

Development of Agricultural Policies in Bangladesh^[1]

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Introduction

- Agriculture is the driving force of the economy of Bangladesh
- As the largest private enterprise, it contributes about 21.11% to the country's GDP
- Major source of raw materials for the country's agro-based industries
- Source of food and nutrition, employment and income generation of majority people
- It is the dominant economic activity of rural poor for reducing their poverty
- Many of us think it as the life-blood of the rural economy of Bangladesh
- However, this sector is threatened by declining trend of productive land by 1% every year
- Land quality is deteriorating owing to degradation of soil fertility
- Water resources are also shrinking due to uplifting a huge amount of water
- It is the challenge of our government to:
 - protect scarce resources
 - increase supply of raw materials
 - increase food production
 - reduce poverty
- In order to meet the challenges, there is no alternative to agriculture
- To maintain the growth rate of GDP to 6-7%, agriculture must grow by at least 4% per year
- Agril. modernization and linking supply of chain between producers and consumers both in domestic and overseas markets could make it possible
- Which necessitates the revision and updating of the national policies relevant to the present agro-economic context

Objectives

- Increase productivity and generate income by transferring appropriate production technologies;
- Promote competitiveness through commercialization of agriculture;
- Harness and develop emerging and improved technologies through research and training; and
- Promote a self-reliant and sustainable agricultural system.

Agricultural Policies

- **Research and Development:** The paradigm of agricultural research system needs to be shifted from a supply-driven to a demand-driven approach, which requires a series of strategic action as:
 - **Governance of research institutions**
 - Strengthening of coordination in planning, monitoring, and implementation of research program by the NARS Institutes could be done.
 - Incentives and built-in reward will be provided to individual researchers or research institutes for innovation, excellence in agricultural research.
 - Adequate research contingency support will be provided to scientists and institutionalize project-based activities.
 - Government should foster research environment for better return from investment.
 - Appropriate infrastructure will be built and existing infrastructure will be maintained for research, training and outreach programs.
 - The National Agricultural Research Institutes i.e., BRRI, BARI, BJRI etc. need to be strengthened with adequate manpower development programs, job promotion through introducing upgrading the positions at all levels.

Agricultural Policies (Contd.)

➤ Research relevance

- The supply-driven research needs to be changed with demand-driven research.
- The government will emphasize practicing of research planning and prioritization as bottom-up initiatives.
- The government will encourage promotion of participatory approach for conducting research activities.
- Farm management research for identifying optimum size of holding appropriate to support at least the family having a family size equal to the national average (i.e., 5.8 persons holding family with modern amenities).
- Biotechnology research for both rice and non-rice crops needs to be strengthened further targeting the disadvantaged regions like flash flood and deeply flood prone areas, char land, coastal tidal submergence and salinity prone areas, and hilly areas.

Agricultural Policies (Contd.)

➤ **Diversified agriculture**

- Research focus should be given on diversification of agriculture and on whole farm activities for farmers
- Attention will be given to post-production technologies, value addition, agri-business management and trade.
- Sufficient government support for high priority research on the emerging issues including rainfed agriculture, emphasizing intensification and diversification of agriculture to improve productivity, stability and sustainability of the production system
- Government funding for agricultural policy research technology dissemination system should be ensured.

➤ **Transfer of technology**

- Research institutions will lay emphasis on technology assessment, refinement and transfer by improving interface with farmers and other stakeholders.
- Involvement of scientists in outreach extension program to be extended.

Agricultural Policies (Contd.)

➤ **Equity in the delivery of services**

- Decentralization of agricultural research management among the NARS institutes should be insured so that the benefits shared by the targeted people.
- Government should ensure the removal of regional imbalance for institutional infrastructure and human resources.

➤ **Natural resource management**

- Constant encouragement from government side should be given for generation and promotion of eco-friendly technology and sustainable land and water management for different agro-ecological zones and regions.
- Thrust will be given on weather and crop forecasting, climate change and disaster management.
- Conservation and effective use of life support system of soil, water flora, fauna and atmosphere will be addressed.

Agricultural Policies (Contd.)

➤ **Management information system**

- All research units will develop a comprehensive relevant database for agricultural research and development planning
- Facilitate functional electronic networking for all the stakeholders under the NARS and with other national, regional and international centers of excellence through Agricultural Research Information System.

➤ **Human resource development**

- Strengthen the existing human resources to be nationally and globally efficient and competitive.
- Provide opportunities for advanced training on frontier sciences, technologies and agricultural research management.

➤ **Forging partnership**

- NARS institutes will create opportunities for promotion of research action through increased public-private sector collaboration in research activities.

Agricultural Policies (Contd.)

- **Agricultural Extension:**

- ☞ Like other emergency services i.e., electricity, water supply and health, sanitation services etc., the recent evidence of Flood and Sidor has proved that the extension service as an emergency service providers for sustainable growth and development of agriculture in Bangladesh.
- ☞ As a primary role of service delivery system, the agriculture extension department needs to assist farmers through appropriate technical and farm management advice and information about new technology, improve farming methods and techniques aimed at increasing production efficiency and farms' income.

Agricultural Policies (Contd.)

Crops

- **Seeds and Planting Materials**

- ☞ Seed is the main production input in the agriculture sector. The availability and quality of which are the means of sustainable agricultural production. The GO, NGOs and some private companies have started producing, importing, storing and marketing of quality seeds of hybrid rice, maize and vegetables at a limited scale. Therefore, the national policies for making sustainable supply and maintaining quality seed are needed.

Agricultural Policies (Contd.)

• **Fertilizer**

- ☞ Fertilizer input is another critical factor of production. The expansion of modern agricultural practices together with intensified cultivation has led to an increasing demand for fertilizers. It is therefore, necessary to ensure timely supply of fertilizers to meet the increasing demand. Imbalanced use of chemical fertilizers is causing land degradation. Excessive mining of plant nutrients resulted declining of soil fertility on the one hand and reduction in the potential yield on other. It is, therefore, important to adopt pragmatic measure so as to encourage farmers in using balanced fertilizers to maintain soil fertility.

To strengthen fertilizer management, the government will pursue following policies:

- Stress should be given by the government on procurement and distribution of fertilizers both at the private and the public sectors.
- Steps will be taken to maintain a fertilizer buffer stock at the regional, district and upazila level.
- Government should facilitate availability of quality fertilizers at farmers, level.
- Production, importation, marketing, distribution and use of any kinds of fertilizer that are harmful or detrimental to plant, soil, flora and fauna will be banned.
- Constant monitoring of supply, storage, price and quality of fertilizers at various levels should be ensured.
- Open market sell of fertilizer as demanded by farmers could be extended.
- Means and ways to be found out to stop any unfair means adopted by anybody in the fertilizer market

Agricultural Policies (Contd.)

- **Minor Irrigation**

- ☞ Like seeds and fertilizers, irrigation is considered as another important input for increasing crop production. At present, about 90-95% of the total irrigated land is covered by minor irrigation. The country's total food production is largely dependent on minor irrigation like STW. Owing to shrinkage of water resources, a significant portion of area is not getting water during lean period. Moreover, river linking project of upper riparian country is likely to aggravate the situation. A well-planned irrigation management system is, therefore, essential for gradual increase of cropping intensity as well as yield. As such, national agricultural policy places special emphasis on the judicious use of water resources.

Agricultural Policies (Contd.)

- **Mechanization in Agriculture**

☞ Mechanization in agriculture is essential for minimizing cost of production. The need for mechanization is increasing fast with the decrease of draft power. Without mechanization it will not be possible to maintain multiple cropping patterns, which need quick land preparation, planting, weeding, harvesting and processing etc. Significant increase in use of agro-machinery primary in tilling, seeding, weeding and threshing has been achieved. This trend needs to be extended further so that efficiency of production can be achieved with increased production and reduced cost. Mechanization should include post harvest activities including processing and preserving. The following policies could be undertaken for agricultural mechanization in Bangladesh.

- The government will pioneer research and development of appropriate agricultural machinery and equipment.
- The government will encourage production and manufacturing of agriculture machinery locally.
- Manufacturing workshops and industries engaged in agricultural machinery development activities will be provided with appropriate support.

Agricultural Policies (Contd.)

- **Agricultural Marketing**

- ☞ Efficient marketing benefits both producers and consumers. A strong market infrastructure helps increasing efficiency in marketing services. Development of efficient agricultural marketing system will, therefore, help farmers enhancing their bargaining power and enable them to fetch better prices for their produces. Therefore, The government will facilitate smooth flow of agricultural produces from the production point to the consumption point by setting up village market and improving distribution to main markets and the existing marketing institutions will be strengthened both in terms of workforce and infrastructure. Both private and public sectors should be encouraged in improving agricultural products through values addition activities.

Agricultural Policies (Contd.)

- **Women in Agriculture**

- ☞ As women represent nearly half of the total population of the country, utilization of their hand into productive way is a must for accelerating and sustainable development of the country. It is obligatory on the part of the government to meaningfully involve them in agriculture-related income-generation activities.

Agricultural Policies (Contd.)

- **Human Resource Development**

- ☞ A vast proportion of rural workforces in Bangladesh are illiterate, untrained and unskilled. With such reservoir of human resources, frontier production and food security could not be achieved. So, proper policy for developing the skill of this group of people is a must for increasing productivity and achieving food security for future generation.

Agricultural Policies (Contd.)

• Forestry

- ☞ Forest in Bangladesh is not so less important in the macro-economic policy aspect. It has been estimated that forest covers around 2.53 million hectares or 17.5% of the country's total land area. Of which government khash land constitutes 10.5%. These areas are mainly concentrated in Chittagong hill tracts (Rangamati, Bandarban and Khagrachari) and Sundarban mangrove forestland. Forest coverage is gradually being eroded owing to excessive harvests of timbers and fuel woods. One estimate finds that every year 37.6 thousand hectares of tree coverage is destroyed through illegal felling by timber traders and the encroachment by the people – local as well as internal migrants. It is claimed that tree coverage in forest areas has already reduced to below 10% and causing irrecoverable loss of biodiversity.
- At least 1/4th of the country's land area should be kept reserve for forest for protecting biodiversity as well as environmental degradation.
 - Development projects on social forests including trip plantation, woodlots and farm forestry in both government and private lands need to be encouraged.
 - A forestation projects in the name of coastal green belt in the newly developed islands char lands in the Bay of Bengal with mangrove plants to be established.
 - There is a wide potential for mangrove plantation in the newly growing char areas in the coast of Bay of Bengal.

Agricultural Policies (Contd.)

- **Fishery**

- ☞ Bangladesh is uniquely rich in water resources. Water land ratio in Bangladesh is one of the highest in the world. Its shore sea, estuaries, mangroves, her rivers, lakes and ponds all offer tremendous opportunities for fish farming. There are about 2.89 mha of paddy fields that remain under floodwater for some 3 to 5 months in the year providing feeding and breeding grounds for various species of fishes. Bangladesh fisheries sector contributes about 5.6% to the country's GDP, supplies 63% of animal protein intake, 9% of the total export earning and employs about 10% of the total 130.20 million population. Therefore, the fisheries sector, which is important in terms of nutrition, income, employment and earning of foreign exchange, should not keep ideally and run unplanned.

As the fisheries sector plays an important role in respect of self-employment, poverty alleviation and socio-economic development of the country. Therefore, policy should be taken to save this sector.

Conclusion

Sustainable agricultural growth is indispensable for Bangladesh Economy, to achieve such growth in Bangladesh:

- ☞ Only a single sector plan could not make a balance and overall economic development of the country. Therefore, a balance development strategy among other agricultural sectors is a must
- ☞ Massive public investment will create multiple effects facilitating a more dynamic agriculture in the economy.
- ☞ Government should place due emphasis on all aspects for modernizing agriculture.
- ☞ Due emphasis should be given on fertilizer procurement and distribution at all levels
- ☞ Open market sell of fertilizers could ensure availability of fertilizer on time
- ☞ Encourage farmers for using balance dose of fertilizer
- ☞ It is hoped that, if the NAP is implemented, the MDGs, SDGs and PRS will be partly fulfilled.

Thanks