marketed by BRAC was Tk. 15,000 - Tk. 35,000 per acre. Although the price of hybrid seed is 20-30 times higher than the indigenous seeds, hybrid seeds are capable of producing only 20 per cent - 30 per cent more crops. The endless profit making greed of the TNCs and some NGOs would certainly expedite the pauperisation process of the marginalised farmers and aggravate poverty situation in Bangladesh.

Moreover, the move to global free trade policies in agriculture threatens small farm agriculture. It encourages imports of cheap food by the government. This has two negative effects on the small farmers. Firstly, it can drive the farmers off the land. Secondly, as crop prices stay low, profits per unit area stay low as well and more and more hectares are needed to support a family that forces a small farmer to sell land to a larger farmer. As farm incomes fall, farmers try to increase their production by ecologically inappropriate practices like plowing more land and increasing the use of agricultural chemicals. This has also led to more farmers being in debt.

#### Withdrawal of Subsidies in Agriculture and Marginalisation of Peasantry

As for farm products, the European Union (through the Common Agricultural Policy), USA and Japan subsidise agricultural production. This means farm-products imported from the South are less attractive. The EU and USA have become net exporters of agricultural products to the rest of the world. Their subsidies to the agricultural sector (largely to agro-business) make their products more affordable in the Southern markets than some locally produced items. In addition, the US has also been imposing import controls to protect its farmers.

When the DCs are providing subsidy towards their agriculture, the withdrawal of input subsidies and increasing imports by Bangladesh government have led to depress agricultural prices, raise costs of production, reduce profitability and hence discourage investment in agriculture sector of Bangladesh. All these factors are responsible for the decreasing trend of contribution of agriculture to GDP. This fact is reflected in Table-1.

**Table 1.** Year Wise Percentage Contribution to GDP (Base Year of 1995-96)

Year	Agriculture and Forestry	Crop and Vegetables	Livestock	Forestry	Fishery
1996-97	20.39	15.21	3.27	1.91	5.48
1997-98	19.67	14.59	3.19	1.89	5.67
1998-99	19.35	14.33	3.12	1.90	5.93
1999-2000	19.49	14.59	3.02	1.88	6.09
2000-01	19.51	14.70	2.95	1.87	5.51
2001-02	18.58	13.75	2.96	1.88	5.40
2002-03	18.22	13.43	2.93	1.86	5.25
2003-04	17.97	13.23	2.91	1.83	5.11
2004-05	17.27	12.51	2.95	1.82	5.00
2005-06	16.98	12.28	2.92	1.79	4.86
2006-07	16.38	11.72	2.90	1.76	4.73

(P)  
Source: Bangladesh Bureau of Statistics (Various issues);  
P = provisional.

The resultant stagnation of agricultural production has constrained labor absorption, leading to an increase in unemployment and poverty in this sector. Bangladesh agricultural development corporation's activities have been weakened as a consequence of withdrawing subsidy in agricultural sector. Seed, fertiliser, pesticide and irrigation facilities had been privatised. Moreover, it should be noted that per capita consumption strongly indicates a fall in real income of the poor in the 1990s. This suggests a shift in income distribution away from the poorest groups. As a consequence of low consumption, around 70 per cent of the Bangladeshi women are still suffering from malnutrition. Malnutrition causes numerous diseases and death, and the burden falls mainly on the women and children or poor families.

Introduction of HYV and hybrid seeds in agriculture incur remarkably higher cost in purchasing agricultural inputs (high cost HYV/hybrid seed, fertiliser, pesticide, rent for irrigation by electric pumps, rent for tractor or power tiller) by the farmers. The HYV and hybrid seeds require much more amount of fertiliser and pesticide than the indigenous varieties for the same area of land. Moreover increasing amount of fertiliser and pesticide is needed to ensure production of the same amount of crop in the same area of land during the successive years. So, cost for purchasing agricultural inputs rises proportionately compared to agricultural yields (Luthfa 2004). Thus farmer's rate of profit and production during the successive years decelerates. Farmers try hard to maximize production using micro-credit or loan from informal moneylenders to bear the cost for hybrid seed, fertiliser, pesticide, irrigation, tractor or power tiller but

gradual loss in production make them pauper, landless and compel them to migrate in the urban slums. Thus marginalised farmers get trapped and lose their land rights running after more production using hybrid seeds and agro-chemicals. Table-2 bolsters the above idea, indicating that the number of landless people has increased about 5 per cent annually in rural areas in Bangladesh over the period 1996-2005.

**Table 2.** Holdings Owning No Land (Landless) by Urban and Rural Area

Item	Agriculture Census-1996	Agriculture Sample Survey 2005		
	Rural	Rural	Urban	Total
Holdings owning no land	1,814,571	2,617,076	1,337,544	3,954,620

*Source:* Preliminary Report on Agriculture Sample Survey, October 2005, BBS Planning Division, Ministry of Planning, Bangladesh.

### Seed Marketing and Loss of Biodiversity

Many farmers and environmentalists are concerned about the fact that the third world farmers will be disallowed to follow the traditional practice of saving seed for the next season's plantation if the seed used is under the intellectual property rights protection of a company and the farmers are forced to purchase the seeds. TNCs would like to abolish the right of seed preservation by the farmers (especially by the rural women) because this will hamper the process of making endless profit in seed business by the TNCs. To make the TNCs' mission in Bangladesh successful, they have tagged their seed marketing with micro-credit system. It is known that illiterate people are the victims of induced purchasing by the micro-credit institutions.

Marketing of hybrid and HYV seeds in Bangladesh would inevitably lose a considerable number of species of paddy in Bangladesh. Similarly, hybrid and HYV seed marketing of maize, millet, sunflower and pumpkin would cause loss of biodiversity. These initiatives would certainly destroy the seed stock of the indigenous Bangladeshi farmers and make these people dependent on hybrid and HYV seeds. Seed business would obviously be able to make billion dollars of profit if a county like Bangladesh with a population of 130 million depends on TNC-backed companies for seeds. ACI and Monsanto in collaboration with BRAC are marketing hybrid seeds, which already caused loss of biodiversity. Some NGOs and trading agencies have started importing seedlings of mango (Amropalli, Mallika, etc.) from the neighboring

countries claiming that these varieties would yield more mangos. Such initiatives will inevitably lose the indigenous and tasty mango varieties.

In Bangladesh the monoculture of HYV practice as well as intellectual property rights and patent rights on life forms will inevitably increase the price of life saving drugs and consumer goods for the poor people of Bangladesh. If this situation exists for a long time, it will certainly create crisis for the poor-friendly, low-cost, effective, culturally acceptable and 5000 years old heritage of Ayurvedic treatment systems in Bangladesh.

### Effects of Using Agro-chemicals in Agriculture

One of the major reasons of death of the human beings as well as other living beings is agro-chemicals. Women are the worst victims of agro-chemicals. Women working in agriculture throughout the world are subject to occupational hazards such as exposure to biological and chemical agents. They can be found mixing, loading and applying pesticides, fertilisers, or herbicides, some of which are highly toxic and potentially carcinogenic. Pesticides exposure poses a considerable risk of cancer, neuropathy, neuro-behavioural effects, immune system abnormality, destruction of endocrine, hormone, reproductive and nervous systems. It is also injurious to heart and kidneys. The Food and Agricultural Organization (FAO), through its integrated pest management strategy, advises for banning of use of such agro-chemicals which cause harm to living beings. But Novelties and other TNCs are marketing these poisons in agriculture sector. It should be mentioned that HYV, hybrid seed and agro-chemicals were introduced to make the "Green Revolution" successful and at the same time to counter "Red Revolution" in third world countries like Bangladesh. But the reality is different. According to the World Health Organization (WHO) report, every year 500 thousand people throughout the world are victims to adverse effects of agro-chemicals used in agriculture.

Most of the past governments of Bangladesh subsidized chemical fertilisers, pesticides and agricultural equipment rather than subsidising indigenous and appropriate seeds production and marketing, environment-friendly organic fertilizer production and marketing and purchase of bulls for the marginalised farmers. In the international arena it is now firmly accepted that use of agro-chemicals (fertilisers and pesticides) in agriculture does not help much in developing integrated agricultural production, rather these agro-chemicals largely destroy other life forms- crops, trees, fish species, cattle, goat, poultry, duck, etc. By using ordinary least square (OLS) method on consumption of fertiliser



and yield of paddy of some countries (data given in appendix 1), the following regression equation is obtained with the SPSS package:

$$Y = 3572.78 + 9.18C$$

Se = (1016.576) (4.988)  
 t = (3.515) (1.84)  
 P = (.004) (.089)  
 $R^2 = 0.207$ , Adjusted  $R^2 = 0.146$   
 F-statistic = 3.387(.089)

Where Y = Yield of paddy and C = use/consumption of fertiliser  
 The null hypothesis here is:  
 $H_0$  = consumption of fertiliser has no effect on yield of paddy

The slope coefficient is statistically insignificant [ $t_{0.05,1} = 6.314$ ] at 5 per cent. The 'p' value is .004. Therefore, we can not reject the null hypothesis—consumption of fertilizer has no effect on yield of paddy.

At 5 per cent, clearly F value is not statistically significant [ $F_{0.05,1,13} = 4.67$ ]. The 'p' value is .089. Therefore, there is no reason to reject the null hypothesis.

But both the t-value and F-value are statistically significant at 10 percent level [ $t_{0.1,1} = 3.078$  and  $F_{0.1,1,13} = 3.14$ ]. So, we can reject the null hypothesis that means consumption of fertiliser has some effect on yield of paddy. The estimated  $R^2$  is .207, indicating that consumption of fertiliser can explain 20 per cent of the variation in yield of paddy.

The above result clearly indicates that use of chemical fertiliser can contribute a little more to production. But because of poor knowledge, farmers think that the use of fertiliser can be increased indefinitely. Table 3 indicates the imbalance use of fertiliser by Bangladeshi farmers with a view to getting more crops. Use of such excessive agro-chemicals in agriculture is neither environmentally safe nor able to make significant profit.

**Table 3.** Imbalance Fertilizer Use in Bangladesh

Name of Crop	Recommended Dose			Actual Use			Use Gap (%)		
	Urea	TSP	MP	Urea	TSP	MP	Urea	TSP	MP
(HYV)									
T.Aus	141	101	69	135	28	17	4.26	72.28	75.36
T.Aman	166	101	69	135	30	24	18.67	70.30	65.22
Boro	269	131	121	192	47	37	28.62	64.12	69.42

Source: Agriculture Sector Review, MOA, May 2004.

Simple calculations may show that the economic value of the lost life forms (other crops, trees, fish species, cattle, goat, poultry, duck, etc.) and cost for health hazards due to use of agro-chemicals in agriculture are much higher than the price of increased amount of crop products produced using agro-chemicals.

The fertiliser industries in Bangladesh are constantly polluting their surrounding environment. Disposed wastes from the fertiliser factory cause damage to crops and trees, to fishes in the nearby rivers, canals, water bodies and public health. If hybrid seed, fertiliser and pesticides had not been used in agriculture, the environment would not have deteriorated so badly in Bangladesh.

### Providing Insufficient Food Security

The availability and distribution of food has historically been a national security consideration. But under the process of global restructuring and industrialisation, the control has been moved to global multinational industry. The agro-food companies have already started their operation for profit in Bangladesh. Such profit making approach would hamper the sustenance of the vulnerable groups in Bangladesh. Since 60 per cent of the Bangladesh population is getting only 80 per cent of their daily calorie requirement, it can be assumed that the purchasing capacity of the people is at a very low level. Thus, food production for profit maximisation rather than keeping people at the subsistence level may entail more hunger in our country.

Currently, in Bangladesh thousands of acres of the most fertile land crops are cultivated not to feed our hungry poor people but to produce raw materials for large TNCs. In particular, in Kushtia and Rangpur districts tobacco is produced for transnational and national tobacco companies, in the southern districts of Bangladesh shrimp is cultivated for export and recently maize is being produced as poultry feeds instead of cultivating paddy or food crops in these fertile lands. At Present BRAC is marketing maize seed in collaboration with Pacific International of Australia to make its beneficiaries produce maize in their lands instead of rice or cereals. BRAC imposes preconditions in receiving micro-credit so that their beneficiaries get compelled to use hybrid seeds in maize production instead of rice production. Intensification of cash crop product may aggravate food security situation of the peasantry.

Export-oriented shrimp cultivation requires collection of fry. It has been estimated that to collect a young of Bagda shrimp one has to destroy 202 fries and fingerlings of other fishes while collecting. Approximately 205 billion Bagda shrimp fries are collected each year for

export oriented shrimp cultivation. So export-oriented shrimp cultivation is responsible for destroying a large variety of other fishes. Consequently we are gradually facing severe protein deficiency due to lack of natural fish production in the rivers.

The TNCs and some other developed countries are demanding that Bangladesh has to reduce domestic subsidies to farmers and remove non-tariff controls on agricultural product converting these to tariffs and then progressively reducing these tariffs. This will impose uneven competition on the domestic farm sector. Farmers are unable to compete with cheaper imports and may not survive in the competition. Agricultural liberalisation will also raise world food prices, which may benefit food exporters but about 100 third world food importer countries will face a higher food import bill and are likely to be among the biggest losers.

#### **Biotechnology and Genetic Engineering: Unknown Threat and Ethical Concern**

The advance of biotechnology and genetic engineering contributes to increased agricultural production, but the overall consequences of this new technology will be ominous in the long run. The process called genetic engineering allows scientists to transfer a single gene from any organism - plant, animal or microbe - into a food crop so that it can withstand insects in herbicides as well as last longer. Genetically engineered or transgenic crops look and taste the same as conventional crops and are not required to be labeled in the United States unless they contain known allergens. There are more than 20 varieties of genetically altered food already in the market including one-third of all US soybeans. Chemical giants like Monsanto and Du Pont are betting that biotechnology will change the face of world's agriculture. But critics question about the basic need for the product. Greenpeace says that Roundup Ready soybeans bring no benefit to the consumers. They are neither cheaper nor healthier. The environmentalists think that biotechnology research and application will be likely to accelerate biodiversity loss and could threaten natural ecosystems.

Potential environmental hazards from new products of biotechnology, mainly involving Genetically Modified Organisms (GMOs), have raised concerns that foreign companies may use developing countries as "test sites" for their products (FAO 1999). Some of the potential environmental risks concern plant pests, while gene escape from GMOs can result in weediness in sexually compatible wild species. Another worry about GMOs is the possible inadvertent production of toxins and allergens. According to FAO, developing countries need assistance in

developing appropriate legislation and setting up regulatory bodies to ensure biosafety.

#### **Globalisation: An Annihilating Process of Indigenous Community and Living**

The indigenous people generally occupy areas that are home of rich minerals or forest resources and harness and harvest local natural resources like water, land and power. The commercialization of agriculture acts as a hindrance for local communities to get access to traditional resources that are critical for their livelihood and survival. For example, "Kaptai Hydroelectric Station" was constructed in the fifties at the cost of evicting thousands of hill peoples from their habitats and Cultivable lands. In 2000 thousands of "Khasias" were evicted to establish the "Eco Park" at Moulvibazar. Environmentalists claim that the Eco Park will attract numerous tourists and earn foreign currencies for the country, but such steps will cause the loss of many species of plants and animals.

Shrimp export is expanding by the cost of destroying the coastal forest, agriculture and ultimately evicting the indigenous farmers from their own agricultural land. Shrimp cultivation in the agricultural land not only influences the environment negatively and causes land degradation but also reduces indigenous people's food production and generates unemployment and poverty. In this regard the study of Islam *et al* (2004) can be worth noting. They conducted a research study among 120 households in "Bankra" village in "Shatkhira" district of Bangladesh where all the households are engaged in shrimp cultivation. They found that as a consequence of the shift from rice to shrimp cultivation, the small and marginal farmers lost their land and the marginal groups and women lost their agrarian occupation in most of the cases. About three-fourth of the livestock and poultry have disappeared in the study area. Moreover, as a result of the unemployment, social problems in the study area have increased.

As a consequence of global competition in agriculture, hybrid seeds, agro-chemicals and modern equipments have been introduced. This situation has made a large group of blacksmiths jobless. Since the use of fertiliser and pesticide destroys the natural "rice-fish" culture in Bangladesh, nobody goes for fishing in the paddy fields using fish hunting instruments (Koch, tetra, etc.) made by blacksmiths. Use of modern equipment for plough land almost ended the use of hand made iron plough. Thus a large numbers of blacksmiths have lost their traditional livelihood.

The displacement of the indigenous people is quite different from the



eviction and relocation of the urban slum dwellers. The indigenous people are linked to their habitat. The indigenous peoples' lives are related to the land on which their houses are built and on which traditional system of agriculture is practiced by them. They have a root to the entire territory and the eco-system. Displacement of such people actually means a total dislocation of lives. They cannot be relocated elsewhere even in model villages with grants of some land or compensation. They are usually unable to survive there. So globalisation negatively influences the matrimonial system as well as the women headed family system of the tribal areas if they are compelled to be evicted from their own land and have to live with the patrimonial system of Bangladeshi community. The indigenous people thus face a threat of annihilation in the age of globalisation.

### Growth and Globalisation

The era of globalisation has started expansion of all economic activities like investment, production, productivity, trade, income of certain sections of people, etc in the short run but in case of employment and reducing income inequality the picture is different. The UNDP reports that the wealthiest 20 per cent of the world Population receives 82.7 per cent of the total world income. Wealth is concentrated in North America, Europe and high income Asia-Pacific areas such as Japan. Collectively these areas own nearly 90 per cent of the world's wealth (Davies 2006 *et al.*). This means that 1 billion people live on \$1 a day and another 3 billion live on \$2 a day. This situation has worsened several times over the last few years.

The 2002 Human Development Report shows that over the past three decades only 15 countries enjoyed high growth, while 89 per cent of the countries were worse off than they were ten years ago. With the global depression there will be even fewer countries enjoying growth. The five types of growth listed below are perhaps inherent to the process of globalisation:

1. Jobless growth (overall economy grows but not the number of jobs)
2. Ruthless growth (economy grows but the rich get richer and the poor are deprived)
3. Voiceless growth (economy grows but democracy and empowerment of the majority do not keep pace)
4. Rootless growth (cultural identity is submerged or outlawed)
5. Future less growth (present generations squander the resources needed by the future generations).

### Some Policy Suggestions to Promote Agricultural Growth and Development

Bangladesh is one of the poorest countries of the world where most poor live in rural areas and are engaged in agriculture. So it is clear that the policies that can ensure agricultural growth are the best policies to eradicate poverty from Bangladesh. In this regard, not being dependent on TNCs and other donor organisations, we have to find out our own policies that can fulfill our dream. It can be mentioned that without good governance and political stability every step will be in vain. So promoting agricultural growth, achieving sustainable development and poverty elimination are not impossible if the following steps are followed under transparent governance:

#### *Increasing Productivity of Land*

As the supply of land is perfectly inelastic, intensive cultivation of land is the only way to increase production. If productivity of land can be increased, people will be able to produce more crops that will increase the quality of their lives on a sustainable basis. The productivity of land can be increased by using home made "compost" fertilizer. The advantage of using natural fertilizer is two fold. In one way it preserves the organic quality of land, on the other hand its production cost is almost zero. So using this type of fertiliser is cost effective because it can save the purchasing cost of expensive chemical fertiliser. So the profit from agriculture can be increased.

#### *Land Reform*

In Bangladesh the distribution of land is very asymmetric. Poor peasant and landless who comprises 70 per cent of rural household are dependent on rich and middle peasants for their livelihood (Jahan 2003). There is increasing evidence from all over the world that resource utilisation, productive activities, labor mobilisation, ecological knowledge and common interests made a small farm more productive than a large farm. So a successful land reform can create equity of land holding, which can increase overall productivity in agriculture. This idea of land reform is supported by Bardhan (2004) also. He argues that small farms that are not severely handicapped by the credit and other constraints are sometimes more productive than their larger counterparts and are also sometimes more successful in export markets.

#### *Creating New Non-farm Employment:*

There is a hidden or disguised unemployment in the agriculture of Bangladesh. If this surplus labour force can be withdrawn from agriculture and can be employed in non farm sector in rural areas, effective demand for foodgrains can be increased. In this regard, the establishment of non farm employment for example handicrafts, cottage and small scale industries in the rural area is necessary. This will increase income of rural people that will ultimately create effective demand for food. This will also act as an incentive for farmers to produce more. Moreover, as a result of the migration of surplus labour from agriculture to small scale industry, the average product of labor will also rise in agricultural sector.

#### *Increasing Budget on Health Sector*

Health is the most vital factor that dominates the productivity of a farmer in a labor intensive cultivation process as in Bangladesh. If public health care system of Bangladesh is closely analysed, it can be found that social class discrimination is one of the vital factors that disaffects the well functioning of the health care system (Istiak *et al.* 2005). Because of the existing social class discrimination, the sufferers are mainly the poor segment of the population who are mostly rural farmers. Social insurance can play an important role in this regard. Some major NGOs like Grameen Bank, BRAC and Gonoshasthya Kendra have already introduced community health insurance scheme to serve their micro credit clients who are generally poor though its form is a little bit different from the insurance scheme prevailing in developed countries. This scheme can be a good alternative source for health care services in the rural areas. Moreover, as the trust of people by NGOs on the service provision has been increasing over time (Huque *et al.* 2005), developing a contractual relationship between government and NGOs can solve many of the constraints faced by government in the health sector of Bangladesh.

#### *Credit Allocation*

A good inflow of credit at a low interest rate must be ensured to farmers that they can use to purchase modern agricultural equipments and make necessary storage facilities to preserve their crops for a long time. For the lack of preserving facilities, farmers are bound to sell crops immediately after harvesting and they are deprived of getting a justified price. Thus credit with a cheap rate will ensure them better price and thus higher

income. Government should take strong steps to build a legal and regulatory framework to guide the financial intermediaries in this regard.

#### *Provision of Research and Infrastructure*

Government should allocate sufficient funding for scientific research to introduce a cropping system that is more labour intensive and to invent locally produced crops that give higher yield and also can accommodate with our local environment. In many remote areas of Bangladesh farmers cannot market their product just because of insufficient infrastructure. If government with the help of local bodies can provide small, feeder roads by using FFW programme, farmers will be able to market their products which will ensure better price of agricultural products to them.

#### **Concluding Remarks**

WTO guided globalisation has introduced a new morality where "Dollar is the God" and a failure to maximise profit is a moral sin. This process keeps the majority of the world in poverty while allowing unsustainable consumption for the global elite and its allies.

This globalization of agriculture has been intensified by the TNC dominated agribusiness of world agriculture facilitated by the "Green Revolution," by the unequal liberalisation of agricultural trade and subsidy by European Union and the United States, by corporate monopoly of biotechnology and by the withdrawal of government supports for agriculture. This has created a massive rural unemployment, migration and loss of food security among rural and indigenous people. Table 4 presents the result of the survey conducted by BBS in 1999 and 2004 when the number of sample households was 16,000 in 1999 and 7,500 in 2004. The findings reflect that during the survey period the percentage of households whose main source of income was agriculture has been significantly decreased, whereas the percentage of households dependent on non-agriculture has been increased. This proves that agriculture sector has failed to provide sufficient job opportunities to the country.



**Table 4.** Key Findings of the Poverty Monitoring Survey 2004

Item	May 1999	March 2004
Households (percentage) with main source of income from:		
a) Self-employed in agriculture	29.6	24.0
b) Agriculture labor	19.6	14.9
Monthly income of households (percentage) by sources:		
a) Agriculture self employment	29.2	19.1
b) Non agriculture self employment	24.0	31.3
c) Agriculture daily wage	19.6	7.2

Source: The official website of BBS ([www.bbs.gov.bd](http://www.bbs.gov.bd)).

Globalisation has led to mechanisation replacing human and animal energy, monocultures replacing genetic diversity, large replacing small land holdings and the development of new seeds through systematic plant breeding programmes; all in the name of science and efficiency. The combination of science and efficiency is now leading retailing, particularly in the developed countries, sounding the death knell of the family farms and family farmers.

The liberalisation of agriculture by marketing of hybrid seeds and HYV seeds through NGOs with micro-credit and/or as a precondition of receiving micro-credit would inevitably lose a considerable number of species of paddy in Bangladesh. Similarly, HYV seed marketing of maize, millet, sunflower, and pumpkin would cause loss of biodiversity and adversely affect the eco-system. These initiatives would certainly destroy the seed stock of the indigenous Bangladeshi farmers and make these people dependent on ACI and other TNC marketed hybrid and HYV seeds. BRAC, Monsanto, ACI, Novartis, etc. would obviously be able to make billion dollar's profit in a country like Bangladesh with a population of 130 million, which depends on these companies for seeds. Such profit making approach would hamper the sustenance of the vulnerable groups in Bangladesh.

Even if globalisation and liberalisation in agriculture can produce bumper harvest, it is not sufficient to remove hunger from Bangladesh. In this regard it is worth noting that the Famine of Great Bengal in 1943 was caused not for a lack of food rather it occurred because of the lack of entitlement of food.

Globalisation will not solve the problem of inequality. Nor will it feed,

clothe, educate and empower the majority of the people. On the contrary, it has been a major factor in making increasing numbers of people hungry, homeless, destitute and powerless in all areas of their lives. So, appropriate policies are required to empower people that will resist the ongoing process and through their participation in building viable political and economic alternatives. Massive reforms are needed to improve people's welfare and to ensure full opportunities to life through human development rather than through policies marauding international capital.

Ultimately, we need to replace global imperialism with global democratic governance that ensures social justice and social control of means of production. Land reform along with tenancy reform is badly essential to improve our agricultural production. It is our responsibility to harness these displaced productive forces and to empower people by instituting a process of true human development by a freedom mediated process.

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## Appendix

### Fertiliser Consumption and Yield of Paddy of Some Selected Countries (Year 2001)

Name of Country	Consumption of Fertiliser (Kg/ha)	Yield of Paddy (Kg/ha)
Australia	48.7	9282.5
Egypt	391.6	8769.0
USA	110.7	7206.0
Korea Rep.	379.4	6881.0
Japan	282.4	6635.4
China	225.1	6152.4
France	212.9	5790.0
Mexico	110.7	4342.0
Korea Dem. Rep.	102.5	3601.8
Sri Lanka	122.7	3522.0
*Bangladesh	159.7	3510.0
Brazil	209.1	3243.0
India	102.2	3131.5
Pakistan	131.9	2754.2
Nepal	22.0	2745.4

Source: FAO & FAI (Fertiliser Association in India).



