

AGRICULTURE AND EMPLOYMENT GENERATION IN BANGLADESH: IMPLICATIONS FOR HUMAN SECURITY

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Introduction

The International Labour Organisation (ILO) defined agriculture as “the cultivation of animals, plants, fungi and other life forms for food, fibre, biofuel, medicinal and other products used to sustain and enhance human life. Agriculture could be categorised as crop farming, livestock production, forestry, horticulture, agro-allied and fish farming, while its nature could be subsistence or commercial (Mellor, 2006). About 75 per cent of the civilian labour force in Bangladesh, which is currently estimated at 56 million is directly or indirectly engaged in agriculture (BBS, 2011).

With a growing population and a relatively small size of the economy, employment generation is a challenging task for Bangladesh. The growth in the economy, has not been accompanied by adequate employment creation and the number of the unemployed people has increased over the years. It is the quest for solution to the employment generation problem in Bangladesh through agriculture that motivated this research.

The findings of this study would provide input on how best to manage agriculture for enhanced employment generation in Bangladesh. The results and recommendations would be of immense value to policy makers in relevant government ministries and departments. The findings would also be of benefit to various non-governmental organisations having empowerment schemes, such as BRAC, DFID to mention a few. This is with the view that the recommendations from the study would suggest ways of addressing the challenges to agriculture for improved employment generation in the sector. Lastly, the study would add to the existing body of knowledge on the subject matter as well as serve as a useful reference material for researchers in related studies in the future.

The study is undertaken against the backdrop of two contending theoretical frameworks, namely environmental determinism and environmental possibilism. The two frameworks gave insight into the geographical and cultural settings of Bangladesh. The challenges posed by environmental realities notwithstanding, Bangladesh was able to harness the environment for its advantage.

Employment Generation

Employment generation is a socio-economic concept with diverse definitions. The International Labour Organisation (2006), conceptualised employment generation as a program or any coordinated project of action undertaken by the government, public and private sector of a nation to assist unemployed members of the population to secure a way of living, towards improving their standard of living. The ILO definition provides a broader meaning to employment by enumerating all the activities, segments and sectors that are involved in employment generation. The identification of these activities involved in employment generation and the importance of provision of job by government, public and private sector for the unemployed which agriculture aims to target, makes the ILO's definition suitable and therefore, is adopted for this study.

Human Security

Human security is an emerging paradigm for understanding global vulnerabilities whose proponents challenge the traditional notion of national security by arguing that the proper referent for security should be the individual rather than the state. The United Nations Development Programme's 1994 Human Development Report is considered a milestone publication in the field of human security, with its argument that insuring "freedom from want" and "freedom from fear" for all persons is the best path to tackle the problem of global insecurity. Agriculture, despite the increasing prominence of the service sector, is the single sector of the economy that has the greatest capacity to satisfy the human security needs of the populace by ensuring food and employment security.

Relationship Between Agriculture and Employment Generation With Human Security

The correlation here is that the agricultural sector helps in the provision of food, reduction of rural and urban unemployment, which in turn, guarantees human security. The direct relationship is clearly seen when one considers that the human security of the populace is enhanced through employment generation which, in this case, is easily achieved through agriculture. This indicates that when contending factors impede on agriculture, they limit its potentials for employment generation in both rural and urban areas, thereby negatively impacting on human security. Thus, poor performances of agriculture restrict the capacity for employment generation

in the sector. Therefore, there exists direct relationship between agriculture, employment generation and the state of human security of the people.

Review of Some Existing Literature

Various studies have been carried out by scholars over the years, on agriculture, with each scholar viewing it from his own perspective. In his review, Jacob (2010) did a study on “Employment Generation in Agriculture, Wasteland Development, Afforestation and Agro-Industries”. The study concentrated largely on employment generation drive within the forestry and agro-allied subsectors of the Indian economy. Ogenc (2006), carries out a comparative on “Agricultural Sector and Nigeria’s Development: Comparative Perspectives from the Brazilian Agro-Industrial Economy”. The work was a study on how agriculture is substantially growing the economy of Brazil while that of Nigeria could not do same.

Rouf (2011), in his paper “Sustainable Approach Towards Agricultural Production and Employment Generation in Bangladesh: A Case Study of SSWRDP”, emphasises the skilful management of water resources for fish and crop farming in Bangladesh.

Gbadebo (2012) wrote on “Agriculture and Employment Generation in Nigeria: Issues and Prospects”. He reviewed the contributions of agriculture to the GDP of Nigeria before and after the discovery of oil in commercial quantity. He lamented the neglect of the sector by various stakeholders and concluded that agriculture sector was the key to solving the growing unemployment situation in Nigeria. Some of his suggestions with respect to requisite measures to revamp the sector were adopted. M. Basharul Alam et al (2012) wrote on the “Contributions of Agriculture Sector to Bangladesh Economy”. The writers x-rayed the growth, problems and contribution of agriculture to the economy of Bangladesh. Their findings indicated that agriculture contributed significantly to such indicators as food security, GDP, earnings etc. The study is very relevant to this research to the extent that most of the problems identified are equally noted by this study.

Examples of Agriculture and Employment Generation Methods In India and Myanmar

India’s agricultural production currently ranks second in the world after the USA. In 2007, agriculture and other associated industries such as lumbering and

forestry represented about 16.6 per cent of the GDP of the country. In addition, the sector recruited about 52 per cent of the entire manpower (www.mapsofindia.com). India is ranked second in production of wheat, rice, cotton, sugarcane, and groundnuts in the world. It is also the second biggest harvester of vegetables and fruits, representing 8.6 per cent and 10.9 per cent of the overall vegetable and fruit production in the world (www.mapsofindia.com). The country is the top producer of jute, milk, and pulses. It also ranked second in the world in production of silk and it is the biggest consumer of silk in the world (www.mapsofindia.com). In 2005, the country produced 77 billion tons of silk. India remains second in the world in terms of agricultural production.

Agricultural output in India remains high because the government remained focused on farming operations and stable developments in the domains of engineering science, irrigation, implementation of contemporary farming operations. The government also ensures that loans at minimal interest rates are offered to farmers in the country Green Revolution Programme (GRP). This achievement offers a useful lesson for Bangladesh to consider diversifying the economy by paying more attention to employment generation through agriculture.

Agriculture in Myanmar is the most important sector of the country's economy, contributing 42 per cent to the country's gross domestic product (GDP). Agricultural exports are valued at \$379 million a year. The sector supports 70 per cent of Myanmar's labour force. Rice is the major crop, covering about 60 per cent of the country's total cultivated land area. Rice accounts for 97 per cent of total food grain production by weight, and it is one of the main reasons that more than 98 per cent of Myanmar's total water use goes to agriculture sector (FAO, Representation – Myanmar Myanmar's agricultural potential remains considerable given the country's resource endowments and favourable geographic location.

To alleviate the plight of the hungry, the government in collaboration with FAO has implemented a series of targeted complementary programmes and projects that focus on the poorest and most hungry people in Myanmar. The Environmentally Sustainable Food Security Programme (ESFSP), funded by Italy with a contribution of US\$5.3 million, is rebuilding farming, coastal fisheries and aquaculture livelihoods that suffered in the wake of cyclone Nagris. The economic liberalization policies of the government have transformed the agricultural sector. Under the new economic system, the government distributed land among the landless, improved irrigation facilities, and increased the floor price of paddy that the government procures from the farmers. Some private activity in the export

sector has been allowed since economic liberalization began in 1989.

Myanmar's achievement in the agricultural sector certainly offers a useful lesson for Bangladesh to consider utilizing the available arable land, especially in the southern part of the country, for agricultural purposes in order to enhance employment generation. Bangladesh could take a cue from India and Myanmar in the areas of government consistent policies and high technologically driven farming techniques. The government of Bangladesh could also, like it was done in Myanmar, consider redistributing arable land among the numerous landless farmers in the country.

Status of Agriculture In Bangladesh Economy

Bangladesh is an agricultural country. Agricultural holdings in Bangladesh are generally small. Through Cooperatives, the use of modern machinery is gradually gaining popularity. The country has a total farm holding of 1, 471, 6,000 with a total area of 14.845 million hectares. The cultivable land stands at 8 million hectares while the current fallow land is 0.469 million hectares (Mustaq Ahmed, 2010). Like Myanmar, rural landlessness had been increasing in Bangladesh over the past decades. Following independence in 1971, agricultural production in Bangladesh increased at around the rate of 2% per year. The growth rate accelerated during the 1990s and early 2000s to around 4% per year. To enhance employment generation through agriculture, therefore, effort must be made by the Government to develop other sub sectors of agriculture like poultry, fishing, forestry etc.

Contribution of Agriculture Sector to The Bangladesh Economy

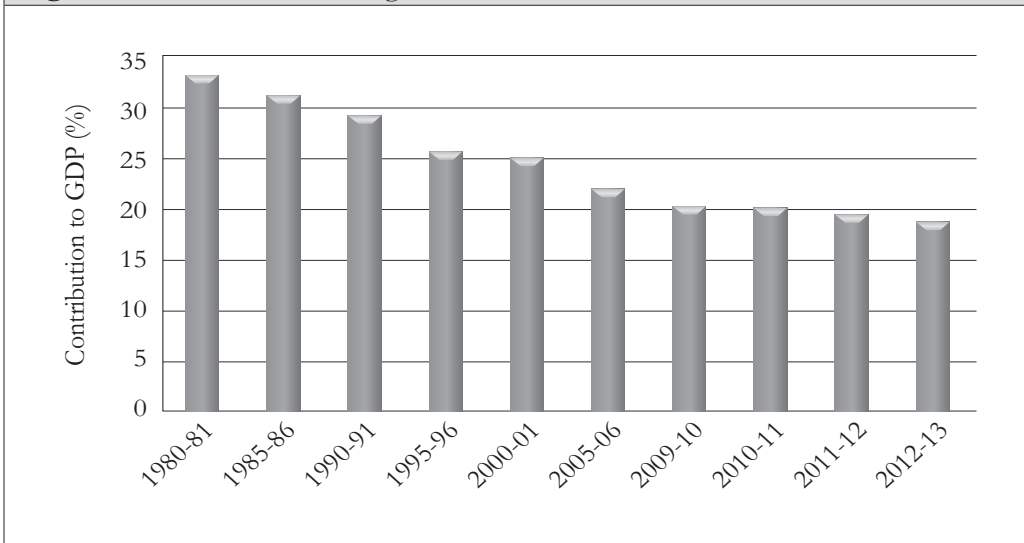
Contribution to Employment. Agriculture was the main economic sector in Bangladesh, employing 95% of total population with a share of 78% of Gross Domestic Product (GDP) in 1971 (Karim 1997 and Islam, 1997). Currently, 48% of the population are employed in agriculture or agro industry and contribution towards GDP is about 20.24% (BBS; 2011).

Contribution to Food Security. The agriculture sector provides the the population of Bangladesh with the requisite food requirement. Table 1 gives a summary of the food grains production in Bangladesh covering the period 2003 to 2011.

Table 1: Food Grains Production-2003 to 2011										
Food grains	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11*		
Aus	18.32	15.00	17.45	15.12	15.07	18.95	17.09	21.33		
Aman	115.21	98.20	108.10	108.41	96.62	116.13	133.07	127.91		
Boro	128.37	138.37	139.75	149.65	177.62	178.09	183.41	186.17		
Total	261.90	251.57	265.53	273.18	289.31	313.17	322..57	335.41		
Rice	12.53	9.76	7.35	7.25	8.44	8.44	9.69	9.72		
Wheat Maize	2.41	3.56	5.22	8.99	13.46	7.30	8.87	15.52		
Total	276.44	264.89	277.87	289.42	311.21	328.96	341.13	360.65		
Source: Bangladesh Bureau of Statistics (BBS). * DAE										

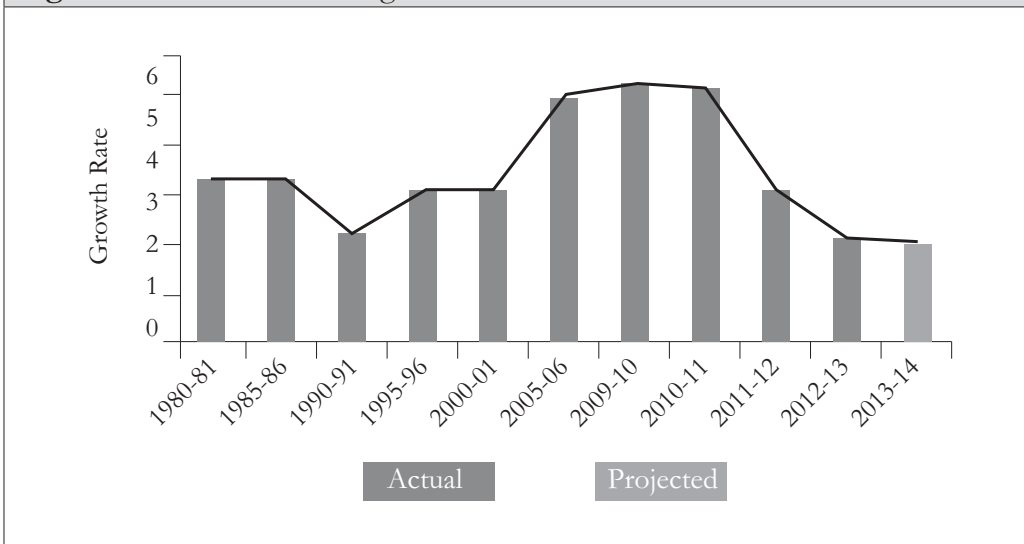
Contribution to Gross Domestic Product. With increased government funding and more participation in agriculture especially in fishery production, more job opportunities could be created to enhance employment generation. Figures 1 and 2 give the contribution of agriculture sector to the GDP and the growth rate of agriculture respectively. Table 2 shows the contribution of agriculture sector to the GDP of Bangladesh.

Figure 1: Contribution of Agriculture Sector to the Gross Domestic Products



Source: Ministry of Finance.

Figure 2: Growth Rate in Agriculture Sector



Source: Ministry of Finance, 2013

Table 2: Contribution of Agriculture Sector to the GDP of Bangladesh							
Years	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
GDP %	16.23	15.91	20.29	20.01	19.42	16.78	16.33
Growth %	2.93	4.10	5.20	5.13	3.11	2.46	3.35

Provision of Raw Material to Agro-allied Industries. Support industries such as flour mills are equally important in the activities of agro based industries. Food processing including canning of fruits and vegetables, mushroom growing and dried food production has considerable potential, provided quality control can be ensured. The list of agro based industries in Bangladesh is at Annex B.

Challenges to Agriculture for Employment Generation In Bangladesh

The challenges militating against agriculture for employment generation in Bangladesh are discussed in succeeding paragraphs.

Low Budgetary Allocation. Since agriculture still contributes largely to the national economy and provides employment for a large section of rural population, increased share of agriculture in the public expenditure deserves special consideration.

Table 3: Public Expenditure Pattern for Agriculture Sector (Amount in Crore Taka)

Ministry	2014-15 (Proposed)	2013-14	2012-13	2011-12	2010-11
Agriculture (Total)	12390 (5.23)	12279 (6.23)	14822 (9.52)	9760 (7.19)	8438 (7.17)
Development	1524	1332	1111	997	1025
Fishery & Animal Resources (Total)	1344 (0.57)	1066 (0.54)	901 (0.58)	933 (0.69)	774 (0.66)
Development	402	460	363	411	280
Agriculture without Forestry (Total)	13734 (5.79)	13345 (6.77)	15723 (10.10)	10693 (7.88)	9212 (7.83)
Development	1926	1792	1474	1408	1305
Environment & Forest (Total)	911 (0.38)	878 (0.45)	862 (0.55)	1235 (0.91)	1116 (0.95)
Development	413	387	221	278	171
Agriculture with Forestry (Total)	14645 (6.18)	14223 (7.22)	16585 (10.65)	11928 (8.79)	10328 (8.77)
Development	2339	2179	1695	1686	1476
Source: Background Paper for Preparation of 7th Five Year Plan					

Note: Figures in parentheses are percentage of total development & non-development expenditure.

Constrained Access to Agricultural Credit Facilities. Access to agricultural credit has been positively linked to agricultural productivity and employment generation. However, this vital input has eluded smallholder farmers in Bangladesh.

Low Level of Mechanisation. Agriculture is yet to be fully mechanised in Bangladesh as a high percentage of the population still practises subsistence farming.

Lack of Adequate and Timely Intervention by Government. Another crucial challenge to agriculture for employment generation is the lack of adequate and timely intervention by the government

Limited Support From Agricultural Institutions. There is a limited support given to farmers in Bangladesh by agricultural institutions.

Limited Land Resource and the Challenge of Climate Change. Unequal distribution of privately owned land and the adverse effects of climate change are serious problems confronting agriculture in Bangladesh.

Prospects for Improving Agriculture for Employment Generation in Bangladesh

The prospects of agriculture for employment generation in Bangladesh will depend on carrying out a number of measures, which include the following

Implementing the National Agricultural Policy. Development of the agriculture sector is generally governed by a number of related national policies. **Promoting Agricultural Research for Enhancing Productivity.** Promotion of agricultural research is being constrained due to low budgetary allocations for research facilities and inadequate financial and other incentives for the scientists.

Coordination of Activities of Ministries Agricultural and Affiliates. Coordination is also necessary among Ministries that carry out agriculture functions.

Implementing Agricultural Sector Reforms. The agriculture sector is in urgent need of reforms.

Improved Budgetary Allocation. The budgetary allocation to the agricultural sector determines the performance of the sector in a developing economy. The increased funding would enhance employment generation through agriculture.

Mechanisation of Agriculture. When tractors, lawn mowers, tillers and harvesters are being imported and distributed to medium scale farmers in line with the agricultural reform, these would assist to move from the present human labour intensive method of agriculture to modern techniques that would improve crop yield.

Fair Price for Agricultural Products. Farmers have always been complaining about the lack of fair prices while consumers complain about high prices. It is in fact a challenge for the government to guarantee fair prices both at the producer and the consumer levels.

Crop Insurance. The objective of crop insurance is to protect farmers from shocks, particularly in the face of climate change. This insurance policy would help in reducing risk borne by farmers, encourage investment and employment generation.

Crop Diversification. The agriculture sector of Bangladesh at present is dependent mainly on crops. Dependence on a single sub sector is not useful for the overall development of the sector. In the long run, such single focus can weaken the agriculture sector.

Development of Fisheries, Livestock and Poultry. The Fisheries, Livestock and Poultry agriculture sub sector need to be developed to enhance the contribution of agriculture for employment

Strategies to Overcome the Challenges to Agriculture for Employment Generation in Bangladesh

The following strategies to overcome the challenges to agriculture in order to enhance employment generation in Bangladesh are been suggested:

Inter Ministerial Coordination

Inter-ministerial coordination for agricultural functions remains a daunting task that needs to be addressed immediately. This is necessary due to the involvement and regulatory rights of myriad of agencies under several ministries. Lack of coordination among the concerned ministries in formulating policies and absence of an institutionalised wing within the government to monitor the implementation of reforms across agricultural sector as a whole contribute to low level of growth.

Crop Diversification

Crop diversification would allow for increased participation in agricultural activity and also increased contribution of the sector to the GDP. The Ministry of Agriculture (MOA) could consider the setting up of a committee with the mandate to develop and design a framework that would allow for the introduction of new crop species and diversification of existing crops

Improved Access to Agricultural Credit Facilities

Access to agricultural credit facilities is imperative to agriculture for employment generation in Bangladesh. The MOA could make the requirement for the qualification for agricultural credit facilities less stringent for the farmers and prospective farmers.

Agricultural Policies Review

The review of the agricultural policy is pertinent to agricultural development for employment generation in Bangladesh. There is a need to review the existing agricultural policies to remove erratic import regime, characterized by frequent changes in both import tariffs and quantitative import restrictions

Improved Research and Development

Research and Development is the basis for all developmental activities in all sectors inclusive of the agricultural sector. The government through the MOA, could increase the subvention to the various research institutes to enable vibrant agricultural research to be undertaken in a conducive environment

Improved Mechanisation

A good policy that supports and promotes mechanization of agriculture would equally boost productivity. As it is practised in other countries, government could make land available on concession to interested corporate organizations and individuals for mechanised farming

Capacity Development

Capacity development of the farmers especially at the local level would help develop their skills in contemporary agricultural practices. The MOA could develop a training module for the farmers and carry out a massive enlightenment programme at the local level.

Recommendations

In view of the foregoing, it is recommended that:

- Government should ensure proper coordination among ministries with respect to agricultural activities and business.
- Government should continue to explore ways of diversification of crop varieties in the country.

- Government should make qualification for agricultural credit facilities less stringent for farmers to enable greater access to such facilities.
- Government should review the existing agriculture policies to enhance employment capacity.
- Government should increase subvention to agricultural research institutes to make them more efficient.
- Government should make more land available for agriculture and prevent encroachment by developers on the available arable land.
- Government should evolve a deliberate policy to encourage mechanisation of farming.
- The MOA should develop a training module for the farmers to develop their capacity.
- MOA should intensify agriculture extension services.

Conclusion

The study was carried out against the backdrop of two contending initial theoretical frameworks, namely, environmental determinism and environmental possibilism. It was found out that, despite the geographical location of Bangladesh in a seemingly hostile environment, the people have been able to effectively control and harness the environment to their advantage. Consequently, the study set out to appraise the impact of agriculture on employment generation in Bangladesh. It identified the concepts of agriculture and employment generation and established the relationship between them and human security of the people. It was discovered that a positive correlation exists among these three variables of the study.

The status of agriculture in Bangladesh was examined as well as its contribution to employment, contribution to GDP and provision of raw material to Agro-allied industries and self-sufficiency in food production. The study identified the challenges militating against agriculture for employment generation in Bangladesh. These include constrained access to agricultural credit facilities, low level of mechanisation and lack of adequate and timely intervention by government in the supply of critical and complementary inputs like seeds, fertilizers, gasoline etc. Others are limited support from agricultural institutions, limited land resource and the challenges of climate change. The challenges of agriculture for

employment generation notwithstanding, there are some prospects of agriculture for employment generation in the country. These could be achieved through implementing the national agricultural policy, coordination of agricultural research institutes and affiliates and implementing agricultural sector reforms. Others are improved budgetary allocation, mechanisation of agriculture, fair price for agricultural produce, crop insurance, crops diversification, development of the fisheries, livestock and poultry sub – sectors.

The study proffered certain strategies to mitigate the identified challenges to agriculture for employment generation in Bangladesh. These include inter – ministerial coordination, crop diversification, improved access to agricultural credit facilities and agricultural policies review. Others are improved research and development, improved mechanization and capacity development. The ability of agriculture to employ more people will depend on the Government’s willingness to invest and develop the other sub sectors of agriculture such as fishery, poultry and the rest.

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