

# NEW AGRICULTURAL EXTENSION POLICY (NAEP)

GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH

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# **NEW AGRICULTURAL EXTENSION POLICY**

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### **NEW AGRICULTURAL EXTENSION POLICY**

### 1 Introduction

# 1.1 Agriculture in Bangladesh

The economy of Bangladesh is predominantly agrarian, with the agriculture sector accounting for about 35 per cent of Gross Domestic Product (GDP). In the past decade, the agriculture sector contributed about three per cent annum to the annual economic growth rate.

The natural environment is generally favourable for crop production, and there are estimated to be about nine million hectares of land suited for cultivation. Over 80 per cent of the population of Bangladesh, or roughly 15 million households, live in rural areas, and the agriculture sector employs around 62 per cent of the labour force. The crop sector alone accounts for 57 per cent of employment in Bangladesh. The agriculture sector comprises crops, forests, fisheries and livestock. Of the agricultural GDP, the crop sub-sector contributes 71 per cent, forests 10 per cent, fisheries 10 per cent, and livestock 9 per cent.

Through the contribution of agriculture to the national economy and employment may diminish further, it will remain the single largest contributor to income and employment generation and a vital element in the country's challenge to achieve self-sufficiency in food production, reduce rural poverty and foster sustainable economic development. The Government has the responsibility to ensure that the necessary conditions exist to enable the country to meet these challenges, and for this purpose, a sound agricultural policy is essential.

### 1.2 Agricultural Policy and Priorities

The Government is committed to the continued development of agriculture in order to maintain food supplies for the growing population, provide income and employment for rural people, and protect the environment. Because land is scarce in Bangladesh, the key to agricultural development is the efficient, productive and sustainable use of all firm land. This will depend on the farmers who decide what to produce, what technology and inputs to use, how much to sell, and how much care to take in looking after their crops, livestock, fish and trees.

The broad objective of the agricultural policy is to facilitate and accelerate technological transformation with a view to becoming self-sufficient in food production and improve the nutritional status of the population. The specific short and mid term policy objectives as stated in the perspective plan (July 1995 to June 2010) are as follows:

- to attain self-sufficiency in food grains and increase production of other nutritional crops;
- to ensure sustainable agricultural growth through more efficient and balanced use of land water and other resources;
- to increase foreign exchange earnings through agricultural exports;
- to increase per hectare rice output in order to release more land for other crops, especially legumes and fodder crops;
- to introduce high value cash crops;
- to improve the quality and availability of seeds;
- to reduce environmental degradation;
- to increase fish, livestock and forestry production;
- to conserve and develop forest resources.

Broader long term policy objectives as stated in the perspective plan (July 1995 to June 2010) are as follows:

- to ensure sustainable agricultural development;
- to introduce high quality, appropriate agricultural technology;
- to maintain the ecological balance in the natural environment;
- to reduce rural poverty;
- to establish export-oriented agro-processing industries;
- to sustain and balance production, consumption and income.

The strategies adopted to attain these objectives are to:

- establish macro-economic policies that enable farmers to be responsive to domestic and international market opportunities;
- provide high quality infrastructure and government services that will enable farmers produce and market products at low cost;
- encourage private sector involvement in the supply of inputs and rely on competitive markets to supply agricultural inputs at low cost;
- establish policies, regulations and project assistance that will ensure sustained agricultural production;
- ensure that research concentrates on the key technical and socio-economic constraints to production;
- provide appropriate technical and farm management advice and information to all farmers through continued improvements in extension and other support services.

Agricultural extension is a key component of the strategies and objectives of the Government's agricultural policy. As part of the Government's responsibility for the establishment of policies, regulations and projects that will ensure sustained agricultural production, the need for developing a New Agricultural Extension Policy was felt.

In order to develop an effective extension policy, a Task Force was constituted under the chairmanship of the Secretary, Ministry of Agriculture. The Task Force comprised representatives from three sectors: the private sector, the non-government organisation sector and the public sector. The Task Force made full use of the experience and expertise of all three sectors, prepared a draft New Agricultural Extension Policy which was circulated the draft for comment, and finally prepared this document.

## 2 New Agricultural Extension Policy

# 2.1 The Role of Agricultural Extension

Agricultural extension is a difficult term to define precisely. It has different meanings at different times, in different places, to different people. The role of agricultural extension is to help farmers make efficient, productive and sustainable use of their land and other agricultural resources, through the provision of information, advice education and training.

In the context of Bangladesh the following definitions have been adopted:

- agricultural extension is a service or system which assists farm people, through educational procedures, to improve farming methods and techniques, increase production efficiency and income, better levels of living, and lift the social and educational standards of rural life (Maunder, 1973, Agricultural Extension Manual, Rome, FAO);
- agricultural extension is assistance to farmers to enable them identify and analyse their production problems, and to increase their awareness of the opportunities for improvements.

Clearly, agricultural extension is an extremely important process which can accelerate technological, social and economic development. In particular, effective extension:

- helps farmers identify and overcome production, farm management and marketing problems at farm level through the exchange of information among farmers, extension staff, input suppliers, credit agencies and marketing agents;
- helps farmers make better use of existing technology, for example, through more efficient use of feed, fertiliser or irrigation, etc.;
- introduces new technology to farmers, such as new breeds, new varieties, new crops and new equipment;
- provides information to agricultural research institutions on farmer's production constraints so that appropriate basic, applied or adaptive research can be carried out to address them;
- helps in the successful creation of opportunities or situations in which farmers gain the abilities and skills necessary to meet their needs and interests in such a way as to attain continuous improvement and self-satisfaction;
- helps farmers learn to put information into use in ways that result in improvements in their living standards;
- helps farmers gain a clear vision of what can and should be done and encourages farmers to improve their pattern of living and helps them develop the necessary skills to so

# 2.2 The National Agricultural Extension System

There are many agencies which provide extension support to the farmers of Bangladesh. These include government agencies, for example, the Department of Agricultural Extension, Bangladesh Rural Development Board, Bangladesh Water Development Board, Bangladesh Agricultural Development Corporation, Forest Department, Department of Livestock Services and Department of Fisheries. There are also many non-government organisations, commercial traders and input suppliers (manufacturers, wholesalers, and retailers) operating in rural areas of the country. Together, all these partners can be seen as comprising the National Agricultural Extension System.

### 2.3 The Goal and Components of the New Agricultural Extension Policy

### 2.3.1 Goal

The goal of the New Agricultural Extension Policy is to:

encourage the various partners and agencies within the national agricultural extension system to provide efficient and effective services which complement and reinforce each other, in an effort to increase the efficiency and productivity of agriculture in Bangladesh.

To achieve this goal the policy includes the following key components:

- extension support to all categories of farmer;
- efficient extension services;
- decentralisation;
- demand-led extension;
- working with groups of all kinds;
- strengthened extension-research linkage;
- training of extension personnel;
- appropriate extension methodology;
- integrated extension support to farmers;
- co-ordinated extension activities;
- integrated environmental support.

Each of these components is discussed in the following sections.

### 2.3.2 Extension Support to all Categories of Farmer

Extension recognises the rural household and its farm as the basic unit of production. All members of rural households contribute to agricultural activities and household welfare. It therefore seeks to ensure that all members of all types of rural households have access to the extension services they need. This is done by targeting particular activities to meet the needs of particular categories. Extension programmes will therefore include specific activities for:

- women farmers and other women household members, in support of homestead production and post-harvest activities as well as their roles in field crop production;
- young people, who are the farmers of the future;
- small and marginal farmers;
- large and medium farmers;
- landless households, who have no farmland but may have homestead areas.

### 2.2.3 Efficient Extension Services

The efficiency of agricultural extension services will be improved through training, skill development, institutional strengthening and logistical support. Trained extension agents will be provided to work effectively with all categories of farmers, and with all members of households, and to solve basic production, management and marketing problems in a wide range of crop, fishery, livestock, forest and household enterprises. The focus of outreach activities is to provide the most cost-effective services to farmers.

The extension agencies in the three sectors (government, non-government organisation and private) will continue to work within their own organisational structures and procedures, but the policy seeks to ensure that effective co-ordination is established to increase the efficiency of agricultural extension.

### 2.3.4 Decentralisation

Farming systems, household economic activities, agro-ecological conditions, input availability, credit and marketing opportunities and many other factors in the farmers' decision making environment vary from place to place. Those involved in extension at the field level need to be able to plan their programmes to fit the circumstances of the area and its farm households. The New Agricultural Extension Policy seeks the devolution of much of the responsibility, especially in the government sector, for key aspects of the planning and implementation of extension programmes. These key aspects will include:

- identifying and responding to information needs: selecting appropriate information for farmers according to their needs;
- collecting information about local resources: basing extension programmes on a clear understanding of the availability of local resources, and the prevailing social and physical environment;
- <u>programme planning</u>: details of work schedules and extension activities planned at local level, by field staff in consultation with their immediate supervisors;
- <u>training</u>: farmer and extension personnel training plans drawn up at local level, to reflect local needs;
- <u>media</u>: radio and television programmes, bulletins, leaflets, posters and folders produced locally (and nationally) to provide farmers with appropriate information.

### 2.3.5 Demand-led Extension

Extension programmes concentrate on meeting the information needs of farm households, in particular helping them solve the key problems they face in their farming activities. All extension activities and research priorities are to be based on the needs, problems and potential identified at farm level. This may lead to the involvement of extension agencies in local on-farm participatory research in order to identify appropriate solutions to farmers' problems. Extension staff will work closely with farmers to identify agricultural problems, using participatory methods and techniques such as Rapid Rural Appraisal, Participatory Rural Appraisal and Problem Censuses. Farmers' problems will set the extension agenda, and in this way, extension services will be demand led, and based local situations and resources.

### 2.3.6 Working with Groups of all Kinds

For the extension services to provide individual attention to the more than 10 million farm families is beyond the resources available to Bangladesh. A group approach to extension offers the opportunity for more effective use of limited extension resources for problem identification and solution, sharing of information and cost-effective choice of extension methodology. A group approach to extension also has the advantage of providing a forum for participation, an area in which many non-government organisations have considerable expertise.

The New Agricultural Extension Policy endorses the principal that extension staff should work with groups of all kinds, in order to bring maximum benefit to farmers. It recognises that a very wide range of mutual interest groups already exists in the field. These groups range from extremely temporary, such as a seasonal pest control group, to virtually permanent, such as the Krishok Shomobay Shomittee, and may be affiliated to a wide variety of agencies, including those responsible for input supply, credit extension and marketing. These existing groups would be the focus of extension activity. New groups will be encourage where there are none at present or where key target farmer categories are not included in the membership of existing groups. Extension staff from different agencies will work with groups to:

bring extension staff into contact with more farmers;

- help all categories of farmers (men, women, large, small and marginal) to benefit from extension;
- improve the learning and spread of knowledge among the farming population;
- enable farmers to fully participate in the planning of extension programmes;
- provide a forum where decisions can be taken for farmers to take co-ordinated action leading to self-reliance (for example, on pest management, forest management, livestock grazing and soil conservation);
- promote a closer, participatory working relationship between staff and farmers.

# 2.3.7 Strengthened Extension-Research Linkage

The development of close co-operation between extension agencies and formal research institutes is essential if farmers are to be provided with the services they require. Research institutes require information from extension about the problems farmers are facing, for which there are no available solutions, in order to conduct research programmes both on research stations and on-farm with farmers. Extension requires the findings from research programmes, in order to provide farmers with the most appropriate advice.

Effective mechanisms to ensure that there is a free flow of information between extension and research will be institutionalised. The main institutional mechanisms will be:

- A National Technical Co-ordination Committee, comprising extension representatives from the government, non-government organisation and private sectors, and representatives from research;
- Agricultural Technical Committees, each covering a number of districts in similar agro-ecological zones and comprising local representatives of extension agencies and research institutes:
- research-extension review workshops between staff of the Department of Agricultural Extension and local research institutes.

A contract research system will be set up to enable extension agencies to help develop and fund specific research programmes with specific research institutes. The New Agricultural Extension Policy also recognises that farmers themselves are actively engaged in their own experimentation, as part of their daily agricultural lives. Efforts to learn from and strengthen such informal research will be made.

### 2.3.8 Training of Extension Personnel

Training is a fundamental feature of the extension approach supported by the New Agricultural Extension Policy. All providers of extension services need to be confident in their ability to solve farmers problems and supply many of their information needs. Training will also be necessary to provide extension agents with the skills necessary to deal with the needs of particular clients, such as women and landless households. Special attention will be required to encourage referral to other agencies or individuals better suited to deal with particular problems or opportunities, for example in livestock production, fisheries, forestry, farm management, credit and marketing. Government policy is for training opportunities and funds to be made accessible to all extension service providers. Training resources and facilities will be optimally utilised and strengthened, and higher education encouraged. The training needs of extension staff, based on the service requirements of farmers, will set the training agenda.

### 2.3.9 Appropriate Extension Methodology

There is a wide range of extension methods which agencies can use in their work with farmers and rural households. No single method is suitable for all purposes and occasions. Extension agencies and personnel will select appropriate methods in order to meet specific extension objectives with their various categories of farmers. These methods are likely to include:

- <u>Farm visits</u>: meeting individual farmers at their farm gives extension personnel a
  unique view of the potentials and problems of their farm. Where other farmers are
  present, the impact of the visit can be felt widely within the farming community;
- <u>Media</u>: the impact of extension programmes can be increased considerably by a coordinated use of media, including mass media, folk media and visual/audio-visual aids. Media are an efficient means of disseminating information rapidly, at low cost, to a large number of people. They can support the work of extension staff by publicising extension activities, reinforcing technical messages, spreading awareness of new ideas and telling people of the success of other farmers and groups;
- <u>Training</u>: in many situations, farmers need to learn new skills or develop new knowledge before they can effectively adopt new ideas and practices. Training can take place in a village, at a farmers field or demonstration plot, or in a training centre;
- <u>Demonstrations</u>: these are useful tools for the transfer of technology and encouraging farmers to try out new ideas, provided they concentrate on technology which is widely relevant within the local area and based on farmer information needs;
- Fairs: these help to create awareness about improved technology among a large number of people within a short period of time. They provide an opportunity for farmers to see a range of technologies and inputs, displayed by other farmers, dealers, non-government organisations and government agencies, and to discuss them in a lively and informal atmosphere;
- <u>Visits and motivational tours</u>: visits to research establishments and to other areas give farmers and extension staff an opportunity to interact directly with other farmers who have been successful in solving their own problems, and with research scientists conducting research programmes of interest of farmers;
- <u>Participatory methods</u>: the use of highly participatory extension methods, including Rapid and Participatory Rural Appraisal, provide an opportunity for extension staff and farmers to work together to analyse current situations and problems, and determine appropriate courses of action for self-reliance.

# 2.3.10 Integrated Extension Support to Farmers

The policy of the Government is to provide farmers with advice on all aspects of agriculture. Among the government organisations, the Department of Agricultural Extension is the largest, and providers services to farmers for increasing production of crops, including vegetables, fruits and homestead crops and to develop other homestead agricultural activities. At present, the Department has extension agents at grassroot level. One extension agent is primarily responsible for approximately 1000 farm families.

The Department of Livestock Services and Department of Fisheries have extension staff at thana level. The Department of Forestry has staff mainly at District level, although their extension services are mostly based on the nurseries established at thana level. At present, these departments have no grassroots extension agents. Until such departments can develop their own facilities, the Department of Agricultural Extension may offer appropriate information to farmers in the areas of livestock, fisheries and forestry, with the support of the other departments, as decided in the Agricultural Technical Committee.

Appropriate advice, as requested, will be made available to non-government organisations, from all

these departments, to enable them to offer high quality integrated extension support, including farm management, production, credit and marketing for their target groups and area. Many non-government organisations are engaged in integrated farming advice, and it is the policy of the Government to ensure that these agencies are provided with appropriate advice and technical assistance from the various ministries and departments of the Government of Bangladesh.

### 2.3.11 Co-ordinated Extension Activities

The extension services of the various providers within the national agricultural extension system will be co-ordinated in order to optimise the use of the recourses within the system. This implies the sharing of information and expertise among the agencies involved, and participation where appropriate in each others extension activities. The New Agricultural Extension Policy recognises that different agencies working in the same areas often have complementary expertise and that where this is brought together the effectiveness of all agencies in their services to the nation's farmers can be enhanced. The extension services of various providers within National Agricultural Extension System will be co-ordinated at five levels:

- at local level, with the various extension services co-operating in working with and meeting the needs of the wide variety of farmers groups that exist in rural areas, and through the exchange of information and experience among farmers, farmers groups and extension agents working with different organisations at field level. Local level co-operation will also be enhanced though the participation of different extension agencies in the meetings of Union Councils, under the chairmanship of the Union Council Chairman;
- at thana level, through direct contact between extension personnel at thana level through the Thana Agricultural Development Committee, which comprises representatives from government, non-government and private sectors, including women farmers and women representatives of these organisations;
- at district level, through the Department of Agricultural Extension, District Extension Programming Committee and the District Development Co-ordination Committee;
- at regional level, through the Agricultural Technical Committee, where government and non-government organisation staff and research institute staff come together seasonally to discuss technical issues relating to extension programmes;
- at national level through the National Technical Co-ordination Committee, where representatives of all agencies come together to discuss research co-operation and technical research issues relating to extension work. There are also other national apex bodies, such as the Department of Agricultural Extension Non-Government Organisation Liaison Committee and other such committees, which have an important co-ordination role.

### 2.3.12 Integrated Environmental Support

The lives of more than 70 percent of the population are almost totally dependent upon the natural resource base which supports agricultural production. However, it is recognised that this critical resource base is under threat. Among the concerns are deforestation, water scarcity caused by overabstraction, and an increased incidence of pest damage due to introduction of monoculture and inappropriate use of pesticides. To maintain the ecological balance in the natural environment, the Government's environmental objectives are to:

- control and prevent pollution and degradation related to soil, water, and air;
- promote environment-friendly activities;
- strengthen the capabilities of public and private sectors to manage environmental concerns as a basic requisite for sustainable development;
- create opportunities for people's participation in environmental management activities.

The strategies adopted to attain these objectives are as follows:

- integration of the environment into the overall agricultural policy to ensure a policy of sustainable agricultural development;
  - environmental impact assessment as an integral part of the development and testing
    of innovations by agricultural research institutes, universities, non-government
    organisations an the private sector;
  - promotion of environmentally sound agricultural practices, such as Integrated Pest Management, and active discouragement of damaging and hazardous agricultural practices;
  - monitoring the impact of agricultural practices by environmental agencies, and the use of findings to stimulate a continuos improvement of agricultural technologies and agricultural policies.

The New Agricultural Extension Policy therefore supports extension programmes which seek to support and encourage farmers and farmers groups to apply sustainable agricultural practices. Through the sharing of information among all the agencies in the national agricultural extension system, it is expected that the capacity of agencies to promote sustainable agricultural development will be enhanced. It is recognised that farmers own Indigenous Technical Knowledge is often environmentally sustainable, and efforts should be made to support and learn from farmers, as well as the formal research system.

The policy recognises that, inevitably, with increasing demand for higher agricultural output due to a rapidly increasing population, there may be a negative effect upon the natural environment. However, the policy will support extension efforts aimed at balancing the demands for increasing production and environmental preservation. of this effort will be integrated extension support for the whole farm system.

### 3. Implementation Strategy for New Agricultural Extension Policy

The National Task Force which has been charged with the preparation of this New Agricultural Extension Policy is also responsible for the development of an Implementation Strategy. This Implementation Strategy will establish:

- clear definitions of the roles for the various extension agencies;
- effective mechanisms for collaboration and information exchange among extension agencies and among farmers;
- effective mechanisms for the supply, management, and monitoring of resources to support the activities of extension agencies;
- mechanisms to provide extension agents at all levels with the skills and training appropriate to their job requirements;
- effective linkage for three way information flow between farmers, extension agents and research institute staff.

While this New Agricultural Extension Policy has set the principles for the effective functioning of the National Agricultural Extension System, the Implementation Strategy will set the mechanisms by which these principles are put into place.