

VOLUME III

**A SYNTHESIS OF AGRICULTURAL
POLICIES IN BANGLADESH**

AGRICULTURE SECTOR REVIEW

**MINISTRY OF AGRICULTURE,
GOVERNMENT OF BANGLADESH**

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This report is prepared for the FAO, Dhaka office for supporting the Ministry of Agriculture in implementing the Actionable Policy Brief (APB).

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Executive Summary

1. This report presents a synthesis of a large number of policy documents in broad field of agriculture and rural development. The work has been commissioned by FAO for supporting the Ministry of Agriculture in implementing the Actionable Policy Briefs prepared for the ministry in 2005.
2. This reviews as many as 18 policy documents and 5 other occasional reports/papers broadly classified under three categories- crops, non-crops and crosscutting policies (Section 3).
3. The myriad of policies discussed in this review are generally compatible in terms of their avowed goals of rapid poverty reduction, increasing productivity and profitability of farming, creating income and employment opportunities, especially for rural women. The major thrusts of these policies are largely consistent with the MDGs as well as the strategies and future policy priorities of agriculture and rural development policy matrix suggested in the PRSP.
4. Most of the problems in policy formulation and implementation arise because of the overlaps of the ministerial domains that are not clearly defined and demarcated. Thus, demarcating the domain of each ministry and establishing accountability in adhering to the defined limits of domain seems a serious issue to be addressed in formulating and implementing any meaningful policy.
5. Fourthly, the policy documents are generally based on notional ideas and lack any serious analysis, largely due to lack of reliable data but also due to lack of analytical capacity within the ministries. This warrants capacity building of the government ministry in handling data, conducting policy analysis and engaging in informed policy debates.
6. While the policies reviewed suffer from being short of informed analyses, there are areas, which are inadequately treated or missed out altogether. Some of these include: dominance of cereal food production, loose treatment of diversification and commercialization, bypassing crop-fish conflicts, ignoring small indigenous fish, lack of insights about poultry waste utilization, ignoring floriculture, inadequate private sector focus, commercialization of soil and water quality tests, silence on contract farming and development of supply chain for high value agricultural products, lack of linking farm and non-farm activities, misconstruing subsidy issue, and inadequate attention to food management (Section 4).

7. The weakest point in the major policy documents, i.e. NAP, APB and Food Policy, is the inadequate attention given to understanding the effects of agriculture and food markets development on production and producers' incentives.
8. The review implies the need for further policy studies to improve understanding on agriculture and rural economy. Some of the major issues for immediate analysis are competitiveness of Bangladesh agriculture in the changing global trade scenario, impact of food management and market development on production and producers' incentives, linkages between farm and non-farm sector growth, appropriate forms of support to agriculture, dynamics of the new forms of agricultural production and so on (Section 5.1).
9. One main observation from this review indicated inherent weakness in the ministry to deal with hard data and develop policy arguments based on informed analysis. Thus, a project for strengthening agriculture and rural development policy process is proposed (Section 5.2).

A SYNTHESIS OF AGRICULTURAL POLICIES IN BANGLADESH

1.0 Background

This report is prepared as a part of the FAO programme for supporting the Ministry of Agriculture in implementing the Actionable Policy Brief (APB). This work presents a synthesis of the major policies relating to crop and non-crop agriculture as well as crosscutting policies of Bangladesh and proposes a project for strengthening GoB capacity for analysis and policy formulation. The report is built on an extensive review of available policies and documents related to crops, livestock, fishery, forestry, inputs, land, water and food. It also uses feedback from a number of informed sources working in different ministries and agencies.

2.0 Mass of Agricultural Policies and Documents

There is a plethora of policy/ strategy documents relevant to broad agriculture and rural development in Bangladesh. These can be classified in three sub-categories- crops, non-crops and cross cutting policies (Table 1). As one would expect, about a half of the policy documents deal with crop sub-sector at large, although the contents of these documents deal mainly with cereal crops, especially rice. Non-crop sub-sector, covering fishery, livestock and forestry, appear less prominently both in terms of coverage and focus. The crosscutting policies include those related to land, water, food and rural development. The following matrix gives an overview of major thrusts and objectives of various policies.

Table 1: Matrix on Agriculture Sector Related Policies

Sub-sector policies	Major goals and policy thrusts	Implementing ministry
A. Crop sub-sector		
1. National Agriculture Policy (NAP), 1999	<ul style="list-style-type: none"> Food security, profitable and sustainable production, land productivity and income gains, IPM, smooth input supplies, fair output prices, improving credit, marketing and agro-based industries, protecting small farmers interest 	Ministry of Agriculture
2. New Agricultural Extension Policy	<ul style="list-style-type: none"> Provision of efficient decentralized & demand led extension services to all types 	Ministry of Agriculture

Sub-sector policies	Major goals and policy thrusts	Implementing ministry
(NAEP), 1996	of farmers, training extension workers, strengthening research-extension linkage, and helping environmental protection	
3. DAE-Strategic Plan, 1999-2002	<ul style="list-style-type: none"> • Adoption of Revised Extension Approach, assessment of farmers' information needs, supervision, use of low or no cost extension methods, promotion of food and non-food crops, and mainstream gender and social development issues into extension service delivery. 	Ministry of Agriculture
4. Agricultural Extension Manual, 1999	<ul style="list-style-type: none"> • Annual crop planning, seasonal extension monitoring, participatory technology development and rural approval partnership, technical audit, attitude and practice surveys. 	Ministry of Agriculture
5. Seed policy, 1993	<ul style="list-style-type: none"> • Breeding of crop varieties suitable for high-input and high output agriculture, multiplication of quality seeds, balanced development of public and private sector seed enterprises, simplification of seed important for research & commercial purposes, provision of training and technical supports in seed production, processing & storage monitor, control and regulate quality and quantity of seeds. 	Ministry of Agriculture
6. Seed Rules 1997	<ul style="list-style-type: none"> • Delineation of rules and regulations regarding changing functions and of national seed board, registration of seed dealers, seed certification, marking truthful labels, and modalities of seed inspection. 	Ministry of Agriculture
7. Plan of Action on NAP, 2003	<ul style="list-style-type: none"> • Reviewing NAP and its implementation, setting out strategies and actions, and identifying institution and programme framework 	Ministry of Agriculture
8. Actionable Policy Brief (APB), 2004	<ul style="list-style-type: none"> • Prioritize immediate medium-term and long-term policy measures with respect to seed, fertilizer, land, irrigation, mechanization, marketing, agricultural research and extension with a view to increasing labour & water productivity, investment in agriculture and improve risk management. 	Ministry of Agriculture

Sub-sector policies	Major goals and policy thrusts	Implementing ministry
9. National Jute Policy, 2002	<ul style="list-style-type: none"> Keeping jute production at a desirable level, stabilizing supply and prices of jute, developing commercially viable jute industries, accelerating privatization of jute industries, and developing multiple uses of jute & jute goods. 	Ministry of Jute
B. Non-crop sub-sector		
10. Livestock Policy and Action Plan, 2005	<ul style="list-style-type: none"> Improvement of small scale poultry and dairy farming replicating CLDDP, reform of DLS, enforcement of low and regulations towards animal feeds, vaccines and privatization of veterinary services adoption of breeding policy, and establishment of livestock insurance development fund and livestock credit food. 	Ministry of Fisheries and Livestock
11. National Fishery Policy, 1998	<ul style="list-style-type: none"> Development of fishery resources, increasing fish production and self-employment, meeting demand for animal proteins accelerating fish exports, and improvement of public health. 	Ministry of Fishery and Livestock
12. National Forest Policy 1994	<ul style="list-style-type: none"> Bringing 20% area under afforestation, enriching bio-diversity, extending assistance to forestry sector development through development of land and water resources, implementation of national and international efforts and agreements relating to global warming, desertification control of wild bird and animal trade, and prevention of illegal occupation of forest lands, felling of trees, encroachment and haunting of wild animals. 	Ministry of Environment and Forest, 1994
C. Cross-Cutting policies		
13. National Land use policy	<ul style="list-style-type: none"> Minimizing loss of cropland, stopping indiscriminate use of land, preparing guidelines for land use for different regions, rationalizing land acquisition, and synchronization of land use with natural environment. 	Ministry of Land
14. National Water Policy, 1998	<ul style="list-style-type: none"> Development and management of surface and groundwater in an efficient manner ensuring access of the poor, women and children to water, accelerating development of sustainable public and 	Ministry of water Resources

Sub-sector policies	Major goals and policy thrusts	Implementing ministry
	private water delivery systems, development of a legal and regulatory framework for private sector investment in water development, and capacity building for designing future water resource management plans.	
15. Environment Policy 1992 and Implementation Programme	<ul style="list-style-type: none"> • Protection of environment, identification and control of pollution, sustainable use of natural resources and participation in all international initiatives to protect environment 	Ministry of Forests and Environment
16. National Food Policy, 2004	<ul style="list-style-type: none"> • Ensuring dependable food security system, adequate and stable supply of safe and nutritious food at affordable prices, increasing access and food purchasing power of people. 	Ministry of Food
17. National Rural Development Policy, 2001	<ul style="list-style-type: none"> • Improving income and employment of rural people, ensuring participation of rural people in development process, improvement of rural infrastructure and marketing facilities, local level planning, training of youths and women, and development of disadvantaged, small minority communities and hill tract regions. 	Ministry of Rural Development and Cooperatives
18. Agriculture and Rural Development section, PRSP, 2005	<ul style="list-style-type: none"> • Creation of enabling environment and plying supportive roles for intensification of major crops i.e. (cereals) diversification to high value non-cereal crops, (i.e. fruits & vegetable) development of non-crop enterprises (i.e. livestock, fishery, poultry), and promotion of rural non-farm economy, and outlining a policy matrix on future actions. 	Planning commission, Ministry of Planning

3.0 Brief Overview of Policy Documents

Before we proceed to discuss the internal compatibility, contradictions and synergies of the policy documents, we attempt to present a short overview of the various policies and documents mentioned in the matrix above.

A. Crops

3.1 National Agriculture Policy (NAP)

Ministry of Agriculture (MoA), which is responsible for the crop sub sector, prepared this policy statement in 1999. This is the first comprehensive document prepared by Ministry since the country's independence in 1971.

NAP has an overall objective, 18 subsidiary objectives and 18 programme areas. The overall objective is: "to make the nation self-sufficient in food through increasing production of all crops, including cereals, and ensure a dependable food security system for all."

The 18 specific objectives are also articulated in general terms and thus gives general guidelines or directions about how the crop sector is to evolve to achieve the overall objective of food self-sufficiency and food security.

NAP also identifies 18 programme areas where actions or policies might be undertaken for achieving these goals: crop production, seeds, fertilizer, minor irrigation, pest management, agricultural mechanization, agricultural research, agricultural marketing, land use, agricultural education and training, agricultural credit, government support for production and contingency plan, food-based nutrition, environmental protection, women in agriculture, coordination among government agencies, NGOs and the private sector and reliable database.

The list of programme areas shows that NAP underlines all input and support sectors involved with crop production and identifies issues that need to be addressed to improve their efficiency. NAP emphasizes that the goal of food self-sufficiency and dependable food security can be achieved only through efficient delivery of inputs and support services. For example, increased production of all crops needs timely supply of quality seeds in adequate quantity. Currently, BADC, NGOs and the private sector involved with seed production/ procurement and distribution can supply only 5-6% of total national requirement. The APB suggests that crop production can be increased by 15-20% only by ensuring timely supply of adequate quality seeds. Thus, for fulfilling this objective, all constraints hindering development of seed sector must be removed and new measures to be undertaken for its expansion. It is thus important to note that ultimate objective of all policies is to improve the efficiency of relevant institutions/agencies.

3.2 New Agricultural Extension Policy

The MoA prepared the new agricultural extension policy (NAEP) in 1996 in accordance with the agricultural policies and priorities set out in the fifteen-year perspective plan, 1995-2010. These policies and priorities include (i) attainment of self-sufficiency in food grain and increase production of other nutritional crops, (ii) ensuing sustainable agricultural growth through more efficient and balanced uses of land, water and other resources, (iii) increasing foreign exchange earnings through agricultural exports, (iv)

introducing high value cash crops, (v) improving the quality and availability of seeds, (vi) reducing environmental degradation, (vii) increasing fish, livestock and forestry production and (viii) conserving and developing forest resources.

The main goal of NAEP 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. The NAEP lists 11 policy measures, called components. These components include extension support to all categories of farmers, efficient extension services, decentralization, demand-led extension, working with groups of all kinds, strengthened extension-research linkage, training of extension personnel, appropriate extension methodology, integrated extension activities, coordinated extension activities, and integrated environmental support.

3.3 DAE Strategic Plan 1999- 2002

The Department of Agriculture (DAE) under the Ministry of Agriculture prepared the Strategic Plan (1999-2002), which presents a structure of objectives designed to further the implementation of the New Agricultural Extension Policy (NAEP). The Strategic Plan stipulates a number of strategic objectives. These include a total of 68 objectives to be attained under six strategic areas, i.e. extension approach development, development of partnership with government agencies, NGOs, research and education, mainstreaming gender, mainstreaming the environment, human resource management, and information system development. The overall goal of the Strategic Plan is to strengthen DAE capacity and promote partnership to facilitate wide range of services for the targeted farmers.

3.4 DAE- Agricultural Extension Manual

DAE produces the new edition of the Agricultural Extension Manual to provide all staff with a complete set of the updated principles, procedures and systems in the implementation of revised extension approach. Some of the key improvements and additions include: annual planning, replacing seasonal planning; strengthened approaches to farmer information need assessment; strengthened approaches to the management of BS work programmes; and seasonal extension monitoring, replacing the district extension monitoring system. The voluminous manual records the field performance and puts forward a sketch map of numerous functions and modes of work of the extension workers posted at different levels of the DAE.

3.5 National Seed Policy, 1993 and Seed Rules, 1998

The basic objectives and strategies of the National Seed Policy (NSP) are of three types-strengthening BADC capacity, allowing the private to produce seeds of approved varieties as well as develop new ones, and also to import seeds from abroad. For this purpose, importation procedures were simplified. The NSP and Seed Rules make a number of provisions that could guarantee quality of seeds either produced domestically or imported. First, any variety, whether imported or domestically developed, must be

registered with the NSB. Second, all private dealers involved with seed import, registering new seed variety and packaging seeds in labeled containers, must be registered. Finally, all varieties of seed must be certified by the Seed Certification Agency (SCA).

National Seed Board: The NSP creates a hierarchical system of policymaking and executing authorities with the NSB at the apex level. The main functions of the Board include updating policies and strategies for the development of the seed industry with special attention given to promoting private sector seed enterprises; encouraging private sector participation in seed development, overseeing and coordinating the production of breeder and foundation seed by public and private seed enterprises.

These functions and powers of the NSB were further consolidated and strengthened in the Seed Rules promulgated in 1998. The Rules says that, in addition to the functions entrusted in the 1993 Ordinance, the Board will have the following powers to advise the government on all matters regarding the promotion and development of the seed industry, relating to Government Seed Laboratory, withdrawal or de-notifying the outdated varieties of seeds and the procedures or standards for certification.

BADC's Seed Wing: The NSP document states the major functions of the Seed Wing of the BADC as production of Foundation Seeds of all publicly developed varieties of controlled crops; production of all kinds of seeds on a 'level playing field' in competition with the private sector; gradual withdrawal of BADC from the production of all kinds of seeds produced by the private sector; and provision of technical assistance and support services by the Seed Wing for the development of a private seed industry.

Seed Certification Agency (SCA): The NSP document stipulates the major roles or functions of the SCA outlining the detailed steps of certifying seeds.

National Agricultural Research System (NARS): The NSP also provides the detailed guidance to NARS with respect to redesigning plant-breeding programmes.

Department of Agricultural Extension (DAE): The NSP outlines and map out the specific roles of the DAE for popularizing and monitoring quality seeds to the farmers.

Bangladesh Agricultural University (BAU): The NSP stipulates specific assignments for the BAU in regards to offering updated courses on seed technology and development of a National Seed Health Laboratory.

3.6 Plan of Action on NAP

The MoA prepared the Plan of Action on NAP (PoA) in 2003 with the overriding objective to review the status of implementation of NAP and identify gaps in implementation. The PoA is founded on six strategic themes as follows:

3.6.1 Strengthening partnership approach: PoA identifies six groups of stakeholders in the partnership approach devised for implementing NAP: government, farmers, commercial private sector, NGOs, farm organizations, other civil society organizations and private sector, and cooperatives and local government. It then lists the roles each stakeholder group is supposed to play in the implementation of plan actions.

Government: PoA identifies the following nine roles of Bangladesh government as the dominant stakeholder: (a) creating a favourable macroeconomic policy environment, (b) providing public goods, (c) introducing risk-reducing legal, financial and institutional arrangements, (d) monitoring competitive conditions and preventing the emergence of monopolies and cartels, (e) ensuring food security for all, (f) help develop strong private and NGO sectors and support their initiatives through appropriate policies and policy instruments, (g) enhancing and sustaining participation of all stakeholders in consensus-building in policy formulation and implementation, (h) providing price support for a limited range of strategically important commodities and (i) ensure environmental protection.

Farmers: The supposed role of farmers in this partnership are (a) achieving and sustaining household level food security, (b) deciding what to grow and how much to grow, (c) deciding the type of technologies to adopt and adapt, (d) forming cooperatives and other farmer organizations, (e) creating demand for new inputs and technologies, and (f) placing demands on the government system of public goods provision and representation.

Private sector: PoA anticipates the evolution of a strong commercial private sector that is expected to play the following roles in the stakeholders' partnership approach: (a) conducting market research, (b) maintaining a stable supply of inputs, equipment and services to farmers, (c) marketing agricultural produces in both domestic and international markets, (d) transferring technology and (e) maintaining quality standard.

NGO community: NGOs are playing such an important role in Bangladesh economy that they are described as its third sector. Naturally, PoA anticipates them to play critical roles in the partnership approach: (a) helping to provide 'voice' for the un-empowered, (b) promoting rights and interests of the disadvantaged, viz., women, small and marginal farmers and agricultural labourers, (c) providing credit and skills training for small and marginal farmers and landless labourers, assisting farmers establish cooperatives and other farmer organizations, (d) facilitating contacts and contracts between farm organizations and agribusiness and (e) assisting government in food security programmes.

PoA also puts emphasis on creating a culture of participation by various stakeholders, because it is indeed in deplorable condition. Especially, PoA recognizes that the NAP created opportunities for broad participation of various stakeholders- government agencies, NGO and private sector- being represented in different decision making committees, but the extent to which such participation promotes a consultative culture of participation remains to be assessed.

3.6.2 Improving enabling environment

Efficient implementation of agriculture policies requires appropriate enabling environment, which involves two important actions: (a) establishing a positive incentive, legislative and regulatory framework within which private sector actors make decisions, and (b) influencing economic environment through judicious use of government budget, particularly providing and distributing public goods, such as research output, extension etc., and more widely (e.g., developing transport, marketing, and telecommunication infrastructure).

In this regard, PoA has identified six key areas of intervention: facilitating market entry for the private commercial firms to reduce the costs of purchased inputs, levelling the playing field to ensure competitive fairness in both input and produce markets, promoting new areas and mechanisms for R&D for accelerating agricultural growth, getting the unused land back to production to minimize the effect of losing agricultural lands to different non-agricultural uses, improving the supply of agricultural credit to farmers, monitoring and enforcing laws and regulations devised for agricultural development.

3.6.3 Commercialised agriculture

This strategic theme highlights four issues: (i) promoting production for domestic market, (ii) promoting agricultural exports, (iii) reducing price seasonality of perishable products and (iv) reducing price seasonality of semi-perishable products. The trend of commercialisation has already started and needs to be fostered and accelerated by forward-looking policies, which exploit comparative advantage while safeguarding them against uncertainties of market-led production.

3.6.4 Agricultural productivity

To achieve NAP's main objective of national food security, land and labour productivity must be maintained and increased. To this end, this strategic theme has ten issues: safeguarding environment, crop production, seeds and planting materials, fertilizer, minor irrigation, pest management, agricultural mechanization, agricultural credit, agricultural extension and agricultural research. The list of strategic issues clearly shows that improvement in land and labour productivity entails improvement in supply and use of necessary inputs, development of improved seeds through agricultural research and inform and train farmers about the new methods of crop production through effective extension service.

3.6.5 Cross-sectoral inter-linkages

The fifth strategic issue is to improve cross-sectoral interlinkages. This strategic theme underlines coordination at three levels: coordinating with macro policy, coordinating with

policies of other sector and coordinating policies within the crop sector. To achieve this objective, i.e., creating consistency and coherence within and between policies at national, sectoral and sub-sectoral levels, PoA suggests to develop adequate policy analysis capability. Accordingly, independent bodies or individuals outside the government should carry out policy research and policy analysis. Two reasons justify this idea. First, it will ensure objectivity in policy analysis. Second, it is difficult to retain top quality policy analysts, because these professionals have ‘high-marketable skills’. This in turn suggests that commissioning independent analysis would require separate allocations in the annual budgets.

3.6.6 Developing institutional capability

To properly implement the enacted reforms, the institutional capability of the concerned public agencies needs to be improved. In this regard, PoA suggests three strategic themes: revitalizing organizations like MoA itself, all institutes of the NARS, BADC, DAM, DAE and SCA; monitoring and evaluation of performance and moving towards a programmatic approach.

3.6.7 Physical programme matrix (PPM)

The PoA puts forward a set of actions in policy matrix format to achieve NAP objectives. The matrix lists, as well as expands, the 18 programme areas identified by NAP, defines the targets/goals of each programme area up to year 2012, states the major constraints, lists the actions to be undertaken to remove those constraints and names the organizations responsible for the implementation of those actions. The main actions recommended include: adopting measures for land reclamation in line with the NWMP, developing technology for rain-fed farming, closing yield gap in slow growing districts, increasing investment in supplementary irrigation, expanding HYVs and promoting rice-fish culture through DAE.

3.7 Actionable Policy Brief and Resource Implications (APB):

This report is the latest in the series of agriculture sector reviews prepared by the government. The first one, called NAP, was followed by the Plan of Actions on implementing NAP in 2003. This plan, however, was not found implementable and therefore, an Actionable Policy Brief (APB) was prepared in 2004.

The APB is also based on the overarching national goal, food security, which basically means sufficient cereal stock in the country. The APB is built on a solid conceptual framework, focussed vision for the future, indicators of comparative advantages, competitive strength and profitability that will guide the development of each crop sub-sector, constraints to moving forward and key challenges that must be faced in achieving the overall objective of promoting food security for all in the country. The critical policy areas addressed in the APB include production and distribution of seed, production, import and pricing and marketing of fertilizers, land use, minor irrigation, mechanization, marketing and agribusiness, agricultural research and agricultural extension.

Seed: The APB team has identified the major constraints facing the seed sector and made several recommendations to overcome those constraints. The most important ones relate to facilitating quality seed development in private sector, training farmers on quality seed production and preservation, strengthening seed certification, bolstering National Seed Board, rationalizing seed subsidy and ensuring level playing field for private sector seed developer.

Fertilizers: Conventionally, the APB also emphasized three concepts- timely supply, adequate quantities and fair prices- as the key issues in the fertilizer policy. However, timely and adequate supply does not guarantee farmers to use proper doses unless they can buy fertilizers at fair prices at the time they need it. While privatization of fertilizer distribution since mid 1970's has generally improved availability of fertilizer, it has not necessarily succeeded in eliminating supply bottlenecks and ensuring fair prices of fertilizers at farm level such as in the current *Boro* season of 2006. Fertilizer subsidy has also not guaranteed farmers the proportionate benefits, major share of subsidy benefits being grabbed by the fertilizer traders. The prominent constraints include depletion of soil nutrient, lack of awareness program, risk of crop failure, unbalanced use of fertilizer, deficiency in micro nutrient and organic matter.

Land: The land use policy guideline was first introduced in the NAP prepared by the MoA in 1999. Then the Ministry of Land prepared a grand policy statement in 2001. The same issued has been addressed in the APB.

APB recognizes the problems of implementing land policy, which arise from the fact that land administration falls into the domains of many ministries. The national land use policy recommends the following important measures: (i) halting the present alarming rate of conversion of agricultural land to non-agricultural purposes, (ii) preparing guidelines for maximum land utilization based on agro-ecological zone characteristics, (iii) discouraging acquisition of agricultural land for urbanization or for other development projects, and (iv) reducing environmental pollution and degradation of land, water and air and promoting environmentally friendly activities in agricultural development.

Minor irrigation: The APB team has identified factors constraining the development of minor irrigation and put forward several recommendations for removing those constraints. One of these recommendations includes reducing farmers' irrigation costs. There are two major ways to do this. First, subsidies may be provided on fuel as well as on the import of irrigation equipment. Second, supplying electricity to power-driven machines. However, this policy analysis seems to have missed an important point. Not all irrigators have their own equipment and they buy water from pump owners under various payment system- cash, kind or hourly basis. This means that reduction of pumping costs through diesel or electricity subsidy, if it can be implemented, will benefit the pump owners and not necessarily the farmers buying water because there is no way to make the water sellers to reduce water charges.

Mechanization: The APB identifies several constraints to desirable level of mechanization, which are (i) lack of knowledge and skill for efficient use, proper maintenance and repair of machinery at all levels of users, artisans and traders, (ii) absence of any public sector agricultural extension activity involving farm machinery or mechanization, (iii) poor quality of fuel and lubricating oil available in the village areas, (iv) scarcity of proper spare parts, replaceable tools and accessories and adequate after-sales services, (v) poor quality of many imported as well as locally fabricated machines, (vi) low tariff on imported machines and high tariff on materials of fabrication (especially carbon steel), (vii) absence of product standards and quality certification (for both imported and locally made items) for helping traders and users to make informed choices, (viii) absence of adequate design and fabrication guidelines, technical facilities and credit sources for local manufacturers, and (ix) lack of communal threshing floors often impedes the use of threshing machines near the harvest areas especially in the *haor* regions of Bangladesh. The team makes several useful recommendations that are supposed to address these constraints. One important point missing from the report is that it does not recognize the importance of the growing market for power tiller services and thus it fails to pinpoint the implications of rationalizing import duty on power tiller accessories and development of infrastructure favouring power tiller growth.

Marketing and agribusiness: The APB has discussed agribusiness constraints under eight groups: policy, institutional, infrastructural, human resources, information, quality control, other constraints and underdevelopment of agricultural sector. The APB team also makes valuable recommendations aimed at removing those constraints. These include establishment of an expert committee to review agribusiness status periodically, establishing agro-export processing zones, setting up a separate 'center for agricultural market research, intelligence and certification' by restructuring and renaming DAM, amendment of the agricultural markets produce regulation act of 1964, increased investment in market infrastructure, and arranging technical assistance and credit for improving preservation, packaging and transportation of agro-products, formulation of a comprehensive 'agribusiness policy' involving the private sector, establishment of an 'agribusiness development fund', and establishment of a 'market feeder road development and maintenance fund'.

Agricultural research: The APB team analyzes agricultural research problems as the constraints faced by the NARS institutes and the NARS constraints are flagged as lack of quality human resource and funding, inflexible institutional and management system, and absence of decentralization of authority limiting freedom of research management. What the APB misses is a reflection on the new agenda for agricultural research in the changing national priorities towards pro-market technology generation and for protecting the interests of small farmers in the face of global competition. Also, the deplorable state of agricultural statistics and institutional obstacles to information flow, which hinder quality agricultural research, are not addressed at any great length.

Agricultural extension: In the backdrop of a long list of weaknesses of DAE, the APB team points out four major constraints/issues to be addressed for desirable development of agricultural extension system. These constraints/issues include blueprint agriculture and ecological problems, participatory technology development and extension,

addressing equity and ecological problems, and group approach in extension. APB recommends formation of 'Specialized Agricultural Service Centers' (SASC) at the Upazila level and one stop extension service at the Union level', development of a comprehensive training program for the farmers, input dealers, seed producers and field technicians at the Upazila level, adoption of community (village) or group based extension and training system to develop group farming, establishment of a permanent 'Advisory Committee on Agricultural Research and Extension', building soil-testing capacity at Upazila level and strengthening SRDI capacity.

3.8 National Jute Policy

National Jute Policy (NJP) was prepared in 2002. The NJP is concerned with three specific issues- production of raw jute, development of a commercially viable jute industry sector in the country and promote the export market for both jute and jute products. Accordingly, the report has focussed on the following main topics: problems of jute sector, commodity-oriented jute production, improvement of the jute rotting system, improvement of the quality of jute goods, accelerate advertising activities to promote the use of jute goods both domestically and internationally etc.

The problems of the jute sector are identified as: low productivity and profitability of jute production, lack of improved jute rotting system; lack of HYV jute seed; lack of extension service about improved method of jute cultivation; and unstable market and price situation. The major problems of jute industry include declining demand and prices of jute products in the international market; introduction of silo and container method for packaging purposes, labour and management problems in government jute factories, old machines, labour unrest and political instability and so on. A number of strategies have been suggested for improvement.

B. Non-crops

3.9 National Livestock Policy

A National Livestock Policy was drafted in 1992, but it was not officially approved. Recently, the Ministry of Fisheries and Livestock has prepared a National Livestock Policy (NLP), 2005 as a part of a comprehensive community livestock and dairy development project. This document provides a well thought blueprint for the development of livestock sector in the country. There are two distinct objectives- supply of adequate livestock and livestock products for human consumption and supply of animal power and animal wastes for crop production and product processing.

The NLP document addresses nine thematic areas, of which three are concerned directly with the livestock production issues, while the rest are concerned with supplying the supporting services. The production-related thematic areas are: (1) dairy development, beef fattening and meat production, (2) poultry development and (3) breeds and animal management. The thematic areas related to the provision of support services include (1) feeds and animal management, (2) veterinary services and animal health, (3) analysis of

DLS and BLRI, public agencies related to the management of livestock services, (4) hides and skins, (5) marketing of livestock products and (6) international trade, livestock insurance and credit.

Dairy development: The key constraints of the dairy sector are the following: (a) limited skill of smallholder dairy farmers, (b) scarcity of feeds and poor nutrition, (c) susceptibility to disease, (d) limited coverage of veterinary services, (e) limited credit support, (f) limited milk collection and processing facilities, (g) lack of insurance coverage, (i) absence of market information, and (j) absence of appropriate policy and regulatory body.

To minimize these constraints, the following recommendations are made: (a) improvement of dairy breed, feeding practices and veterinary services (b) improvement of milk collection and processing facilities, (c) removal of input constraints, and (d) establishment of a regulatory body. Based on these recommendations, two projects are suggested: (a) establishment of small-scale dairy farmers' organization and (b) capability building of DLS for training the dairy stakeholders.

Beef fattening and meat production: The NLP identifies four key constraints hindering the growth of beef fattening and meat production industry in the country as follows: (a) limited skill of farmers in beef fattening, (b) limited skill of butchers, (c) outdated Meat Control Act, and (d) poor quality slaughter houses.

To address these constraints, the team recommends the following measures: (a) the proposed Animal Slaughter Act should be enacted to produce hygienic production of quality meat, (b) butchers should be trained in scientific slaughter, processing and meat preservation techniques, and (c) modern slaughter houses should be established in the private sector.

Poultry development: The main constraints identified in the NLP are: lack of infrastructure to provide poultry services to farmers located at distant areas, shortage of skilled manpower, shortage of quality chicks/breeding materials, shortage of poultry feeds/feed ingredients, lack of quality control facilities for medicine, vaccines, biological products, feed and feed ingredients, chicks, eggs, birds etc., shortage of vaccines, lack of organized input and output marketing system, poor provision of veterinary services, and poor institutional support for credit and technical advice.

The following recommendations have been made based on these policy issues: (a) breeding and multiplication farms to be retained by the DLS, (b) fiscal and technical support to be facilitated for promoting growth of private sector poultry hatchery (b) farms to be attached to colleges, and (c) remaining farms and units to be developed as growth centers.

Breeds and animal management: The NLP identifies the following constraints hindering the development of modern breeding programme: (a) wide gap in breeding knowledge among entrepreneurs, livestock officers, farmers and policy makers; (b) acute

shortage of trained animal breeders; (c) dearth of reliably usable data about the availability of animal resources in the country; (d) absence of hard data on animal identification, pedigree and milk production records; (e) inadequate or no funding for breeding programmes; and (f) no national breeding act or regulatory body to oversee pricing and import of breed and breeding materials.

The policy recommendations made include: (a) formulation of a national breeding policy/strategy, (b) conservation of indigenous livestock, (c) pricing and quality control of breeding material, and (d) human resource development.

3.10 National Fishery Policy

The Ministry of Fisheries and Livestock prepared the National Fishery Policy in 1998 with the overall objective of developing the fisheries sector. This document addresses policy measures to be undertaken in four areas or dimensions and recommends policies for several supporting services. The four dimensions of NFP are: (a) policies for the preservation, management and exploitation of fisheries resources in inland open water; (b) policies for fish cultivation and management in inland closed water; (c) policies for prongs and fish cultivation in coastal areas; and (d) policies for preservation, management and exploitation of sea fishery resources. The NFP suggests 17, 17, 20 and 21 recommendations to remove constraints in these policy areas respectively.

To make the NFP effective, the NFP makes a list of recommendations for the provision of related supporting services: (a) establishment of hygienic fish landing center, (b) development of fish transportation and marketing system, (c) improvement of fish processing and quality control, (d) accelerating fish exports, development of fishery-related education policy, (e) development of fishery training policy, (f) development of fishery extension policy, (g) improvement of institutional facilities in the fishery sector, (h) formulation of fishery-related environment policy, (i) formulation of fishery credit policy, and (j) development of fishery-related cooperative policy.

3.11 National Forestry Policy

The government of Bangladesh first prepared a national forestry policy in 1979. In the early 1990's, the government prepared a draft of 20 years National Forestry Master Plan to tackle the natural and undesirable consequences resulting from abnormal and quick depletion of forestry resources. The current National Forestry Policy (NFOP) was prepared as a part of that master plan in 1994.

The major objectives of the NFOP are the following: First, 20% of the total land area will be brought under afforestation programmes. Second, bio-diversity of the existing degraded forests will be enriched by conserving remaining natural habitat of birds and animals. Third, agricultural sector will be strengthened by extending assistance to the sectors related with forest development, especially by conserving the land and water resources. Fourth, various international efforts and government ratified agreements

relating to global warming, desertification, control of trade in wild birds and animals will be implemented. Fifth, illegal occupation of the forestlands, free felling and hunting of wild animals will be prevented with the cooperation of local people.

Out of 29 statements of the National Forestry Policy, the major ones include the following: bringing 20% of the country's land under afforestation programmes by 2015; afforestation measures to be taken in newly accreted chars in coastal areas of CHT and northern zone of the country, including the Barind tract; encouraging private initiatives for tree plantation and afforestation in fallow and hinter land, pond banks and homesteads; tree plantation in country yards of rural organizations, such as union council, school, mosque, temple etc.; massive afforestation programmes on sides of roads, railways, dam, and *khas* tank; bringing state owned forest-based industries to competitive and profit-oriented management system; encouraging women in homestead and farm forestry and participatory afforestation programmes; plantation of fruit trees; establishment of a new department called, Department of Social Forestry; and finally, strengthening of educational, training and research organizations.

C. Cross-cutting Policies

3.12 National Land Use Policy

The Ministry of Land (MoL) has prepared the National Land Use Policy (NLUP) to fill up an important policy gap in the country. The NLUP deals with land uses for several purposes including agriculture (crop production, fishery and livestock), housing, forestry, industrialization, railways and roads, tea and rubber. The document basically identifies land use constraints in all these sectors. Some of the major ones include declining land productivity due to unplanned and improper uses of land and decreasing soil fertility, diminishing water land and aquatic bio-diversity, dwindling natural forest and environment. The land issues fall in the domain of many ministries and this gives to problems of inter-ministerial coordination over the use of land resources. One glaring example is the non-compliance of leasing arrangements of water bodies for fish culture due to triangular actions or inaction of three ministries- Ministry of Land, Ministry of Water Resources and Ministry of Fisheries and Livestock.

3.13 National Water Policy

The ministry of water resources declared the National Water Policy (NWP) in 1998. The declaration states: As water is essential for human survival, socioeconomic development of the country and preservation of its natural environment, it is the policy of the government of Bangladesh that all necessary means and measures will be taken to manage water resources in the country in a comprehensive, integrated and equitable manner. The policies enunciated herein are designed to ensure continued progress towards fulfilling the national goals of economic development, poverty alleviation, food security, public health and safety, decent standard of living for the people and protection of natural environment.

The NWP has 16 components, which describes policy measures to be undertaken to achieve the above objectives. These policy measures include: (1) river basin management, (2) planning and management of water resources, (3) water rights allocation, (4) public and private involvement, (5) public water investment, (6) water supply and sanitation, (7) water and agriculture, (8) water and industry (9) water, fisheries and wildlife, (10) water and navigation, (11) water hydropower and recreation, (12) water for environment, (13) water for preservation of *haors*, *boars*, and *beels*, (14) economic and financial management, (15) research and information management and (16) stakeholder participation.

The NFP, emphasizes among others, three interrelated issues such as water and agriculture, water, fish and wild life, and water for preservation of *haors*, *boars* and *beels*. One of the notable policy directions in the NWP was to encourage private sector development of groundwater for irrigation and also to emphasize surface water augmentation.

3.14 Environment Policy

The Ministry of Environment and Forests prepared an Environment Policy and its implementation programme in 1992 with the overall objective of protecting the environment with a view to achieving a sustainable development through environment-friendly use of natural resources. The domain of the policy spread over 15 areas i.e. agriculture, industry, health, energy, water development and flood control, land use, biodiversity, fishery and livestock, food, coastal and marine environment, transport, housing and urbanization, education, science and technology, legal and institutional framework. The Policy also prescribed detailed activities to be undertaken by the various agencies of the government in implementing the policy.

3.15 National Food Policy

The Ministry of Food (MoFood) has prepared the National Food Policy (NFP) with FAO support. The NFP clarifies three basic concepts: food security for all people, access to food depending on household income and food prices and health care taking care of nutritious food and improvement of health care system. Given these basic concepts, the major objectives of the national food policy, which aims at ensuring dependable food security for all, are the following:

- a. Adequate and stable supply of safe and nutritious food at affordable prices;
- b. Increased physical, social and economic access and purchasing power of all people; and;
- c. Adequate nutrition for all individuals, especially children and women.

The strategy for ensuring adequate and stable supply of safe and nutritious food at affordable prices- depends basically on improvement of domestic foodgrains production and food import. This will be realized through (i) improving agricultural research and extension, (ii) efficient use of water resources, (iii) availability of agricultural inputs and

their efficient use, (iv) agricultural diversification and improved agricultural technology-promotion of non-foodgrain crops (vegetables, oilseeds, pulses and fruits), development of poultry, fisheries and livestock, increasing agricultural productivity and reducing post-harvest losses and disease/pest prevention. The second strategy is the development of efficient food market: (i) development of market infrastructure, (ii) encouragement to private sector by promoting private storage and movement of food items, liberal credit for food items and development and enforcement of quality standards and (iii) development and dissemination of early-warning and market information. The third strategy is the non-discretionary food market intervention for price stabilization, which is to be realized through (i) price incentives for domestic food production, (ii) public food grain stock and (iii) consumer price support.

The second objective- increased physical, social and economic access and purchasing power of all people- involves three sets of strategies. The first strategy is the transitory shock management, which includes (i) special measures for disaster mitigation for agriculture, (ii) emergency distribution from public stock and (iii) measures for increased supply through private trade and stock. The second strategy is the effective implementation of the targeted food-assistance programs. And the final strategy is the employment-generating income growth to pursue through (i) support to women in income generating activities, (ii) investment in employment enhancing technology, (iii) fiscal incentives for agro-based and rural industries, (iv) education skill and human resources development and (v) broad-based labor intensive growth promoting macro policy. The final objective- adequate nutrition for all individuals, especially children and women will be achieved through the following measures: (i) sufficient macro-nutrients and enhance nutrition for the vulnerable group, (ii) safe and quality food supply, (iii) safe drinking water and improved sanitation, (iv) balance diet containing sufficient micro-nutrient and (v) adequate health status.

3.16 National Rural Development Policy

Ministry of Local Government, Rural Development and Cooperatives has formulated the National Rural Development Plan (NRDP), 2001 with the overall objective of poverty reduction through comprehensive rural development programmes. The NRDP has stipulated 17 objectives. The main objectives are related to generating income and employment of rural people, especially women and the poor, creation of favourable environment for utilizing the potential human resource, development of rural physical infrastructure, empowerment of rural women through education and skill training, strengthening local government and facilitating participation of government agencies, NGOs and private sector, supporting the landless and marginal farmers and so on.

To achieve these objectives, the NRDP has outlined 30 programmes. These include rural poverty reduction, peoples' participation, rural infrastructure, agro-based rural economy, rural education, rural health and nutrition, population control, rural housing, land use, rural industries, rural financing, empowerment of rural women, rural children and youth development, development of rural disadvantaged people, special local development, self-employment, creation of skilled man-power, rural cooperatives, environmental protection, rural litigation, law and order, culture and heritage, games and sports, rural

energy, research and training, information and database, rural development award, activities of NGOs and others, helping the old people, and regional and international assistance. The NRDP also provides a list of broad strategies for implementation of these programmes.

3.17 PRSP- Agriculture and Rural Development

The PRSP places agriculture and rural development as the key driver of pro-poor growth strategy. Government's overriding policy is to create enabling environment and support the transformation of subsistence agriculture to a more diversified commercial agribusiness with significantly increased participation of private sector. For crop and non-crop sector growth, PRSP put emphasis on achieving productivity and profitability gains, broad-based support to agriculture, diversification and commercialization of agricultural enterprises in the face of trade liberalization under globalization. PRSP also stressed on cross-cutting issues, i.e. agricultural research and technology generation, farmers' demand-led extension services, energizing agricultural marketing and agro-processing, land use and women in agriculture.

The most important contribution of PRSP exercise on agriculture is the formulation of a reasonably precise and workable policy matrix, which identifies 22 crucially important strategic goals, fixes up targets against these goals, charts actions already taken, sets future policy agenda and priorities and delineates responsibilities for the concerned ministries. The lead ministries established its ownership by playing active roles in fixing the policy priorities, which were then seeped through wide range of participation from the mainstream ministries, agencies, academia, NGO and civil society groups.

3.18 Occasional Documents:

In addition to these mainstream policies, there are also other occasional reports and documents, which review sub-sectoral issues, opportunities and constraints and put forward series of recommendations. Some of the important ones include:

1. Integrated Agricultural Development Plan (IADP), Policy Planning Support Units, Ministry of Agriculture/Ministry of Fisheries & Livestock, 2003
2. Fisheries Sector Review and Future Development Study, prepared with the cooperation of the Ministry of Fisheries and Livestock and the Department of Fisheries, Government of Bangladesh, 2003.
3. Review of the Recommendations of National Seminars and Workshops on Fisheries (1994-1999), Bangladesh Fisheries Research Institute and Ministry of Fisheries and Livestock, Government of Bangladesh, 2001.
4. Fisheries Sector Review and 10 Years (2002-2012) Production Projection, Bangladesh Agricultural Research Council, 2001.
5. Review of Livestock sub-sector and 10 Years (2001-2010) Production Projection of Livestock Products, Bangladesh Agricultural Research Council, 2001.

The IADP needs special mention as the document proposes a potential sector wide programming approach in order to ensure internal consistency between national agricultural policy goals, create enabling development environment, develop management capacity of the agriculture related ministries, and ensure efficient use of scarce resources allocated to the ministries.

Although programme approach in place of project approach is being suggested mainly from donors, its operational modes and practical implications for implementation, particularly with respect to the inter-ministerial allocation of funds under the existing Annual Development Programme (ADP) budgetary framework are not clear. The problems of coordination between the concerned ministries in actual design and implementation of ADP projects will need to be resolved if the programme approach were to work. What is conspicuous is that the IADP concept or plan is not discussed nor debated publicly and its status remains unclear, meaning wastage of time and resources for devising integrated approach to development of crops, livestock and fishery sub-sector.

4.0 COMPATIBILITY, CONTRADICTIONS AND SYNERGIES

The myriad of policies discussed above are generally compatible in terms of their avowed goals of rapid poverty reduction through increasing productivity and profitability of crops, livestock and fishery, creating income and employment opportunities, widening work opportunities for rural women and improving competitiveness of farmers. Almost all of these policy documents have been prepared long before the PRSP has been in place, yet the major thrusts of these policies are largely consistent with the MDGs as well as the strategies and future policy priorities of agriculture and rural development policy matrix suggested in the PRSP. These have, in general terms, important synergies within the broad objectives of attaining food self-sufficiency, food security and rapid reduction of poverty in rural areas. All of these policies underscore efficient use of land, labour, water and other natural resources with special emphasis on women participation and environmental protection. The other common concerns of all these policies are the expressed need for strengthening research- extension linkage and coordination amongst the ministries and agencies in the design, approval and implementation of projects.

Before we proceed to discuss inconsistencies or inadequacies in the sub-sectoral policies, it seems useful to give some reflections on the underlying process and problems of formulation and implementation of these policies.

The first issue is at the conceptual level of policy formulation. The mind set for policy preparation is generically directed towards agriculture only and not to the rural economy as a whole. This unifocal perception misses understanding of farm vis-a vis non-farm components of the rural economy in a coherent fashion.

The second issue is related to demarcation of ministerial domain of administration. Most of the problems in policy formulation and implementation arise, because the domains of

the ministries are not clearly defined and demarcated and in some cases the defined limits of ministry's domain are knowingly or unknowingly ignored. A good example is the National Land Use Policy prepared by the Ministry of Land, which often interferes with land use issues concerning crop production, fishery and forestry, for which there are three different ministries. A well-known case of conflicting interests is the delay in leasing of water bodies belonging to the Ministry of land to the Ministry of Fishery and Livestock for fish production. The problem is further compounded by the provisions of the National Water Policy of the Ministry of Water Resources and the Environment Policy of the Ministry of Environment and Forests. Thus, demarcating the domain of each ministry and establishing accountability in adhering to the defined limits of domain seems a serious issue to be addressed in formulating and implementing any meaningful policy.

Thirdly, all critical planning, policymaking and decision-making functions and authorities are located in the apex level offices. Lower level offices are basically responsible for implementing the plans and policies made at the top-level. A good example is the empowerment of the National Seed Board in the formulation and implementation of seed policy. In other words, instead of liberating the seed sector from bureaucratic control, the level of red tapes has been increased in the administration of the seed sector. Thus, decentralization of public administration is another area, which needs immediate attention.

Fourthly, the policy documents are generally devoid of any serious policy analyses, notwithstanding lack of reliable data. These are not discussed or debated at any length at the ministerial level nor in public so that feedback from various stakeholders is missed. Often, the objectives and strategies are mixed up and the programmes are not checked against their implementability.

Fifthly, data deficiencies are chronic and policies are framed on flimsy database. The ministries hardly use their own database collected through their policy & planning units and they hardly explore the potential of upscaling their capacity in data handling and analysis and prepare policy commentary based on hard facts cross-checked with other sources of data. Whatever concern is expressed about strengthening capacity in data generation and analysis, it points to only public sector agencies, e.g. BBS. The policy documents do not consider the huge potential of involving the private sector research and survey organizations in data generation, data analysis and fact finding, which could enrich policy studies and facilitate informed dialogues.

While the policies reviewed in this exercise dwell on numerous issues and concerns, these do treat them either superficially or miss them altogether. Some of the generic areas of areas of concerns are as follows:

Dominance of cereal food production: The NAP, PoA, APB and other major crop sector policy documents mainly focus on food production, especially rice production, giving lesser attention to non-cereal crops i.e. vegetables, fruits and flowers. As one would expect, policy prescriptions for input distribution and input levels, extension

services, credit delivery and output marketing are all directed to major cereal food crop, rice, not much to wheat.

Diversification and commercialization: The policy documents mention diversification and commercialization of agriculture as a common objective, but very little understanding is given with respect to relative profitability of competing crops, physical and location specific conditions for non-crop enterprises, supply chain of high value products and provision for processing, storage and marketing activities.

Crop-fish conflicts: The NAP, PoA, APB and DAE extension policy and strategies push forward increasing crop production, but that this might encourage chemical uses or drying of floodplain water bodies for rice cultivation to the detriment of fish culture is hardly well understood or acted upon as far as the policies are concerned. One glaring example is the advocacy for flood embankment to protect crops from flood damage, but that it adversely affects fish passes and fish breeding grounds is either overlooked or less carefully treated in the documents.

Small indigenous fish ignored: The Fishery Policy and also Vision papers have failed to properly address the issue of small and indigenous fish species, which are gradually disappearing. The policy should have dealt with this aspect more seriously as the growth of small fishes has had very positive implication for supplying fish protein to the poor but also for maintaining bio-diversity in rural aquaculture.

Lack of insights about poultry waste utilization: Bangladesh produces approximately 200 million poultry birds a year, which give by-products equivalent to about 40,000 tons of waste materials such as poultry litter, feather, bones and skins. The poultry policy, in the newly formulated Livestock Policy, does not address how these waste materials can be used productively. According to informed sources, about 20,000 tons of poultry wastes (i.e. 50% of total) can be used as raw materials for industrial production purposes. A private firm, Nightingale, has already started producing winter clothes for export using poultry feather. The other waste materials can be used for manufacturing of protein meal for poultry and fish.

Floriculture not addressed: Although production, marketing and export of flowers as potential profitable crops are gaining momentum in Bangladesh, the development and dissemination of floriculture technology is not yet integrated into the mainstream DAE extension system.

Not enough private sector focus: The agriculture and rural development policies that have been reviewed in this work largely demonstrate increased role of public sector. Although the policies broadly mention increased role for the private sector, there are seldom any clear direction as to how and where the growing private sector and NGO have the opportunities and support to play more active role.

Commercialization of soil and water tests: Soil tests for proper fertilizer use and water quality tests for fish culture are crucially important interventions. The concerned policies

mention these casually to imply that the government should do these, but there does not seem to be any understanding of the recent trend that the private sector has already taken up soil tests (with *Katalyst* support) and water test by an NGO, Shushilon as business ventures.

Silence on new form of production- contract farming and value chain: The policies being reviewed do conceive agriculture as individualistic production system, although this is becoming economically and technically infeasible for increasingly large number of small and marginal farmers due to rapid decline in average farm size. Increase in number of farms vis-à-vis rapid loss of cultivable land is recognized in the documents, but there are no reflection on or thinking about the emerging new forms of farming e.g. contract farming by the private sector for high value products like poultry, vegetables, aromatic rice, milk and so on.

Farm and non-farm linking absent: The most conspicuous shortcoming of all the policy documents is their silence over the growing non-farm sector development. Even the most recent policy documents, e.g. APB avoids any analysis of linking the growth of farm productivity with development of non-farm activities. This is bound to limit the value of the APB exercise in that production of crops, especially cereals, can not be increased unless aggregate demand for rice is increased and the demand for rice will not rise without increase in employment and real wage through acceleration of non-farm sector growth.

Subsidy issue weakly placed: Subsidy on agricultural inputs, i.e. diesel and fertilizers, is put forward as a tool for allowing a ‘level playing field’ for the Bangladeshi small farmers in the trade liberalized era especially, when Indian farmers are subsidized for irrigation, electricity, etc.). But the case of subsidy is put forward without any rigorous analysis of its possible effects on real rice price, sustaining rice production at profitable level or its implementation. The glaring example is the Agriculture Ministry’s attempt to introduce subsidy on diesel for irrigation pumps without understanding the varied pattern of pump ownership and management, modes of payment for water (cash or cropshare), dynamics of water market (partnership and social conflict resolution) and so on.

Inadequate attention to food management: Procurement prices are determined considering cost of production estimated by FPMU, District DG of Food and Department of Agricultural Marketing, who form an opinion more or less talking to farmers and rice traders. But the cost calculations are generally done on very flimsy basis or old database that are hardly updated. There was time when there was an Agro-Economic Research Section (AERS) under the Ministry of Agriculture, which used to collect cost of production data for a number of crops. AERS does no longer exist and hence there is no solid database, which can be used for arriving at any meaningful cost of production estimate. There is no systematic method of estimating cost of production on a regular basis. During 2000/01- 2004/05, cost of *Boro* paddy production has been arbitrarily estimated to increase by 20 percent, while the procurement price of *Boro* paddy has increased only 15 percent. There is no year to year solid field level database on fertilizers,

diesel and labour cost increases, especially the rapid increase of diesel prices in recent years.

Table 1: Cost of production and procurement price of *Boro* paddy

Year	Cost of production (TK/quintal)	Procurement price (TK/quintal)	Estimated profit margins (%)
2000/01	671	825	22.9
2001/02	715	840	17.5
2002/03	716	840	17.3
2003/04	718	840	16.9
2004/05	804	950	18.1

Source: Database on Food Situation. FPMU, December 2003.

Usually, FPMU and Ministry of Agriculture put separate estimates of procurement price to an inter-ministerial committee, called Food Planning and Monitoring Committee (FPMC), adding 10-20 percent profit margins to the estimated cost of production. FPMC then puts the proposed procurement prices for approval of the cabinet committee, which gives the final decision about the procurement prices mostly based on political consideration of keeping foodgrain prices low.¹ Internally, there is always a tendency in the ministry of Agriculture to inflate foodgrain production, flag increasing cost of production and fix high procurement prices, although it finally supports low procurement price considering high political cost of high rice price. Ministry of Food on the other hand, is interested in showing low food stock so as to create grounds for import of food. In that sense, the cabinet decision of low procurement price of rice fits well with their interest as the lower procurement price than the market price discourages internal procurement and hence necessitates quick import.

If market price of paddy is higher than procurement price, it is non-functioning and it is other way round, it leads to rent seeking. For example, the procurement of Aman paddy/rice in 2005 has been only 25 metric tons as against a target of 168,000 metric tons, mainly because the open market prices of paddy and coarse rice have been Taka 9.5 and Taka 16 per kg respectively, while the procurement price fixed by the government are Taka 9.25 and Taka 14 per kg respectively. Procurement targets are fixed arbitrarily without any relevance to production situation (i.e. *Boro* procurement target was constant at 1.55 million tons consecutively for four years since 2000 when the actual achievement systematically remained less than 10 percent each year. In 2004 and 2005, procurement target for *Boro* paddy was very negligible, although procurement targets for *Boro* rice have been around 0.5-0.7 million tons. This clearly means that whatever benefits are

¹ For instance, FPMU and MoA proposed Taka 15/ kg and 14.5/kg as procurement price of Aman rice, 2005, but the cabinet committee approved a much lower rate at Taka 14/kg. These were in any case much lower than the retail market price of Taka 16.14 in mid-November 2005 (Ministry of Food , MISM, 2005).

there from procurement, almost all of it goes to rice traders with very little going to the paddy growers.

Generally speaking, food stock management has always been a tricky job, which is often compounded by the existence of a mismatch between domestic food production, food import and internal procurement. In recent years, foodgrain prices have been more volatile than usual, resulting in rapid rise in rice price in open market. Although the paddy growers have got some benefits of rising rice prices at harvest in very recent seasons, the net deficit farmers and the wage labourers are hard hit especially during the lean period when rice price goes up and their stock diminishes. In summary, the impact of rising foodgrain prices has been good for the rice traders, moderate for the growers and worse for the poor consumers.

The weakest point in the major policy documents, i.e. NAP, APB and Food Policy, is the inadequate attention given to understanding the effects agriculture and food markets development. The policy prescriptions given by IFPRI or APB overlooked the implications of the low real rice price for cereal production since 1999. The policy analyses prescribed liberalizing rice market looking at the poor urban consumers, rather than the rice producers whose incentives to invest in rice production eroded.² The part of the weakness in analysis is due to lack of capacity of the Ministry of Agriculture to generate relevant data, conduct analysis and prepare commentary on growth trends, employment, wages and poverty reduction.

5.0 RECOMMENDATIONS

The above review of policies brings out compatibility as well as contradictions and lacunae within the policies, especially in the context of changing situations. Many of the old policies have lost relevance to face new challenges of different sectors. The present work aims at updating the key policies and putting them in proper perspective. Overall, the review leads to recommending the need for further policy studies to improve understanding on agriculture and rural economy. Some of the pressing issues for immediate analysis are competitiveness of Bangladesh agriculture in the changing global trade scenario, impact of food management and market development on production and producers' incentives, linkages between farm and non-farm sector growth, appropriate forms of support to agriculture, dynamics of the new forms of agricultural production and others.

² For an in-depth analysis of the effects of low real rice price on rice production in early 1990s and since 1999, see R.W. Plamer-Jones (2006): Trends in Cereal Production in Bangladesh, 1960-2003 (draft).