



COUNTRY NUTRITION PAPER
BANGLADESH

November 11
2014

**INTERNATIONAL CONFERENCE
ON NUTRITION 21 YEARS LATER**

19-21 NOVEMBER 2014
Rome, Italy



Food and Agriculture Organization
of the United Nations



World Health
Organization

Table of Contents

Forwarding	
Acknowledgement	
Glossary	
Summary table.....	4
Acronyms	6
Summary	9
1.0 Introduction.....	13
1.1 Geographic information	13
2.0 Socio and economic developments in Bangladesh since 1992?	13
2.1 Population	13
2.2 Poverty.....	14
2.3 Food security	14
2.4 Agriculture.....	15
3.0 Population, health and human development issues in Bangladesh since 1992	15
3.1 Health and human development.....	15
4.0 Comparison of the current food and nutrition situation with that of 1992	16
4.1 Food, diet and Food consumption.....	16
4.2 Food safety.....	18
4.3 Nutritional status	18
4.4 Hygiene and sanitation	19
4.5 Women's empowerment	20
4.6 Climate change impacts.....	20
5.0 Regional analysis of malnutrition and food insecurity.....	20
6.0 Major constraints & opportunities for improving food and nutrition security since 1992.....	22
6.1 Major constraints	22
6.2 Opportunities	23
7.0 Strengthening institutional mechanisms for multi sectoral coordination	24
7.1 Strengthening Capacity for Nutrition Implementation	24
7.2 Leveraging agriculture for nutrition	24
8.0 Current nutrition policy framework and implementation mechanisms in the country.....	25
8.1 Evolution of policies	25
8.2 Nutrition-Relevant Legislation.....	28
9.0 Food and agriculture programmes and interventions being implemented to improve nutrition	28
9.1 Success stories, best practices and lessons learnt	28

10.0	Policy & Programme implementation mechanism for improving nutrition security.....	29
11.0	Analysis of past and current nutrition actions in the country	30
11.1	Progress made since the 1992 International Conference on Nutrition (ICN)	30
11.2	Operational capacity to implement nutrition actions since the 1992 ICN	31
11.3	Managerial capacity to implement nutrition actions since the 1992 ICN	32
11.4	Technical capacity of service providers and R&D sector	32
12.0	Monitoring and evaluation mechanisms	32
12.1	Institutional setting for monitoring Food Security and Nutrition	32
13.0	Agriculture focused sustainability to improve nutrition	34
14.0	Nutrition objectives integrated into food & agriculture programmes or projects.....	35
15.0	Target group for nutrition actions	36
16.0	Required actions across sectors to improve nutrition	36
17.0	Capacity building (operation/financial) at food & agriculture sectors to improve Nutrition security	37
18.0	Roles & Responsibilities of social protection sectors for scaling up actions in nutrition	38
19.0	Capacity-strengthening support for scaling up actions in nutrition	39
20.0	Conclusion	39
21.0	Annexure	41

SUMMARY TABLE

General Indicator	n/%	Source/Year	n/% in 1992	Source 1992
Total population (in Million)	156.06 (estimated mid year population in 2014)	Census 2011	111.46	BBS, Bangladesh Population Census, 1991; Bangladesh Country Paper on Nutrition, 1995
Crude birth rate per thousand	19.2	UNICEF/WHO		
Total number of live births	3,03,8000	UNSTAT		
National life expectancy at birth (males, females)	67.9 (male) 70.3 (female)	SVRS 2011		
Human Development Index Rank	142	UNDP, 2014	147	UNDP, 1992
Population % below international poverty line	31.5%	HIES 2010		
Under-five mortality rate (per 1,000 live births)	41	UN, 2013		
Infant mortality rate (per 1,000 live births)	33	UN, 2013		
Maternal mortality ratio / 100 000 live births (reported)	170	UN, 2013	4.7	BBS/UNICEF, 1995 (Bangladesh Country Paper on Nutrition, 1995; p-33)
Primary school net enrolment or attendance ratio	97.3%	(APSC, DPE, 2013) MDG: Bangladesh Progress Report; GED, Aug 2014		
Access to improved drinking water in rural areas - %	97.9%	MICS, 2012-13		
Access to improved sanitation in rural areas - %	63.6%	SVRS 2011		
Food Availability				
Arable land area – %	90%	FAO 2013		
Average dietary energy requirement – Kcal	2430 Kcal	FAO		
Dietary energy supply (DES) – Kcal	78.3%	FAOSTAT		
Food Consumption				
Average daily consumption of calories per person - Kcal	2318 Kcal	HIES-BBS, 2010		
Average daily fruit consumption (excluding wine) (g)	44.8 gm	Desirable Dietary Pattern (BIRDEM 2013)		
Average daily vegetable consumption (g)	166.1 gm	"		
National Anthropometry (WHO Child Growth Standards)				
Prevalence of stunting in children	41%	BDHS 2011	64.2% (<90%)	BBS, 1992 (Bangladesh

< 5 years of age			of NCHS median)	Country Paper on Nutrition, 1995; p-6)
Prevalence of wasting in children < 5 years of age	16%	BDHS 2011	16.7% (<80% of NCHS median)	BBS, 1992 (Bangladesh Country Paper on Nutrition, 1995; p-7)
Prevalence of underweight children < 5 years of age	36 %	BDHS 2011		
Prevalence of obesity ≥ 30 BMI	2.9%	BDHS 2011		
Women (15-49 years) with a BMI < 18.5	24%	BDHS 2011		
Infant and Young Child feeding by Age				
Exclusive breastfeeding under 6 months	64%	BDHS 2011	4%	Bangladesh Country Paper on Nutrition, 1995
Breastfeeding with complimentary foods (6-9 months)	62%	BDHS 2011		
Micronutrients				
Households consuming adequately iodized salt (> 15ppm) -%	57.6%	National Micronutrient Status Survey 2011-12		
Vitamin A supplementation coverage rate for children aged 6-59 months-%	6-11 months: 84%, 12-59 months: 93%	EPI coverage evaluation survey 2013 (Preliminary report).	35.2% among children aged 6-71 months in 1989	IPHN/UNICEF 1989 (BBS, 1992 (Bangladesh Country Paper on Nutrition, 1995; p-13)
Percentage of children age 6-59 months with anaemia	33.1%	National Micronutrient Status Survey 2011-12		
Percentage of women age 15-49 with anemia	26%	National Micronutrient Status Survey 2011-12		

ACRONYMS

<i>Acronym</i>	<i>Explanation</i>
ADP	Annual Development Programme
APIR	Annual Programme Implementation Report
APSU	Agriculture Policy Support Unit
BD	Bangladesh
BADC	Bangladesh Agricultural Development Corporation
BBS	Bangladesh Bureau of Statistics
BDHS	Bangladesh Demographic and Health Survey
BINP	Bangladesh Integrated Nutrition Project
BIRDEM	Bangladesh Institute of Research and Rehabilitation in Diabetes, Endocrine and
BIRTAN	Bangladesh Institute of Research & Training on Applied Nutrition
BNNC	Bangladesh National Nutrition Council
BMI	Body Mass Index
BMS	Breast Milk Substitutes
CDC	Centre for Disease Control & Prevention
CIP	Bangladesh Country Investment Plan : A Roadmap Towards Investment Agriculture, Food
Cm	Centimeter
CO ₂	Carbon-di-oxide
COIA	Commission on Information and Accountability for Women's and Children's Health
CRF	Common Result Framework
CSO	Civil Society Organizations
CSOs	Civil Society Organizations
DDT	Dichlorodiphenyltrichloroethane
DGHS	Directorate General of Health Services
DGFP	Directorate General of Family Planning
DP	Development Partners
DPE	Department of Primary Education
EC	Executive Summary
EPI	Expanded Programme on Immunization
FAO	Food and Agriculture Organization
FAO STAT	Food and Agriculture Organization/ Statistics
FCT	Food Composition Table
FDS	Food Based Dietary Survey
FPMC	Food Planning and Monitoring Committee
FPMIS	Food Planning and Monitoring Information System
FPMU	Food Planning and Monitoring Unit
FSNIS	Food Security Nutrition Information System

FSNSP	Food Security Nutritional Surveillance Programme
FY	Financial Year
GDP	Gross Domestic Product
GED	General Economics Division
GoB	Government of Bangladesh
GNI	Gross National Index
HIES	Household Income and Expenditure Survey
HPNSDP	Health, Population and Nutrition Sector Development Programme
HPNSP	Health, Population and Nutrition Sector Programme
HFI	Household Food Insecurity
HMIS	Health Management Information System
ICN	International Conference on Nutrition
IDD	Iodine Deficiency Disorders
IFPRI	International Food Policy Research Institute
IPHN	Institute of Public Health and Nutrition
ILO	International Labour Organization
IMED	Implementation Monitoring and Evaluation Division
INGO	International Non-Government Organization
IT	Information Technology
IYCF	Infant and Young Child Feeding
Kcal	Kilo Calorie
LBW	Low Birth Weight
LGD	Local Government Division
LNGO	Local Non-Government Organization
MDG	Millennium Development Goal
MICS	Multiple Indicator Cluster Survey
MMT	Million metric tons
MMR	Maternal Mortality Rate
MN	Micro-nutrient
MoA	Ministry of Agriculture
MoF	Ministry of Food
MoHFW	Ministry of Health and Family Welfare
MTR	Mid-term Review
NAEP	National Agricultural Extension Policy
NCHS	National Centre for Health Statistics
NFP	National Food Policy
NFP PoA	National Food Policy Plan of Action
NPAN	National Plan of Action for Nutrition

NGOs	Non-Governmental Organizations
NNP	National Nutrition Programme
NNS	National Nutrition Services
OFSP	Orange Flavored Sweet Potato
OP	Operational Plan
PLW	Pregnant & Lactating Women
PMMU	Programme Management & Monitoring Unit
PoA	Plan of Action
PPM	Parts per million
PRSP	Poverty Reduction Strategy Paper
PW	Planning Wing
RDCD	Rural Development and Cooperatives Division
R&D	Research & Development
SOFI	The State of Food Insecurity
SVRS	Sample Vital Registration Survey
SUN	Scaling Up Nutrition
UN	United Nation
UNDP	United Nation Development Partner
UNICEF	United Nations International Children's Emergency Fund
UNSTAT	United Nation Statistics
USAID	United states Agency for International Development
WFP	World Food Programme
WHO	World Health Organization

SUMMARY

Bangladesh has made significant progress tackling undernutrition over the last two decades. Progress has also been made increasing enrolment at primary schools, lowering the infant mortality rate and maternal mortality ratio, improving immunization coverage and reducing the incidence of communicable diseases. Despite these significant achievements, levels of stunting and underweight are still high than the WHO/CDC threshold level for emergency and is considered a severe public health problem. Although the prevalence of underweight has also been on a steady downward trend since 1990 and Bangladesh has the momentum to achieve the fifth World Health Assembly global target of a 40% reduction in child stunting by 2025. In Bangladesh, malnutrition is caused by a combination of factors including faulty food consumption, food utilization owing to poor sanitation, illness and inadequate health care. Although, Bangladesh attained notable progress in universal coverage of water supply. The access to improve drinking water was 70% in 1992 and reached to 85% by 2012.

The country is now experiencing a demographic transition. During the past century, the population of Bangladesh has increased exponentially, which represents a 15 percent increase and a 1.37 percent annual growth rate. Also, life expectancy has been increased. Also, poverty has decreased significantly since 1992. Since 2005 alone, nine million people have been lifted out of extreme poverty. Bangladesh's commitment to social protection and safety-net programmes has led to a sustained decline in poverty. These developments put the poverty target of MDG1 within reach by 2015. The decline in poverty has been accompanied by an overall improvement of people's purchasing power, which strengthened their ability to access basic foods. Per capita income has been increased more than two folds in the last 10 years. Employment generation has increased through public and private sector programmes. However, overall, poor and borderline household food consumption score level is widespread across the country.

The Health sector plays a central role in delivering an integrated package of nutrition services for the population through one of its largest service delivery mechanism known as the National Nutrition Services and alongside is strengthening linkages with nutrition relevant sectors.

Government is paying attention to crop management in adverse environment and climate change adaptation and integrated pest management and good agriculture practices. The livestock and fisheries sectors are growing at increasing rate to meet the growing demand of high value animal proteins. In general, agriculture contributes to 19.4% of GDP. With nearly 43.5% of labour force engaged in agriculture, 76.5% of the total population have their livelihoods either fully or partially dependent on agriculture. The fishery subsector accounts for 4.4% of GDP, provides about 60% of animal protein and contributes to the livelihoods of about 16 million people.

Bangladesh has made significant progress since 1992 in boosting national food production, with food grain production having expanded through rapid adoption of agricultural technology, irrigation, improved infrastructure and transport linkages and imports. But, adulteration and contamination of food constitute a major public health concern in Bangladesh.

Agriculture remains a primary source of energy and nutrients for the population. In this regards, agriculture/food systems are trying to encompass activities related to production, acquisition, and utilization of food to prevent both under and over nutrition in an economically,

environmentally, socially and culturally sustainable way. Accordingly, agricultural/ food systems including livestock and fisheries are being strengthened to contribute adequately and efficiently towards meeting the dietary and nutritional needs of the population, although still narrowing the nutrition gap is the challenge ahead— the gap between what foods are grown and available and what foods are needed for a healthy diet and better nutrition. Although, overall, food insecurity and under-nutrition are generally worse in rural areas and urban slums. However, there are several food and agriculture programme and projects, where nutrition objectives have been integrated. However the focus largely remains on food availability or production of food or agricultural products. The Fishery Policy of Bangladesh has focused the increased production and conservation of fishery resources for increasing production to meet the nutrition requirement of the growing population of the country.

The Bangladesh National Women Development Policy 2011 makes comprehensive provisions for women's rights and empowerment through land ownership, earned property, health, education, training and technology, credit facilities and income generation with a vision of improving nutrition. But any form of social safety net is virtually absent for the informal workers. While government servants have medical and maternity benefits, most of the women workers in non-government sectors work without maternity benefits, retrenchment benefit, provident fund money, health facilities. Women in the formal sectors have legal protection as covered in Bangladesh Labour Act 2006.

Investing in nutrition has been a commitment in Bangladesh from the highest level of leadership. Policies and policy instruments to address food security and nutrition particularly maternal and child under nutrition have been developed and problems of nutrition are being addressed by both nutrition specific and sensitive interventions.

National Policies like Vision 2021, National Five Year Plans as well as sectoral plans has prioritized Nutrition and Food security as national issue. The sectors include Health, Food, Agriculture, Fisheries and Livestock. Bangladesh fosters nutrition sensitive activities in the sectors like Education, Women Empowerment, Social Safety Net etc.

The Government endorsed the National Plan of Action for Nutrition (NPAN 1997) as followed from World Declaration for National Plan of action for Nutrition at the ICN and also developed a National Food and Nutrition Policy. The NPAN was developed on the analysis of nutrition situation and followed a participatory process involving major actors in Nutrition at that time including Ministry of Health and Family Welfare with the Bangladesh National Nutrition Council (BNNC) as the focal point. Core sectors included Ministry of Agriculture, Food, Livestock, and other relevant ministries covering all together 19 ministries (such as-- Ministry of Disaster Management and Relief, Ministry of Finance (Finance Division and Economic Relation Division), Ministry of Industries, Ministry of Local Government, Rural Development and Cooperatives (LG Division and RD Division), Ministry of Planning (Planning Commission, Statistics Division and IMED), Ministry of Primary and Mass Education, Ministry of Water Resources and Ministry of Women and Children Affairs).

Policies and policy instruments aim to address food security and nutrition encompasses nutrition within a comprehensive framework. Following the World Food Summit of 1996, the Government of Bangladesh undertook an in-depth consultative process of food security policy reform in which nutrition was embedded. This led to the development of comprehensive food

security policy framework (the National Food Policy 2006 –NFP) and programming document (the National Food Policy Plan of Action 2008 -2015 – PoA) as well as an investment plan for food security and nutrition (the Bangladesh Country Investment Plan 2011 -2016 -CIP).

With recent Government initiatives concentrated efforts on nutrition policies and programs integrated with agriculture and foods sectors input , health and population sector programs and most importantly poverty reduction strategy made significant change in situation. Bangladesh has composite institutional structures in place for food security and nutrition that provide co-ordination at different levels. This includes the Food Planning and Monitoring Committee (FPMC), National steering committee and Bangladesh National Nutrition Council (BNNC) whose members include Ministers and Secretaries from 17 Ministries. These Committee provides strategic orientation on policies related to food, nutrition and food security and establishes a high-level commitment to inter-sectoral collaboration.

Bangladesh National Nutrition Council was established in 1975 by an order of the President, Government of Bangladesh. The objectives of the BNNC are the formulation and updating of the National Food and Nutrition Policy; approval of nutrition programmes for different ministries and institutes; and monitoring the implementation of the policy / plan of actions and evaluation of policy progress as well as nutrition research programmes, building capacity etc. The Food Planning and Monitoring Unit of the Ministry of Food facilitate the multi-sectoral coordination through four thematic teams, each of which represents a dimension of food security (health and others for nutrition). And also, it has been monitoring food security and nutrition situation in Bangladesh and the implementation of the related policies since decades.

It is noteworthy that all Government and Non-Government actors are implementing their programs in line with national policies and programs related to health, nutrition food and agriculture. A National Nutrition Services (NNS) operational plan that was mainstreamed within the comprehensive HPNSDP of the Ministry of Health and Family Welfare, focuses on the 1000 days approach which is now widely incorporated into the health, population and nutrition sector-wide programs of Bangladesh. This also calls for mainstreaming nutrition services not only the health sector but across all relevant sectors. Women and children are the key to ensuring nutrition security. Health & nutrition Information System is activated, Surveillance system is growing. Food safety and availability is getting more attention.

Bangladesh has also established a Common Results Framework (CRF) that cuts across food security and health with the involvement of all relevant stakeholders based on existing policy and programmatic frameworks in key sectors: National Plan of Action for Nutrition (1997); National Food Policy Plan of Action (2008 -2015) National Sixth Five Year Plan; Vision 2021; Country Investment Plan (CIP) for Agriculture, Food Security and Nutrition (2010-2015), Health, Population Nutrition Sector Development Programme –HPNSDP (2011 -2016) , National Health Policy 2011, Draft National Food Safety Policy 2012 and the draft National Nutrition Policy-2014. Also, other notable policies include, National Neonatal Health Strategy and Guidelines or Bangladesh, 2009 (MOHFW), Strategic Plan for Surveillance and Prevention of Non-Communicable Diseases in Bangladesh, 2007 (MOHFW), Agriculture Policy, Food Policy and its Plan of Action among others.

Recommendation:

Given the current food and nutrition situation, following areas are required to scale up and accelerate action within the food and agriculture sector and across sectors to improve nutrition:

Multiple sectors, notably health and agriculture, are players in the achievement of national nutrition objectives. Investments in capacity strengthening of national health and agricultural/food systems to integrate nutrition outcomes in planning and policy processes will make significant contributions to improving nutrition on a sustainable basis. The role of these food based social safety net programmes and social protection programmes need to focus nutrition objective.

Aligning national development policies and programs with key nutrition outcomes can increase the national Gross Domestic Product (GDP) by at least 2-3% annually and help to break the cycle of poverty.

Education and IT sector could play an important role to ensure food and nutrition security. Nutrition education needs to be institutionalized using common strategies and core messaging so as to impact nutrition behavior change. There is need for strengthening a nutrition orientation to agriculture.

Narrowing the nutrition gap is a challenge - the gap between what foods are grown and available and what foods are needed for better nutrition. Programmes to diversify food habits and promote the consumption of these foods are being strengthened but need to expedite the process.

The Bangladesh National Nutrition Council and the National Food Policy Plan of Action (2008 -2015) can serve as a reference point for monitoring the implementation of the food security and nutrition relevant actions based on core output and outcome level indicators.

Besides these, some more initiatives should be undertaken--

- Mainstream unified nutrition messages and interventions with agriculture, food, education and all other program
- Develop national Campaign on food diversity, safe food preparation and consumption
- Integrate nutrition and food safety in curricula (school, graduation, post-graduation, medical and nursing etc)
- Strengthen implementation of National Nutrition Services through better multisectoral coordination;
- Enhance the production and consumption of non-cereal food items
- Promote food safety and hygiene
- Build capacity for smooth implementation and monitoring of nutrition services
- Strengthen biodiversity for healthy diets and nutrition, including indigenous foods and species;
- Promote school feeding and nutrition gardens;

1.0 INTRODUCTION

This paper is a snapshot of progress made on nutrition following the first ICN in 1992 till date and highlights: (a) the nutrition situation and progress made towards achievement of MDGs and other global commitment (b) priority policy actions planned and implemented in Bangladesh within the framework of the national policies, development and investment plans, and (c) technical issues of attention on the national nutrition agenda. In particular, an emphasis is given on the integration of food, agriculture and health for enhancing the delivery on nutrition outcomes.

COUNTRY CONTEXT SINCE 1992

1.1 GEOGRAPHIC INFORMATION

The People's Republic of Bangladesh is located in the Gangetic Delta with an area of 147,570 square kilometres. It is a low-lying, riverine country highly vulnerable to climate change dynamics. The World Bank has estimated that by 2020 there would be a 10 cm rise in sea level that will negatively impact 2500 sq km of land with 15% of the Southern part (Sundarbans) being inundated and close to 1% of the current agricultural produce affected. For administrative purposes, the country consists of 7 divisions, 64 districts, and 545 upazilas/thanas (BBS, 2012a).

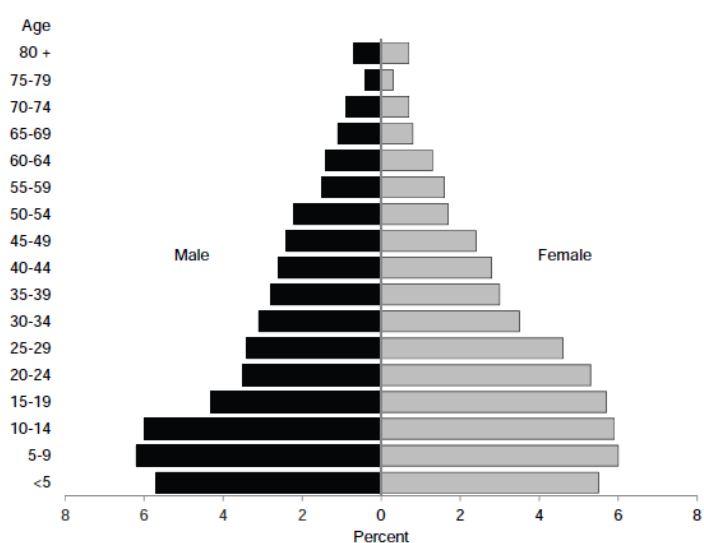
2.0 SOCIO AND ECONOMIC DEVELOPMENTS IN BANGLADESH SINCE 1992

Bangladesh faced a transition during the early 1990s in terms of political stability, economic well-being and food production. In the 90s the GDP grew at an average rate of 5%, 6.4% in 2006-2008 and is in plateau at present. While rural Bangladesh is largely agrarian, but the high remittance and the garment sector in urban area drive the economic growth in the country. With a high population density, the country surprisingly has made strides in food production, overseas remittance, public health, export of readymade garments, and education (primary schooling, female literacy, higher education).

2.1 POPULATION

During the past century, the population of Bangladesh has increased exponentially. Between 2001 and 2011, about 19.8 million people were added to the population, which represents a 15 percent increase and a 1.37 percent annual growth rate. Between the 2001 and 2011 censuses, life expectancy in Bangladesh increased by about two years for males (67 yrs) and by more than three years for females (69 yrs). The country is now experiencing a demographic transition. The continuous decline of the natural growth rate is expected to lead to a smaller

Fig 1: Population Pyramid



BDHS 2011

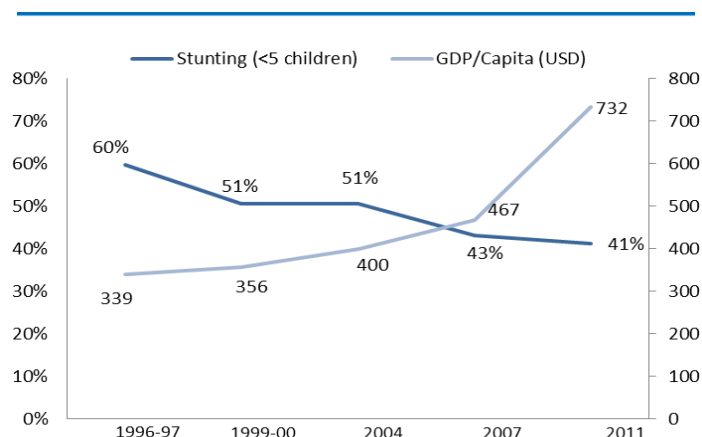
population increase in the coming decades.

The country is secular and the major religions are [Islam](#) (89%), [Hinduism](#) (9%), [Buddhism](#) (1%) and [Christianity](#) (0.5%).

2.2 POVERTY

Poverty has decreased significantly since 1992. Amidst the falling overall poverty rates, gender issues remain problematic adding to household risks, and children's risks. Bangladesh's commitment to social protection and safety-net programmes has led to a sustained decline in poverty. Since 2005 alone, nine million people have been lifted out of extreme poverty. These developments put the poverty target of MDG1 within reach by 2015.

Fig 2: Economic growth vs Stunting among children (<5 yrs)



The decline in poverty has been accompanied by an overall improvement of people's purchasing power, which strengthened their ability to access basic foods. The drop in poverty rates has arguably been the most powerful driver as it allows more people to access and afford better diets. The major achievements in term of food access are: i) Per capita income has been increased more than two folds in the last 10 years; ii) Employment generation has increased through public and private sector programmes; iii) Number of extreme poor reduced from 44 million in 2000 to 26 million in 2010. Regardless of wealth quintiles in the society, malnutrition is pervasive and is present in all sections of the society. However, decline in stunting is yet to keep pace with poverty reduction. Aligning national development policies and programs with key nutrition outcomes can increase the national Gross Domestic Product (GDP) by at least 2-3% annually and help to break the cycle of poverty.

2.3 FOOD SECURITY

The share of households that do not spend enough to meet their basic needs almost halved over the past two decades, from 56.6 percent in 1990 to 31.5 percent today. Improvements are even more pronounced when applying a lower expenditure threshold. In addition, targeted interventions such as homestead gardening, social protection schemes and nutrition education programmes have facilitated or directly promoted access to a larger variety of foods, and strengthened awareness of the importance of dietary diversity. A broader set of food items is available on local markets, also as a result of increased imports. In fact, while diets are gradually becoming more diverse, domestic food production has not adjusted at the same speed and remains dominated by rice.

With an average annual rice production of more than 30 million metric tons, the country is self-sufficient in rice. Rice import dependency declined steadily since 2007-08 from 4.20% in 2007-08 to 2.37% in 2011-12.

Despite significant improvements in cereal grain production, the production of non-cereal foods notably, meat, fish, oil, fruits and vegetables is not adequate enough to meet the population's

dietary requirement, and the per capita consumption is also below nutritional norms. One-third of households in the country are affected by food insecurity with significant inequalities in access to food due to gender and age-related issues and great regional disparities. Food insecurity and under-nutrition are generally worse in rural areas and urban slums.

The most food-insecure regions are in river flood plains in north-east part, cyclone-prone areas in the southern coastal belt and the southeastern part of Bangladesh (Bangladesh Bureau of Statistics, 2010, Household Income and Expenditure Survey/HIES; FSNSP 2012).

2.4 AGRICULTURE

Agricultural extension is being coupled with agricultural research, which has resulted in high yielding varieties of rice and other crops with a high acreage. Progress on new rice varieties goes in this direction, with ten varieties released in 2012/13. BADC has already started multiplication of seed of new saline tolerant varieties developed by BRRI and BINA that are expected to accelerate rice production in the south. Government is paying attention to crop management in adverse environment and climate change adaptation and integrated pest management and good agriculture practices. The livestock and fisheries sectors are growing at increasing rate to meet the growing demand of high value animal proteins.

In general, agriculture contributes to 19.4% of GDP. With nearly 43.5% of labour force engaged in agriculture, 76.5% of the total population have their livelihoods either fully or partially dependent on agriculture. Production of milk, meat and egg has improved from 1.99 mMT, 0.91mMT and 4780mMT in 2003-04, to 5.07 mMT, 3.62mMT and 7617mMT in 2012-13 respectively. The fishery subsector accounts for 4.4% of GDP, provides about 60% of animal protein and contributes to the livelihoods of about 16 million people.

3.0 POPULATION, HEALTH AND HUMAN DEVELOPMENT ISSUES SINCE 1992

HEALTH AND HUMAN DEVELOPMENT

Bangladesh remains in the midst of rapid demographic changes with population growth continuing, age-structure changing, rapid urbanization and considerable international migration. In addition an epidemiological transition is also taking place linked to progress in reducing the impact of communicable diseases and to changes in lifestyles and the environment. Increasing burden of diseases arising from non-communicable diseases and emerging/re-emerging diseases. The country is also confronted with double burden in nutrition situation. With concerns of under-nutrition situation the country is also experiencing overweight among adult women.

A number of Government initiatives that encompass health and human development include education, women's empowerment, social protection and agriculture. On the human development index for year 2014, Bangladesh has been placed at the 142nd position among 187 countries, compared to last year where it was ranked 143rd. Bangladesh scored 0.558 on the index with 70.7 years of life expectancy at birth, average per capita education of 5.1 years and \$2,713 per capita gross national income (GNI).

Bangladesh has a top-ranking position among those countries that provide free medical services to the people at the community level through various public health facilities. The primary healthcare is provided through an extensive network of health facilities extended down to the community level with upward referral linkage and a set of government funded permanent community healthcare workers. Bangladesh has made remarkable progress in recent decades to improve the health status of its population.

A National Nutrition Services Operational Plan that was incorporated within the comprehensive HPNSDP of the Ministry of Health and Family Welfare, focuses on the 1000 days approach which is now widely incorporated into the health, population and nutrition sector-wide programs of Bangladesh. The HPNSDP has two major components: providing equitable quality health services and strengthening the health system.

4.0 COMPARISON OF THE CURRENT FOOD AND NUTRITION SITUATION WITH THAT OF 1992

4.1 FOOD, DIET AND FOOD CONSUMPTION

Bangladesh has made significant progress since 1992 in boosting national food production, with food grain production having expanded through rapid adoption of agricultural technology, irrigation, improved infrastructure and transport linkages and imports. However a large part of the population still lacks access to sufficient, safe and nutritious food. The 2008 food price crisis resulted in serious deterioration of food security and nutrition primarily due to inadequate household access rather than inadequate availability. The periodic floods, cyclones and disasters that have affected the country in 2004, 2007 and 2010 have impacted progress on the food and nutrition situation. Despite these challenges, Bangladesh is steadily improving in addressing its food and nutrition problems.

Currently, a substantial variation in dietary intakes exists, depending on socioeconomic status and urban/rural residence. The habitual diet is dominated by cereals that contribute to three-fourth of total calories as against ideal 60% owing to highly cereal based food production and consumption patterns that are undermining delivery on nutrition outcomes. Rice is the staple food comprising over 50% by weight and 70% by calories of the total food. Between 2000 and 2010, the total per capita food consumption (intake) in Bangladesh has increased slightly (by 6.9%); the intake of cereals is also showing a decreasing trend by 9.5% (rice by 6.4%). The lack of adequate animal source food is a major factor responsible for poor dietary and nutrient adequacy and undernutrition, particularly among mothers and young children.

Persisting poor IYCF practices are one of the direct causes of undernutrition in Bangladesh. Breastfeeding practices are improving overall, particularly reduced pre-lacteal feeds. However, nearly half of newborns are still not breastfed within one hour of birth. Exclusive breastfeeding is common in the first one to three months, but drops significantly by 4-5 months, when other liquids and foods have already been introduced. 18% of children receive complementary foods too early. Nearly 40% start too late. Children diets show that only around a fourth have adequate dietary diversity where a minimum of 4 food groups are taken out of a total list of 7 food groups (on a daily basis). Developments have been particularly promising as regards the consumption of animal foods,

which are rich in protein and micronutrients, as well as fruits and vegetables. Increased food intake of sugar and edible oils, might turn into a health concern if recent trends continue. In addition, the consumption of potatoes and spices already lies above the desirable level for a balanced diet. It is noted that contribution of protein and fat from animal food is lower than the recommended range of population nutrient intake goals¹.

Table 1: Percent supply of protein and fat from animal sources in total dietary energy

Year	Protein		Fat	
	% of total energy	% from animal food	% of total energy	% from animal food
2000 -02	8.6	1.1	10.5	1.6
2003-05	8.7	1.2	10.7	1.7
2004-06	8.8	1.3	10.6	1.8
2005 -07	8.8	1.4	11.5	1.8
2007-09	9.1	1.5	10.0	1.9

Significant improvements in **food consumption** and behaviour have also been observed since 1992, with per capita daily calorie intake rising (from 2266 Kcal in 1991-92, to 2318 Kcal in 2010), as well as increases in the consumption of protein (from 62.72 g in 1991-92 to 66 g in 2010). Dietary diversity has improved, along with a significant reduction of rice intake from 478.8 g in 1992 to 416 g in 2010 (though still higher than the desirable FAO/WHO normative standards. Fish intake is near to the desirable dietary intake pattern. However, consumption of pulses, meat, egg and milk are still below the desirable dietary pattern. Consumption of pulses has declined from 17.9 g in 1992 to 14.3 g in 2010. Though, the intake of fruits and vegetables has increased since 1992, it (211 g in 2010) it is half of the FAO/WHO recommendations (400 g per day). Overall, poor and borderline household food consumption score level are widespread across the country.

Diets lack micronutrients and good quality protein. Diets are generally considered inadequate in terms of pulses, animal sourced foods, milk, fresh vegetables and fruits that provide essential protein and micronutrients. Poor and borderline household Food Consumption Score levels are widespread across the country but the relationship with child undernutrition is weak. Levels of food insecurity are related to undernutrition in adult women but the relationship is not as marked for adolescent girls.

Energy intake remained almost unchanged during 1991-92 (2258 kcal) to 2010 (2245 kcal) but there has been marginal increase in protein intake(62.3 7 to 66.3 g) in both rural and urban areas , though the quality of protein is not adequate being largely derived from cereal sources.

¹ Range of population nutrient intake goals- protein: 10-15%; fat: 15-30% (WHO/FAO, 2003)

Table 2: Food consumption has increased substantially in Bangladesh since 1992

Food item (g)	1991-2	1995-6	2000	2005	201	Desirable Dietary Pattern (g) (BIRDEM, 2013)
Rice	472.8	463.3	458.5	439.6	416.0	350
Wheat	36.3	33.7	17.24	12.1	26.1	50*
Potato	???	49.5	55.5	63.3	70.5	100
Pulses	17.9	13.9	15.8	14.2	14.30	50
Vegetables	137.4	152.5	140.5	157.0	166.1	300
Meat	8.1	11.6	13.3	15.2	19.07	40**
Eggs	4.7	3.2	5.27	5.2	7.25	30
Fish	34.5	43.8	38.5	42.1	49.4	60
Milk	19.1	32.6	29.7	32.4	33.7	130
Fruits	16.9	27.6	28.4	32.5	44.8	100

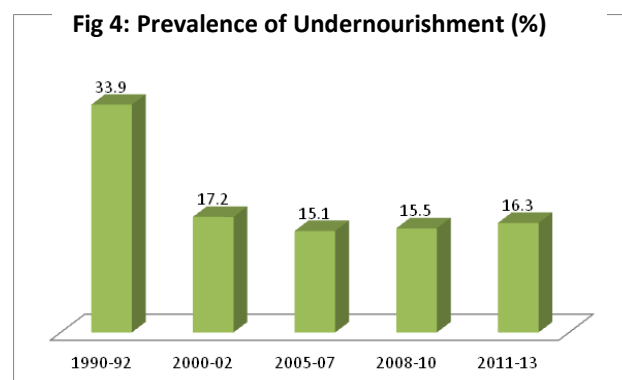
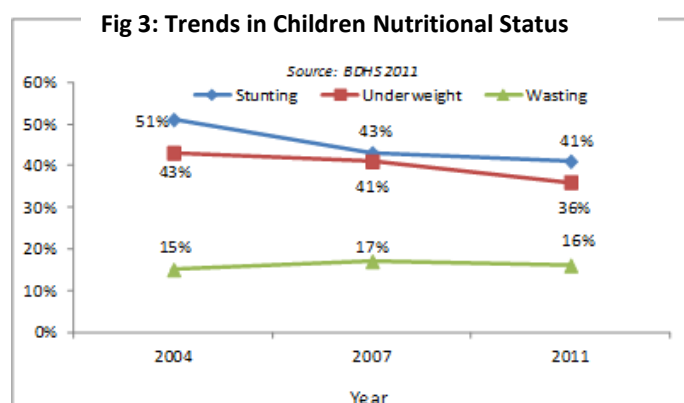
Source: (BBS- HIES, various years)

* wheat and other cereal ** meat and poultry

4.2 FOOD SAFETY

Adulteration and contamination of food constitute a major public health concern in Bangladesh. Adulterated food has many deadly affects leading to deaths and disabilities of many people of Bangladesh every year. Use of formalin, DDT and other toxic chemicals in the food has become a major source of food adulteration and contamination in Bangladesh in recent years. Though the food safety regulatory framework has been framed under the newly enacted Food Safety Act 2013 in the country but the enforcement of laws and effectiveness of the regulatory mechanisms need to be ensured. The capacity of the agencies involved in enforcing the laws and regulations yet to be strengthened.

4.3 NUTRITIONAL STATUS



Source: SOFI-FAO 2013

Under-nutrition in Bangladesh is among the highest in the world and remains a serious public health problem. Approximately 9 million Bangladeshi children between six months and five years of age suffer from under-nutrition, with 41 percent of children stunted, 36 percent of children underweight, and 16 percent wasted. Between 1995 and 2000, there was a good decline in the prevalence of underweight and this decline is likely to be related to the reductions in poverty and fertility and improving health services and enrolment in education over the same time frame. However, alarmingly, since 2007, progress has stagnated, with the prevalence rate remaining at around 44% or 45%. Maternal under-nutrition is also high at 24 percent and more than one in three children is born with low birth weight (LBW). Although, Bangladesh has made impressive progress in achieving some of the HPN-related Millennium Development Goals (MDGs), including declines in infant and child mortality rates and maternal mortality ratio (MMR), and the country is on track to achieve MDGs 4 and 5.

Over the past decade, a robust portfolio on Micro-nutrients (MN) has developed. Bangladesh has achieved a fairly high coverage of vitamin A supplementation in under-5 children and has been successful in eliminating night blindness. Although, anaemia – still one of the major micronutrient issues in Bangladesh – is present among 51 percent of pre-school children and 42 percent of women which higher than the WHO/CDC threshold level (40%) and is considered a severe public health problem. Iodine deficiency disorder (IDD) is also a common problem of children and women of reproductive age in Bangladesh. Alongside over-nutrition is an emerging problem with around 30% of women being affected (BMI >23).

In Bangladesh, malnutrition is caused by a combination of factors including faulty food consumption, food utilization owing to poor sanitation, illness and inadequate health care. Other factors such as rapid population growth, climate change, deteriorating access to increasingly scarce natural resources and vulnerability to price shocks exacerbate the situation. The status of women – access to resources and decision making power - is also a key determinant of undernutrition in Bangladesh.

4.4 HYGIENE AND SANITATION

Bangladesh attained notable progress in universal coverage of water supply. The access to improve drinking water was 70% in 1992 and reached to 85% by 2012. The advancement in sanitation is also quite impressive. The political commitment of the government and a multi-stakeholder approach were instrumental in improving the sanitation coverage in Bangladesh. According to the JMP report in 2012, only 4% of the populations are practicing open defecation while World Bank data show 57% of the populations are using improved latrines. Also, according to Bangladesh National Hygiene Baseline Survey, 2014 report 40% of the households have a hand washing location for post-defecation use with water and soap available. Still we need to explore the quality of the water continuously as there is arsenic contamination in the hand pump (tube well) and low maintenance of pipe line making the water contaminated as well as access to pipe line water is limited in many areas.

4.5 WOMEN'S EMPOWERMENT

The Bangladesh National Women Development Policy 2011 makes comprehensive provisions for women's rights and empowerment through land ownership, earned property, health, education, training and technology, credit facilities and income generation with a vision of improving nutrition. In addition, there are government programmes that are not intended to be nutrition interventions but impact community nutrition. The Secondary School stipend, School Feeding Programme, Vulnerable Group Feeding Programme and Food-for-Work Programmes are some examples.

Women working in the informal sector are unorganized and without any legal protection, more deprived of human rights, live vulnerable lives and represent poorest of the poor. Any form of social safety net is virtually absent for the informal workers. While government servants have medical and maternity benefits, most of the women workers in non-government sectors work without maternity benefits, retrenchment benefit, provident fund money, health facilities. Women in the formal sectors have legal protection as covered in Bangladesh Labour Act 2006. In spite of this, on many occasions, women are deprived of their minimum rights and benefits. In addition, women lack voice and mobility in the trade unions to ensure rights, and to fight against continued discrimination and patriarchal attitudes prevalent in the workplaces. In case of women workforce, the rate of unionized workers is much smaller than that of male counterparts. Active involvement of women in their workplace governance is hardly taken into consideration by the employees.

4.6 CLIMATE CHANGE IMPACTS

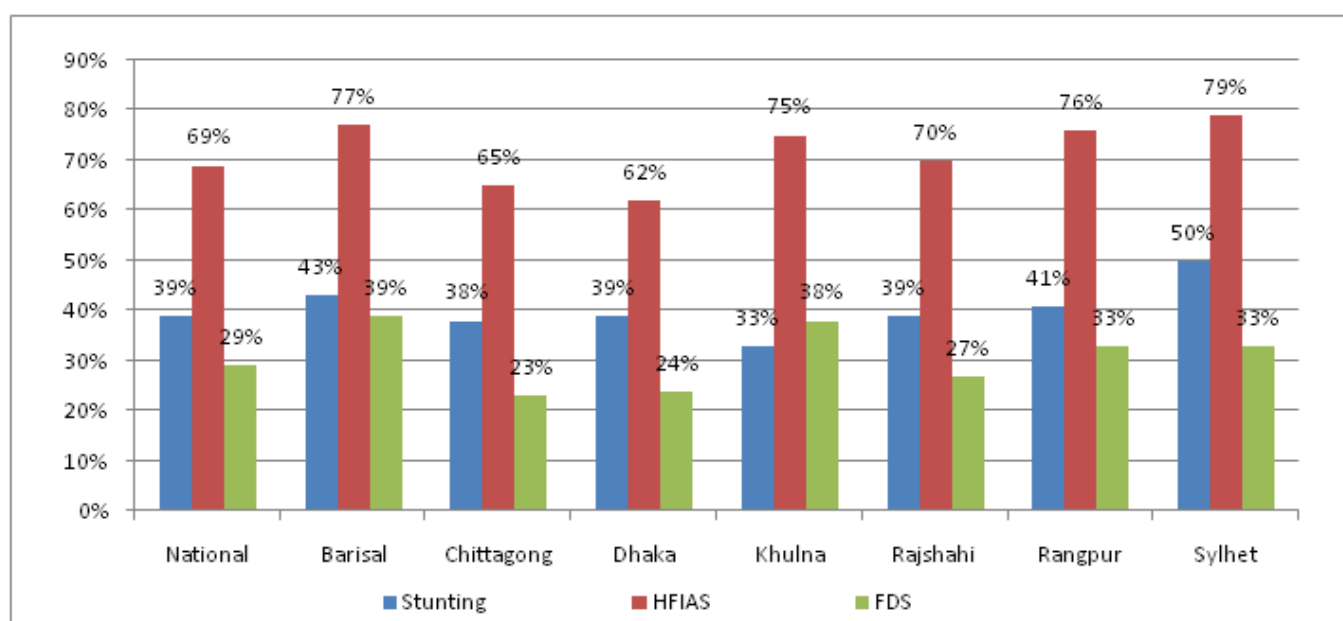
Bangladesh has been classified as highly vulnerable to climate change. The amount of rainfall in Bangladesh is expected to increase by 10% to 15% by 2030 and 27% by 2075. Sea level rise is expected to inundate directly or indirectly 120,000 km². An additional 14.3% of the country would become extremely prone to floods by 2030. All these issues will be affected heavily the food production and availability.

Also, rising carbon dioxide emissions are making Bangladesh's staple [food](#) crops less nutritious, and worsening the serious ill health already suffered by 16 % of its population that suffers from undernourishment. Higher CO₂ levels significantly reduce the levels of the essential nutrients iron and zinc, as well as cutting protein levels. About half of the population already suffer [iron](#) and [zinc deficiencies](#) which cause serious harm, in particular to developing babies and pregnant women. The concern is that this public health problem and rising CO₂ in the atmosphere will exacerbate the problem of micronutrient deficiencies further. While wheat, rice, maize and soybeans are relatively low in iron and zinc, these foods are a major source of the nutrients. About 75% of people in Bangladesh currently get their zinc and iron from these staples. Indeed, the impact of climate change on people's ability to grow and access the nutritious food they need is immense.

5.0 REGIONAL ANALYSIS OF MALNUTRITION AND FOOD INSECURITY

Household food insecurity (HFI) is a recognized underlying determinant of child under-nutrition, with the evidence of associations between HFI and child under-nutrition being mixed. Districts which have food insecurity prevalence higher than the national average also have also higher child stunting rates. The increase in food prices is a likely factor that could have impacted food security and child nutrition. Evidence from food security models has shown the odds of being stunted or underweight were significantly higher for children in severely food insecure households.

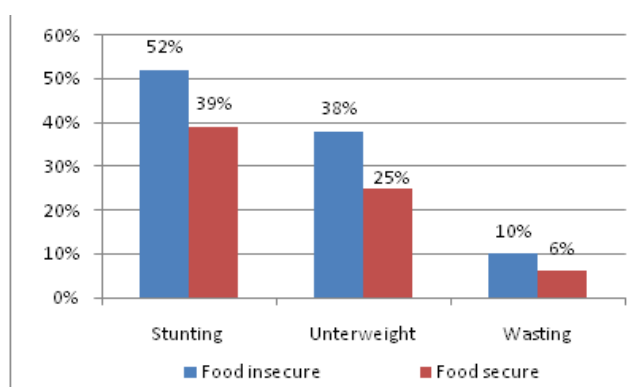
Fig 5: Stunting rates and food insecurity indicators at the national level and by district



Source: FSNSP 2012

Fig 6: Food security vs nutritional status among children (<5 y)

In terms of wealth quintile, a large differential in stunting is noted². Children from the lowest wealth quintile are twice as likely to be stunted as children from the highest wealth quintile, (55% in the lowest compared to 26% in the highest quintile) but wealth alone does not translate into better nutritional behaviour and health. Diet diversity is also correlated with stunting and is associated with maternal education, ownership of cultivated land, and length of breastfeeding. It has also been demonstrated that diet diversity is also associated with household expenditures. Levels of child under nutrition are strongly related to Infant and Young Child Feeding Practices, with a strong geographical association. Despite overall achievements in reducing undernutrition and food insecurity, marked disparities remain in terms of nutritional outcomes, health-related services and social (gendered) determinants of undernutrition.



In the 2011 BDHS, Sylhet (north-west part) emerged as the worst affected Division (out of 7 Divisions) for all three anthropometric indicators of undernutrition. Undernutrition is common among adult women and adolescent girls, with marked regional variations. Such analysis on the mechanisms and the magnitude of the effects of food insecurity on child under nutrition has profound implications on macroeconomic food policies and food price policies on nutritional status.

² BDHS 2011

Three quarters of the population also do not practice recommended hygiene behaviours, with little variation by Division but a marked urban-rural differences. Access to improved water source/sanitation is gradually improving, particularly in rural areas.

6.0 MAJOR CONSTRAINTS & OPPORTUNITIES FOR IMPROVING FOOD AND NUTRITION SECURITY SINCE 1992

Through the international processes of the World Declaration and Plan of Action for Nutrition and the International Conference on Nutrition (ICN 1), the major forms of malnutrition were assessed, their multi-sectoral causes and contributing factors were characterized, and strategies and responsibilities for reducing malnutrition were identified as a basis for concerted national and international action. Along with several member countries Bangladesh was a signatory to this process and developed its Food and Nutrition Policy and National Plan of Action for Nutrition (NPAN) in 1997. The NPAN was developed on the analysis of nutrition situation and followed a participatory process involving major actors in Nutrition at that time including Ministry of Health and Family Welfare with the Bangladesh National Nutrition Council (BNNC) as the focal point. BNNC was chaired by the Hon'ble Prime minister. Core sectors included Ministry of Agriculture, Food, Livestock, and other relevant ministries covering all together 19 ministries. There were several inter-ministerial meetings in the Secretariat and specific nutrition related actions were identified. Research studies, analytical reports and surveys were conducted that helped in form and enrich policy.

6.1 MAJOR CONSTRAINTS

The challenges of Bangladesh in the field of nutrition was the stagnant malnutrition in children and women as well as several micronutrient deficiencies in particular poorer segments of population for access to appropriate food, health care systems and knowledge around those. Both had a demand side and supply side constraints. Nonetheless the programs for upliftment of lower socioeconomic segments in Bangladesh remain to be included in high priority.

Lack of human resources, inadequate nutrition capacity strengthening and leadership and poor funding as well as poor governance and accountability were some of the major constraints. Specific constraints observed were inadequate coordination by high level in the MoHFW due to frequent and other demanding priorities of the ministry and the second was budget constraints and approval under the Annual Development Plan (ADP). The third constraint was the major positive input of project by the Government and efforts by relevant stakeholders who were engaged in the development of ICN 1 documents (FNP and NPAN), therefore the focus of the nutrition initiative changed to immediate funding and implementation of BINP. BNNC was not involved any more with the BINP initiative.

Women and children are the key to ensuring nutrition security. While growth in household income and agricultural productivity are both important levers in addressing malnutrition, they are not sufficient. Community-based nutrition activities being implemented by the MoHFW-- yet to be fully functional, accessible, targets vulnerable groups and remote communities, and has a strong monitoring component for effective implementation.

The wage difference between men and women in agriculture continued to decline slightly, but still remains at around 40%. Women's daily wage rates are half that of men's and there is less difference in the daily wage rates paid to women between agriculture and non-agriculture occupations. However, a good part of post-harvest activities are carried out by women, generally at household premises, all over the country. In 2011/12, the wage differential between men and women in agriculture was estimated at 40% which was marginally lower than that in the preceding two years. Between 2011 and 2012, the purchasing power of the male daily wage increased but the female wage did not. This is likely to impact on the food security and nutrition of households, particularly women headed households.

6.2 OPPORTUNITIES

With recent Government initiatives concentrated efforts on nutrition policies and programs integrated with agriculture and foods sectors input, health and population sector programs and most importantly poverty reduction strategy made significant change in situation. From a governance perspective, investing in nutrition has been a commitment in Bangladesh from the highest level of leadership. Policies and policy instruments aim to address food security and nutrition encompass nutrition within a comprehensive framework. Following the World Food Summit of 1996, the Government of Bangladesh undertook an in-depth consultative process of food security policy reform in which nutrition was embedded. This led to the development of comprehensive food security policy framework (the National Food Policy 2006 –NFP) and programming document (the National Food Policy Plan of Action 2008 -2015 – PoA) as well as an investment plan for food security and nutrition (the Bangladesh Country Investment Plan 2011 -2016 -CIP).

The Sixth Five Year Plan (2011-2015) underlines the concerns around food and nutritional security as exposed in the NFP and its PoA. Factors such as rapid population growth, climate change, deteriorating access to increasingly scarce natural resources and vulnerability to price shocks exacerbate the nutrition situation and are being addressed through multi sectoral responses.

Given the cross cutting nature of nutrition problems, interdependent interventions across diverse sectors such as agriculture, health, education, water and sanitation and food and disaster management are being implemented, the Draft national Nutrition Policy 2014 sets the vision to curb malnutrition and securing nutrition security for all citizens of Bangladesh with strong recognition of not only multisectoral efforts for nutrition sensitive and specific interventions but also overarching coordination mechanism for relevant sectors.

Womens' roles also need to be acknowledged and maximized in agriculture, which is not mainly confined to weeding, post-harvesting, processing, and preservation, but to promote technologies that allow balancing agricultural tasks and family care and to strengthen women focused nutrition-sensitive agriculture interventions. Evidences from integrated food and nutrition projects in Bangladesh shows that engagement in homestead poultry rearing can increase egg production and consumption by children and reproductive-age women. Similarly, in a vegetable and poly-culture fish production programme there was an increase in vitamin A consumption, improvements in weight-for-age z-scores for children, a decrease in stunting by 28 percentage points among girls and 43 percentage points among boys, and increases in body mass index for women, despite the absence of long-term income effects.

7.0 STRENGTHENING INSTITUTIONAL MECHANISMS FOR MULTI SECTORAL COORDINATION

Bangladesh has composite institutional structures in place for food security and nutrition that provide co-ordination at different levels. This includes the Food Planning and Monitoring Committee (FPMC), National steering committee and Bangladesh National Nutrition Council (BNNC) whose members include Ministers and Secretaries from 17 Ministries. This Committee provides strategic orientation on policies related to food, nutrition and food security and establishes a high-level commitment to inter-sectoral collaboration. The Food Policy Working Group is the mechanism for coordinating collaboration at the technical and operational level. The Food Planning and Monitoring Unit of the Ministry of Food facilitate this multi-sectoral coordination through four thematic teams, each of which represents a dimension of food security (health and others for nutrition). The Ministry of Health and Family Welfare has a multi sectoral national steering committee to oversee programmatic and policy issues for nutrition implementation and strengthening linkages among the sectors. The NNS has working partnership with other ministries (Food, Agriculture, Fisheries and Livestock, LGRDC, Information), development partners (UN-WHO, UNICEF, FAO, WFP and bilateral development partners-USAID, DFID etc.), INGOs (Save the Children, Terre des Hommes, World Vision, Micronutrient Initiative, ACF etc.) and Civil Society is actively engaged in expansion of SUN movement in Bangladesh. To this end, progress on NNS outcomes and investments are analyzed in the CIP monitoring, which feed into the government strategies to enhance nutrition- oriented food security programming and scale up of nutrition. BNNC is in the process of revitalization.

Within these institutional mechanisms, the task of facilitating collaboration and coordination is challenging and the necessary capacities for this need to be fully developed so as to effectively implement these inter-sectoral processes.

7.1 STRENGTHENING CAPACITY FOR NUTRITION IMPLEMENTATION

The National Nutrition Services are intended to promote outreach, coverage and delivery of an integrated package of nutrition services to the community with a focus on mothers and young children. In order to be an effective driver of nutrition improvements, it requires sufficient capacity strengthening with an emphasis on strategic programme content and management as well as mobilizing households to undertake actions relevant for their own nutritional improvement. This also calls for mainstreaming nutrition services not only the health sector but across all relevant sectors. According to health and nutrition experts, health programme staff must be fully capacitated in nutrition services with additional hiring to ensure that staff is not overloaded with additional accountabilities so as to facilitate the success of this programme. The NNS and CIP's goals were in line with a cross-over in the team advising the CIP prioritization process and in the development of the NNS Operational Plan. BNNC need to be strengthened.

7.2 LEVERAGING AGRICULTURE FOR NUTRITION

Agriculture systems that encompass activities related to production, acquisition, and utilization of food, need to be leveraged to strategically prevent malnutrition in an economically, environmentally sustainable way. Narrowing the nutrition gap is a challenge - the gap between what foods are grown and available and what foods are needed for better nutrition. To this end, agricultural systems including livestock and fisheries are being strengthened to contribute

adequately and efficiently towards meeting nutritional needs of the households and population. Programmes to diversify food habits and promote the consumption of these foods are being strengthened. The NNS and agriculture extension services are collaborating and coordinating to facilitate the institutionalization of community based nutrition education strategies to establish sustained nutrition behaviors. A number of field programmes and projects including integrated agriculture and health based interventions in the south, crop diversification programmes in the north, safety net programmes across the country are but some examples of nutrition sensitive interventions.

8.0 CURRENT NUTRITION POLICY FRAMEWORK AND IMPLEMENTATION

MECHANISMS IN THE COUNTRY

Nutrition being multisectoral in nature, requires interdependent interventions across diverse sectors such as health, food, agriculture, fisheries and livestock, education, information, social protection, sanitation and hygiene and environment. Without strategic planning and coordination, it will be difficult to ensure resources are channeled to where they are needed most. The Government of Bangladesh has approved several policy documents (national and sector wise) since 1992.

8.1 EVOLUTION OF POLICIES

Between 1990 and 2014, Bangladesh implemented two successive Five Years Plans, Fourth Five Year Plan (1990-1995) and Fifth Five Year Plan (1997-2002). Beside this, Government of Bangladesh has endorsed Sixth Five Year Plan (2011-2016) in 2011. In 1997, Government of Bangladesh approved 'Bangladesh National Food and Nutrition Policy', and further developed and endorsed the National Plan of Action for Nutrition (NPAN) in 1997. The National Food and Nutrition Policy 1997 has been revised and updated to a National Nutrition Policy 2014 (focusing on nutrition specific and sensitive interventions with multisectoral efforts) and now awaits endorsement by the Government.

In 2006 in line with its comprehensive approach to addressing food security, the National Food Policy and National Food Policy Plan of Action (NFP PoA 2008-2015) was developed which embedded nutrition as part of one of the key objectives and elaboration through strategic intervention updated from the NPAN. From FY 2003 to 2010, there was a process of shorter term Poverty Reduction Paper (PRSP). In the same year, the Government endorsed the National Plan of Action for Nutrition (NPAN). Bangladesh prepared the PRSP 1 (Unlocking the Potential, National Strategy for Accelerated Poverty Reduction) and its Policy Matrices in 2005. Two health sector plans, namely Health Nutrition and Population Sector Program (HNPSPP 2003-2011) and Health Population and Nutrition Sector Development Program (HPNSDP 2011-16) were formulated. The HPNSDP is being implemented through a sector wide approach. National strategy documents including that on control of Anaemia (2007) and Infant and Young Child Feeding (2007) have been endorsed by the government.

PRSP 1 (Unlocking the Potential, National Strategy for Accelerated Poverty Reduction) and its Policy Matrices (2005) paid particular attention to mainstreaming food concerns as a key goal for pro-poor economic growth. PRSP also gives importance to food safety and quality, health care and safe water and sanitation for all, with special emphasis on children's need.

The National Food Policy 2006 (NFP) is Bangladesh's main policy document on food security. It represents an important departure from the past by applying a comprehensive and integrated approach to food security, including the availability, access and nutrition dimension of food security. The document provides a set of guidelines regarding inter-ministerial coordination, sectoral planning and budgeting, with a view to promoting implementation effectiveness. It also gives an outline of the strategy for monitoring of progress.

6th Five Year Plan (2011-2015), “effectively address the nutrition concerns, interdependent interventions across diverse sectors such as agriculture, health, water and sanitation, education and food and disaster management were strengthened”.

Health Population Nutrition Sector Development Programme (HPNSDP) and National Nutrition Services: In 2011 Government of Bangladesh has approved Health Population Nutrition Sector Development Plan (HPNSDP) for 2011-2016. Under the HPNSDP, there are 32 Operation Plan (OP) for implementation. National Nutrition Service (NNS) is one of the important OP under the HPNSDP for the implementation of nutrition activities. NNS is being implemented through the mainstreaming nutrition of MoHFW that is their two directorates, Health and Family Planning. Responsibilities of relevant sectors and the selected institutions need to be expanded and capacity will be developed accordingly. There is an Inter-Ministerial Steering Committee under the Ministry of Health and Family Welfare (MoHFW) to monitor Nutrition Implementation through different Ministries and Agencies, where 13 Ministries have been included. A Nutrition Task Group including government multiple sectors and development partners provides support to review progress on policy and programmes. MoHFW conducts a mid-term review (MTR) of the HPNSDP with the support of Development partners (DP).

Bangladesh Country Investment Plan (CIP) : Bangladesh has formulated the Bangladesh Country Investment Plan (CIP) for Agriculture, Food Security and Nutrition in 2010 and revised the same in 2011. The total cost of the CIP is estimated to be US\$ 9.8 billion. Of this, US\$ 6.2 billion have already been financed through allocated GoB budgetary resources and contributions by the development Partners. The remaining US\$ 3.6 billion are in the pipeline. Moving forward since 2011, the CIP is being translated into action through active resource mobilization.

National Food Safety Act 2013 endorsed by the Government and a new authority to deal the Food Safety issues- National Food Safety Authority has been established.

National Guidelines for the Prevention and Treatment of Iron Deficiency Anaemia and National Strategy for Anaemia Control and Prevention: National Guideline for the Prevention and Treatment of Iron Deficiency Anaemia (2001) recommends iron supplementation, dietary improvement, food fortification and helminths control in pre-school children, school-age children, adolescent girls and

women of reproductive age. In 2007 the National Strategy for Anaemia Control and Prevention was published, aimed to reduce by one quarter the prevalence of anaemia among high-risk groups in Bangladesh by 2015.

National Strategy for Infant and Young Children Feeding: To protect and promote infant and young child feeding practice, a National Strategy for Infant and Young Children Feeding in Bangladesh was developed in 2007. The Infant and Young Child Feeding (IYCF) National Action Plan (2009-11) was then developed to identify activities, indicators and possible stakeholders for the protection, promotion and support of infant and young child feeding under different operational targets as set in accordance with the national strategy on IYCF. The National Communication Framework and Plan for Infant and Young Child Feeding in Bangladesh was published in 2010. This plan has been developed for 2010-2013 and will be reviewed and extended to 2016 to feed into the HPNSDP (2011-2016).

Food Based Dietary Guidelines and National Food Composition Table: In 2013, Food Based Dietary Guideline (for adults) has been developed which is yet to be endorsed by MOHFW. However, recently initiative has been taken by MOHFW and NNS to develop the “National Dietary Guideline in Bangladesh” which is yet to be finalized. This guideline will be considered as a standard guideline for the nation, which will be disease and age-specific.

The National Food Composition Table have been revised and updated in 2013. The nutrient composition of 381 foods representing 15 food groups including 20 key foods that represent 75% of the nutrient intake and 11 cooked recipes are included in the new food composition database and FCT. The nutrient composition of 75 ethnic foods that had been earlier analyzed have also been considered in the update of the national FCT.

National Hygiene Promotion Strategy for Water supply and Sanitation in Bangladesh 2012— Bangladesh government has adopted the national policy on safe drinking water and sanitation (1998) which is the core policy documents that leading water and sanitation sector. In 2011 government revised the sector development plan (2005) and prepared the water and sanitation sector development plan for 15 years (FY 2011-15). Moreover the “National Hygiene Promotion Strategy for Water supply and Sanitation in Bangladesh 2012” has been formulated to promote the sustainable use of improved water supply and sanitation facilities and to create an enabling environment outlining the hygiene practices to reduce the water and sanitation related diseases through an integrated and coordinated approaches.

7th Five Year Plan would also continue to strengthen multisectoral effort to curb malnutrition and would formulate a common result framework for nutrition encompassing both specific and sensitive actions. The Planning Commission (Ministry of Planning) is now developing Seventh Five-Year Plan 2016-2020 to accelerate growth as well as reduce poverty and a substantial focus on nutrition is being emphasized in addition to it being integrated across thematic issues of agriculture, health, food security, climate change and gender.

8.2 NUTRITION-RELEVANT LEGISLATION

National legislation on food fortification and food safety are being put in place. Provisions for the International Code of Marketing of Breast Milk Substitutes (BMS) have been enshrined in the law covering upto 5yrs of child age. The maternity protection law ensures maternity leave of 24 weeks, which exceeds the minimum recommended length of leave of 14 weeks set by the International Labour Organization (ILO). The contribution of private sector in food fortification, quality assurance and BCC are being strengthened

The following legislations have been put in place

- BMS Act 2013
- The Breast-Milk Substitutes (Regulation of Marketing) Ordinance 1984, Amended as Act in 1990
- Maternity Protection Law (Government Notification on amendment of Bangladesh Service Rules) 2011
- The Prevention of Iodine Deficiency Disorders Act 1989 Summary/Detail Financial Ledgers and Sub-Ledgers.
- Food Safety Ordinance (Bangladesh Standards and Testing Institution) 1985
- The Bangladesh Pure Food (Amendments) Act 2005
- National Food Safety Act 2013
- Formalin Control Act 2014

9.0 FOOD AND AGRICULTURE PROGRAMMES AND INTERVENTIONS BEING IMPLEMENTED TO IMPROVE NUTRITION

It is noteworthy that all Government and Non-Government actors are implementing their programs in line with national policies and programs related to health, nutrition food and agriculture. Objectives of the revised 'National Agriculture Policy 2013' is to ensure food and nutrition security for all and improve the quality of life for rural people through increase productivity and agriculture diversification. One of the important objectives of this policy is to promote high value nutrient enrich crops to fulfill the nutrition requirement of the people of Bangladesh.

Governments has also taken initiative for land reforms and strengthen fish, poultry and livestock firming. Bangladesh's homestead and nutrition education programme that has been in operation since two decades is being scaled up through efforts of the Ministry of Local Government and Rural Development to implement a programme known as Ekti Bari Ekti Khamar (one household, one farm).

9.1 SUCCESS STORIES, BEST PRACTICES AND LESSONS LEARNT

The Government of Bangladesh has positioned 'Nutrition' as central for development. The Government of Bangladesh is implementing National Nutrition Services (NNS) through mainstreaming nutrition into existing health services and strengthening a multi-sectoral approach to nutrition implementation. The Government passed an ordinance in 1984 following the 1981 WHO International Code of Marketing of Breast-milk Substitutes (BMS) towards the protection, promotion and support of breastfeeding. In this connection a BMS law in 2013 has been passed with the directive of the Honorable Prime Minister.

As an appreciation of its strong commitment to agricultural development, Bangladesh received FAO's highest Ceres Medal that was awarded to the Hon'ble Prime Minister in 1999 for her outstanding leadership in the progress towards attaining food security in Bangladesh. More recently, among the 38 countries that met internationally-established targets in the fight against hunger, ahead of the deadline set for 2015, Bangladesh demonstrated decline in population level undernourishment (as the prevalence of undernourishment reduced from 34.6% in 1990-92, to 16.8% in 2010-2012) and achieved the MDG target 1 for hunger. Bangladesh was awarded a diploma from FAO in recognition of its notable and outstanding progress in fighting hunger.

Best Practices: Food cost has not been above purchasing power. Sectors of education and health care are growing and increasing demand by the people. A large country by population (160 million) is making rapid progress with challenges of various kinds, however, 100% of drugs are available free in the community clinics. Immunization and Vit A capsule distribution coverage is about 98%. Health & nutrition Information System is activated, Surveillance system is growing. Food safety and availability is getting more attention.

Lessons learned: Better coordination in policy and programs between Ministries is key to having coherence, consistency and efficiency in policy implementation. Resource allocation, effective delivery and adequately trained human resources in nutrition are other essential requirements. Mainstreaming nutrition across multiple sectors has been initiated and has provided some useful lessons. Nutrition education needs to be institutionalized using common strategies and core messaging so as to impact nutrition behavior change. Bridging the interface between national and sub national level structures and linking service delivery structures to community based mechanisms is another lesson being learned.

With further coordination among the relevant ministries as well as the Non-Government sectors with large, medium and small NGOs and the development partners increasing role of concerted efforts with Government ministries has set a positive scenario to improve situation in nutrition security in Bangladesh. The size of the population of Bangladesh is large and needs time to improve to desired standard with further allocation of resources for specific nutrition actions on a sustainable strategy.

10.0 POLICY AND PROGRAMME IMPLEMENTATION MECHANISMS FOR IMPROVING FOOD AND NUTRITION SECURITY

Bangladesh has also established a Common Results Framework (CRF) that cuts across food security and health with the involvement of all relevant stakeholders based on existing policy and programmatic frameworks in key sectors: National Plan of Action for Nutrition (1997); National Food Policy Plan of Action (2008 -2015) National Sixth Five Year Plan; Vision 2021; Country Investment Plan (CIP) for Agriculture, Food Security and Nutrition (2010-2015), Health, Population Nutrition Sector Development Programme –HPNSDP (2011 -2016) , National Health Policy 2011, Draft National Food Safety Policy 2012 and the draft National Nutrition Policy-2014.

In addition to nutrition-specific policies, other important policies being implemented are in consonance with the common framework to protect the health of children and their mothers that can impact delivery nutritional status. Some of the notable policies include, the National Health Policy, 2011 (MOHFW), National Neonatal Health Strategy and Guidelines or Bangladesh, 2009

(MOHFW), Strategic Plan for Surveillance and Prevention of Non-Communicable Diseases in Bangladesh, 2007 (MOHFW), Agriculture Policy, Food Policy and its Plan of Action among others. .

In Bangladesh, Ministry of Health and Family Welfare is key ministry to implement direct or nutrition specific interventions through its unique nationwide network of facilities and services in a sector wide approach. These interventions/programmes are moving towards being more nutrition-sensitive. Non-governmental and Civil Society organizations are also focusing on nutrition-sensitive initiatives. Thirteen line ministries are implementing or supporting nutrition sensitive interventions and include Ministry of Agriculture, Ministry of Health & Family Welfare, Ministry of Disaster Management and Relief, Ministry of Finance (Finance Division and Economic Relation Division), Ministry of Fisheries and Livestock, Ministry of Food, Ministry of Industries, Ministry of Local Government, Rural Development and Cooperatives (LG Division and RD Division), Ministry of Planning (Planning Commission, Statistics Division and IMED), Ministry of Primary and Mass Education, Ministry of Water Resources and Ministry of Women and Children Affairs.

The Ministry has two Directorates namely, Directorate General of Health Services (DGHS) and Directorate General of Family Planning (DGFP) as the implementing arms. Most of the programmes and activities related to public health and nutrition are implemented and supervised by both the Directorates, which have unique nationwide network of facilities and services. Mainstreaming of nutrition in the health and family welfare services is key strategy under the current sector plan. The Institute of Public Health Nutrition is the technical hub for nutrition activities.

Each sector has its own structural and functional entities those are contributing to nutrition development. Health Population and Nutrition Sector Development (HPNSDP 2011-16) is the current sector plan that set nutrition mainstreaming into health & family planning as key strategy. The National Nutrition Services (NNS) under the MoHFW, is leading nutrition implementation technically and logistically, which delivers a comprehensive nutrition package to communities, including support for IYCF, dietary diversification, food supplementation and fortification, and management of acute malnutrition both at facility and community level. Ten other Operational Plans are also playing supportive implementation roles. However, multi-sector coordination had been a challenge.

11.0 ANALYSIS OF PAST AND CURRENT NUTRITION ACTIONS IN THE COUNTRY

11.1 PROGRESS MADE IN TERMS OF POLITICAL COMMITMENT SINCE THE 1992

INTERNATIONAL CONFERENCE ON NUTRITION (ICN)

Government of Bangladesh has made several political commitments to the Global forum. These includes:

- World Food Summit 1996
- MDG Declaration 2000
- Copenhagen Consensus 2012
- Nutrition for Growth Commitment 2012
- SUN 2010
- Commission on Information and accountability (COIA) for Women and Children 2012 or 2013
- UN Secretary General's Zero Hunger Challenge

Support for nutrition from international commitment in the form of the declaration at the ***International Conference of Nutrition (ICN) organized by FAO and WHO and other stakeholders in Rome in 1992, catalyzed action from around the world and*** Bangladesh was a signatory to this process. The Government endorsed the National Plan of Action for Nutrition (NPAN) as followed from World Declaration for National Plan of action for Nutrition at the ICN and also developed a National Food and Nutrition Policy.

To bridge the gaps in policy, planning and action, ***the World Food Summit in 1996*** emphasized diversified food production and a comprehensive approach to food security encompassing availability, access, stability and utilization at national and household levels. The impact was slow and the efforts could not meet the International and national goals of Alma Ata and ICN. UN organizations and International community reaffirmed their commitment and came up with 8 health related Millennium Development Goals (MDGs) in 2000 to reduce hunger and under-nutrition as MDG 1 with several targets to halve all forms of undernutrition of 1990 level by the year 2015.

Despite international efforts, the progress in reducing malnutrition remained slow. The magnitude of this huge public health problem, Scaling Up Nutrition or SUN movement came as a global push in 2010 lead by UN secretary general with commitments of more than hundred organizations and agencies. SUN is a unique movement founded on the principle that all people have a right to food and good nutrition. SUN is country lead which is supported by the SUN networks at the multi-stake holder country platform. SUN movement is further boosted by the Copenhagen Consensus of Experts in 2012, and Nutrition for growth commitment was hosted by government of UK in support of SUN attended by Government representative from SUN countries including Bangladesh renewed their commitment. In addition, the Climate Change Summit in 2012 and the Commission on Information and Accountability (COIA) for women and children in 2013 also joined the commitment to improve nutrition.

Bangladesh responded to all the internationally set goals and commitments to improve nutrition of all citizens particularly women and children. And as such, it has taken several steps over the decades since ICN in 1992. Government launched largest vertical project ***Bangladesh Integrated Nutrition Project (BINP 1995-2002) and*** National Nutrition Programme (NNP 2000- 2005) which has been scaled up as National Nutrition Services (NNS 2006-2011) to understand importance of nutrition and improve nutritional status of the population with special focus on maternal and child nutrition. The Country Investment Plan for Agriculture, Food Security and Nutrition is another recent milestone that is tracking outcome and delivery progress across 12 priority programmes and assessing financial gaps for food security and nutrition investment.

11.2 OPERATIONAL CAPACITY TO IMPLEMENT NUTRITION ACTIONS SINCE THE 1992 ICN

There is an Inter-Ministerial Steering Committee under the Ministry of Health and Family Welfare (MoHFW) was formed in 2011 to monitor Nutrition Implementation through different Ministries and Agencies, where 13 Ministries have been included. Also, following initiatives have been undertaken to implement the nutrition services nationwide:

- Focal Point for SUN from MOHFW was identified and heavily engaged to coordinate the SUN movement in Bangladesh in collaboration with UN organizations, DPs, INGOs, LNGOs and CSOs

- Monitoring tools and Monitoring plan has been finalized to monitor the 20 components of NNS nationwide
- Operation Plan for Nutrition has been finalized and regularly revised
- National Nutrition stakeholder mapping in 2013 has been done
- CIP monitoring mechanism coordinated by MOF engaging 13 partner ministries in regular basis
- Revision of National Nutrition Policy in 2013 has been done
- Revision of BMS code, 2013 done and new BMS act 2013 has been endorsed by Government
- Nutrition indicators mainstreamed with HMIS, FPMIS and FSNIS
- National Agriculture Policy 2013 finalized
- National Food Policy 2006 developed
- More than 500 positions of Nutritionists created as per the Prime Minister's Directive and recruitment in on process.

11.3 MANAGERIAL CAPACITIES TO IMPLEMENT NUTRITION ACTIONS SINCE 1992

In Bangladesh, there is no provincial government system rather a divisional administrative tier is in place. Managerial capacities of line ministries staff at the national, divisional and district level have been improving. Different technical agencies including UN organizations and Development Partners have been providing technical support in relevant sectors. Good governance and accountability need to be established. Monitoring system need to be strengthened more. The capacity of the Government staff in terms of programme management and financial management need to be strengthened.

The Ministry of Agriculture (MOA) possesses a sound agricultural extension services system at the sub national and sub district levels. Recently MoA has established a policy support unit for the research on policy. The Ministry of Food has well-structured food planning and monitoring unit at the national level. In collaboration with other thirteen ministries and agencies, this unit has been working to monitor food security and nutrition situation in Bangladesh.

11.4 TECHNICAL CAPACITIES OF SERVICE PROVIDERS AND R&D SECTOR

By establishing Bangladesh National Nutrition Council (BNNC 1975), technical capacity of Ministry staff, agriculture service providers and R & D sectors has been developed since 1992. Different UN organization and Development partners have been working with different ministries/agencies to foster food security and nutrition in Bangladesh. Also, there is a huge urge to revitalize the BNNC.

Agriculture Service providers and R & D sector: The National Food Policy Plan of Action and CIP stressed on improvement of extension services to propagate knowledge and practices, supported by community based experimentation and learning and indigenous knowledge. To coordinate, enhance capacity and maximize impacts of the extension system, the government has recently revised the New Agricultural Extension Policy (1996) adopting the National Agricultural Extension Policy (NAEP, 2012).

12.0 MONITORING AND EVALUATION MECHANISMS

12.1 INSTITUTIONAL SETTING FOR MONITORING FOOD SECURITY AND NUTRITION

Ministry of Health and Family Welfare (MOHFW) and the National Steering Committee for Nutrition, which oversee the process of mainstreaming nutrition within the health sector. This committee is chaired by Secretary (MOHFW) with members from different ministries is in place. This is a key priority within the Health, Population and Nutrition Sector Development Program (HPNDSP), a sector wide approach with pooled funding from a wide range of donors. This programme involves 32 Operational Plans, 7 of which cover nutrition related activities, including funding for the Institute of Public Health Nutrition tasked with coordinating the delivery of National Nutrition Services through the health system. The HPNDSP however only provides frontline health services in rural areas as urban health services are managed under a different Ministry.

Annual Program Implementation Report (APIR) for the Health, Population and Nutrition Sector Development Program (HPNSDP) 2011-16 has been preparing by the Program Management and Monitoring Unit (PMMU) of the Planning Wing (PW) of the Ministry of Health and Family Welfare (MoHFW), to assess progress of implementation of the Operational Plans (OPs) in order to facilitate the Annual Program Review (APR) since 2012.

Bangladesh National Nutrition Council was established in 1975 by an order of the President, Government of Bangladesh. The BNNC has been reconstituted several times by the Government. The members of the Council are the concerned ministers (15 ministries), secretaries, senior administrators, policy makers, nutrition experts, journalists, heads of relevant organizations, and divisional women representatives. The management of the council is vested in an Executive Committee (EC), headed by the Minister for Health and Family Welfare. Secretaries of different ministries and heads of different organizations represent the other EC members. The BNNC also has a Standing Technical Committee consisting of technical experts on nutrition. The objectives of the BNNC are the formulation and updating of the National Food and Nutrition Policy; approval of nutrition programmes for different ministries and institutes; and monitoring the implementation of the policy / plan of actions and evaluation of policy progress as well as nutrition research programmes, building capacity etc. However, revitalization and strengthening of BNNC is being carried out.

Monitoring of the CIP in conjunction with the NFP-PoA has been started since 2010. Recently CIP and NFP PoA Monitoring Report 2013 have been published. The CIP monitoring system will obviously promote strong linkages among the stakeholders (GoB, DP, CSOs, other) obtain regular feedback on the process being made towards the achievement of the development results and targets reflected into the CIP Results Framework.

Food Planning and Monitoring Unit has been monitoring food security and nutrition situation in Bangladesh and the implementation of the related policies since decades. Bangladesh has a composite institutional structure for food security and nutrition that provides coordination at different levels, including for monitoring. This includes at its top the Cabinet level Food Planning and Monitoring Committee (FPMC), chaired by the Food Minister and with membership of 17 Ministers and Secretaries. The national level food security and nutrition data sources in Bangladesh include the HIES, BDHS, MICS and FSNP. Bangladesh Bureau of Statistics (BBS) has been conducting the HIES since 1973/74 on a five year basis. This serves as a core survey for data on income, expenditure, food consumption and poverty and its correlates in Bangladesh.

In 2012, Ministry of Agriculture and IFPRI jointly launched the Bangladesh Agricultural Policy Support Unit (APSU). This unit do in-depth analysis for policy options, and monitor and evaluate the implementation and impact of those policies. APSU will also serve as a data reservoir for other institutions wishing to conduct agriculture and food security research.

13.0 AGRICULTURE FOCUSED SUSTAINABILITY TO IMPROVE NUTRITION

Intensification, sustainability and resilience of rice production: The evolving food consumption pattern indicates that per capita rice consumption will, on average, most likely decline. Considering that the population growth rate is approaching 1% per year per capita consumption is declining and considering loss of agricultural land in the order of half percent annually, an annual increase in rice productivity of 2% or more could allow releasing of land and other resources as required for diversification. This calls for sustaining efforts to promote intensification, sustainability and resilience of rice production. Moreover a strong country wise awareness building campaign is needed to develop healthy food habit and diversification of food consumption; which will ultimately lead in decreasing rice dependency.

Bringing more fallow land under cultivation in coastal areas: The southern belt covers 30% of the arable lands of the country, but 15% of the available cultivated land in this area is either left fallow and/or not utilized because of soil salinity, water salinity, and water logging. This area is viewed by the Government as a possible 'rice bowl' considering the availability of abundant land, and good potential to increase coverage and productivity of transplanted *aus* rice. The total potential transplanted *aus* area is estimated at 740,346 ha of which 38% would be suitable and 40% moderately suitable.

Moreover, the potential boro area under surface water irrigation in the region is estimated at 695,200 *haor*. To match the salinity levels, new rice varieties are being developed, which farmers have started adopting.

Coping with climate change: Cyclones in the Bay of Bengal would occur more frequently due to increasing temperature, and the peak intensity of cyclones may increase by 5% to 10%. Cyclones hit throughout May and between mid-October and mid-November, and these can coincide with the harvesting time of *boro* and *aman* rice. The development and adoption of shorter duration rice varieties could protect these two crops by advancing the maturity time out of cyclone-risk periods. Salinity problems in coastal areas are expected to further exacerbate as a result of the reduced dry-season freshwater supply from upstream sources due to the change in rain pattern. The area severely affected by drought in the *rabi* season could increase from 4000 km² to 12000 km² under severe climate change scenario. Overall, crop production might be reduced by 30% by the end of the century, especially rice and wheat production might be reduced between 8% and 32% by 2050. Winter crop production would be seriously hampered due to warmer and drier environment, while moisture stress might force farmers to reduce the area under *boro* cultivation.

Given that diet-based strategies are probably the most promising approach for a sustainable control of macro/micronutrient deficiencies, increasing dietary diversification through consumption of a broad variety of foods, preferably from home gardens, fisheries and small livestock production has been promoted. Mass media nutrition awareness campaigns and intensive nutrition education

needs to be implemented on a national scale to support and educate households to increase production of dark-green leafy vegetables, yellow and orange fruits, poultry, eggs, fish and milk. Climate change adaptation requires investments in agricultural research and extension with a particular emphasis on development and diffusion of stress resistant high yielding varieties.

14.0 NUTRITION OBJECTIVES INTEGRATED INTO FOOD AND AGRICULTURE PROGRAMMES /PROJECTS

There are several food and agriculture programme and projects, where nutrition objectives have been integrated. However the focus largely remains on food availability or production of food or agricultural products. There is need for strengthening a nutrition orientation to agriculture.

Homestead Food Production: The Ministry of Agriculture and with its all arms is playing a principal role in improving the homestead food production. Bangladesh's homestead and nutrition education programme that has been in operation since two decades is being scaled up through the Department of Agricultural Extension in collaboration with development partners. Future agricultural intervention programmes need to include explicit objectives of improving nutritional status with a focus on addressing child under nutrition.

Aquaculture - Nutrition Linkages in Bangladesh: In addition to its contribution to employment and income generation aquaculture has been provided much emphasis in Bangladesh since last few decades as an important means for human nutrition source particularly animal protein. It is the contributor of more than 60% of animal protein requirement of Bangladesh people. The Fishery Policy of Bangladesh has focused the increased production and conservation of fishery resources for increasing production to meet the nutrition requirement of the growing population of the country.

Homestead aqua- and agriculture Production Technology: Promotion of Poly-culture in homestead ponds, including carps (large fish), nutrient-rich small fish and vegetables (on pond dykes) and in homestead gardens. This has shown an increase in availability of nutrient rich local food sources that are easy to harvest in small portions for household consumption and enhancing production for consumption and income.

Strengthening biodiversity for healthy diets and nutrition: In poor rural households in Kishoreganj, small indigenous fish species contributed 40% and 31% of the total recommended intakes of vitamin A and calcium respectively³. Darkina (*Esomus danricus*) a common local fish has a high heme iron and calcium content as well as zinc and these fish are eaten with bones which makes it a 'package source' of micronutrients. Support for increasing the production of small fish and communication efforts for promoting consumption needs to scale up. Innovative techniques used by the farmers to improve productivity, efficiency and efficacy of the food production base should be systematically investigated.

Institutional Capacity Strengthening: The Policy and strategic documents of the government clearly focuses on the national requirement and interest for institutional development and capacity building in the agriculture sector. The reflection of such thoughts focused by the establishment of

³ Roos N, Wahab A, Hossain MAR, Thilsted SH (2007) Linking human nutrition and fisheries: incorporating micronutrient dense, small indigenous species in carp poly-culture production in Bangladesh. Food and Nutrition Bulletin, 28 (2): s280 –S 293.

“Bangladesh Institute of Research and Training on Applied Nutrition (BIRTAN)”. Liberal seed policy facilitated introduction of exotic varieties/hybrids and strengthened research programme of research institute and agricultural universities, promoted more development of varieties/hybrids of horticultural crops.

Bangladesh has pioneered some advanced technologies for agriculture:

- i. The country’s first bio-fortified rice variety (enriched with zinc) namely BRRI *dhan- 62* has been released. Rice has a zinc content of 20 to 22 mg/kg and this is capable to fighting diarrhoea and pneumonia-induced childhood deaths and stunting.
- ii. International Potato Centre adapted and developed orange fleshed sweet potato (OFSP) locally called “*Komola Sunduri*.” It is easy to produce and suitable to grow in small areas like pond dykes.
- iii. Only 125g of OFSP/day can provide enough β (beta) - carotene to meet daily β - carotene needs of a preschool child. Even at low yield (6t/ha), just 12 decimal (500m²) of land can generate adequate annual supply of vitamin A for a family of five. Also, β carotene rich sweet potato, tomato, late variety mango and pumpkin; brinjal with high antioxidant; colored guava; okra with high fibre; mineral enriched chilies and short duration, high yielding variety with high oil content mustard and QPM (quality protein maize) are the prominent food items produced by BARI..
- iv. More food items like atta (wheat flour), biscuits are under consideration for fortification.
- v. However, fortified yogurt are available in the market. Fortification of soybean oil (edible oil) in particular with Vitamin A has been ongoing since 2010.. In addition, other food items like atta (wheat flour), biscuits under consideration for fortification.

15.0 TARGET GROUP FOR NUTRITION ACTION

The revised nutrition policy and HPNSDP has targeted all to address life cycle approach and also to ensure continuum of care – so, under 5 children, adolescent, PLW, elderly population including all vulnerable groups rural and urban hard to reach areas. GOB and different DPs, UN organizations, INGOs are working together to expand the nutrition service coverage, however more comprehensive plan of action is needed to cover the whole country. Based on revised segmented approaches a wider groups of people has come under nutrition interventions but geographical coverage is still poor which is the major barrier to increase universal nutrition coverage in Bangladesh.

16.0 REQUIRED ACTIONS ACROSS SECTORS TO IMPROVE NUTRITION

Institutional Capacity Strengthening is being undertaken to promote food based nutrition through the Agriculture sector’s training institution “Bangladesh Institute of Research and Training on Applied Nutrition (BIRTAN)” with its major mandate for conducting research and capacity building of the agricultural sector through training on food based nutrition, advocacy meetings, symposium, workshops and mass media channels.

The government initiative ‘Ekti Bari, Ekti Khamar.(EBEK): One house, one farm) envisage implemented by the Ministry of Local Government, Rural Development and Cooperatives has been working towards establishing a household farm into a productive enterprise by 2013 in all 85,000 villages of the country. Farmers have been growing different types of vegetables in the homestead,

crops in the field, and fish in the pond and have been rearing poultry, duck and livestock. These are intended to help women's empowerment and scale up diversification of diets and nutrition through home in addition to enhancing their income. The contribution of the EBK project drew attention by the international community in its role of fighting malnutrition among the children and women and as reorganization of its contribution; the project was awarded the "Manthan Award Asia Pacific-2013".

In Title II project funded by USAID, nutrition has been incorporated along with food aid and agriculture initiative by ensuring that nutritionally appropriate foods are accessible, available and utilized at household and community levels. BRAC has nationwide agriculture intervention where nutrition is yet to integrate.

The following actions will contribute to developing a strategy for improving nutrition:

- Develop time bound joint action plan for nutrition involving all stakeholders and all relevant ministries
- Mainstream nutrition messages and interventions with agriculture, food, education and all other program
- Focus on 1000 days and scaling-up IYCF intervention nation wide
- Develop national campaigns on food diversity, safe food preparation and consumption
- Strengthen implementation of National Nutrition Services through better multisectoral coordination;
- Scale up nutrition sensitive interventions across agriculture, WASH, education and women's sectors
- Enhance the production and consumption of non-cereal food items
- Promote food safety and hygiene across the supply chain
- Strengthen biodiversity for healthy diets and nutrition, including indigenous foods and species;
- Promote school feeding and nutrition gardens;
- Strengthen fortification initiatives and the National Fortification Alliance.
- Dedicate ¾ of the share of the national tree plantation area to fruit trees.
- Updated nutrition and food safety information in curricula (school, graduation, post graduation, medical and nursing etc)
- Promote Food safety and hygiene
- Build capacity for smooth implementation and monitoring of nutrition services
- Minimize the gap between demand side and supply side
- Promote school feeding and nutrition/ kitchen gardens
- Strengthen fortification initiatives and the National Fortification Alliance.

17.0 CAPACITY BUILDING (OPERATIONAL/FINANCIAL) AT FOOD & AGRICULTURE SECTORS TO IMPROVE NUTRITION SECURITY

Policy level: In Bangladesh, one of the objectives of National Food Policy is to ensure adequate nutrition for all especially women and children. Recently the Government has endorsed the National Agriculture Policy 2013, where one of the objective is to ensure food and nutrition security through

agriculture diversification. So, at policy level steps need to be taken to translate these objectives into plan of action to improve food and nutrition security. Moreover, ensure adequate safety net program to ensure food security as a part of nutrition security for the poorest of the poor especially for the lean seasons. More budget allocation is needed at every ministry which needs to be year marked for nutrition and food security. Bio fortification of staple food crops, enhance the capacity of agricultural research institutions to develop and promote new varieties of food products with improved nutritional content, promote healthy agricultural industry and food processing process and research on individual crops/food products (to enhance nutritional value are additional steps need to be taken).

Food, agriculture, fisheries, livestock and social protection programs are being revisited to be redesigned or adapted in such a way so as to increase production, nutrition awareness, enhance demand and exhibit positive healthy food practices. Incorporation of nutrition objectives during the implementation of food based social safety net programmes and implementation of integrated programmes linking agriculture and health are upcoming policy initiatives.

As part of research and development, efforts are being taken to: (1) leverage the value chain of high value foods, enhance crop diversification programme; (2) disseminate core food and nutrition messages and scale up nutrition education; (3) ensure access to fruits and vegetables; and improve linkage with the food market environment

18.0 ROLES & RESPONSIBILITIES OF SOCIAL PROTECTION SECTORS FOR SCALING UP ACTIONS IN NUTRITION

In scaling up action in nutrition, all stakeholders including governments, civil society, academia, researchers, UN organizations, donors, NGOs, private sectors and business people need to be involved.

Given the cross cutting nature of nutrition problems and issues, interdependent interventions across diverse sectors such as health, agriculture, water and sanitation, social protection, education and food and disaster management need to be implemented/strengthened. It is important to bring the alignment of all ministries and technical sectors to achieve nutritional goals. Integrated package of basic nutrition and health services that is being delivered through the community clinics needs to identify and use collaborative entry points within the agriculture and food sectors.

To ensure mainstreaming nutrition into all sectors beyond health, other sectors like food and agriculture, social protection, education, local government and rural development and women and children affairs need to be involved to ensure food and nutrition security. As per the Lancet Series 2013, different nutrition sensitive programmes like agriculture and food security, social safety nets, early childhood development, maternal mental health, women's empowerment, child protection, classroom protection, water and sanitation and health & family planning service need to be included in scaling up action in nutrition.

The institutional home for nutrition and champion of nutrition programmes within the MoHFW has been identified at the IPHN. Responsibilities of relevant sectors and the selected institutions need to be expanded and the capacity needs to be strengthened. Roles and responsibilities of other

stakeholders for nutrition should also be specified together with arrangements of appropriate coordination and synergistic action. The Bangladesh National Nutrition Council and the National Food Policy Plan of Action (2008 -2015) can serve as a reference point for monitoring the implementation of the food security and nutrition relevant actions based on core output and outcome level indicators.

Social protection: In Bangladesh, safety net programme is essential to insulate the poverty stricken population from chronic as well as temporary food insecurity that results from external shocks. A number of food based safety net programmes are in operation in Bangladesh, each with its own specific objectives and target population. These include test relief, Vulnerable Group Feeding, Vulnerable Group Development, Food for Work, Employment Guarantee Scheme, etc. A number of social protection programmes such as vulnerable group feeding, allowance for destitute women, and old age pensions have also been introduced to support food security of the extremely needy people. The role of these food based social safety net programmes and social protection programmes need to focus nutrition objective. Integration of social protection with nutrition programme can enhance human capital and productivity and break the intergenerational transmission of poverty

Education and Information Technology (IT) : Education and IT sector could play an important role to ensure food and nutrition security. From the primary school level, nutrition education need to be enhanced and a good number of trained teacher is essential to teach school students of the country. School Feeding programme need to be strengthened. There would be adequate Institute or Department in various Universities, where students can be graduated as a nutritionist or dietetics or public health nutrition expert.

Employment: It is important to create the position of nutritionist/nutrition personnel at the concerned government, NGOs, private sector, hospital, food processing industry, research institute, community clinic and local government. There would be employment opportunity to get the job as a nutritionist.

19.0 CAPACITY STRENGTHENING SUPPORT FOR SCALING UP ACTIONS IN NUTRITION

At central level maintaining functional and continuous result oriented coordination related skills is needed for the key people of all directorates of all relevant ministries. In addition to that GoB is working continuously to strengthen capacities of central level GOB people of all sectors so that they have adequate expertise to monitor and follow up the progress of all joint initiatives mentioned in all of our policy documents. Moreover, all course curriculums of educational institutions, government pre and in-service training and researches need to incorporate the updated policy and plan of action to bring all people to the same level of understanding on the food security and nutrition situation of Bangladesh. At the implementation level joint efforts are needed to implement common messaging across sectors, transfer cascading skills to all level providers through health and non-health related entry points to address food and nutrition security.

20.0 CONCLUSION

- Multiple sectors, notably health and agriculture, are players in the achievement of national nutrition objectives. However, to effectively address the multi causal issue of malnutrition,

comprehensive food and nutrition security policies and multiple and synergistic interventions embedded in true multi-sectoral programs need to be implemented.

- There is need for aligning and harmonizing nutrition sensitive policies, programmes and investments to improve nutrition outcomes and also integrate and measure nutrition sensitive actions across agriculture related programmes.
- The various interventions that reflect interdependent building blocks of programmes – human and institutional capacity development, knowledge generation, information knowledge and management, policy advice - are important elements of policy assistance and need to be consistent with the conceptual approach underlying objectives that contribute to the eradication of hunger, food insecurity and malnutrition.
- Addressing the challenge of malnutrition requires both short- and intermediate-term and long-term sustainable approaches. A variety of actions, including agricultural and micronutrient interventions and partnerships for improving nutrition, of safe drinking water and sanitation, education and support for better diets, special attention to gender issues and vulnerable groups such as pregnant women and young children, and quality health services along with livelihood improvement need to be promoted.
- Joint efforts are needed to implement common messaging across sectors, transfer cascading skills to all level providers through health and non health related entry points to address food and nutrition security.
- There is need to strengthen internal nutrition capacity and leadership across government departments and agencies so that support can be optimized for achieving national nutrition targets. In particular, this is essential to meet the nutrition objectives and measures that have to be more purposefully applied across all relevant programmes in multiple sectors.
- There is need to enhance investments in capacity strengthening of national health and agricultural/food systems to integrate nutrition outcomes in planning and policy processes so as to make significant contributions to improving nutrition on a sustainable basis.

21.0 ANNEXURE: SOME BASIC INFORMATION AND DATA ON BANGLADESH

Geography

Location: latitude 24 ° North and 90° east
 Boundary: North and West: India; South: Bay of Bengal; East: India and Myanmar
 Area (sq km) 147, 570
 Standard Time: GMT+ 6 Hrs
 Standard Time: GMT+ 6 Hrs

Administrative Units

Division: 7
 City Corporation: 11
 Metropolitan City: 4
 District: 64
 Upazila: 487
 Union: 4,552
 Ward: 40, 868
 Village (approx.): 87, 310

Demography

Population (million): 156.06 (Estimated Mid-year population)
 Population Growth Rate: 1.37% (BBS 2011)
 Sex Ratio: 104.9/ 100.0 (BBS 2011)
 Urban Population: 26%
 Religion: Muslim: 88.8%, Other religion: 11.2%
 No. of Children per 1000 women
 National: 341, Rural: 364, Urban: 304

Other Population Characteristics

Population density (Per Sq. km): 1, 203
 Dependency Ratio: National 57% Rural 61% Urban
 Household (Approx. No.) 34.4 million
 Average size of household (No. of members per household) 4.5
 % of female headed households: 13.3%
 Crude Birth rate: Per 1,000 population: 19.2
 Crude Death Rate: Per 1000 population: 5.5
 Net Reproduction Rate (NRR) Per woman (15-49 years): 1.03
 Mean Age at first marriage (In years): 24.9, Female: 18.6

Education and Economy

Literacy rate (7+ years): Both sexes: 55.8%; Male: 58.4%, Female: 53.2%
 Adult Literacy rate: (15+ years); Both Sexes: 58.8; Male 62.5%,
 Household (Approx. No.) 34.4 million
 Per Capita GDP: (In US \$): in FY 2013-2014: 1, 190 (BBS 2014)
 GDP Growth rate (%): 6% (WB 2013), 6.12% (BBS 2014)
 Poverty rate: National: 26.08% (WB 2013)
 Average Monthly Household Income (Tk): National; 11, 479; Rural: 9, 648; Urban: 16, 475 (HIES)
 Average Monthly Household Expenditure (Tk): National: 11,200; Rural: 9,612; Urban: 15, 531 (HIES)
 Average Monthly household Consumption Expenditure (Tk.)

National: 11, 003; Rural: 9,436; Urban: 15, 276 (HIES 2010)

Average Monthly household food expenditure (Tk): 2, 491; Rural: 2, 122; Urban: 3, 526 (HIES 2010)

Share of Food Expenditure on Total household expenditure (Tk.): 3.85%; Rural: 57.67%; Urban: 47.40% (HIES 2010)

Per Capita Daily Calory Intake (Kcal) National: 2, 318.3; Rural: 2,344.6, Urban: 2, 244.5 (HIES 2010)

Households benefiting Social Safety Nets: National: 24.5%; Rural 30.12%;

Household with mobile phones: National: 63.7%, Rural: 56.7%, Urban: 82.7% (HIES 2010)

Health Status

Under-5 Mortality rate (Per 1,000, Live births): 53 (BDHS 2011);

Infant Mortality Rate (Per 1,000 Live births): 43 (BDHS 2011)

Neonatal Mortality rate (Per 1,000 live births): 32 (BDHS 2011)

Life Expectancy at Birth (Year) Both Sexes: 69.0, Male 67.9,

Total Fertility rate(Birth per woman): 2.3 (BDHS 2011)

Births Attended by Skilled health personnel: (%): 26.5 (BMMS 2010), 43.5 (MICS 2012-13)

Antenatal Care Coverage (at least one visit by skilled health personnel): 54.6 (BDHS 2011); 58.7 (MICS 2012-13)

Post natal care received by mothers from a trained care provider within 2 days after delivery: 27 (BDHS 2011), 41.2 (MICS 2012-

Birth rate among adolescent mothers/ 1000 women: 105.0 (BMMS 2010), 118.3 (BDHS 2011)

Institutional delivery rate (%):
28.8%(BDHS 2011)

Home Delivery rate: 71.0% (BDHS

Water and Sanitation

Households with access to tap and tubewell water for drinking; 98.2%

Households with access to Sanitary toilet facility; 63.6% (SVRS

Immunization

<12 months old children: BCG 95%; OPV 1 95%; OPV 2: 94%; OPV 3: 92%; Penta 1 91%, Penta 2 93%, Penta 3: 92%, Meales 86%, Full Vac-

<12 months old children: BCG 95%; OPV 1 95%; OPV 2: 94%; OPV 3: 92%; Penta 1 91%, Penta 2 93%, Penta 3: 92%, Meales 86%, Full Vaccination: 81%

Tetanus Toxoid Coverage (%) among women of Childbearing age: TT 1 92%, TT 2 89%, TT 3 74%; TT 4 52%, TT5 32% (EPI-CES 2013)

Vitamin A Coverage (6-11) months: 98%, Children (12-59 months): 99%

Average Monthly Household Income (Tk): National; 11, 479; Rural: 9, 648; Urban: 16, 475 (HIES 2010)

Anti Helminths Coverage: 24-59 months old children: 90% (EPI-CES 2013)

Percentage of women taking iron folate tablets during last pregnancy -55% (FSNSP 2010)

Coverage of households with iodized salt: 80% (NMSS 2011-12)

Health Services Provision

Total Hospital Beds (Government and Private): 92, 404

No. Of Registered Physicians: 65, 767 (MoHFW 2013)

No. of registered diploma nurses: 33, 183(MoHFW 2013)

No. of Community Health Care providers to work at Community Clinics: 13, 240

Total No. of Community Health workers under MoHFW: 69, 947

Source: Health Bulletin 2014

21.1 TABLE: ANNUAL BUDGET ALLOCATION IN DIFFERENT SECTORS RELATED TO FOOD & NUTRITION IN BANGLADESH 2014 (REVISED)

Programs related to Food & Nutrition		Total CIP	Financed (ongoing and completed)			Pipeline projects	
			GOs	DPs	Total	Total	Priority
		A=D+E	B	C	D	E	F
1	Sustainable and diversified agriculture	1107	326	154	484	623	513
2	Improved Water Management	1980	1430	268	1693	287	197
3	Improved quality of input and soil fertility	1625	395	660	1055	569	412
4	Fisheries and aquaculture development	402	175	33	708	194	133
5	Livestock development	225	50	42	92	133	91
	AVAILABILITY	5338	2375	1156	3531	1807	1346
6	Improved access to markets	2354	1325	446	1770	583	303
7	Implementation & monitoring of NFP and CIP Actions	50	0	17	17	33	23
8	Enhanced public food management	451	144	30	175	276	199
9	Effective safety nets	1304	453	614	1067	237	181
	ACCESS	4158	1922	1107	3029	1129	705
10	Community based nutrition	357	59	246	305	52	46
11	Orient food and nutrition program through data	28	7	15	21	6	3
12	Food Safety and quality improvement	43	4	12	15	27	14
	UTILIZATION	427	70	272	342	85	64
	Total	9923	4367	2536	6903	3021	2114

Source: Country Investment Plan (CIP) Budget 2014 (Revised) GO-Government; DPs-Development Partners

21.2 TABLE A-2: BASIC DEMOGRAPHIC INDICATORS

Demographic indicators from selected sources, Bangladesh, 2001 and 2011

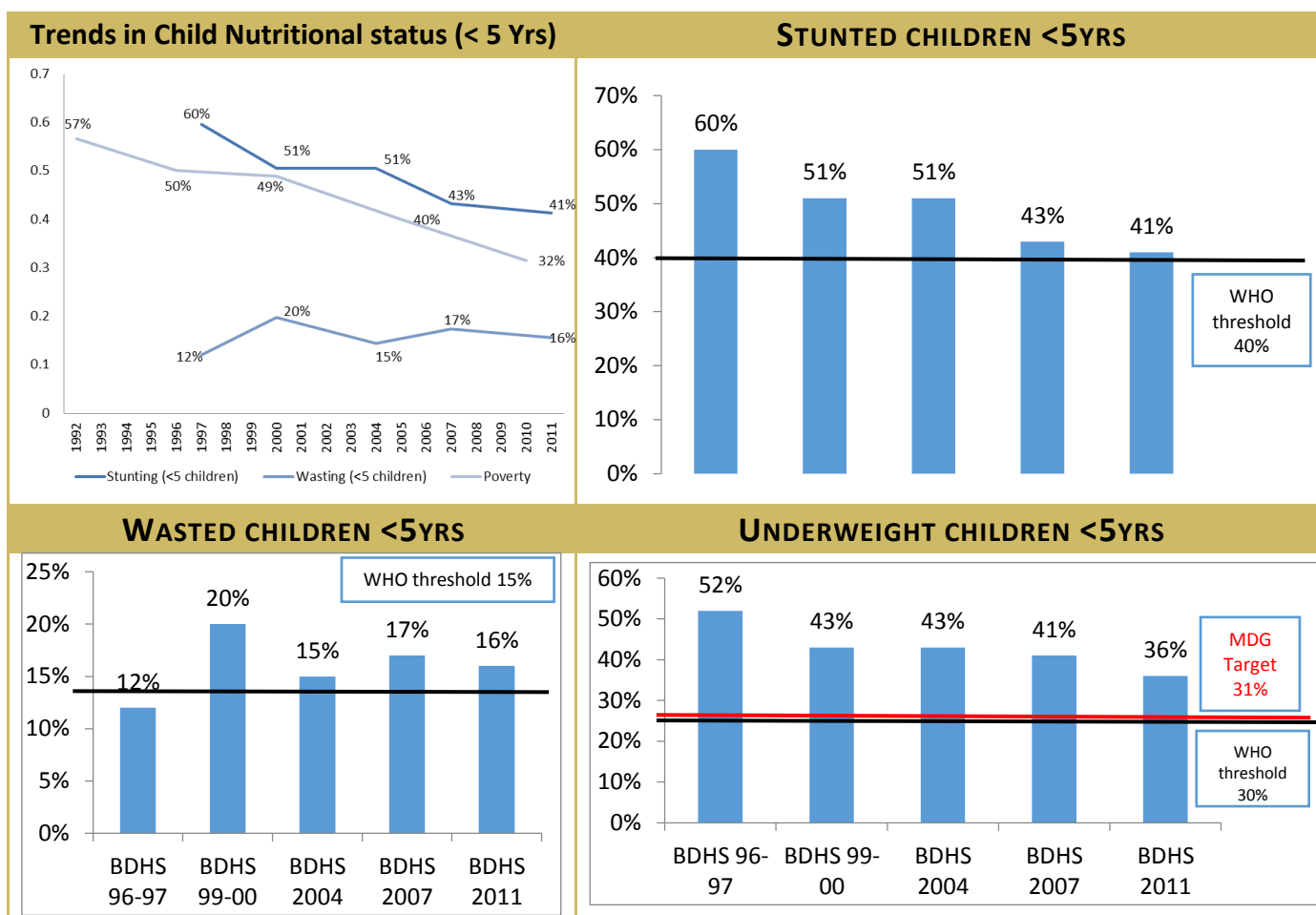
Indicators	Census 2001	Census 2011
Population (millions)	130.03	149.8
Intercensal growth ratio (percent)	1.54	1.374
Density (population/km ²)	881	1015
Percent Urban	23.5	27.0
Life Expectancy (year)	2002	2011 (SVRS)
Male	64.5	67.9
Female	65.4	70.3

Source: Bangladesh Bureau of Statistics (2012b) BBS, 2011b

21.3 TABLE A-3: POVERTY HAS DECREASED SIGNIFICANTLY IN BANGLADESH SINCE 1992

			1991-1992 %	2010 %
Poverty	Lower Poverty line	National	42.7	17.6
		Rural	23.3	21.1
		Urban	46.0	7.7
	Upper Poverty Line	National	58.8	31.5
		Rural	44.9	35.2
		Urban	61.2	21.3
GDP rate			3.8 (1990)	6.32 (2011-12)

21.4 FIGURE: MAPPING MALNUTRITION AND FOOD INSECURITY IN BANGLADESH

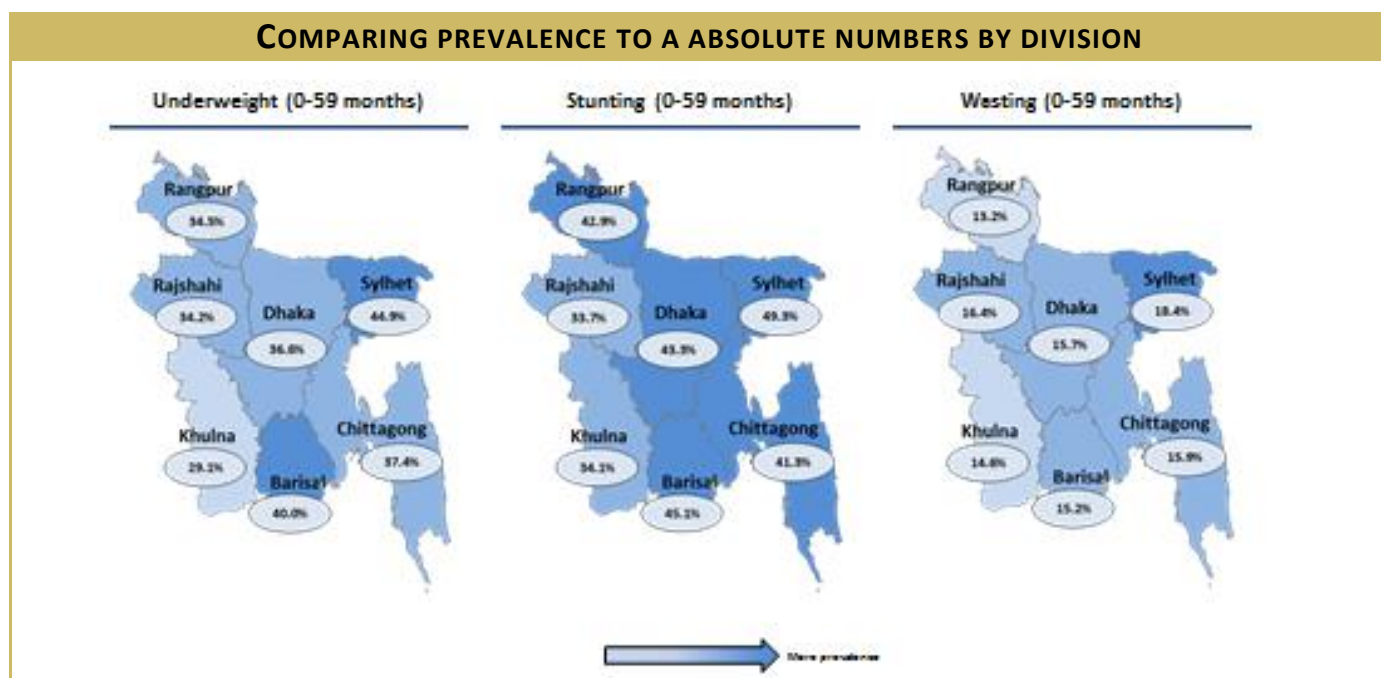


Source: BDHS

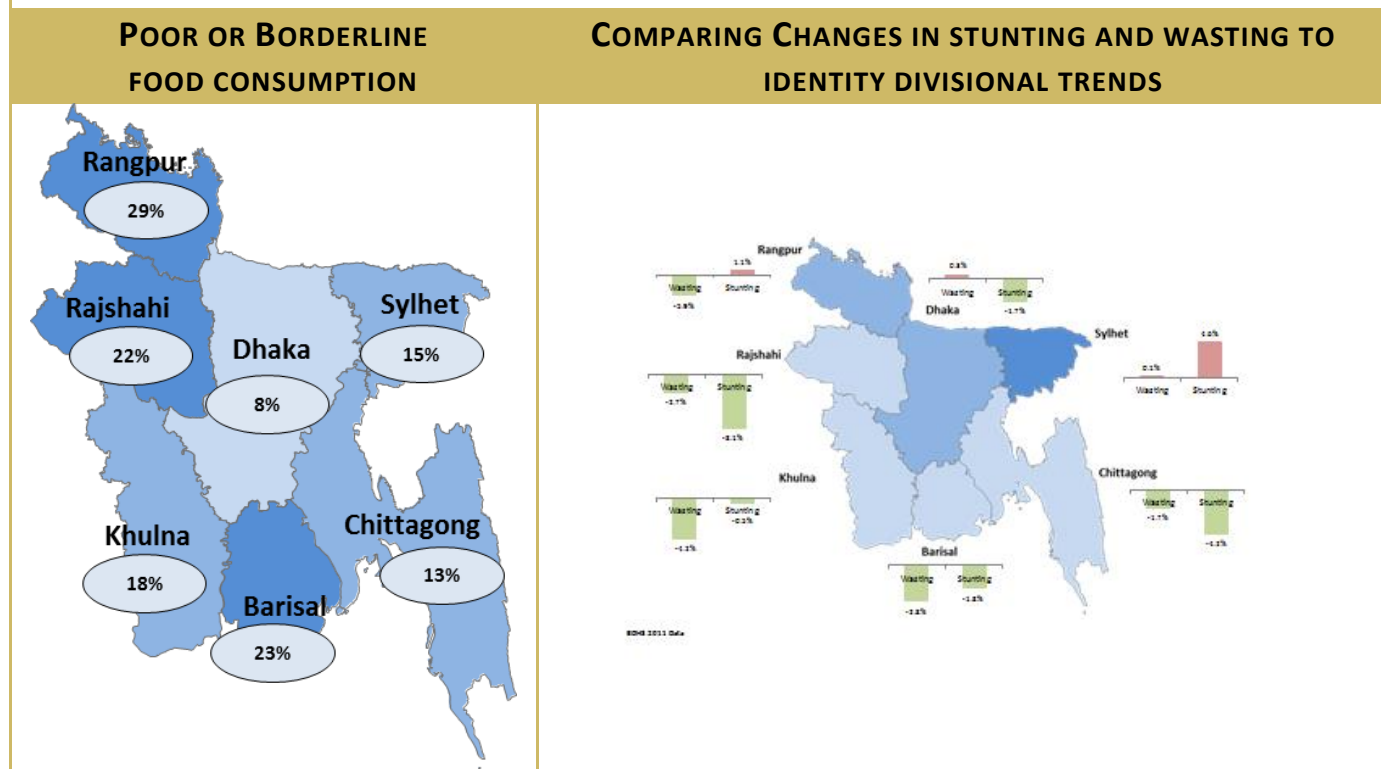
Levels of child undernutrition have been dropping in Bangladesh since 1996 with considerable progress

Measuring against MDG1 target and WHO public health 'Critical' thresholds level

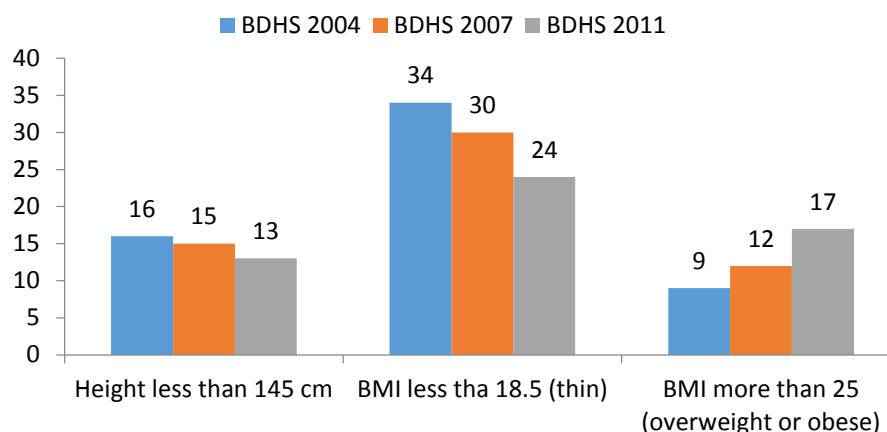
21.5 FIGURE: REGIONAL ANALYSIS: HIGH PREVALENCE OF ALL TYPES OF UNDERNUTRITION THROUGHOUT BANGLADESH



Regional Analysis: Despite reduction in wasting and stunting from 2007 to 2011, Wasting actually increased in some of the divisions

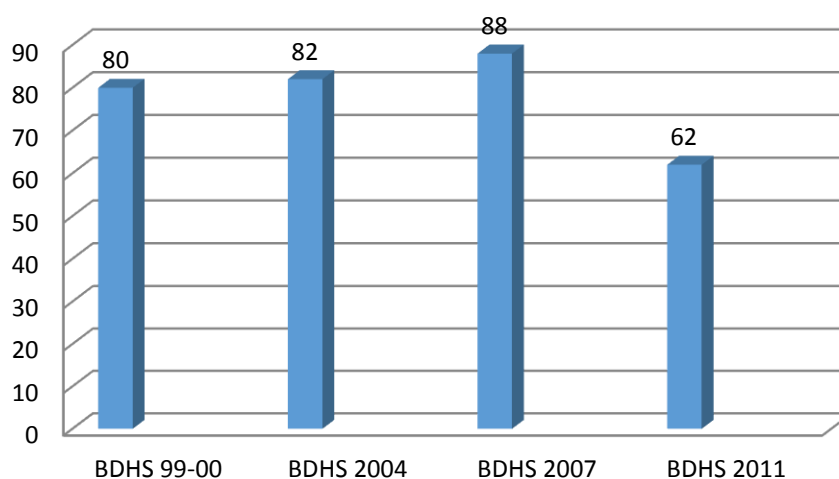


TRENDS IN MATERNAL NUTRITIONAL STATUS



TRENDS IN VITAMIN A SUPPLEMENTATION (CHILDREN 9-59 MONS)

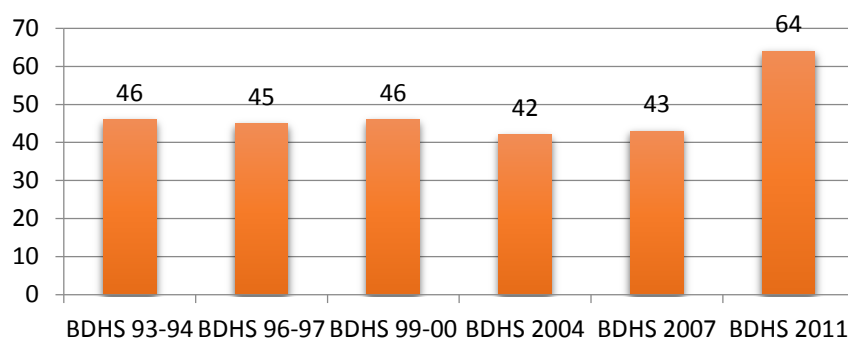
Percent of children age 9-59 months receiving Vitamin A supplementation in the six months preceding the survey



SOURCE: BANGLADESH DEMOGRAPHIC HEALTH SURVEY

Trends in Exclusive Breastfeeding

Percent of Children under 6 months who are exclusively breastfed



Source: Bangladesh Demographic Health Survey

21.6 TABLE A-4 : FOOD CONSUMPTION HAS INCREASED SUBSTANTIALLY IN BANGLADESH SINCE 1992

Food Item	1991-92	1995-96	2000 (gm)	2005 (gm)	2010 (gm)	Desirable Dietary Pattern (gm) (BIRDEM, 2013)
Rice	472.8	463.3	458.5	439.6	416.0	350
Rice	472.8	463.3	17.24	12.1	26.1	50
Wheat	36.3	33.7	55.5	3.3	70.5	100
Potato		49.5	15.8	14.2	14.30	50
Pulses	17.9	13.9	140.5	157.0	166.1	300
Vegetables	137.4	152.5	13.3	15.2	19.07	40
Meat	8.1	11.6	5.27	5.2	7.25	30
Eggs	4.7	3.2	38.5	42.1	49.4	60
Fish	34.5	43.8	29.7	32.4	33.7	130

Table A-5: Percent supply of protein and fat from animal sources in total dietary energy

Year	Protein		Fat	
	% of total energy	% from animal food	% of total energy	% from animal food
2000 -02	8.6	1.1	10.5	1.6
2003-05	8.7	1.2	10.7	1.7
2004-06	8.8	1.3	10.6	1.8
2005 -07	8.8	1.4	11.5	1.8
2007-09	9.1	1.5	10.0	1.9