



National Food Policy 2006

Ministry of Food and Disaster Management

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National Food Policy, 2006

Section – A: Preamble

Food is a basic human need and plays a crucial role in the agro-based economy of Bangladesh, where a large proportion of the income of the population is allocated to food. The first and foremost responsibility of the State is to ensure an uninterrupted supply of food to all people at all time. According to the Article-15(a) of the constitution of Bangladesh, it shall be a fundamental responsibility of the State to secure its citizens to the provision of basic necessities of food. As per Government's Allocation of Business, it is the duty of the Ministry of Food and Disaster Management to establish a dependable food security system for the nation. The Government of Bangladesh is firmly committed to achieve food security for all, defined at the 1996 World Food Summit as: access by all people at all times to the food needed for an active and healthy life. This provision is also reflected in all the development plans of the Government.

Bangladesh is also a signatory of GATT Uruguay Round Agreement in 1994 at which, among other issues, agricultural trade liberalisations was agreed. Following the recommendation of the Bangladesh Development Forum, the process of consolidating the country's food security programme at a larger scale was started in 2000 through a task force document entitled "A Comprehensive Food Security Policy for Bangladesh". Meanwhile a high priority was given to further strengthen and harmonise government's efforts to ensure food security for all. It was achieved through revisiting all existing related policies and strategies. The goal of the first national food policy, which was adopted in 1988, was to achieve food security for all people by increasing food production and attaining self-sufficiency. However, many important aspects of food security remained unattended in the food policy of 1988 which was based on availability of foodgrain alone. The present food policy was developed in the light of the recently adopted Poverty Reduction Strategy Paper and also in a broader perspective according to the definition of food security as adopted in the World Food Summit.

Food scenario in Bangladesh has undergone major changes over the last decade, moving from a system involving large-scale government interventions in rice and wheat markets to a more market-oriented system, with public food distribution system increasingly targeted to those households which are mostly in need. Moreover, as foodgrain production has increased and foodgrain availability at the national level has been successfully maintained at a satisfactory level, the focus of government policy has gradually expanded to include major efforts at improving nutrition status of children and women and nutrition education. Given the subsistence nature of the rural economy, food insecurity is directly related to basic food production, increase in population and decrease in cultivable land. With the current level of poverty, these factors create a complex environment for national food security.

Ensuring food security for all is one of the major challenges that Bangladesh faces today. Despite significant achievements in foodgrain production and food availability, food security at national, household and individual levels remains a matter of major concern for the Government. Since Independence, Bangladesh has made significant progress in increasing domestic production of foodgrains. This, to a large extent, helped in overcoming the constraints of insufficient national food availability. Adequate food availability, though admittedly necessary, is not a sufficient condition for ensuring national food security. Ensuring food security for all requires a major effort at enhancing access to food and subsequent utilisation of food by the poor and distressed households.

The Government of Bangladesh, in accordance with the World Food Summit Declaration of 1996 and the Millennium Development Goals (2000) has set its target at reducing the number of poor people to half by the year 2015. Achieving this target will require addressing all aspects of food security: (i) greater efficiency of domestic agriculture and enhanced availability of food, (ii) assistance to attain increased food access by the food insecure, (iii) sustained increase in the incomes of the poor and the distressed to enhance their access to food, iv) adequate supply of safe food, and v) appropriate programmes to reduce malnutrition through increased effectiveness and proper utilisation of the consumed food. To ensure overall food security, the Ministry of Food and Disaster Management will carry out its own programmes; in addition, it will ensure extending all out support to all concerned ministries and agencies in implementing their own food-security related strategies and programmes. In this way, attaining food security will be possible through a coordinated implementation of the programmes of all concerned ministries and agencies (as set in the national plan of action for food security framed in association with all concerned ministries in the light of the approved national food policy).

Section – B: Goal and Objectives of the National Food Policy

The goal of the food policy is to ensure a dependable food security system for all people of the country at all times. The objectives of the food policy are:

Objective-1: to ensure adequate and stable supply of safe and nutritious food;

Objective-2: to enhance purchasing power of the people for increased food accessibility; and

Objective-3: to ensure adequate nutrition for all (especially women and children).

Section – C: Conceptual Framework of the Comprehensive Food Security System

The declared goal of food policy is to ensure dependable food security for all people at all times. Achieving this goal will require substantial improvement in the prevailing food security system in the country. Food policy in the Bangladesh context is a multi-sectoral issue involving several ministries and agencies, who through their respective programmes and strategies, aim to achieve the common goal of establishing a dependable food security system.

Formulation of an effective food policy to improve food security is a matter of utmost importance for Bangladesh. This issue is also a matter of paramount concern for those responsible for the nation's welfare. Food security can be broadly defined as existing when all people at all times have availability of and access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active, healthy and productive life. One essential element of food security is adequate food availability at national level, which is often equated with national food security. Another essential element is the access to adequate food at household and individual levels. The third essential element of food security is the biological utilisation food, which depends on a number of other factors, such as the health and sanitation environment, and household or public capacity to care for the vulnerable members of the society. Thus, food security depends on many interlinked factors, all of which should receive adequate and simultaneous attention. There is also a definite interdependency among these factors, which demands a delicate balance among all issues related to comprehensive food security.

In the Bangladesh context, domestic food production, public and private stocking and international trade determine food availability at the national level. With the liberalisation of trade, global availability and prices of food are of increasing importance for ensuring national food security. Availability of food at household level depends on the household's capacity to produce or acquire food, household food stockholding, and availability of food at local markets. However, all these are functions of market structure, seasonal variation in domestic food production, efficiency of the market and the public food distribution system.

Household's access to food depends on household income, assets, remittances, gifts, borrowing, income transfers and food aid. Increased income of household can improve household food security in terms of improved access to food. In addition, expanded asset bases reduce the vulnerability of households to short-term disruptions in income flows and help prevent degradation of household food security in times of adversity. Increased food prices also results in transitory food insecurity of the low-income households by lowering their real income and, hence, eroding their purchasing power.

Increased food availability and access to food may mitigate hunger, but not necessarily malnutrition. One major reason for persistent malnutrition lies in the complex interaction between food intake and illness, which affects biological food utilisation, and negatively influences the overall health and caring environment. Access to safe and nutritious food is essential for improvement of nutrition status. This may be offset by poor access to non-food factors, such as health care services, education, sanitation, and safe water or ineffective delivery or poor administrative set-up for these services. In order to improve the nutritional status of vulnerable individuals, it is essential that these improved health and sanitation facilities are made available at the community level, and be effectively brought to children, women and other vulnerable household members. This may be achieved by ensuring proper caring practices at intra-household level, including equitable food distribution within the household without any gender bias.

Section-D: Objectives, Strategies, Instruments and Activities of the National Food Policy

Objective – 1: Adequate and stable supply of safe and nutritious food

One of the important aspects of food security is to ensure sustained availability of food to meet all people's demand at prices commensurate with their income. Food security is then achieved when all people can buy adequate good quality food sufficient for maintenance of an active and healthy life. It is essential to achieve an overall development of agriculture to ensure production and marketing of foodgrains as well as non-foodgrain items, to create employment opportunities and increase real income of the poor, ultimately to improve their nutritional status.

Strategy – 1.1: Efficient and sustainable increase in food production

A key aspect of long-term food security is promotion of efficient and sustained domestic food production. To achieve this, increased food production and agriculture diversification is needed through developed modern agricultural system. For agricultural development and extension, the best and most efficient use of available land, agricultural inputs and efficient use of water resources for irrigation and for production of livestock, fish and other non-crop items including fruits, the Government, in addition to adopting improved agricultural technologies, supporting appropriate research and giving out agricultural loans, will also support the following strategic activities:

1.1.1. Agricultural development and extension services

- i. provide adequate funding for adaptive agricultural research and strengthen agricultural extension services to enable the development and dissemination of appropriate technology;
- ii. develop a long-term food production plan considering regional land productivity, crop suitability and other agro-ecological characteristics;
- iii. invest in roads, canals, irrigation, rural electrification and market infrastructure needed to promote growth in food production; and
- iv. develop required human resources for agricultural research and extension and their effective utilisation in disseminating appropriate production technology.

1.1.2. Efficient use of water resources

Irrigation is the leading input for increasing yield and production of foodgrains and other crops. A well-planned irrigation management programme is, therefore, essential for gradual increase of cropping intensity as well as yields. In order to ensure efficient use of water resources the Government will undertake the following steps:

- i. ensure reduction of the yield gap within irrigated areas, and encourage farmers to apply supplementary irrigation with a view to increase cropping intensity and yield on a sustainable basis;
- ii. encourage use of surface and groundwater for irrigation through improved irrigation infrastructure by both public and private sectors;
- iii. ensure improved delivery and efficient use of safe irrigation water for crop cultivation;
- iv. establish an area based irrigation management system using participatory approach;
- v. develop a water conservation strategy and undertake measures for use of conserved water for supplementary irrigation purposes and to reduce dependency on sub-surface water;
- vi. ensure use of surface water for irrigation by public and private sector without affecting the fisheries resources;
- vi. ensure uninterrupted supply of power for pumps during irrigation for agricultural production.
- viii. encourage development and application of irrigation technologies for water conservation and use at a larger scale; and
- ix. undertake supplementary steps to enhance appropriate irrigation technologies and address drought situation in rain-dependent areas.

1.1.3. Availability of agricultural inputs and their efficient use

Food production is largely dependent on timely availability of agricultural inputs at acceptable prices and their efficient uses. In order to ensure availability and efficient use of agricultural inputs, the Government will carry out the following activities:

- i. ensure adequate, balanced and timely supplies of fertiliser and other inputs in crop and fish production to prevent input shortages and sharp increases in input prices;
- ii. develop a consistent price policy to ensure balanced use of fertiliser;
- iii. encourage private investment in seed sector;
- iv. ensure selective liberalisation of seed import;
- v. frame regulations for ensuring quality of seeds, agro-chemicals and fertilisers and ensure their strict compliance;
- vi. arrange training of farmers, fish cultivators and traders on the use of fertiliser and agrochemicals to limit the content of trace elements in their produce;
- vii. ensure increased fish production through limited use of insecticides in the crop fields;
- viii. expansion of the Integrated Pest Management (IPM) and Integrated Crop Management (ICM) programmes for increased food production; and
- ix. strengthen IPM to achieve pest control by natural means and ensure introduction of appropriate and environment-friendly agriculture and conservation system through use of bio-fertilisers.

1.1.4. Agriculture diversification and improved agricultural technology

In addition to increased domestic foodgrain production as a primary factor determining food availability, increased production of non-cereal crops and non-crop food through agricultural diversification, improved agricultural technology, research/extension and better post-harvest technique is also important. The Government policy in this regard will be to:

- i. increase the use of modern technologies at the field level for non-cereal crops significantly, especially for pulses, oilseeds, spices and vegetables;
- ii. undertake appropriate measures to prevent excessive losses and wastages during seasonal increase in market supply of fruits, vegetables and spices, production of which is dependent on adoption of seed varieties and harvesting technologies;
- iii. identify and promote flood-and drought-resistant seed varieties and appropriate technologies to minimise salinity in rain-fed areas for increased food security of people living in disaster-prone areas;
- iv. ascertain the health effects of the recently developed genetically modified (GM) food; and
- v. emphasise on biotechnological research for development of new varieties of crops and improved varieties of poultry birds through coordinated institutional cooperation.

1.1.4.1. Increased production of non-cereal crops (vegetables, oilseeds, pulses and fruits)

In view of slow growth rate in the non-cereal, the Government will pursue the following initiatives for rapid expansion of both productivity and production growth and to stabilise the price levels of non-cereal crops:

- i. give high priority to agronomic and extension research for these non-cereal crops;
- ii. rapidly introduce modern varieties along with a package of appropriate management practices supported by strong extension and input services;
- iii. develop organised marketing facilities, processing, preservation techniques, storage etc. to boost the production of non-cereal crops.
- iv. provide investment assistance and training to farmers for extended use of modern post-harvest technologies for seasonal fruits, vegetables, fish and other animal products; and
- v. ascertain short and long-term health effects of GM foods through promotion of biotechnological research.

1.1.4.2. Development of non-crop agriculture (poultry, livestock and fisheries)

Livestock is the source of milk, meat and egg for consumption of balanced food. Increasing production in the livestock and fisheries sub-sectors can be considered as one of the important frontiers towards augmenting overall food production in the country.

Considering the importance of these two sub-sectors in the country's food security and foreign exchange earnings, the government will encourage increased production and development through undertaking the following activities:

- i. improvement of quality and productivity of fisheries and livestock by strengthening research, training and extension services;
- ii. ensure development of animal health care services, particularly for the control of parasitic and infectious diseases through wider coverage of vaccination of poultry and cattle heads and take necessary measures for conservation of indigenous species;
- iii. support to development of feed and fodder industry for fisheries and livestock;
- iv. investment assistance for expansion of marketing network for production technologies, input supply, improved technology for preservation and marketing of fisheries and livestock products
- v. support development and expansion of technologies for the resource-less and poor by involving non-governmental organisations at a larger scale;
- vi. ensure expansion of integrated rice plus fish production system in the rice fields;
- vii. promote environment friendly and scientific culture, both at production and processing levels, of shrimp of improved quality and quantity; and
- viii. explore appropriate techniques and associated extension services for sustainable harvest of marine fisheries resources.

1.1.5. Agricultural credit

Agricultural credit is essential to ensure increased productivity, intensification and diversification in agriculture through adoption of resource-intensive modern technologies for achieving enhanced level of domestic production.

In order to increase availability of and access to agricultural credit for the farmers, alongside other required initiatives the Government will undertake the following steps:

- i. introduce appropriate institutional system of providing credit to ensure the availability of agricultural credit in time; and
- ii. ensure improved access to credit to all agricultural farmers (including landless, marginal and small farmers) by bringing in poor farmers in agricultural production related micro-credit schemes to increase productivity of their farming systems and to enhance their household food security.

Strategy - 1.2: Efficient food markets

For satisfactory performance of food market, the market structure should keep pace with changes in demand, production patterns, technology and the global trade environment. The efficiency of the market structure can be judged if it performs the tasks assigned to it at minimum cost, and whether it is responsive to changes in market environment in relation to the delicate relationship between demand and supply. Despite the presence of a large number of buyers and sellers in the food market and given the dispersal of small producers over vast areas with underdeveloped transportation and communication, formal or informal restrictions on movement, faulty grading etc. weaken the competitive environment. Improvements in market environment require development of market infrastructure, unrestricted storage and movement and in relevant cases provisioning of institutional support and incentives for private trade. Development of efficient food market to achieve food security goal will include non-discriminatory credit, development and enforcement of quality standards, trade-supportive legal and regulatory environment and selective non-distortionary public food market intervention for price stabilisation.

1.2.1. Development of market infrastructure

Market infrastructure of appropriate quality and reliability is the key determinant for sustainable growth of the overall economy and trade. To help the private sector food trade to contribute significantly to enhance the food security of the population, long-term investment in storage, transportation and handling infrastructure are necessary. Marketing facilities such as appropriate selling spaces, auctioning rooms, weighing equipment are also instrumental in improving food market performance.

To develop and maintain infrastructure for efficient food market, the Government will carry out the following activities:

- i. expand infrastructural facilities for cleaning, grading, sorting and processing facilities involving appropriate technologies at different stages of post-harvest activities and product marketing to improve post-harvest facilities and limit post-harvest losses;

- ii. encourage and promote formation of marketing cooperative-like societies to develop storage and processing facilities at various level of marketing of farm products.
- iii. provide enhanced amount of capital and credit assistance to entrepreneurs in establishing food processing and preservation structures in appropriate places;
- iv. support development of primary and secondary markets in appropriate places; and
- v. ensure development of farm to market link road and other supportive services

1.2.2 Encouragement to private sector food trade

The private sector food trade involves hundreds of thousands of millers, wholesalers, and small traders who buy, process, store, transport and sell food throughout the country. Modern milling, polishing, sorting, cleaning and packaging techniques need to be promoted to cater both the domestic and export market demand.

To promote private sector food trade, Government will accomplish the following activities:

- i. provide adequate incentives for private food marketing, processing, sorting and stock maintenance;
- ii. manage private sector food imports through adjustment of tariff rates and extending other administrative support so as to encourage imports when needed and avoid excessive imports that might have negative impact on domestic production; and
- iii. encourage export of agricultural products in times of surplus -production and excessive market supply.

1.2.2.1 Development of private sector foodgrain storage and movement system

The storage facilities presently available in the private sector are not suitable for long-term storage of grain and other food commodities. For this, construction of warehouses of scientific standard specifications is necessary. The government policy should be to encourage the process by amending and simplifying banking regulations on credit facilities to private sector entrepreneurs for construction of appropriate commodity specific warehouses, cold storages and acquiring transportation vehicles for freightage.

To promote development of storage and movement system of food commodities in the private sector, the Government will:

- i. allow unrestricted movement of foodstuff in the country; and
- ii. ensure credit facilities to develop storage structures in appropriate places.

1.2.2.2 Strengthening of liberal credit for food trade

Increased participation and reducing barriers to the availability of credit to the new entrants is an important precondition for development of an improved market structure. Strengthening of liberal credit delivery system for food trade would eliminate many of the marketing problems typically associated with high level of production.

To ensure availability of credit for food trade, the Government of Bangladesh will:

- i. strengthen liberal credit delivery system with advisory and monitoring services; and
- ii. support expansion of banking facilities to rural and outreach areas.

1.2.3 Development of trade-supportive legal and regulatory environment

The provisions for various marketing Acts and trade practices should be reconsidered. To bring the markets under the trade supportive market regulations it is essential that, various forms of marketing charges, taxes and levies be rationalised and market development be ensured. Efficient delivery of services is important in marketing of farm products. Positive roles of intermediaries like marketing agents, wholesalers, informal investors and financiers in marketing should be recognised. To improve market structure, regulatory and legal support will also help increase competition through encouragement of new entrants at different levels of marketing system.

To ensure development of trade-supportive and market-friendly regulatory environment, the Government will undertake the following steps:

- i. establish a dependable system of monitoring private storage and supply of food items;
- ii. ensure recognition of the positive role of market intermediaries; and
- iii. enact and enforce competitive trade promoting Anti-trust and Anti-monopoly Acts.

1.2.4 Development and dissemination of early warning and market information system

A well functioning early warning system has been recognised as an important tool for national food supply management and improved national food security system. The system should be operationalised in coordination with the global early warning system.

To achieve this, the Government will accomplish the following:

- i. provide dependable weather forecasts for disseminating a well coordinated food production outlook both at national and global perspectives;
- ii. provide short- and long-range forecasts related to climate, food production and expected supply, demand and price situations in both domestic and international markets; and
- iii. conduct research and initiate improved forecasting systems related to natural disaster in order to enhance food information and early warning related analytical capabilities for better management of the food system.

Strategy – 1.3: Non-distortionary foodgrain market intervention for price stabilisation

In case of government interventions in the foodgrain market and management of foodgrain stocks, the Government of Bangladesh is trying to maintain a balance between producer and consumer interests, so that overall growths in agricultural or household food security for the poor are not compromised. Especially to note that welfare of the poor (producer and consumer) of Bangladesh foodgrain price is a crucial determinant. Increasing trend in foodgrain production cost not only raise the instability of farmers' income but also discourages private investment in essential agricultural inputs like irrigation, agricultural machineries and other long-term productive sectors. Since expenditure on food is more than 70 percent of total income of the poor households, large increases in food price at the consumer level lower their real income. As a result, their food consumption decreases, which poses a threat to their lives. The government has therefore planned for a non-distortionary foodgrain market intervention programme to accelerate market price stability, encourage market competition and to improve food security, yet not discouraging private sector trade and storage. Carrying out such a food price stabilisation policy in a sustained manner is not easy, because, particularly, of the rapid changes in international market, fluctuations in domestic production and periodic natural disasters. A non-distortionary price stabilisation policy is absolutely essential in the light of large rises and falls in foodgrain price.

1.3.1 Price incentives for domestic food production

To give adequate production incentives for increased domestic production and to enhance farmer's income, the government efforts are in place in procuring foodgrains in the intensive procurement zones at prices higher than the average production costs. However, the Government has to give a substantial amount of subsidy in public food operation due to expenses involved in storage, transport and offtake in addition to the fixed public procurement prices. In order to encourage domestic food production, the Government's policy would be:

- i. purchase foodgrain in the domestic foodgrain market through:
 - a. domestic procurement programme at a price high enough to cover cost of production with adequate profit for the farmers, but not so high as to encourage rent-seeking behaviour;
 - b. purchase from domestic market through open competitive tenders;
- ii. help in developing marketing system to ensure remunerative producer prices; and
- iii. encourage development of storage facilities and marketing infrastructure in private sector.

1.3.2 Public foodgrain stock

In consideration of the concerns about the welfare of the consumers and producers at times of abnormal increase or decreases of foodgrain prices in the market due to fluctuations in domestic production, the Government directly intervenes in the market by procuring and selling foodgrains. The major objective of the public food distribution system is to supply required quantity of grain to the food-assisted development and income transfer programmes for the poor, who are unable to purchase minimum required quantity of food from the market at prevailing market prices. In addition to maintaining working stock of foodgrains to operate various food-based safety net programmes, the Government also maintains a security reserve to cope for emergency needs during disasters. A considerable improvement has been achieved in public food management, concomitant with persistent increase in food production in recent years.

The government's stated policy in National Food and Nutrition Policy (1997) is to maintain a minimum of 800 thousand metric tons of foodgrains in public stock. In order to handle uncertainties of import arrival and emergency offtake requirements, the Government has decided to maintain a public stock of 1.0 million tons of foodgrains. Usually, during the domestic foodgrain procurement season, the public stock level exceeds the target level, while in pre-harvest periods public stock level may go below the target level. The dynamics of accumulation and distribution have to reflect the real situation in building up of the public foodgrain stock. In order to maintain the public food stock, the Government will undertake the following measures:

- i. regular monitoring activities relating to foodgrain stock, prices, prospects of food aid arrival, private imports, domestic production, and public procurement and distribution;
- ii. integrate public food operation with overall trade policies to undertake market supply enhancing strategies, especially when there is any shortfall in food supplies;
- iii. determination of public food procurement level considering the need for smooth implementation of targeted public food distribution, creation of employment opportunities and maintenance of incentives for private food trade; and
- iv. build up a public foodgrain stock of 1.0 million metric tons at the beginning of fiscal year, considering the dynamics of seasonal variation in public procurement and distribution.

1.3.3 Consumers price support

Targeted food distribution programmes are considered as major factors in enhancing household food security for the poor. To promote food security of the poor and distressed households the Government operates targeted programmes such as Vulnerable Group Development, Food/Cash-for-Work, Vulnerable Group Feeding and Food/Cash-for-Education etc. Due to resource constraints many poor and nutritionally at-risk households remain outside the coverage of these programmes and an alternative mechanism for increasing food security for these people is to prevent any abnormal increase in market prices of foodgrain.

To provide consumers price support, the Government will undertake the following measures:

- i. operate Open Market Sales (OMS) programme, distribute foodgrain at low price or free of cost;
- ii. sell foodgrains at fixed prices to special priority groups through channels like Essential Priorities (EP), Other Priorities (OP), Large Employment Industries (LEI), etc.; and
- iii. foodgrain distribution through targeted food programmes to poor people who are nutritionally vulnerable due to higher level of market prices.

Objective – 2: Increased purchasing power and access to food of the people

In addition to its efforts to help ensure adequate foodgrain availability, to ensure increased access to food for all particularly for the poor, the Government of Bangladesh uses two major approaches. First, to increase short-run access to food thereby helping to meet their immediate food security needs, a number of programmes use direct transfers of food or the cash proceeds from food aid monetisation. Second, in order to increase the poor household's long-term access to food, the Government implements policies and invests in development projects designed to raise sustained capacity of the poor to increase their ability to acquire food through employment-generating economic growth. The implementation of poverty reduction strategy will increase economic access to food as a key component of food security.

Strategy – 2.1: Transitory shock management

Emergency preparedness is needed to alleviate the transitory food insecurity caused by floods, cyclones and other natural disasters that often occur in Bangladesh. Emergency relief programmes are operated to mitigate the distress of the affected people. It is possible to reduce the negative impacts of disasters through implementation of modern and dependable early warning system. Although substantial successes have been achieved in facing disasters in Bangladesh, it has not yet been possible to reduce ill effects of disasters to tolerable limits for the poor people living in disaster-prone areas due to their extensive poverty and poor infrastructures. To satisfy the emergency distribution needs public foodgrain stocks equal to three months of emergency demand alongwith a relief system to distribute food, clean water, medicines and other essentials are being maintained. In this regard, it is essential to operate an effective and comprehensive disaster management system for the country. In addition, the required level of minimum public foodgrain stocks should be reviewed annually considering the changing situations in domestic and global markets coupled with disaster proneness.

2.1.1. Special measures for disaster mitigation for agriculture

Bangladesh agriculture is highly risk-prone and is subject to frequent natural shocks, mainly by droughts, floods and cyclones. Frequent natural disasters reduce the asset base of the poor, can even completely destroy it. River erosion and agricultural land degradation make these problems further intense. Poverty and food insecurity is higher in areas with a high risk of natural disasters like floods and droughts. These natural shocks cause irreparable damage to the farming systems of the poor farmers and immediately make them more food insecure. Disaster preparedness and post-disaster rehabilitation are the important components of food security. The Government will pursue the following measures to mitigate the negative effects of these disasters on agriculture:

- i. supplementary irrigation during drought to avoid severe reduction of yield and crop failures;
- ii. development and extension of more location-specific flood/drought tolerant varieties and associated production technologies for major crops through the National Agricultural Research Systems; and
- iii. homestead gardening, including fruits and vegetables farming, social forestry, livestock and backyard poultry in the homestead areas in the flood-free years.

2.1.2. Emergency distribution from public stock

Public foodgrain stocks enable the Government to respond quickly to disaster-induced emergency food situations. This distribution augments foodgrain availability in the disaster-affected areas and helps stabilise market prices by absorbing the shocks due to mismatch in foodgrain supply-demand situations. To provide for the emergency food needs of households in the disaster-affected areas, the policy of the Government is to:

- i. ensure quick distribution of food in affected households in times of disaster;
- ii. hold enough foodgrain stocks to cover at least three months of emergency distribution need in addition to its normal working stock needed for the regular food-based programmes;
- iii. diversify sources of government commercial imports to reduce possible risks involved in importing food from any single country and to employ cautionary measures to avoid the risk of excessive import; and
- iv. minimise the overall cost of public food distribution through reduction in system loss and employing an efficient stock management system.

2.1.3. Measures for increased supply through private trade and stock

Under the liberalised international trade policy the Government encourages private sector involvement in importation of foodgrain to cover the shortage in market supply in times of domestic production failures. To ensure private sector participation in meeting the domestic production deficit and enhance the economic access to food, the Government will:

- i. ensure removal of restrictions on storage and movement of food;
- ii. provide credit facilities for storage and stock-holding;
- iii. support development of efficient storage and delivery techniques;
- iv. encourage private imports through selective trade and fiscal policy measures to absorb internal and external price hike shocks; and
- v. extend public storage/handling facilities for use by the private traders at reasonable prices to ensure speedy and efficient delivery of food through the private sector.

Strategy – 2.2: Effective implementation of targeted food programmes to improve food security

Access to food from private food market for the hard-core poor, who are exposed to severe nutritional risk throughout the year, is inadequate. Moreover, since about half of the population of the country living below the poverty line, many of the households faces seasonal food insecurity, i.e. they face hunger, malnutrition and deprivation during the lean season. People belonging to occupations like day labourers, fishermen and the boat pullers are specially vulnerable. A well-targeted intervention programme for the households who fall victims of distress and high nutritional vulnerability due to temporal resettlement increases the real income and food consumption of the target group to a great extent (without providing those benefits to non-needy members of the population). Hence, minimising leakage to non-target households is essential to make a targeted programme successful. Leakage increases cost and reduces cost-effectiveness of targeted interventions. The slum dwellers and the rural landless are among the most distressed population. Malnutrition is extreme among the slum dwellers due to their poor sanitation facilities and limited income. Likewise, malnutrition is widespread among the distressed rural landless and their family members. In addition, there are other poor families consisting of the old, the abandon women, the helpless widows and the disabled, for whom the social safety net needs to be expanded.

Geographic targeting also allows intervention to specific distress-dense areas of the country. This may include the concerns of less employment opportunities, lower level of infrastructure and agricultural development, and in particular the frequent incidence of natural calamities. With respect to all these concerns, flood prone areas - particularly those affected by land erosion along the major river banks, and the urban slums are considered as the most nutritionally distressed areas of the country. The Government of Bangladesh, therefore, targets the population groups, regions and seasons where nutritional stress is most acute through income transfers, targeted food distribution and public works programmes.

In order to increase access to food by poor households, the Government will implement the following programmes under the Public Food Distribution System:

- i. direct distribution to households for emergency relief by the Ministry of Food and Disaster Management;
- ii. targeted distribution to disaster affected households through the Vulnerable Group Feeding (VGF) programme for a reasonably longer post-disaster period;
- iii. distribution of foodgrain as wages in Food-for-Work (FFW) programmes managed by the Local Government Engineering Department, the Ministry of Water Resources, the Ministry of Food and Disaster Management and others;
- iv. direct distribution of food to poor households participating in training and development activities (as in the Vulnerable Group Development (VGD) Programme managed by the Ministry of Women and Children Affairs); and
- v. expansion and effective implementation of the social safety net for the ultra-poor and the underprivileged population.

Strategy – 2.3: Employment-generating income growth

Public sector and NGO programmes, currently under implementation, are contributing in improving short-term food security of the poor household through providing additional food or cash income. But the long-term food security can only be achieved through achieving broad-based labour-intensive economic growth in the country. As access to land and to capital for most of the poor is limited therefore more focus should be given on increasing employment opportunities for the poor. Since most of the poor reside in rural areas, rapid growth of the rural economy is a pre-requisite for enhancing household food security on a sustainable basis. Important underlying factors for attaining improved food security at the household level are provisioning of special training, basic assets (including opportunities of *khas* land for women) and credit facilities especially for poor women. Women-centered initiatives relating to production and marketing activities for cereals, livestock (including poultry) and non-cereal commodities will get special priority. To promote income growth of the poor, the Government of Bangladesh has undertaken numerous development projects and policies, important among which are:

- i. support to women and the disabled in income generating activities;
- ii. promote investment in employment enhancing technology;
- iii. incentives for development of agro-based industries;
- iv. special assistance for expansion of rural industries;
- v. education and skill development programmes; and
- vi. broad-based growth promoting macro-policy.

2.3.1. Support to women and the disabled in income generating activities

The role of women in contributing to food security is often not appreciated. They have always been striving hard to maintain a consistent source of food and nutrition for their families. Due to the growing responsibilities of women for household well-being they are considered as effective vehicles for ensuring household food security. Women also play a central role in determining intra-household food security and nutrition for individual family members.

It is necessary to initiate women-focused development programmes including involvement at a larger scale of women in ever increasing economic activities through better access to productive resources, inputs and services. Women have less access to extension services and vocational training, credits and technologies. The Government is firmly committed to remove these problems obstructing the contribution of women and the disabled to economic development and food security. In support of this, the Government will aim to:

- i. improve women's participation in all kinds of activities in agricultural sector and provide the opportunity and tools for rural women to improve their productivity in production, processing and marketing activities in the rural agriculture;
- ii. ensure disabled- and women-focused targeted training programmes and their control over and access to production resources including credit and new technologies;
- iii. initiate more women responsive projects and programmes with a view to increasing their participation in economic activities; and
- iv. initiate appropriate supportive measures to increase the capacity of women to strengthen food security at household levels.

2.3.2. Investment in employment enhancing technology

Technology enhances productivity but is often becomes capital intensive and labour replacing. Nevertheless it is desirable to pursue those technologies which effectively synchronises labour intensive technologies with the production processes. Adoption of high-yielding rice cultivation may be mentioned as an example. There is no alternative but to develop and adopt the most appropriate technology for competitive domestic and international rice production. Lack of education and skill often becomes barriers to appropriate technology adoption.

2.3.3. Incentives for development of agro-based industries

Development of agro-based industries can transform diversified agriculture into backward linkage industry and help increase the income of the rural poor. In the backdrop of presently underdeveloped agro-based industries, agro-based industries need special support with credit and other fiscal incentives. Support for development of appropriate technology, linkage between urban and global markets and rural markets, and easy access to transportation and processing facilities are also important for the interest of the growth of agro-industries.

2.3.4. Special support for expansion of rural industries

Appropriate incentive programmes should be undertaken for expansion of rural industries (especially in areas which are backward in this respect). Social security programmes can play important roles through providing special stimulatory assistance from the Government (e.g. partial premium assistance in rural and small insurance systems) for small rural entrepreneurs, as needed. In this respect, special priority needs to be given to ensure support for female-headed labour-intensive household-based initiatives.

2.3.5. Education, skill and human resources development

Basic and vocational educations are prerequisites for technology adoption. Public and private sector education and skill development programmes currently under implementation should be evaluated against their market demands. In this respect to determine the demand for various types of skills needed in domestic market and prospect of export of manpower abroad, a survey on labour market demand and employment prospects for different kind of skilled workers should be carried out.

2.3.6. Adoption of macro policy for broad-based labour-intensive growth

Growth of economy does not automatically ensure income for all. Creation of employment along with self-employment opportunities for the poor is the focus of macro economic policy. Government policy should target the rapid growth of the income of the poor. This requires adoption of policies for rapid growth of rural economy and enhancement of access to land, capital and credit including micro-credit and other social security measures to give social protection for the old aged, distressed women and the physically handicapped population.

Objective -3: Adequate nutrition for all individuals, especially for women and children

Although Bangladesh has achieved commendable success in food production in feeding the people and in facing transient shortages and shocks, nutritional problems are still acute among a large section of the population. Among other actions, the Government has approved the National Food and Nutrition Policy (1997) and the National Plan of Action for Nutrition (1997). In addition to reactivation of the Bangladesh National Nutrition Council, the Government has also instituted the Bangladesh National Nutrition Programme (NNP) to cover broader aspects of nutrition and utilisation problems. For development of human resource potential, the Government has put nutrition considerations as one of the topmost priority agenda in the Poverty Reduction Strategy, which was developed in light of the Millennium Development Goals. To this end, the long term goal is to effectively incorporate the nutrition programmes in the overall development process of the country. Utilisation of food for nutrition, consumption of food rich in macronutrients (calorie, protein, fats and oils), micronutrient-rich food supplementation and nutrition education and information transfer, particularly for the vulnerable people (poor women, children and disabled) play significant role in the improvement of the overall nutrition situation. Over and above, prevention and control of diseases and programmes relating to water, sanitation and other health services development also need to be included.

Strategy 3.1: Long-term national plan for ensuring balanced food in building a healthy nation

To build the country to a healthy nation, it is essential to develop human resources equipped with physical, mental and intellectual capabilities. It is desirable to formulate food production and marketing plans taking into consideration the economic growth and also the changes in food demand consequent to household income and the overall socio-economic progress in the country. In order to formulate long term plans to ensure balanced food by reducing dependency on rice and by changing the food habit for the development of a healthy nation, the Government will take the following initiatives:

3.1.1 Setting long-term targets for physical growth in building a healthy nation

- i. setting long-term targets for physical growth in commensuration with overall changes; and
- ii. adopting plans for food availability taking into consideration the long-term sequential changes in food demands.

3.1.2 Setting a standard food intake in accordance with the physical, mental and intellectual needs

- i. setting desirable targets to ensure balanced food for building a healthy nation; and
- ii. setting the percapita calorie requirement for balanced nutrition of different population groups with different body size and occupations.

3.1.3 Taking steps to ensure balanced food to meet nutritional requirements

- i. formulate integrated plan to attain in stages the desired targets of balanced food intake; and
- ii. prepare and update a dependable food balance-sheet for Bangladesh on the basis of regular surveys on food intake.

3.1.4 Taking steps to ensure balanced nutrition at minimal costs

- i. prepare diet charts on the basis of local menus at low costs, yet attaining balanced nutrition; and
- ii. take steps to increase availability through local production of low cost items for balanced nutrition.

Strategy - 3.2: Supply of sufficient nutritious food for vulnerable groups

Ensuring sufficient consumption of nutrient-rich food (calories, protein, fats and oils) is at the heart of food security policy. For proper nutrition of the distressed population, particularly the disabled, the children and the women (especially the adolescent girls, pregnant and lactating mothers), it is essential to increase their carbohydrate, protein, fat and oil intake. To promote adequate intakes of macronutrients, the policy of the Government of Bangladesh is to work together with NGOs and development partners to:

- i. identify vulnerable groups and individuals, undertake nutrition programmes for improved food security and design appropriate strategies at the community level; and
- ii. increase empowerment of the vulnerable groups and individuals through specialised, skill-enhancing, disabled-friendly educational facilities and primary education for girls; micro-credit, and development projects involving training of vulnerable individuals.

Strategy 3.3 Balanced diet containing adequate micronutrients

Side by side with adequate intake of carbohydrates, protein, fats and oils, it is essential to ensure intake of diets rich in iron, vitamin A and other micronutrients for better health of the Bangladeshi population. To attain this, cost-

effective public health interventions and nutrition education programmes need to be undertaken. Other potential and sustainable strategies are development of iron and vitamin-A rich staple crops through conventional plant breeding for bio-fortification. In the interim, effective programmes for micronutrient supplementation and food fortification (with established standards and regulatory mechanisms) need to be explored as cost-effective approaches. Considering the long lasting negative effects of micronutrient malnutrition, the Government will undertake programmes to increase availability and accessibility of good quality food. In addition, the Government will undertake the following steps to mitigate malnutrition:

3.3.1 Nutrition education programmes, including

- i. strengthen formal and non-formal education programmes to popularise the idea of balanced food and take steps for communication of dietary guidelines on balanced food in the mass media;
- ii. intensify communication programmes on modification of dietary habits at the community level, especially in rural areas; and
- iii. develop ideal nutrition education module and incorporate it into various education programmes.

3.3.2 Dietary diversification

- i. undertake and provide extension services to home gardening and backyard poultry projects and programmes to encourage diversified food intake, in the backdrop of increased availability at the production and marketing levels.

3.3.3 Effective food supplementation and fortification

- i. fortification of *atta* (whole-wheat flour) and other processed food products;
- ii. compulsory iodisation of salt for human and animal consumption; and
- iii. supplementary feeding through nutrition and food intervention programmes.

Strategy - 3.4: Safe drinking water and improved sanitation

Safe drinking water and improved sanitation can potentially have a major impact on nutritional outcomes in Bangladesh, because of the current high prevalence of diarrhoeal and other water-borne diseases. Of high priority among the existing and the planned facilities is the testing and control of water quality (especially the arsenic content of drinking water). The Government policies and programmes to improve water safety and sanitation are:

- i. health education, including proper child-care practices, and the importance of safe drinking water and sanitary practices for prevention of diseases;
- ii. infrastructure development, including public investments in water supply (e.g. community tubewells) and sanitation; and
- iii. expansion of the existing public facilities for testing water quality (particularly the arsenic content).

Strategy 3.5: Safe, quality food supply

Food safety is an important concern at the present time. While development of the marketing system of the rapidly growing processed and other quality food is important, care also needs to be taken to maintain the quality of foods at all levels of marketing (e.g. assembling, cleaning, sorting, processing and packaging). Quality control is very important in both domestic and international trades. Bangladesh is a signatory to the Sanitary and Phytosanitary (SPS) measures under the World Trade Organisation (WTO), the Technical Barrier to Trade (TBD) Agreements and also a member of the *Codex Alimentarius* Commission – bodies to ensure supply of safe food. Priority may be given to assessment and prevention of risks involved in the distribution of safe food along the entire channel from production to consumption. The following programmes will be undertaken to ensure supply of safe and quality food through formulating new regulations by proper amendments of the existing ones and through encouraging the private sector initiatives:

- i. **formulation of uniform arrangement**, development of testing techniques, setting of standards and their application and compulsory enforcement;
- ii. investment in development of packing or packaging and safe storage facilities;
- iii. increase laboratory facilities and impart practical knowledge for development of the quality of food and food products;
- iv. training for concerned officials and institutions in protecting the grades and standards of food products;
- v. campaign for nutrition enhancing quality and safe food; and
- vi. develop and enforce appropriate regulatory mechanism to control indiscriminate use of harmful additives, preservatives and toxic elements in production and in the marketing chain for foodstuffs.

Strategy 3.6: Adequate health status

Disease control not only contributes to raising nutritional status, but also helps in improving the health condition. With regard to nutrition and proper utilisation of food, the Government of Bangladesh has instituted various programmes including the Health, Nutrition and Population Sector Programme (HNPS) in cooperation and coordination with the NGOs i.e. the development organisations. The following issues are included in the programme:

- i. Extended programme for Immunisation (EPI), control of acute respiratory infection (ARI), and prevention and control of cholera and other diarrhoeal diseases;
- ii. implementation of the reproductive health programmes; and
- iii. implementation of the National Nutrition Programme involving community mobilisation and community-based nutrition service delivery through the NGOs, targeted to children and women of reproductive age suffering from persistent weakness and micronutrient deficiencies.

Section - E: Food Policy Research, Analysis and Co-ordination

Food policy is gradually becoming more complex with the inclusion of all dimensions of food security (i.e., availability of, access to and utilisation of food). These dimensions of food security policy have to be implemented by the concerned activities of various ministries, departments and agencies of the Government. Changes in world trade and food aid environment also influence the current strategies, which pose new challenges for the food policy in future. The policy makers may face constraints in programme formulation, monitoring, evaluation and coordination of activities. Coordination of food security enhancing activities needs to be accomplished at the national level. The local and other level authorities might be able to take well coordinated decisions on the implementation of the food security related policies and strategies.

To develop, update and successfully implement the food policy, the policy makers need a clear appreciation of the options at their disposal and the likely result of their choices. Generating a clear picture will obviously require (a) continued information flow, (b) analysis of information, (c) knowledge of changing dynamics of food security environment, (d) adequate number of options, and (e) short- and long-run forecast of domestic and world supply and trade. To support this process, the food policy analysts and researchers will look ahead through continued research and analysis to predict what kind of information policy-makers are likely to need in the future.

There is a need to activate and strengthen the concerned agencies to formulate and acquire resources for the food security related programmes within the overall framework of the food policy. At present, the national level "Food Planning and Monitoring Committee" chaired by the Minister of Food and Disaster Management will plan and monitor the overall national food security efforts, including food utilisation and nutrition issues. Representative of all ministries associated with food security activities (e.g. the Ministry of Food and Disaster Management, Ministry of Finance, Ministry of Planning, Ministry of Agriculture, Ministry of Fisheries and Livestock, Ministry of Local Government, Rural Development and Cooperatives, Ministry of Women and Children Affairs, Ministry of Health and Family Welfare) will be in this committee, so that progress on all aspects of food policy can be discussed to give necessary directives to formulate and implement food policy-related programmes.

Section - F: Conclusion

Availability of food, though indispensable for food security, is not enough to significantly improve food security at the household level. For improved household food security, all out efforts are needed to ensure nutrition of the poor through improving their accessibility to food and ensuring full biological utilisation of the food. The overall food security can be well attained when increased accessibility to food is ensured through enhanced skill in domestic agriculture and increased availability of cereals and non-cereals, through attaining food accessibility by sustained increase in income of the poor and through education and health services leading to effective utilisation of food of the malnourished people. It is expected that the people of the country will be able to enjoy their desired food security through effective implementation of the food policy now formulated. Other food security enhancing policies and strategies will be integrated with this food policy. When needed, the formulated policy will be made ready for implementation through promulgation of Government notification.