

# **NATIONAL SITUATION OF FOOD AND NUTRITION SECURITY IN BANGLADESH**

**Paper prepared on behalf of the Association for Land Reform and Development  
(ALRD) for the Asian Alliance Against Hunger and Malnutrition (AAHM)**

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## Acronyms and Abbreviation

ADB: Asian Development Bank  
ADP: Annual Development Program  
AIS: Agricultural Information Service  
ANC: Antenatal Care  
AoA: Agreement on Agriculture  
ASA: Association for Social Advancement  
BADC: Bangladesh Agricultural Development Corporation  
BANHRDB: Bangladesh Applied Nutrition and Human Resource Development Board  
BARC: Bangladesh Agricultural Research Council  
BARI: Bangladesh Agricultural Research Institute  
BAU: Bangladesh Agricultural University  
BBS: Bangladesh Bureau of Statistics  
BCIC: Bangladesh Chemical Industries Corporation  
BDHS: Bangladesh Demographic and Health Survey  
BFDC: Bangladesh Fisheries Development Corporation  
BFRI: Bangladesh Fisheries Research Institute  
BHFSNA: Bangladesh Household Food Security and Nutrition Assessment  
BLRI: Bangladesh Livestock Research Institute  
BMDA: Barendra Multipurpose Development Authorities  
BMI: Body Mass Index  
BMS: Breast Milk Substitutes  
BNNC: Bangladesh National Nutrition Council  
BRAC: Bangladesh Rural Advancement Committee  
BRIF: Bangladesh Rural Improvement Fund  
BRRRI: Bangladesh Rice Research Institute  
BSTI: Bangladesh Standards and Testing Institute  
BWDB: Bangladesh Water Development Board  
CGIAR: Consultative Group on International Agricultural Research  
CIP: Country Investment Plan  
CSO: Civil Society Organization  
DAE: Department of Agricultural Extension  
DAM: Department of Agricultural Marketing  
DANIDA: Danish International Development Assistance  
DAP: Diammonium phosphate  
DGHS: Director General of Health Services  
DLS: Department of Livestock Services  
DMB: Disaster Management Bureau  
DoF: Department of Fisheries  
DPs: Development Partners  
EC: European commission  
EU: European Union  
FAO: Food and Agriculture Organization  
FPMC: Food Planning and Monitoring Committee

FPMU: Food Planning and Monitoring Unit  
FPWG: Food Policy Working Group  
GAFSP: Global Agriculture and Food Security Program  
GDP: Gross Domestic Product  
GMP: Growth Monitoring and Promotion  
GoB: Government of Bangladesh  
GR: Gratuitous Relief  
HFSNA: Household Food Security and Nutrition Assessment  
HIES: Household Income and Expenditure Survey  
HYV: High Yield Variety  
IDD: Iodine Deficiency Disorder  
IFAD: International Fund for Agricultural Development  
IFPRI: International Food Policy Research Institute  
INFS: Institute of Nutrition and Food Science  
IPM: Integrated Pest Management  
LDC: Least Developed Country  
LGED: Local Government Engineering Division  
MDG: Millennium Development Goal  
MIC: Middle Income Country  
MoA: Ministry of Agriculture  
MSMEs: Small and Medium sized Enterprises  
MSW: Ministry of Social Welfare  
NAEP: National Agriculture Extension Policy  
NARS: National Agricultural Research System  
NC: National Committee  
NFP: National Food Policy  
NFPCSP: National Food Policy Capacity Strengthening Program  
NGOs: Non Governmental Organizations  
NNS: National Nutrition Service  
OMS: Open Market Sale  
PHC: Increased primary health care  
PoA: Plan of Action  
RDRS: Rangpur Dinajpur Rural Service  
RIGA: Rural Income Generating Activities  
RIIP: Rural Infrastructure Improving project  
SCA: Seed Certification Agency  
SDVC: Strengthening the Dairy Value chain in Bangladesh  
SHOUHARDO: Strengthening Household Ability to Respond to Development Opportunities  
TSF: Therapeutic and Supplementary Feeding  
TSP: Triple Super Phosphate  
TTs: Thematic Teams  
TVET: Technical and Vocational Education and Training  
UN: United Nations  
UNICEF: United Nations Children's Fund  
USD: US dollar  
VGD: Vulnerable Group Development  
VGF: Vulnerable Group Feeding  
WFP: World Food Program  
WHO: World Health Organization  
WTO: World Trade Organization

## Executive Summary

Bangladesh, possessing an area of 147,570 square kilometers, is enclosed by Indian Territory except for a short south-eastern frontier with Myanmar and borders the Bay of Bengal in the south. It is the 7<sup>th</sup> most populous country with about 150 million people; population density has been reported at 1015 and population growth rate 1.32% per annum in 2012. In spite of the occurrence of global recession and being extreme vulnerable to frequent natural hazards, Bangladesh has maintained its economic profile well enough with economic growth rate 6% per year since 2008, export growth 21.2 percent and GDP growth 6.3% for the financial year ending June 2012.

Although Country's food production and economic growth rate are impressive compared to other developing countries, it is still striving to be listed as a Middle income Country (MIC). About 32% of the population still lives below the poverty line, 40% of the population consumes less than the minimum daily recommended amount of food and around 26% of the population is chronically food insecure.

Therefore, achieving hunger and malnutrition free population is an elusive goal for the Government of Bangladesh for which many policies and programs have been implemented in recent years. The current prevalence of stunting, wasting and combination of both (underweight) among under-5 children is 41%, 16% and 36% respectively. Micronutrient deficiencies notably Iodine Deficiency Disorders (IDD), iron deficiency anemia and vitamin A deficiency continue to be a public health challenge. Recently, complications of over-nutrition like obesity have emerged particularly among urban affluent women as a new challenge.

Among the various sectors addressed by the government to ensure food and nutrition security, agriculture, encompassing crop production, livestock and poultry rearing, and fisheries, has achieved top priority due to its contribution in GDP, food supply, foreign currency income, employment generation and supply of raw materials for many industries. In FY 2011-12 the contribution of agricultural sector in GDP was 19.29 percent and in total export earnings was 1.58 percent. Unfortunately improvement in grain production is not accompanied by equal increase in the production of major crops like pulses, oilseeds fruits, vegetables, fish, meat and eggs which are essential for dietary diversification. Moreover, owing to unequal distribution of income, still major portion of population don't have access to adequate food although per head income has increased to Tk11, 480 in 2010. So an integrated and comprehensive approach is essential to ensure food and nutrition security in a sustainable manner.

Having perceived the dimensions of food and nutrition security i.e. availability, accessibility and utilization, Government of Bangladesh has developed "National Food Policy" (2006), a comprehensive strategy through increased food availability, food access and nutrition. Its plan of

Action (2008-2015) is a set of prioritized and coordinated actions targeting towards NFP goals, while the Country Investment Plan 2011 states the corresponding investment requirements in line with the Sixth Five Year Plan and the Millennium Development Goals.

According to NFP plan of Action, twelve prioritized investment areas are selected covering agricultural research and extension, water management, agricultural diversification, intensive training for small farmers, credit and insurance, effective marketing system, employment generation for women and disabled, social safety net programs, nutritional knowledge dissemination, disaster management, food safety and quality maintenance and so on. Considering agricultural development, food and nutrition security as an integrated goal, public investment on agriculture has been increased significantly, and various safety net programs like agricultural subsidies have been implemented to protect small-scale farmers, the most sufferers of government and international policy on agriculture.

It is obvious that food and nutrition security can be achieved rapidly through a coordinated approach between Government, development partners and civil society. For this many international and non-government organizations came forward for supporting investment, effective implementation and monitoring of achievements of Government policies and programs at the grass root level. Effectual approaches adopted by International organizations and NGOs to the development process include employment generation, livelihood development, enhancing resilience, nutritional knowledge dissemination, school feeding program, disaster management, agricultural research and technical support and so on.

Current achievements towards targeted objectives of each program reveal that there is still a long way to go. To enhance food and nutrition security of small food producing households particularly from the challenges of soaring input and increasing food prices, climate variability and change, some field-based and practical actions are required. Capacity building of NGOs is required who can provide potent actions, and encourage more research and extension works that are needed for a sustainable hunger and malnutrition free society

## **1. National Food and Nutrition Situation: An Overview**

### **1. 1. Country profile**

Bangladesh is the lowest riparian of three major river systems of the Himalayan Range – the Ganges, the Brahmaputra, and the Meghna (GBM), which drain a huge volume of water generated in the GBM region and pass through Bangladesh on to the Bay of Bengal. The country is surrounded by India in the West, North and Northeast and by Myanmar on the Southeast with the Bay of Bengal in the South providing a gateway to the oceans of the world. Possessing land area of 147,570 square kilometer and about 150 million people (BBS: 16th July, 2012), Bangladesh is the 7th most populous country and one of the most densely populated country in the world. The Population density (people per sq. km) in Bangladesh has been reported at 1015 in 2012, according to BBS. Almost 50% of the current population in Bangladesh is of age range below 35 years, constituting a large young work force. The population growth rate is down to 1.32% per annum, but the large and growing population remains a major concern.

Bangladesh is endowed with a unique natural resource base. About 80% of the country consists of floodplains and wetlands with over 300 rivers in the riverine network that sustains rare wildlife, flora and fauna and distinctive but diverse ecological systems across the country. With its strategic position in the Indian Ocean Region, Bangladesh has enormous potential. In spite of the global financial crisis, Bangladesh has managed the macro-economic front well enough to maintain its economic growth at an average of 6% per year since 2008 and also not to be much affected by the global financial meltdown and global recession of 2007-2008. In the last three years, the country had an export growth of 21.2 percent. Since the 1990s, Bangladesh's economy has seen annual Gross domestic product (GDP) growth of around 3.4% with relatively low inflation and stable domestic debt, interest, and exchange rates. This growth has occurred despite Bangladesh's extreme vulnerability to natural hazards including floods, cyclones and drought. With GDP growth of 6.3% for the financial year ending June 2012, Bangladesh is doing better than the developing country average (5.5%).

Bangladesh has tremendous potential for agriculture-led growth with fertile soil, abundant water, strong research and extension institutions, and expanding infrastructure. Rice production has tripled over the last 30 years. Over the past several decades, the Government of Bangladesh has adjusted its policies in the agriculture sector to increase private sector participation and reduce tariffs and price controls, demonstrated strong leadership in the area of food security and hosted a high-level Food Security Investment Forum in May 2010.

### **1.2. Poverty, food insecurity and hunger**

As Bangladesh economy already has much pressure to create enough employment opportunity for its growing population, poverty persists in this country and the government is implementing social safety net programs on a wide scale in support of the poor people. Bangladesh remains a Least Developed Country (LDC), but it has been striving consistently over the years to improve as a Middle Income Country (MIC) status. Head count poverty ratio has declined significantly from close to 60% in the early 1990's to 40% in 2005 and to 31.5% in 2010. However, the number of poor people is still large: as much as 32% of the Bangladeshi population still lives below the poverty line, meaning that around 50 million Bangladeshi's have insufficient access to food and

other basic needs (FAO, 2011). The hard core poor are about 17.6% of the total population as of 2010, down from 25% in 2005. According to HIES 2010, 47 million people were poor, of which 26 million were extremely poor and 21 million were moderately poor.

Although Bangladesh has achieved impressive progress in food production in the recent years food insecurity and hunger generally remain at high levels for a large part of Bangladesh's population. About 40% of the population consume less than the minimum daily recommended amount of food (Household Income and Expenditure Survey, 2010) and around 26% of the population is chronically food insecure (FAO Hunger Portal 2011, data for 2007-08). Lack of access to agricultural land, arable land loss, rising sea levels, frequent flooding, and extreme weather patterns, due in part to climate change, compound the threats to food security in Bangladesh. In recent years, devastating cyclones and floods, the dramatic increase in food prices in 2008 and the global recession have all impacted economic growth in Bangladesh, which in turn has led to a deterioration of food security and the nutritional situation in the country. According to WFP, the number of people who consume less than the minimum daily recommended amount of food rose from 47 million in 1990, to 56 million in 2005. Following floods and Cyclone Sidr in 2007, that figure peaked in 2008 at 65 million. Due to a lack of recent data, an accurate assessment of current hunger state in Bangladesh is elusive. However, the symptoms of inadequate diets are painfully clear in the incidence of malnutrition, the highest in South Asia.

### **1.3. State of hunger and malnutrition: victim is the poor**

Hunger and malnutrition trap poor people into an endless cycle of poverty that passes on to their children. Undernourishment particularly hurts the rural landless as they cannot rely on self subsistence farming. Extreme land scarcity limits individual households' capacity to produce adequate food to meet year-round nutritional and/or income needs. Gender-based food insecurity also persists. Women earn less than men; are time-poor due to care giving responsibilities; have restricted mobility and decision-making; are disadvantaged in intra-household distribution; and face barriers to their human capital development and property rights. Such conditions undercut women's food access by constraining their productive capacities and control over resources.

Among poor households in Bangladesh, nutritional status and micronutrient adequacy are severely compromised. About 75% of the daily calories in this wealth group come from rice alone. Children in these households are malnourished in a greater proportion than children in households who have greater land access.

Growth retardation, an outcome of chronic under nutrition, is widespread, affecting almost one in two of the country's 17 million children below five years of age (HFSNA, 2009). According to BDHS (2011), forty-one percent (41%) of all children younger than 5 years old suffer from stunted growth while 16 % are wasted. The combination of stunting and wasting causes thirty-six percent (36%) of all under-5 children to suffer from underweight (BDHS 2011).

The rapid rise in food prices in 2008 caused real incomes to fall and increased food insecurity in Bangladesh. An FAO/WFP study (2008) estimated that the number of food insecure people (with an intake of less than 2,122 kcal/person/day) in Bangladesh increased by 7.5 million as a result of rising food prices and general inflation.

Faced with food insecurity, households try to maintain income by migrating, selling assets such as livestock, borrowing money, or participating in new types of economic activity, including child



labor. Furthermore, people tend to shift expenditures towards cheaper, calorie-rich, energy-dense foods such as grains, and away from more expensive protein- and nutrient-rich foods such as meat, dairy products, or fruits and vegetables; a situation that is particularly harmful for children and pregnant and lactating women. (FAO Policy Brief: September 2009).

Micronutrient deficiencies notably Iodine Deficiency Disorders (IDD), iron deficiency anemia and vitamin A deficiency continue to be a public health challenge in Bangladesh. Iron deficiency anemia is prevalent in 2/3 of children < 5 years of age and 1/3 of pregnant women (Micronutrient Initiative). One in every 5 children < 5 years suffers from Vitamin A deficiency (WHO Nutrition Landscape, 2011).

#### 1. 4. Agriculture: role in economy, employment and food security

Agriculture including crop cultivation, livestock and poultry rearing and fishery, despite its relative decline in terms of contribution to GDP, remains the mainstay of the economy of Bangladesh. Agriculture provides employment to the local labor force supplies raw materials to some of the major agro-processing industries and earns foreign exchange from its exports.

The contribution of agriculture sector in GDP stood at 20.01 percent in FY 2010-11. According to the provisional estimation of BBS, the overall contribution of the broad agriculture sector at constant price was 19.29 percent of GDP in FY 2011-12. In FY 2011-12, Bangladesh earned US\$ 282.86 million from July-March by exporting agricultural products which was 1.58 percent of total export earnings by this time.

The growth of the agriculture sector has increased income of farmers and wages of agricultural laborers and has contributed to the reduction in poverty of the country. This sector employs about 43.6 percent of the total labor forces of the country (MES, 2009, BBS) and more than 70% of the population is involved directly or indirectly in agricultural activities.

Agriculture is also concerned with issues like food and nutritional security. Per capita food grain availability in Bangladesh has increased from 453 grams in FY92 to 605 grams in FY10 due to the admirable performance of the sector. (Government of Bangladesh: Database on Food Situation, June 2009). The average annual rice (dominating crop) production growth (2.8%) has significantly outpaced the population growth rate (1.37%) over the last decade (2001-2010), gradually moving toward self-sufficiency (National Food Policy Plan of Action and country investment plan: Monitoring Report 2010). In the FY 2011-12, the food grains production is expected to be about 36.65 million MT according to DAE provisional estimation. The following table presents the food grains production status from FY 2004-05 to FY 2011-12.

**Table: Food Grains Production (in million MT)**

Food grains	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12*
<i>Aus</i>	1.5	1.745	1.512	1.507	1.895	1.709	2.133	2.332
<i>Aman</i>	9.8	10.81	10.841	9.662	11.613	13.307	12.791	12.798
<i>Boro</i>	13.8	13.97	14.965	17.762	17.809	18.341	18.617	18.667
<b>Total Rice</b>	<b>25.1</b>	<b>26.55</b>	<b>27.318</b>	<b>28.931</b>	<b>31.317</b>	<b>32.257</b>	<b>33.541</b>	<b>33.797</b>
Wheat	0.9	0.735	0.725	0.844	0.844	0.969	0.972	0.995
Maize	0.3	0.522	0.899	1.346	0.730	0.887	1.552	0.236

<b>Total</b>	<b>26.48</b>	<b>27.78</b>	<b>28.094</b>	<b>31.121</b>	<b>32.89</b>	<b>34.113</b>	<b>36.65</b>	<b>3.528</b>
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\*production goal

Source: BBS, DAE, MoA.

However, improvements in the production/availability of food grains have not been accompanied by commensurate increases in the production of other major foods, such as, pulses, oilseeds fruits, vegetables, fish, meat and eggs, which are essential for a diversified and balanced diet. The ratio of major non-food grain items to food grain crop production has been stagnating since FY04-05 at about 0.3 (BBS, 2010). Currently, about 70% (HIES Report, 2010) of caloric needs are fulfilled by cereals (62% by rice alone), against a desirable maximum of 60%.

#### **1. 4. Income distribution**

Over the years, the monthly household income has increased from Tk. 4366 in 1995-96 to Tk. 11,480 in 2010 at national level whereas it has increased from Tk. 3658 to Tk. 9648 in rural areas and Tk. 7979 to Tk. 16,477 in urban areas during the same period. Though, there is a declining trend in the percentage of population living below the poverty line, the progress is not matched due to the increase in the monthly household expenditure (HIES, 2010).

Although Bangladesh has achieved significant economic growth over the last two decades, inequality in income distribution is a rising concern of the economy. Gini co-efficient of income has increased from 0.393 in 2000 to 0.430 in 2010 at rural areas with the growth rate of 0.94 percent. Even comparisons of rural income inequality suggest that the income variation in the non-farm (agricultural) sector is greater than that in the farm sector.

#### **1.5. Recent trends in food prices: effect on small farmers, women and children**

Throughout its history, Bangladesh inflation has experienced spikes, at times more dramatic. While food inflation had been lower than non food inflation since the beginning of the century, food inflation gradually outstripped non food inflation reaching a differential of more than 10 percentage points in June 2008. Food inflation began declining thereafter. Despite good domestic output of rice crop, food inflation again went up in the first quarter of FY09- 10, reflecting a recent surge in domestic prices of essential commodities such as rice, sugar, edible oil, pulses, onion, garlic and vegetables (Bangladesh Bank, 2009).

Food prices rose faster than non-food prices, registering 5% points above general inflation in fiscal year 2007/08 to over 9% points above general inflation in 2010/11 (on 3-year moving average basis). The rate of food inflation has decreased since the second quarter of the current fiscal. In Bangladesh, rice is by far the most important food among other essential food commodities like wheat, oil, lentil etc. Rice price inflation, from a 6.9% point to point rate in July 2006, ascended to a staggering 70.4% in January 2008 followed by a downward spiraling which reached a negative 31.3% in October 2009.

A nationwide survey conducted by WFP, UNICEF and the government in December 2008 to assess the impact of high food prices on the population revealed significant food insecurity (one in four Bangladeshi) and increased severe malnutrition rates. Due to higher food prices, a majority of households lost purchasing power on the market. This included many farming households with

small landholding sizes, as well as others in the agricultural sectors such as share-croppers and wage earners.

Bangladesh household food security and nutrition assessment report, 2009 showed that many of these marginal households were amongst the poorest and most food insecure in Bangladesh. Nearly one-half of agricultural laborers had food consumption scores that were poor or marginal and associated with food insecurity. As a livelihood group, these households spent 69% of their total expenditures on food compared to the national average of 62%.

Analysis of household survey data from FAO's RIGA database shows that the poorest of the poor (the rural landless who rely on wage labor) were most affected by the food crisis. As shown in *The State of Food Insecurity in the World 2008*, female-headed households were affected disproportionately by the food price shocks. Nearly one-half of female-headed households (48%) reported being highly or severely affected compared to male-headed households (39%) (BHFSNA, 2009). The prevalence of women's thinness (Body Mass Index below 18.5 kg/m<sup>2</sup>) decreased during the period of high food prices in a study of very poor women from Bangladesh.

In the context of high food prices the food security findings showed that household expenditures were insufficient to provide adequate nutritional support to the young children and the nutrition assessment showed that the prevalence for acute malnutrition, underweight and stunting were worryingly high. Children also suffered from the drop in money available for education, healthcare and other benefits, and in the worst cases they were pulled out of school and sent to work (*The State of Food Insecurity in the World 2009*).

## **1.6. Shifts in the Government's overall development goals and strategies since the food price crisis in 2007**

Ensuring national food security is a vital concern of all governments. The Government of Bangladesh now considers agriculture, food security and nutrition as major priorities. After the 2008 food security crisis, the government made national commitment to achieve food and nutrition security through a collaborative effort from all the relevant ministries responsible for agriculture, food, health and nutrition shifting from an earlier sectoral approach to address food and nutrition security. Bangladesh Country Investment Plan (CIP), a road map towards investment in agriculture, food security and nutrition, represents such a plan for Bangladesh providing a strategic and coherent set of 12 priority investment programs (see section: 2) to improve food and nutrition security in an integrated way.

In 2010 the government became the first Asian country to produce a national action plan in response to the 2009 L'Aquila G8 Agriculture and Food Security Initiative.

## **1.7. National framework and strategies for agricultural development: relation with smallholder agriculture**

The current Government has adopted a Plan of Action (2008-2015) to implement the National Food Policy (2006) which is focused on addressing the need for increased production. However, dwindling agricultural resources (decline in cultivable land by 1% per year, soil erosion, imbalance of nutrient in soil, soil salinity and shrinking water resources), declining biodiversity, climate change, increasing frequency & intensity of natural disasters, increasing input prices, soaring food

prices etc. necessitates the revision and updating the government's development goals and strategies to make it relevant to the present agro-economic context.

Considering the changing situation at national and international levels, the preparation of a revised National Agriculture Policy is in the process of finalization to provide proper guidance for developing agriculture of Bangladesh in future. Measures such as increase of subsidy on inputs to agriculture, making agriculture inputs more available, expansion and making irrigation facility more available, production and supply of high quality and high yielding seeds, mechanization of agriculture, agricultural extension, agricultural marketing, agricultural credit, women's participation in agriculture sector, agricultural education and training, sufficient steps for preserving the harvest and ensuring fair price of crops and agro-products have been taken with the aim to increase agricultural productivity.

Bangladesh government clearly appreciates the role of smallholders in agriculture and took several actions to support them in the following areas:

### **1.7.1. Agricultural research and extension**

- Accelerated development of shorter duration HYVs and Hybrid rice varieties
- Accelerated development of varieties adapted to challenging agro-ecological systems (drought, flood prone areas, coastal areas)
- In line with the NAEP, promoting participatory approaches to extension through Farmer Field School.

### **1.7.2. Agricultural inputs**

- Adjusting fertilizer pricing policies (especially DAP,TSP) to reduce costs and promote balanced use of fertilizers
- Strengthening of farmers and traders' education on balanced use of fertilizers
- Promotion of "green production" (reduction in the use of chemical fertilizers/promoting the use of organic fertilizers; increased support to IPM practice expansion)
- Strengthening of quality control and monitoring of major input markets (fertilizers and seed in particular)
- Improved supply of skilled manpower for agricultural development
- Promotion of a conjunctive use of surface and ground water (excavation/re-excavation programs; water conservation practices), in line with Integrated Water Management principles
- Reduction in irrigation costs through electricity supplied STW and dissemination of water-saving irrigation technologies/Increase in credit disbursements for irrigation

### **1.7.3. Protecting food grain producers' incentives/strengthening participation of small and marginal farmers**

- Review of the agricultural input subsidy allocation system so as to ensure it effectively reaches out to small and marginal farmers, while minimizing fiscal costs
- Strengthening of domestic procurement programs, including review of procurement price setting and announcement schedules
- Development of suitable institutional mechanisms (farmers' organizations, new contractual arrangements) for procuring more directly from small and marginal farmers, and enhancing small and marginal farmers' bargaining power in marketing chains

#### 1.7.4. Crop diversification

- Active and multi-dimensional support to small and marginal farmers, given their potential to diversify into labor intensive non-rice crops.

### 1.8. Volume of public investment in the agriculture sector

Bangladesh budgeting and public expenditure pattern recognizes the importance of food security and agricultural development, as evidenced by increased allocation and prioritization of infrastructure, energy and agriculture in recent years. Thus, budgetary allocations to the agricultural sector increased significantly in the last two years, by 42% in FY07 over FY06 and another 29.6% in FY08 budget over FY07 revised budget, accounting for 8% of total allocation for FY07. Agricultural support includes subsidies (esp. for diesel and electricity used in irrigation) and increased allocations for agricultural research and special funds (e.g. Equity Entrepreneurship Fund). Targets related to the distribution of agricultural credit, including credit support to agro-based industries have also been raised. Several key agricultural inputs (fertilizers, seeds) have been exempted from import duties and taxes. To support the development of the agro-processing sector, tax exemption facility has been extended up to June 2008. However, in recent years, public investments in agriculture sector have shown significant fluctuations from one year to the next as shown in the following table:

**Table: Volume of Public Investment in Agriculture**

Fiscal Year	Total Allocation in Agriculture (Tk. In Crore)	Subsidy on Fertilizer and Agricultural Inputs (Tk. In Crore)	Rehabilitation for Agriculture and Natural Calamities (Tk. In Crore)
2007-2008	6108.88	3891.74	154.04
2008-2009	7649.00	5785.00	144.39
2009-2010	7,404.71	4,950.00	50
2010-2011	7745.46	5000.00	55.00
2011-2012	9264.71	6500.00	52.07

### 1.9. Specific policies promoting food security and nutrition, stabilizing food prices and increasing access of the poor to cheaper food

The Government of Bangladesh is firmly committed to ensure food and nutrition security through a comprehensive strategy addressing food security in all its dimensions, i.e., food availability, access to food and utilization of food for balanced nutrition. The National Food Policy (2006) outlines a comprehensive strategy through increased food availability, food access and nutrition. Its plan of Action (2008-2015) is a set of prioritized and coordinated actions and targets towards NFP goals, while the Country Investment Plan 2011 states the corresponding investment requirements in line with the Sixth Five Year Plan and the Millennium Development Goals. The specific policies and

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target(s) to attain the three objectives enshrined in the NFP to promote food and nutrition security are outlined in the next page.

Prepared for the Asian Alliance Against Hunger and Malnutrition (AAHM) and

Component	Policy	Target (s)
Objective 1: Adequate and stable supply of safe and nutritious food	<b>Agricultural research and extension</b>	Demand-driven crop and non crop new technologies developed and disseminated; demand led and pro-poor extension service expanded.
	<b>Use and management of water resources</b>	Increased irrigation coverage; improved delivery and efficient use of safe irrigation water; reduced dependency on ground water; reduced cost of irrigation water
	<b>Adequate supply and sustainable use of agricultural inputs</b>	Increased supply of quality crop and non-crop seeds, timely supply of fertilizers and balanced use of fertilizers; Increased efficiency and sustainability of agricultural land use; Agricultural land use for non- agricultural purposes effectively regulated; Agricultural machines and equipment available at affordable prices; strengthened Integrated Pest Management and Integrated Crop Management
	<b>Agricultural diversification</b>	Increased and well-managed production of high value crops, fish and livestock products
	<b>Agricultural credit and insurance</b>	Increased formal credit to agriculture, especially to small and marginal farmers; improved coverage of financial loss due to failure of crops, livestock and fish production
	<b>Physical market infrastructure development</b>	Improved private storage, market and transportation facilities, improved market connectivity at local, national and international levels
	<b>Agricultural marketing and trade</b>	Reduced marketing costs of agricultural products, strengthened market Integration
	<b>Policy and regulatory environment</b>	Updated legislation regulating food markets enacted and enforced
	<b>Early warning system development</b>	Well-functioning domestic Early Warning System established and integrated/ coordinated with the global Early Warning System
	<b>Producer price support</b>	Enhanced effectiveness of the public procurement system; producer price effectively supported during post harvest seasons
Objective 2: Increased purchasing power and access to food of the people	<b>Public stock management / price stabilization</b>	Improved public stock management, adequate public storage facilities and capacities and enhanced effectiveness of OMS
	<b>Agricultural disaster management</b>	Enhanced disaster preparedness and post-disaster rehabilitation in agricultural systems
	<b>Emergency distribution from public stock</b>	Improved coverage and effectiveness of emergency distribution programs
	<b>Enabling environment for private food trade and stock</b>	Improved private storage, market and transportation facilities, improved market connectivity at local, national and international levels; Reduced marketing costs of agricultural products, strengthened market Integration; Updated legislation regulating food markets enacted and enforced
	<b>Effectiveness of targeted food security programs and other safety nets</b>	Improved coverage of vulnerable and disadvantaged people and areas (esp. Monga-prone areas); improved targeting; improved cost-effectiveness; reduced leakage; enhanced adequacy to vulnerable people's nutritional needs
	<b>Income generation for Women and the Disabled</b>	Enhanced participation of women and disabled people in rural agricultural and other rural activities
	<b>Promotion of Agro-based/ Agro-processing and Micro/Small Rural Enterprises</b>	Increased growth of agro-based/agro-processing industries and Micro, Small and Medium sized Enterprises (MSMEs)
Objective 3: Adequate nutrition for all individuals, especially women and children	<b>Market-driven skill Development</b>	Quality of technical and vocational education and training (TVET) increased to meet skill requirements of domestic and international markets
	<b>Long-term planning for Balanced nutrition</b>	Long term targets for physical growth established; standard food and nutrient intake established for different population groups; integrated plan for attaining standard food intakes targets established
	<b>Balanced and nutritious food at Minimal Costs for Vulnerable Groups</b>	Increased availability through local production of low-cost items; poor, distressed and vulnerable women and children effectively covered by food-based nutrition programs, including Growth Monitoring and Promotion (GMP).
	<b>Nutrition education for dietary diversification</b>	Increased percentage of women educated in nutrition and primary health care activities through formal and non-formal education; increased home gardening and poultry raising activities by poor households
	<b>Supplementation and fortification for balanced nutrition</b>	Increased coverage of vitamin A; increased coverage and compliance of iron-folate supplementation and; increased coverage of households with adequately iodized salt
	<b>Safe drinking water and improved sanitation</b>	Safe water and sanitation facilities available and accessible for all by 2010.
	<b>Safe, quality food supply</b>	Enhanced access to safe and quality food, for domestic consumption and also for international trade
	<b>Women and children's health</b>	Increased primary health care (PHC) and antenatal care (ANC) coverage; increased skilled attendance at birth; improved access to health services; healthy lifestyles and behavior
<b>Promotion and Protection of Breastfeeding and Complementary Feeding</b>	Strengthened exclusive breastfeeding practices; expanded practice of breastfeeding; ensured safe and nutritious complementary feeding; strengthened baby-friendly hospital initiative; increased maternity	

Prepared for the Asian Alliance Against Hunger and Malnutrition (AAHM) and the Asian NGO Coalition for Agrarian Reform and Rural Development (ANGOC)

		leave, particularly post-partum; Breast Milk Substitutes (BMS) Codes respected by the breast milk substitute marketers.
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## **2. Initiatives in Promoting Sustainable Smallholder Agriculture and Increasing Household Food security at Different Level**

Bangladesh demands a coordinated and sustained effort between the Government, development partners and civil society to achieve food security for all its population as early as possible.

### **2.1. Government's programs**

The government of Bangladesh (GoB) considers agriculture, food security and nutrition to be major priorities. The government commitment matches the renewed global commitment that resulted from the 2008 food security crisis, and materialized in the July 2009 L'Aquila Food Security Initiative (AFSI), as well as the November 2009 World Food Security Summit in Rome.

Bangladesh was one of the first countries in Asia to develop a national food policy – a model followed by others – and now it boasts the region's first Country Investment Plan for Agriculture, Food Security and Nutrition. The Government of Bangladesh hopes the comprehensive, five-year plan for investment will make safe and nutritious food more readily available, provide people with the means to buy the food they need and roll back the country's high malnutrition rates.

The Country Investment Plan (CIP) for agriculture, food security, and nutrition in Bangladesh was developed based on the National Food Policy (NFP) (2006) and its Plan of Action (PoA) following extensive discussions before, during and after the Food Security Investment Forum held in May 2010 to provide a coherent set of priority investment programs to improve food security and nutrition in a comprehensive and integrated manner covering the three dimensions of food security: availability, access, and utilization.

## EXECUTIVE SUMMARY

### Bangladesh Country Investment Plan (CIP)

*CIP is a country led planning, fund mobilization and alignment tool. It supports increased, effective public investment to increase and diversify food availability in a sustainable manner and improve access to food and nutrition security. Its interventions also aim to mobilize investment by smallholders and other private sector food security actors. It is a 5-year comprehensive plan that aims to ensure sustainable food security.*

*The CIP is anchored in the policy, programmatic and financial framework of Bangladesh: (i) it is the investment arm of the National Food Policy (NFP, 2006) and its Plan of Action (PoA, 2008-2015); (ii) it reflects the food security content of the upcoming 6<sup>th</sup> Five Year Plan; (iii) it is a strong advocacy and financial tool for increased resource allocation from the budget (through the Government process) and Development Partners (DPs) in the context of the Joint Cooperation Strategy (JCS).*

*The CIP is a living document: its first version was approved by the Government in June 2010; this updated version (June 2011) was developed through a wide process of consultation with over 900 stakeholders in Dhaka and the regions (including Government agencies, the private sector, farmers, academics, civil society, NGOs and Development Partners). This process led to refined, more accurately coasted and prioritized CIP investment areas, the establishment of a results framework, guiding principles to be applied during implementation and the identification of policy implications to enable optimal effectiveness of interventions.*

*The CIP provides a coherent set of 12 priority investment programs to improve food security and nutrition in an integrated way. The total cost of the CIP is estimated at US\$ 7.8 billion. Of this, US\$ 2.8 billion are already financed through allocated GOB budget resources and contributions by Development Partners. The financing gap is therefore US\$ 5.1 billion, of which US\$ 3.4 billion has been identified as first priority requirements.*

Component	Program (financing gaps are in million US\$)	Funds required	
		total	priority
<b>Food Availability</b>	1. Sustainable and diversified agriculture through integrated research and extension	604	441
	2. Improved water resource management and infrastructure for irrigation purposes	858	583
	3. Improved quality of inputs and soil fertility	232	170
	4. Fisheries and aquaculture development	356	212
	5. Livestock development, with a focus on poultry and dairy production	775	440
<b>Food Access</b>	6. Improved access to market, value addition in agriculture and non farm incomes	635	368
	7. Strengthened capacities for implementation and monitoring of NFP and CIP action	99	69
	8. Enhanced public food management system	293	212
	9. Institutional Development and Capacity Development for more effective safety nets	472	340
<b>Food Utilization</b>	10. Community based nutrition programmes and services	537	480
	11. Orient food and nutrition actions through data	22	13
	12. Food safety and quality improvement	177	91
<b>COUNTRY INVESTMENT PLAN FINANCING GAP (million US Dollars)</b>		<b>5,061</b>	<b>3,420</b>

*Moving forward, the CIP must be translated into action through active resource mobilization: the Ministry of Finance and many Development Partners have committed to use the CIP to allocate budget contributions, grants and loans. A Country Partnership Framework, to date, endorsed by 8 Development Partners represents a commitment to align financing of food security investments under the CIP. More financing is required, however, and a strategic, targeted communications strategy will be key to ensuring this. As a living tool, CIP implementation will sustain open dialogue with all stakeholders—including on policy matters. Furthermore, capacity development of implementing actors will be critical for successful implementation. Additionally, active efforts must be made to ensure promotion of innovative investment interventions, learning and scaling up of successful interventions already in place. Finally, coordination of interventions will be ensured through an inclusive institutional set up which builds upon the existing structure developed by the country in support of the National Food Policy.*

Component	Program Title	Proposed Focus and Priority Interventions	Institutions Involved
Food availability	<b>Sustainable and diversified agriculture through integrated research and extension</b>	<ol style="list-style-type: none"> <li>1. Enhance research &amp; knowledge generation and adoption to increase agricultural productivity and diversity in a sustainable manner</li> <li>2. Improve extension services to propagate knowledge &amp; practices, supported by community-based experimentation &amp; learning and indigenous knowledge</li> <li>3. Promote the development of responses to adapt agricultural systems to climate change</li> </ol>	NARS institutes, Universities, Privates, DAE, DLS, DOF, FD, LGED, AIS, Mass Media,
	<b>Improved Water Management and Infrastructure for Irrigation Purposes</b>	<ol style="list-style-type: none"> <li>1. Improve water management in water distribution systems and at farm level</li> <li>2. Improve &amp; increase efficiency of surface water irrigation, in particular in the south</li> <li>3. Reduce impact of saline water intrusion in the South</li> <li>4. Enhance river water flow to the South</li> </ol>	BADC, DAE, BWDB, LGED, BMDA
	<b>Improved quality of input and soil fertility</b>	<ol style="list-style-type: none"> <li>1. Enhance availability of agricultural inputs, tested and certified for quality of diversified crops</li> <li>2. Develop public private partnerships through capacity development</li> <li>3. Improve and increase sustainability of soil fertility management</li> <li>4. Facilitate access to credit and other financial services by smallholders and the rural poor</li> </ol>	BADC, BCIC, SCA, DAE, DLS, DOF and Private sector
	<b>Fisheries &amp; Aquaculture Development</b>	<ol style="list-style-type: none"> <li>1. Develop small scale aquaculture, through access to quality inputs, advice and skills</li> <li>2. Improve management of fisheries resources</li> <li>3. Develop public private partnerships in support of infrastructure and services development</li> <li>4. Promote production in the South through sustainable shrimp and prawn culture and community - management of wetlands.</li> </ol>	DOF, BFDC, BFRI, Universities and private Sector, GRD&C/LGED
	<b>Livestock Development, with a focus on poultry and dairy production</b>	<ol style="list-style-type: none"> <li>1. Strengthen animal health services, including better diagnosis and surveillance systems to mitigate disease outbreaks</li> <li>2. Strengthen husbandry capacity at household level through community based improved knowledge and advisory services</li> <li>3. Improve availability and quality of inputs through public private partnerships</li> <li>4. Research on livestock development, including genetic improvement</li> </ol>	DLS, BLRI, Universities and private sector
Food access	<b>Improved access to markets, value-addition in agriculture, and to non farm incomes</b>	<ol style="list-style-type: none"> <li>1. Improve physical access to markets, facilities and information</li> <li>2. Mobilize and promote producer &amp; marketing groups for improved market access and knowledge</li> <li>3. Develop adequate storage, processing &amp; value addition and reduce waste through public-private partnerships</li> <li>4. Promote and assist the development of off farm activities and rural businesses</li> </ol>	DAM, DAE, DLS, DOF, AIS, BFDC, BSTI and private sector
	<b>Strengthened capacities to implement and monitor NFP and CIP actions</b>	<ol style="list-style-type: none"> <li>1. Strengthen capacities to implement, monitor and coordinate National Food Policy-Plan of Action and CIP;</li> <li>2. Strengthen national capacities for design, implementation &amp; monitoring of CIP operations</li> <li>3. Strengthen capacities of civil society organizations to contribute to CIP development &amp; implementation</li> </ol>	FPMU, Food Division NARS institutes, and Universities
	<b>Enhanced Public Food Management Systems</b>	<ol style="list-style-type: none"> <li>1. Enhance efficiency and effectiveness of Public Food Management Systems and improve its impact on price stabilization</li> <li>2. Build capacities of Ministry of Food and Disaster Management and Directorate of Food to better manage the food system</li> <li>3. Increase and modernize public storage and handling facilities, including in disaster prone areas.</li> </ol>	Food Directorate, BARC
	<b>Institutional Development and Capacity Development for effective safety nets.</b>	<ol style="list-style-type: none"> <li>1. Strengthen institutional capacities to effectively operate social safety net programs and formulate a new integrated strategy for social safety net programs to: (i) coordinate and streamline them; (ii) enhance impact and targeting; (iii) improve governance</li> <li>2. Investment in employment and income generation of social safety nets (including in ADP).</li> </ol>	Disaster Management and Relief Division, Dept. of Women Affairs, DMB, MSW
Food utilization	<b>Community based nutrition programs and services</b>	<ol style="list-style-type: none"> <li>1. Community based nutrition programs, building on and linking to the National Nutrition Services (NNS)</li> <li>2. Support community based efforts of homestead gardening, rearing small livestock, aquaculture and awareness building for improved nutrition</li> <li>3. Link long term strategies with immediate treatment of acute malnutrition, in particular through TSF</li> </ol>	DGHS, DAE, DOF, DLS, BARI, BINA, Universities, BANHRDB, BNNC
	<b>Orient food and nutrition program through data</b>	<ol style="list-style-type: none"> <li>1. Undertake updated &amp; comprehensive national survey of food consumption &amp; food composition</li> <li>2. Undertake study of dietary diversification and supplementation needs and develop advocacy, awareness and educational materials to facilitate behavioral change in eating habits and practices</li> <li>3. Strengthen national capacities in surveying and analysis to facilitate evidence based decisions</li> </ol>	Food Division, BBS, DAE, DLS, DOF, BARC, BARI, BIRRI, BNNC, INFS, BAU
	<b>Food Safety and Quality Improvement</b>	<ol style="list-style-type: none"> <li>1. Improve surveillance system of food borne illnesses</li> <li>2. Develop and enhance capacities of laboratories and systems for food quality assurance and safety and control of food</li> </ol>	Food Division, BSTI, DGHS, private sector.

## 2.2. Non-Government Organizations

A number of Non-Government Organizations are also working together with Government to improve capacity of implementation at the grass root level and orient field based data that supports planning, monitoring and evaluation of food security policies and interventions., including those oriented towards development of income and employment, health and sanitation, agriculture and rural crafts, vocational education, relief and rehabilitation, and so on. A comprehensive NGO approach to rural development, in general involves poverty eradication through small scale credit to organized groups of rural poor and landless people – the micro-credit, or micro-finance model. However there are few other NGOs working thorough Rights Based approach in addressing the root causes of hunger and malnutrition, trying to create enabling environment for the poor land less farmers, women and Indigenous peoples in accessing land and other productive resources. Major NGOs and their going projects are presented below in a brief manner.

- **Association for Land Reform and development (ALRD)**

ALRD envisions a Bangladesh where upholding the rights of the citizens is the cornerstone of the State and where the State is pro-actively pursuing the promotion and strengthening of the land rights of poor and the marginalized, including the most vulnerable of the society; landless peasants, indigenous peoples, women and religious and other minority communities. ALRD strives for realization of a pro-poor and gender sensitive land and agrarian regime based on comprehensive reforms through advocacy, networking and sensitization of the policy makers, public representatives and other relevant stakeholders. Mobilization of the grassroots stakeholders and their representative organizations in alliance with civil society, intelligentsia and media is the key to achieving this mission.

- **Bangladesh Rural Advancement Committee (BRAC)**

BRAC is carrying out various activities to accelerate agricultural growth covering agricultural research and development, seed processing, and agriculture extension services. As the tenant farmers do not have access to traditional agricultural loans, the Bangladesh Bank offered BRAC a refinancing facility of BDT 5 billion (about USD 75 million) at 5% rate of interest, an innovative scheme entitled “Borga Chashi Development Project” to provide loans to tenant farmers. Besides BRAC offers collateral free financial support to the landless poor, marginal farmers and vulnerable entrepreneurs who have no access to mainstream banks.

- **CARE-Bangladesh**

CARE-Bangladesh amplifies the voice of the poor and the marginalized. With the help of international donors CARE is carrying out some agricultural projects like strengthening the Dairy Value chain in Bangladesh (SDVC); Strengthening Household Ability to Respond to Development Opportunities (SHOUHARDO II) etc.

- **Rangpur Dinajpur Rural Service (RDRS Bangladesh)**

To support the existence of the poor of north-west Bangladesh and perform development program is the vision of the RDRS. Among its multidimensional projects some noteworthy are Food for Progress of Bangladesh, Gaibandha Food Security for Ultra Poor, Sustainable Intensification of Rice Maize Production System in Bangladesh.

## **2.3. International grant or loan to promote food security**

In 2010, Bangladesh government became the first Asian country to produce a national action plan in response to the 2009 L'Aquila G8 Agriculture and Food Security Initiative. The Plan calls for investment of \$7.8 billion in food security over 5 years, much of which will be sought from international donors.

The Danish International Development Agency (DANIDA) pledged US\$ 75 million in 2011 for agricultural development in Bangladesh as a nod to the merits of the plan. This follows the US\$ 52 million grant awarded in June, 2010 from the Global Agriculture and Food Security Program (GAFSP), a multi-donor fund stemming from the L'Aquila Food Security Initiative.

## **2.4. International Organizations**

Various International organizations especially UN bodies have an important role in implementing Government and NGO programs and doing regular monitoring to support effective utilization of the granted money. They are supporting major investments targeting employment generation, livelihood development, employment generation, enhancing resilience, disseminating nutritional knowledge, school feeding program, disaster management, agricultural research and technical support and so on.

International organizations working to improve food and security situation of Bangladesh and their activities are as follows.

- **International Fund for Agricultural Development (IFAD)**

Working with poor rural people, governments, donors, non-governmental organizations and many other partners, IFAD focuses on country-specific solutions, which can involve increasing poor rural peoples' access to financial services, markets, technology, land and other natural resources. Some noteworthy ongoing operations are: Haor Infrastructure and Livelihood Improvement Project; Char Development and Settlement Project IV; Participatory Small-scale Water Resources Sector Project; National Agricultural Technology Project ,Finance for Enterprise Development and Employment Creation Project.

- **International Food Policy Research Institute (IFPRI)**

The International Food Policy Research Institute (IFPRI) is one of 15 centres supported by the Consultative Group on International Agricultural Research (CGIAR), an alliance of 64 governments, private foundations, and international and regional organizations. With a vision of a world which is free of hunger and malnutrition, IFPRI is committed to providing international food policy knowledge to decision makers both inside and outside the countries.

- **World Bank (WB)**

The World Bank carries out projects and provides a wide variety of analytical and advisory services to help meet the development needs of individual countries and the international community. In Bangladesh, World Bank is investing a number of projects like Bangladesh Integrated Agricultural Productivity Project, Bangladesh Rural Water Supply and Sanitation Project etc.

- **Food and Agriculture Organization (FAO)**

FAO's mandate is to raise levels of nutrition, improve agricultural productivity, better the lives of rural populations and contribute to the growth of the world economy. To achieve MDG1, FAO is carrying projects like National Food Policy Capacity Strengthening Programme (NFPCSP), Food Security through enhanced agricultural production diversified sources of income, value addition and marketing in Bangladesh etc.

- **World Food Program (WFP)**

WFP's development activities in Bangladesh aim to improve the long-term food security and nutrition of ultra poor households in the poorest and most food insecure rural areas and urban slums. WFP achieves this through supplementary feeding, nutrition education, food for assets and training, school feeding and capacity building activities.

- **United States Agency for International Development (USAID)**

Bangladesh has been selected as one of the priority countries under the U.S. Government's recently launched Feed the Future Initiative. Under this initiative, the goal of USAID is to increase production of more affordable and nutritious staple foods in Bangladesh through: Increased on-farm productivity, increased investment in market systems, enhanced food security policy and planning capacity, and enhanced agriculture innovation capacity.

- **Danish International Development Assistance (DANIDA)**

Denmark's strategy to support the agricultural sector in Bangladesh includes a strong poverty reduction focus, together with special emphasis on poorer women, nutrition, marketing and environment. Support is provided to technology generation and delivery of essential services nearer to the farmers' door steps. Denmark's support to agricultural development in Bangladesh has consistently been channeled through the Government of Bangladesh.

- **Asian Development Bank (ADB)**

Since its establishment ADB aims at improving poverty situation of Asia and Pacific region. In Bangladesh, ADB invests in a number of projects like Rural Infrastructure Improving project (RIIP), Second Participatory Livestock Development project etc to accelerate income generating activities and thus help the country step ahead towards poverty reduction.

- **World Health Organization (WHO)**

Being the directing and coordinating authority for health within the United Nations system, World Health Organization (WHO) has been providing technical assistance to the Government of Bangladesh for strengthening the public health system since the beginning of its collaboration in 1972.

- **European Union (EU)**

The European Union is among the three biggest donors of grant finance to Bangladesh, estimated at €500 million in 2011. The present strategy focuses mainly on three areas where the EC's comparative advantages are best able to contribute to delivering Millennium Development Goal (MDG) targets: human and social development especially in education and health, Good governance and human rights, and economic and trade development.

## **2.5. Problems arising from Government and inter-government policies and actions that affect smallholders**

Agriculture of Bangladesh is still dominated by small-scale farmers possessing very small plots of land, with very little access to capital and productive resources, and is perennially indebted to landlords and money-lenders. In such a situation, Government of Bangladesh has taken a number of policies and programs that promote specialization and commercialization of farming, provide subsidy on chemical fertilizer, emphasize on rice and export crop production, encourage research and extension work, and render credit service for the development of agricultural sector. Unfortunately all these steps fail to bring substantial change in the fate of the poor small farmers; rather they create new obstacles and challenges in their livelihood.

Cost of inputs in a commercial large-scale agribusiness accounts less compared to small-scale farms, and it can be get back with profit because of the high yield of crops and available technological and marketing facilities. Consequently, small-scale subsistent farmers sell their products comparatively in lower prices owing to lack of bargaining capacity for fair prices in the competitive markets dominated by large-scale agribusinesses. Moreover, the small-farmers are often unable to meet procurement requirements (14% moisture content, absence of foreign materials in seeds, etc.) of the government for which they cannot sell their produced crops at the price fixed by the Government. (Mondal, M. H. Crop agriculture of Bangladesh: challenges and opportunities. *Bangladesh J. Agril. Res.* 35(2) : 235-245, June 2010). This in turn leads to the breakup of the traditional family productive unit and small farmers are compelled to work as day laborers leaving their lands.

About sixty percent (60%) of arable lands of Bangladesh are deficient in N, P, and K, and organic matter content of soils is much below the critical level of 1.5% (Z. Karim, 1997). But, Government gives subsidies for fertilizer particularly focusing on urea and TSP. So, the use of P and K fertilizer remains far below the recommended dose due to their high price. Also crop agriculture is dominated heavily by rice cultivation, and diversification is rather limited. Unbalanced use of chemical fertilizer and continuous production of different varieties of rice throughout the year put a new challenge of declining soil fertility for the small farmers.

Having a vision to achieve self-sufficiency in rice by 2013, current government policy is clearly undermining the importance of subsistence food crops like pulses, oilseeds, potatoes and other vegetables. Initiatives to ensure fair prices, procurement or storage facilities for these crops are not adequate causing small farmers to be poorly rewarded for their efforts to produce unconventional crops needed to ensure dietary diversification. Particularly, the small farmers, as they cannot afford adequate storage facilities of their own, have to bear the burden of post harvest loss, especially for perishable crops, compelling them to sell their products at lower price to the intermediaries. (Mondal, M. H. Crop agriculture of Bangladesh: challenges and opportunities. *Bangladesh J. Agril. Res.* 35(2): 235-245, June 2010). Thus, they are deprived of actual price of their products and the profit is taken by retailers, cold-storage owners and other intermediaries.

Bangladesh Government is now encouraging research and extension of agriculture to innovate technologies and seeds that can withstand unfavorable climate change. But the credit allocation is inadequate. Furthermore, there is a lack of linkage from the researchers to

farmers to disseminate the up-to-date information that will help them to increase their productivity. Most importantly, majority of the poor farmers are constrained by finance and cannot afford high cost for managing quality inputs and modern technological support. Therefore, new agricultural innovation ultimately fails to bring smile in the faces of subsistent farmers. According to BBS, 2007, only 27% of farmers receive institutional credit. The credit amount is also inadequate and not advanced in time. Sometimes they are also not eligible for microcredit of many NGOs as they mainly deal with landless farmers. (Mondal, M. H. Crop agriculture of Bangladesh: challenges and opportunities. *Bangladesh J. Agril. Res.* 35(2): 235-245, June 2010). Lack of money compels these farmers to apply inputs, especially expensive P and K fertilizers, far below the recommended doses that finally result in low yield.

## **2.6. Effect of accession to the WTO regime -Agreement on Agriculture**

(Source: The WTO-AoA: Impact on Farmers and Rural Women in Asia- By Arze Glipo Asia-Pacific Network for Food Sovereignty: An advocacy paper prepared for the 2003 WTO Ministerial meeting, September 2003.)

Bangladesh had to undertake various obligations due to accession in WTO regime on agriculture. These obligations cover commitments on market access, commitments on subsidies and commitments on introducing or modifying national rules and regulations as per provisions of the various WTO agreements.

Under the principle of trade liberalization, countries should produce only those goods that require minimum cost for inputs or have comparative advantage over other for marketing. So the implication is that developed countries, because of their huge subsidies, can dump large amount of food products in the international market, and developing countries like Bangladesh that depend on food import to meet the domestic needs continually drain their scarce foreign reserves to buy them. This situation become more complicated when import is controlled by some corrupted importers as well as smugglers who sell their products at a lower rate than the market price. As a result, the price of local agricultural product declines and poor farmers are unable to recover the cost of inputs.

Bangladesh is prohibited from raising their subsidies beyond the minimum level to expand agricultural production. Lack of such safety net programs to protect the small-scale and traditional farming in an unfair competitive international market results in an increased risk to the existence of poor small farmers.



### 3. Mechanism and Institutions

Bangladesh has a composite institutional structure for food security and nutrition that provides coordination at different levels. This includes at its top the Cabinet level Food Planning and Monitoring Committee (FPMC), chaired by the Food Minister and with membership of various Ministers and Secretaries. This Committee provides strategic orientation on food security issues and establishes a high-level commitment to inter sectoral collaboration. The National Committee (NC) also chaired by the Food Minister is composed of the Secretaries of the various concerned divisions, Heads of Universities/Research Institutions, DPs, private sector and other NGOs. Among other things, it is tasked with overseeing CIP implementation and monitoring processes.

The Food Policy Working Group (FPWG) is the mechanism for coordinating collaboration at the technical and operational level through the four Thematic Teams (TTs) that carry out the monitoring process of the NFP PoA and the CIP consistently with monitoring of progress towards MDG1. The FPMU provides support to these institutions acting as the secretariat of the various Committees and providing technical and operational support to the FPWG and TTs. In addition to this, GoB agencies involved in running programs pertaining to the CIP as well as the DPs provide inputs towards the financial monitoring section.

#### 3.1. Effectiveness of various CIP programs in terms of achieving their respective objectives (source: NFP Plan of Action Monitoring Report, 2012)

- **Program 1: Sustainable and diversified agriculture**

The development of new varieties has been steady over the years for rice. Over the recent years, development for vegetables, oil seeds and fruits has been more dynamic than for wheat, maize, and potato and pulses varieties. Farmers' training declined in 2010-11 after three years of growth. The share of rice on the total area cropped and share of rice area planted with HYV have increased with a positive impact on productivity and self sufficiency. Overall, most major crops had a positive production performance in 2010-11.

- **Program 2: Water and irrigation**

Coverage of irrigation has continued expanding albeit at a slower pace than in the early 2000s. At the same time, the groundwater level fell significantly in 2010. The share of irrigation on boro production cost declined slightly.

- **Program 3: Inputs and soil fertility**

Production of improved cereal seeds has been volatile in recent years. Yet, supply of improved seeds for food grain as a proportion of agronomic requirements has been increasing. However, the supply of non-cereal seeds is far from adequate. Fertilizer supply has increased and become more balanced in recent years. Yields have risen for most crops, steadily for cereals. Finally, agricultural credit disbursement surged, reflecting Bangladesh Bank's decision to scale-up credit supply in order to boost agricultural production.

- **Program 4: Fisheries and aquaculture**

Fish production increased consistently in recent years and largely exceeds population growth. Yet, the share of fisheries on total agricultural GDP has remained static.

- **Program 5: Livestock development**

As in the case of fisheries, the value produced in the sector continues to grow but at a pace not sufficient to exceed the growth of the crops subsector, preventing a significant diversification of food production. Repeated outbreaks of avian influenza contributed to this result. At the same time, artificial insemination, a key factor for improving livestock breeds, slowed down in 2010-11 but showed an overall satisfactory progress since 2007.

- **Program 6: Access to markets and value addition**

No clear trend was observed in the markup of retail on farm gate prices in the past four years. On the input side, the proportion paid by farmers above dealer prices for fertilizer has remained constant. Growth centres, rural markets and Union Parishad Complexes developed by LGED have multiplied steadily. The gender wage gap remains at about 40%. The small scale manufacturing has steadily grown at a rate above that of agricultural GDP. Finally, the number of students in Technical and Vocational Education and Training continues to increase.

- **Program 7: Implementation and monitoring of the NFP and CIP**

In the first year of CIP implementation, 90 new projects were initiated, valued at 1,863 million USD out of a total additional financing of 2,170 million USD. Implementation, however, appears slower than required, as indicated by a delivery of just 51% of the budget available for the financial year 2010/11. The Government's institutional arrangements are operating for implementing, coordinating and monitoring the NFP PoA and CIP, with TT meetings regularly held.

- **Program 8: Public food management**

In view of the increased volatility of food grain prices in the domestic and international markets, the Government is scaling up its capacity to stock food grains. As expected, the Government has procurement less in years of high or increasing prices and more in years of low or declining prices, with a main exception in 2008 when large procurement was needed to replenish the stock. Except for 2009, when prices plunged, farmers' incentives, in terms of domestic wholesale price relative to cost of production, have been preserved. Finally, OMS have been moving counter-cyclically relative to market prices and have been substantially scaled up during the price surge of 2010-11.

- **Program 9: Effective safety nets**

Spending on social safety nets relative to GDP have increased steadily between 2008-09 and 2010-11 with the coverage of households benefiting from at least one social safety net substantially increasing. On the one hand, the scale of VGF and GR reduced while OMS (through Fair Price Cards) increased. On the other hand, the scale of the VGD program remained constant.

- **Program 10: Community-based nutrition**

Exclusive breastfeeding has expanded and the target (50%) has been achieved. A decline in home gardening has been observed in 2011. Diversification of consumption has moderately improved, while acute malnutrition (wasting) has improved but severe wasting deteriorated. Some progress is registered in antenatal coverage.

- **Program 11: Data for improved nutrition**

A small decline in behavior change communication activities was registered over 2009-2011. In the meantime, desirable dietary patterns are in the process of being established and food composition tables updated. A number of sources on food security and nutrition exist currently.

- **Program 12: Food safety and quality**

Only 64 out of 143 BSTI enlisted foods currently have standard certification. Unfortunately, among the standardized products, several in the market are also being sold without standard seals or with fake seals. A decline in prevalence of diarrhea is observed and almost universal coverage of safe water supply for domestic use has been reached. Access to tube well facilities is increasing, although further efforts are needed since many are suspected to be contaminated by arsenic. The percentage of population having access to safe drinking water now stands at 87%.

## Recommendations

### 4.1. Policy advocacy for enhancing food and nutrition security especially in small food producing households

To enhance food and nutrition security of small food producing households particularly from the challenges of soaring input and food prices and climate variability and change, following issues may be considered:

- As there is very little room for expanding area under cultivation, the first priority should be on the protection of food producers/small holders' agricultural land from legal standpoint as well as environmental degradation. Assured rights of land tenure are necessary if smallholders are going to invest in their farms for the future. Rising productivity and crop diversification within the access to gradually declining limited cultivable land may be a potential approach to address nutrition security of the smallholders.
- Homestead horticulture and gardening should be prioritized, and promoted throughout Bangladesh to address the problem of micro nutrient mal nutrition in the country.
- As the impoverished Bangladeshi marginal and small farmers are facing problems of gaining access to agricultural inputs as well as marketing their products , adequate support should be made in terms of –
  - the provision of high quality seeds, fertilizer, animal feed, fish, and other necessary inputs;
  - the expansion of irrigation facilities;
  - proper agricultural know how;
  - access to prevailing market information;
  - adequate infrastructural capacity for marketing as well as storing (when in need) their agricultural products.
- As the small-scale women farmers are critical players to escape poverty and provide food for their families, and women in general are primarily responsible for ensuring that food for their families is reliably available, accessible and nutritionally balanced, it would be an effective strategy to enhance women's access to land ownership, farm equipment and credit in order to ensure their household nutrition security, particularly their children's nutrition, education and health.
- Improvement in Water, sanitation and hygiene in the rural areas is essential in improving food and nutrition security of people. Increased attention should be given to this sector by both government and NGO and development partners.
- Food production and availability in Bangladesh are highly seasonal. In the peak period farmers do not get fair price of their products. On the other hand prices go very high in the lean season. Introduction of appropriate food technology and food preservation and storage in the peak season is essential to address the problem.

## **4.2. Capacity building for NGO's**

For effective policy advocacy and maintenance of field projects aimed at a particular vision, NGOs and other rural organizations should have sufficient capacity developed in the following areas:

- Capacity building of the NGOs with emphasis on financial empowerment
- Motivating rural poor to influence their decision making process
- Proper knowledge and appropriate techniques in realizing land rights including water and forest of the poor and marginalized including women and indigenous peoples.
- Engaging NGOs with CIP priority programs
- Universal education with emphasis on health education should find a place in the NGO activities.

## **4.3. Research / studies needed**

- Identification of priority problems on the way to ensure food and nutrition security through situation analysis in a detailed way.
- Exploration of the detailed mechanism of the various (government-led, CSO-initiated, multi-stakeholders) ongoing programs and activities aimed at addressing hunger and malnutrition together with their effectiveness.
- Comparative analysis of possible options (solutions) to prioritize them in order to address priority problems identified through situation analysis.

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