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Studies on the Agri-business Problem and Potentials in Major Areas of Bangladesh

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Abstract

Bangladesh cannot sustain long-run economic progress without having a strong agricultural sector accompanied by a dynamic agribusiness sub-sector. This study has been undertaken as exploratory Studies on the Agri-business Problem and Potentials in Major Areas of Bangladesh. Various institutional and other weaknesses and challenges were deemed to exist in the country that prevents full realization of the potentials of this industry. At a general level, the paper recommends various structural, institutional, and market-friendly policy reforms accompanied by infrastructural developments in order to encourage entrepreneurship, innovation, and investments along with better and more effective strategic management of this sector. Such reforms are expected to promote better utilization of scarce resources to promote a strong, dynamic, and sustainable agribusiness sector that would be able to contribute substantially to industrialization and economic development of the country.

Keywords: *Agri-business, Agricultural trade, Bangladesh, infrastructure development*

INTRODUCTION

Adoption of modern technologies (use of fertilizers, HYV seed, irrigation and pesticides) has made the country near self-efficient in food grains production. Despite this tremendous success in agricultural produce, particularly in crop sub-sector, nearly 45 percent of total population lives below the poverty lines, who are mostly rural poor. Poverty thus comes to the fore as a major thrust and concern of the national government. In order to reduce the level of poverty, the Government of Bangladesh (GOB) has undertaken a number of development strategies/projects. Of them 'Poverty Reduction Strategy Paper (PRSP)' is the most important one which has been duly recognized and approved by many bilateral/international donor agencies like World Bank (WB) and Asian Development Bank (ADB) in the recent past. The GOB has set a target for reducing poverty from the present level of about 45% to 25% by 2015 in conformity to the mandate of the PRSP towards achieving the Millennium Development Goals (MDGs) of the United Nations to which Bangladesh is one of the signatories. But, again, the crucial issue of poverty reduction largely depends on the increased productivity of agriculture. Thus expanding opportunities for employment and higher farm income would, in turn, improve the level of livelihood pattern of the rural poor. Their livelihood improvement program depends, directly or indirectly, upon production, employment and income from agriculture. Importantly, there is an increasing recognition that agribusiness concept leads commercial agriculture through production processing, storage and marketing of agro-commodities for trade, industry and export which could address the critical issues of poverty reduction and ensure higher employment and income of the poor farmers.

With one area of 147,570 sq. kilometers and situated between 20°34' degree & 26°38' degree North latitude and between 88.01 degree and 92.41 degree East longitude, Bangladesh occupies a unique geographic location spanning a stretch of land between the mighty Himalayan mountain chain on the north and the open Ocean on the south. It is virtually the only drainage outlet of a vast river basin made up of the Ganges, the

Brahmaputra and the Meghna and their networks. Bangladesh has the highest population densities in the world with 847 inhabitants per sq. km. The total population is estimated at 125 million with an annual growth rate of 1.67 percent.

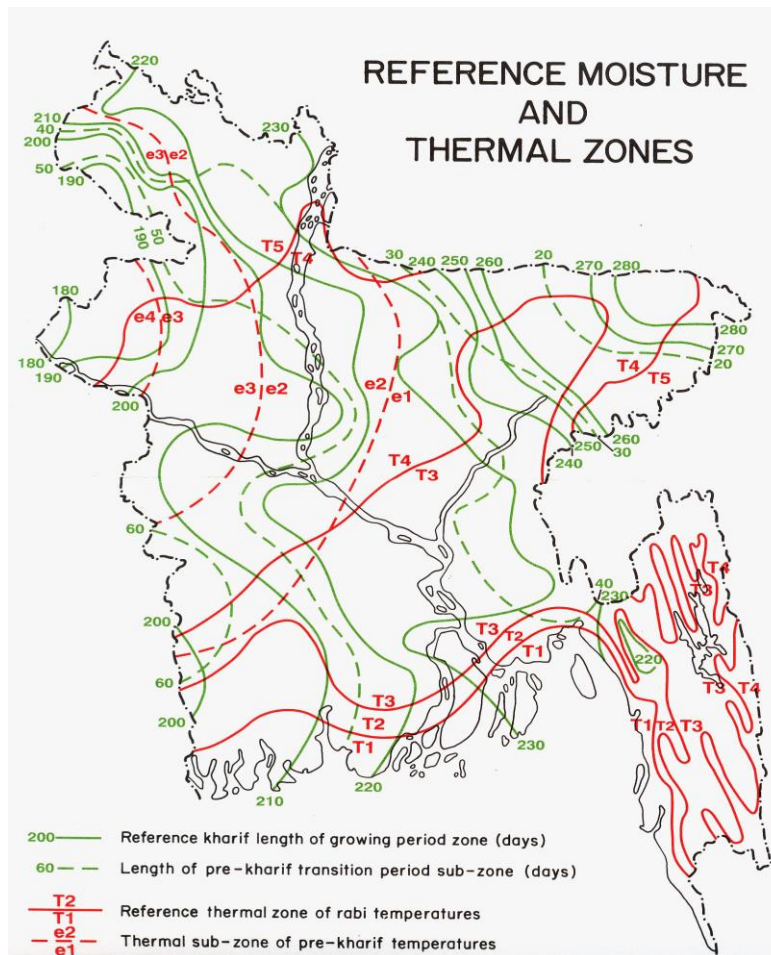


Fig. 1: Agro-climatic Zones of Bangladesh

Tornadoes cause localized devastation and demand an immediate response. A severe tornado hit Tangail district of the country on 13th May 1996 causing 540 deaths and injuring about 34000 people. Loss of cattle heads and damages to households were also substantial.

Agro-Ecological Zones (AEZ)

This is an output of Soil Survey done by SRDI funded by UNDP which started mid sixty's and ended by late ninety's and revision and updating of the database and its dynamic interpretation is still going on. The zoning was done computer aided mechanisms and contributed by NARS organizations. The Agro-ecological Zones of Bangladesh may be defined as the Zone classified on the of land type, soil characteristics, water or soil regime and agro-climatic factors. There are 30 AEZ identified in Bangladesh. Meanwhile the Upazila land soil utilization guide for each Upazila is ready for use which also contains the climatic parameters of the locality.

Table 1: The AEZ and its current crops necessitating changes in the varieties

AEZ	AEZ name	Major field crops
1	Old Himal Piedplain	Boro, T Aman, Wheat, Scane, Jute, Cotton
2	Active Tista FP	T. Aman, Wheat Boro, Jute, BA T. Aus
3	Tista Meander FP	Boro, T Aman, Tob, Whe, Scane, must, Jut
4	Korotoa- Bangali FP	Blackgram, Lentil, T. Aman, Jute, Mustard
5	Lower Atrai Basin	B. Aman, Grasspea, Boro
6	Lower Purnarbh FP	Boro, DW rice
7	Active Brah- Jam FP	T Aman, Aus, Jut, Aus + Aman, Whe
8	Young Brah Jam FP	T Aman, Boro, Spot, Scane, Tob, Jut, Must
9	Old Brah FP	T Aman, Boro, Jut, Puls, Mustard, S potato
10	Active Ganges FP	T Aman, Bgram, Whe, Boro, Jut, Puls, Must
11	High Ganges Riv FP	Whe, T Am, Boro, Ch. pea, Aus+ scane, Cot
12	Low Ganges River FP	T Am, Boro, Lent +, Jute, Graspea, B Am
13	Ganges Tidal FP	BAus, T Aman, Mbean, Must, Boro, cowpea
14	Gopal Khulna Beels	T Am, Jut, sesame, Boro, Aus + Aman
15	Arial Beel	Pulse, Aus + Aman, Boro, Mustard
16	Middle Meg River FP	Boro, T. Aman, Aus + Aman, Mustard
17	Lower Meg River FP	T. Aman, T. Aus, Mustard, Wheat
18	Young Meg Estu FP	Boro, Whe, T Aman, Must, B. Aus, T Aus
19	Old Meghna Estua FP	Boro, Aus, Jute, Wheat, T. Aman, T. Aus
20	Eastern Sur-Kush FP	Boro, B. Aman, T. Aman, Mustard, T. Aus
21	Sylhet Basin	Boro, T. Aus, B. Aman Grasspea
22	NorthEast pied Plains	Aus, jut, Blackgram, T Aman, Potato, Must
23	ChittCoastal plain	T. Aman, Aus, Potato, Mustard
24	Saint Martin Coral Is	T. Aman veg
25	Level Barind Tract	T. Aman, Boro, Potato, Scane, T. Aman
26	High Barind Tract	T. Aman, Boro, Chickpea, Mustard
27	North east Barind	T Am, Boro, Pot, Scane, Mustard
28	Madhupur Tract	Aus, jut, Scane, Bgram, T. Aman, Pot
29	North Eastern hills	Aus (Mix), T Aman, Cowpea, Scane, Cotton
30	Akhaura terrace	T. Aus, Mustard, Scane

OBJECTIVES AND TARGETS OF THE STUDIES

The main goal of the research is to reduce the poverty in Bangladesh enhancing agribusiness growth, generating employment and income in the rural areas.

The major objectives as may be straight way mentioned are:

- i. Identifying the major constraints of Agribusiness in Bangladesh.
- ii. Identifying the potentials of Agribusiness development
- iii. Recommending for Agribusiness development for Bangladesh.

The mechanism of achieving the target objectives consists raising awareness about agribusiness development issues for establishment, expansion, and successful operation of agribusinesses activities by small and Medium entrepreneurs (SME); strengthening capacity of agribusiness associations/ groups in policy dialogue and agribusiness information and technology dissemination; and Improve policy environment enabling private sector participation. The Impact: Poverty in Bangladesh will be reduced due to agribusiness growth that generates income and employment in the rural areas.

The Outcome: To expand activities of rural enterprises engaged in commercial agricultural production, input supply, marketing, processing and transportation which will generate employment in rural and peri-urban areas increase the value addition of non-traditional crops and commodities, and increase rural incomes.

The specific outputs of the study are as follows:

- i. Establishment, expansion, and successful operation of agribusinesses by small-scale entrepreneurs;
- ii. Strengthened capacity of participating NGOs and banks in agribusiness lending;

- iii. Strengthened capacity of agribusiness associations in policy dialogue and agribusiness information and technology dissemination; and

The target enterprises: Specifically target SME agribusiness enterprises which do not have the capacity to mobilize the financing will require expanding the capacity to open up new downstream markets. The Ultimate Beneficiaries: The ultimate beneficiaries of the agribusiness development will be the rural poor who will benefit from enhanced opportunities for employment, income generation and agricultural production.

METHODOLOGY

Collection and Review of Data, Reports and Information

In addition to the list of data and documents mentioned elsewhere, the following data, reports and documents will be collected at the auspices of the DAM/NGOs/ Banks etc.:

- Relevant secondary data form BBS/DAM/DAE/BB
- Documents related to DAM activities/ADB Appraisals on BADP
- Reports of the NCDP (ADB) and ATDP (USAID) and others
- Various maps, satellite imagery and audio-visuals relevant to NCDP.
- Agro-ecological zones, farming systems and socio-economic data of the area.
- Detailed data, information and reports of HORTEX Foundation; Training Institutes, NGO Facilities.
- Agricultural and other census reports.
- Rural credit activities and performance of Banks.
- NGO activities, programs and micro-credit situation.
- National Agricultural Policy and NAEP Documents and other related policy papers.
- Reports of Farm to Market Enterprise Development (FMED) Project (CIDA).
- Reports on rural markets, marketing facilities and fariah /aratdars/paikers etc.
- Review of the Baseline Survey Report and/or PRA Reports.
- Neighboring countries agribusiness related useful documents

Surveys, Need Assessments and Studies

Prior to launching of the implementation study program it is usually necessary to conduct a baseline survey focusing on the socio-economic status and agribusiness includes market management system for SME covering:

- a) NAS for Agribusiness Associations;
- b) Small Scale Farmers Technological NAS, & FINA etc.
- c) NAS for market management and information dissemination.
- d) Training Needs Assessment (TNA) for MOA, MOFL, and DAM staff, Small Scale entrepreneurs and agribusiness associations, NGO Workers, Banks staff and others;

A field reconnaissance, rapid participatory rural appraisal (RPRA) and field observation will be conducted to practically assess the physical situation, potentials and constraint.

Review of the Lessons Learnt from Other Programs

The documentation of earlier interventions, and of experiences of the other donors including ADB, DFID, USAID, DANIDA, FAO, World Bank, and other development partners-assisted agricultural and agribusiness related projects/activities in Bangladesh will be reviewed. The review and lessons learned of earlier projects will include:

- i. ADB funded Small and Medium Enterprise Sector Development Program (2005–2008) under the MOF;
- ii. Northwest Crop Diversification Project-NCDP (2001–2008) under the MOA/DAE;
- iii. Rural Livelihood Project (1999–2006) under BRDB;
- iv. Second Participatory Livestock Development Project-PLDP (2004–2010) under the PKSF/DLS;
- v. Participatory Livestock Development Project (1997–2003) under DLS;
- vi. Rural Infrastructure Improvement Project (2003–2008) under LGED;
- vii. Third Rural Infrastructure Development Project (1998–2005);
- viii. Farm to Market Enterprise Development Project (1998–2002); DANIDA funded
- ix. Agriculture Sector Program Support (2000–2011); FAO funded
- x. Agricultural Market Information Improvement Project (2002–2003);
- xi. Integrated Horticulture and Nutrition Development Project (2000–2005); GTZ funded
- xii. Business Development Service Program (2003–2008);
- xiii. Bangladesh Seed Development Program (1997–2004); IFAD funded
- xiv. Agricultural Diversification and Intensification Project (1997–2004)
- xv. Aquaculture Development Project (1998–2004);
- xvi. Smallholder Agricultural Improvement Project; USAID funded
- xvii. Agro-based Technology Development Project I (ATDP I) from 1996–2001;
- xviii. Agro-based Technology Development Project II (ATDP II) from 2001–2005; DFID funded
- xix. Agricultural Services, Innovation and Reform Project (1999–2003); World Bank-funded
- xx. Export Diversification Project (1999–2003) etc.

It is learned that ATDP has successfully assisted in development of agro-technology based agribusiness in the country. The proposed project will be able to utilize the experiences of the ATDP with a much larger coverage in agribusiness promoting privately owned agribusiness and enhancing their competitiveness. The earlier and on-going projects assisted by ADB confirm the value of working through credit based projects to reach the agriculture sector through NGOs. The projects include: PLDP and NCDP etc and their periodical reviews showed about 100% recovery of the credits. The NCDP experience validates the present project's approach channeling credit to the small scale agribusiness enterprise through reputable NGOs than NCBs. The project will complement directly the Small and Medium Enterprise Sector Development Program (SMESDP) and benefits from the SME reforms.

PRA/Participatory Consultation Process

Participatory rural appraisal (PRA) is usually done before implementation is started to involve the local people in the project planning, design and intervention. In the first year run a series of participatory consultation process will be done involving the target groups and the local power structures and professionals. The methodology starts with multidisciplinary needs assessments and ends-up with institutionalization for sustainable operation and management with technical plans and designs developed by the professionals.

The participatory consultation process will be continued for the first year and the results (plans and designs) will be implemented throughout the project period with occasional modifications/adjustments should the beneficiaries so desire. The disciplines will include agribusiness promotion, agribusiness policy, marketing and market management and information dissemination, training, gender, credit, rural infrastructure, project management, environment and rural socio-economy. The major fields of activities to be done are briefly mentioned below:

Identifying Agribusiness Constraints/Opportunities

This activity mainly comprises assessing agribusiness opportunities and encouraging farmer client respondent with involved SME to support agribusiness systems. The name of SMEs will be collected along with their profiles for short listing through formatted criteria based screening scores. In all, about 100 SMEs will be selected supporting 5000 farmer produces/small scalars. The respondents will be preferred working

in divisions and geographically distributed covering 30 Agro-Ecological Zones (AEZ) or production zones of the country.

The activity is directly related to form producer and processing groups. The entrepreneurs will be screened for their specialization and experiences in producer and processor management works. Then the suitable entrepreneurs for grouping producer and processors will be assessed and listed by the APA and APS (Producing and Processing) considering their facilities and potentials among other available models for the contract growers, producers including own contribution model as studied DFID and adopted in Nepal for vegetable seed production and Thailand for fresh fruit-vegetable production and marketing system will be reviewed in detailed for action. The groups dealing with horticultural new crops, exportable high value crops and young entrepreneurs will be preferred as it has been recommended in Kenya in a situation similar to Bangladesh to be more successful. Organic production systems following good practices in Thailand and AOFF (African Organic Farmer Foundation) 4- step model will be considered for adoption in addition to existing best practices recommended by National Agricultural Research System (NARS) in Bangladesh.

Identifying agribusiness associations

The names of major agribusiness associations working in Bangladesh will be collected and reviewed for short listing. Specific criteria involving their experience, commodities handled, nature and volume of business and organizational will be considered. The short listed associations will be briefed for preparing proposals on important topics for training/ workshops and study tours. The proposal will contain objectives and outputs, duration, technical contents, mode of cost sharing, selection of participants and other formalities.

MEDIA: Agribusiness Information and Technology Dissemination

The technical activities of the project in the field of agribusiness information and technology dissemination will provide services for raising awareness through publicity drives, trade fairs, seminars and similar activities. There are about 300 agro-technologies already approved by the MOA through BARC which will be considered establishing their business linkage for income generation of the poor. The major activities will include i) informing agribusiness opportunities for income generation; ii) disseminate agribusiness technologies iii) Integrate diverse stakeholders of agribusiness, and iv) provide a venue for the promotion of the project. The agribusiness promotion parties including associations and groups will submit proposals to PIU which will be screened on the basis of objectives and cost sharing such as PIU: Party= 67:33. The main activities will be relating to the publicity of agribusiness and its technologies, integration of active participants.

Review and recommend training proposals submitted by NGOs

The training proposals submitted by the NGOs will be thoroughly checked for its justification, module standard, available facilities and cost effectiveness comparing with the standard format given below:

Table 2: The agribusiness constraint study areas involving farmers

Division	District	Upazila	No. of target Respondents	No. of Respondents Achieved
Dhaka	Dhaka	Savar	200	132
	Narayanganj	Fatullah	100	64
	Munsiganj	Gajaria	75	55
	Narsingdi	Shibpur	150	122
	Manikganj	Ghior	80	65
Rajshahi	Dinajpur	Birganj	180	172
		Sadar	220	193
	Rangpur	Mithapukur	160	129
	Gaibanda	Govindaganj	260	248
	Serajganj	Sadar	90	68
	Pabna	Ishwardi	150	134
	Bogra	Shibganj	175	161
Chittagong	Feni	Sadar	200	178
	Chittagong	Sitacunda	150	127
	Coxs bazar	Teknaf	125	112
Barisal	Barisal	Bakerganj	150	137

	Patuakhali	Dhumki	60	43
	Jhalokhati	Sadar	75	52
Khulna	Jessore	Keshabpur	75	61
	Jhenaida	Sadar	250	219
	Magura	Mohamadpur	150	126
Sylhet	Habiganj	Bahubal	100	86
	Moulvibazar	Srimangal	200	176

Identification of Constraints

The study areas covering 6 Divisions were given in the table below.

Table 3: The agribusiness constraint study areas involving agribusiness men

Division	District	Upazila	No. of target Respondents	No. of Respondents Achieved
Dhaka	Dhaka	Dhamrai	175	161
	Narayanganj	Sadar	200	178
	Munsiganj	Gajaria	150	127
	Netrakona	Mohanganj	150	122
	Gazipur	Kaliakair	80	65
Rajshahi	Dinajpur	Birganj	175	161
		Fulbari	150	122
	Rangpur	Sadar	80	65
	Gaibanda	Palashbari	180	172
	Serajganj	Sadar	220	193
	Pabna	Ishwardi	160	129
	Joypurhat	Panchbibi	260	248
Chittagong	Feni	Porshuram	90	68
	Chittagong	Mirersarai	150	134
	Coxs bazar	Teknaf	175	161
Barisal	Barisal	Bakerganj	200	178
	Patuakhali	Sadar	150	127
	Perojpur	Sarupkati	150	122
Khulna	Jessore	Aboynagar	80	65
	Jhenaida	Sadar	180	172
	Magura	Sripur	220	193
Sylhet	Habiganj	Bahubal	160	129
	Moulvibazar	Srimangal	260	248

Identification of Potentials

The study areas covering 6 Divisions were given in the table below.

Table 4: The agribusiness potential identification study areas involving farmers

Division	District	Upazila	No. of target Respondents	No. of Respondents Achieved
Dhaka	Dhaka	Keraniganj	160	127
	Narayanganj	Fatullah	250	248
	Mymensing	Bhaluka	90	68
	Narsingdi	Raipura	160	134

	Gazipur	Kapasias	175	161
Rajshahi	Dinajpur	Biral	200	152
		Khanshama	100	64
	Rangpur	Taraganj	75	55
	Nilphamari	Syedpur	140	132
	Natore	gurdaspur	80	65
	Pabna	Ishwardi	80	65
	Bogra	Shibganj	200	172
Chittagong	Noakhali	Begumganj	200	173
	Chittagong	Sitacunda	160	129
	Coxs bazar	Teknaf	260	248
Barisal	Barisal	Bakerganj	100	68
	Patuakhali	Dhumki	150	134
	Perujpur	Sadar	175	161
Khulna	Jessore	Keshabpur	180	162
	Jhenaida	Sadar	100	64
	Narail	Sadar	75	55
Sylhet	Sylhet	Golapganj	180	128
	Moulvibazar	Rajnagar	80	65

Identification of Constraints

The study areas covering 6 Divisions were given in the table below.

Table 5: Major characteristics of the farmer group studied for identifying the constraints

Division	Age in years	Small farmer-male %	Small farmer-female%	Medium farmer-male%	Medium farmer-female%	Total
Dhaka	<40	23	8	17	3	51
	>40	24	11	9	4	49
Total		47	19	23	7	100
Chittagong	<40	17	7	20	2	46
	>40	23	12	13	6	54
Total		40	19	33	8	100
Rajshahi	<40	15	12	11	7	45
	>40	18	14	15	8	55
Total		33	26	26	15	100
Khulna	<40	17	9	14	8	48
	>40	22	7	17	6	52
Total		39	16	31	14	100
Sylhet	<40	21	6	16	4	47
	>40	19	8	17	9	53
Total		40	14	33	13	100
Barisal	<40	18	11	21	8	58
	>40	16	6	15	5	42
Total		34	17	36	13	100

Table 6: Identifying the agribusiness constraints as prioritizing by the farmer respondents%

Sl	Factors Influencing Agribusiness	% responded
1	Improved technological knowledge	68
2	Laws: Policy, rules and regulations	41
3	Media Promotion: Print and electronic	64
4	Input Associations: Fertilizer, seed, pesticide	51
5	Education: General education	13
6	Training: Skill development	56
7	Research: Basic and applied	46
8	Extension: Agri-crops, livestock, fish forestry	57
9	Price: Trend, control, locality, reliability	77
10	Transport: Main and feeder	47
11	Storage: Govt, corporal and private	45
12	Marketing: Rural and urban	61
13	Post harvest: technology	62
14	Credit: Govt, corporal and private	59
15	Civil administration: National to local	23
16	Agri administration: Priorities, qualities	42
17	Climate change: flood, drought, temperature	29
18	Political : stability, integrity	31
19	Illiteracy: General	23
20	Product Quality: standards	49
21	Export Policy: Foreign compatibility	31
22	Import policy: Local compatibility	39
23	Packaging: Quality	35
24	Subsidies: national and international	57
25	Banking service: Govt and private	37
26	Rural agriculture: nature	24
27	Agricultural education: Higher	36

28	Marketing chain : Commodity bases	53
29	Traditionally: Non modern/conservative	38
30	Others	17

The study areas covering 6 Divisions were given in the table below.

Identification of Potentials

Table 7: The agribusiness potential identification study areas involving farmers

Division	District	Upazila	No. of target Respondents	No. of Respondents Achieved
Dhaka	Dhaka	Keraniganj	160	127
	Narayanganj	Fatullah	250	248
	Mymensing	Bhaluka	90	68
	Narsingdi	Raipura	160	134
	Gazipur	Kapasias	175	161
Rajshahi	Dinajpur	Biral	200	152
		Khanshama	100	64
	Rangpur	Taraganj	75	55
	Nilphamari	Syedpur	140	132
	Natore	gurdaspur	80	65
	Pabna	Ishwardi	80	65
	Bogra	Shibganj	200	172
Chittagong	Noakhali	Begumganj	200	173
	Chittagong	Sitacunda	160	129
	Coxs bazar	Teknaf	260	248
Barisal	Barisal	Bakerganj	100	68
	Patuakhali	Dhumki	150	134
	Perujpur	Sadar	175	161
Khulna	Jessore	Keshabpur	180	162
	Jhenaida	Sadar	100	64
	Narail	Sadar	75	55
Sylhet	Sylhet	Golapganj	180	128
	Moulvibazar	Rajnagar	80	65

Identification of Constraints

The study was designed to survey through a pre-tested questionnaire to two groups namely:

- a. **Farmer group:** Mostly farmers were selected from the small and medium group.
- b. **Agribusiness man group:** Mostly Agribusiness men were selected from the small and medium group. The study areas covering 6 Divisions were given in the table below.

Table 8: Major characteristics of the farmer group studied for identifying the constraints

Division	Age in years	Small farmer-male %	Small farmer-female%	Medium farmer-male%	Medium farmer-female%	Total
Dhaka	<40	23	8	17	3	51
	>40	24	11	9	4	49
Total		47	19	23	7	100
Chittagong	<40	17	7	20	2	46
	>40	23	12	13	6	54
Total		40	19	33	8	100
Rajshahi	<40	15	12	11	7	45
	>40	18	14	15	8	55
Total		33	26	26	15	100
Khulna	<40	17	9	14	8	48
	>40	22	7	17	6	52
Total		39	16	31	14	100
Sylhet	<40	21	6	16	4	47
	>40	19	8	17	9	53
Total		40	14	33	13	100
Barisal	<40	18	11	21	8	58
	>40	16	6	15	5	42
Total		34	17	36	13	100

RESULTS AND DISCUSSION

The results obtained from the studies are presented and interpreted here as per objectives. The detailed results are given in the appendices.

Identification of Constraints

The first and the most important objective of the study were to identify the major constraints the removal of which will ease the establishment and development of agribusiness in Bangladesh. The studies were planned to be worked with two separate but interrelated groups associated with agribusiness such as are farmer and agribusiness man.

a. Farmer group: Mostly farmers were selected from the small and medium group.

b. Agribusiness man group: Mostly Agribusiness men were selected from the small and medium group. The study areas covering 6 Divisions were below.

Identification of Constraints by Farmers

The results obtained from different studies within the piece of research are sequentially presented and described in this chapter. The major results are presented as identification of constraints, identification of potentials, general discussion followed by recommendations and highlight conclusions.

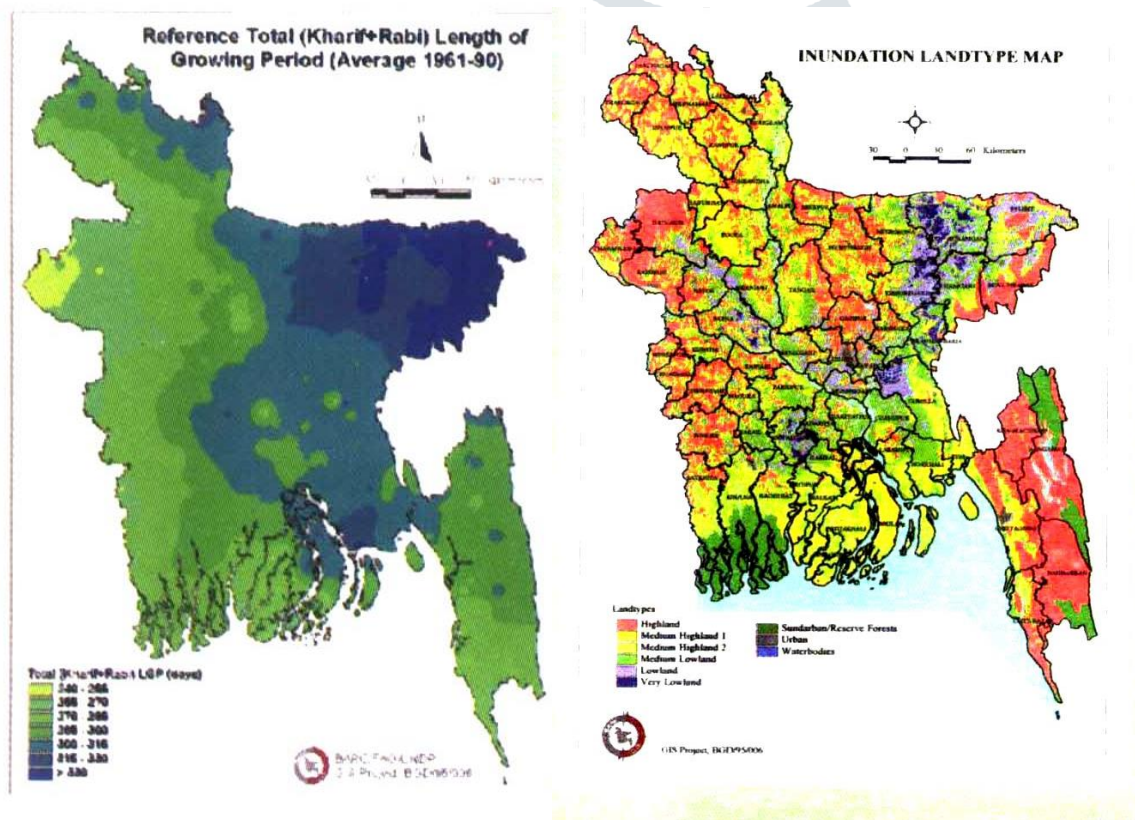
The study was designed to survey through a pre-tested questionnaire to two groups namely:

A. The Study Areas

The areas selected for the study are given in the Table 1 below. It may be seen from the Table that the study was conducted 23 Upazila of 22 Districts of 6 Divisions. The total number farmers involved in the study were 2390, the Rajshahi Division having the highest number 1105. This is due to the fact that the North West Crop Diversification Program (NCDP) with an agribusiness component was working in the area under the administration of Department of Agricultural Extension, Ministry of Agriculture. Some more information in this regard is given in the appendices and also in the Methods and Material.

Table 9: The agribusiness constraint study areas involving farmers

Division	District	Upazila
Dhaka	Dhaka	Savar
	Narayanganj	Fatullah
	Munsiganj	Gajaria
Rajshahi	Dinajpur	Birganj
		Sadar
	Rangpur	Mithapukur
Chittagong	Feni	Sadar
	Chittagong	SitaKunda
Barisal	Barisal	Bakerganj
	Patuakhali	Dumki
Khulna	Jessore	Keshabpur
	Jhenaida	Sadar
Sylhet	Habiganj	Bahubal
	Moulvibazar	Srimangal



B. Characterizing the farmer group

The major characteristics of the farmer group studied for identifying the constraints hindering agribusiness development in Bangladesh are presented here in a tabular form. The major criteria used for the purpose were farmer group such as small farmer and medium farmer; and age group were 2 such below 40 or above 40 of male and female gender.

Table 10: Major characteristics of the farmer group studied for identifying the constraints

Division	Age in years	Small farmer-male %	Small farmer-female%	Medium farmer-male%	Medium farmer-female%	Total
Dhaka	<40	23	8	17	3	51
	>40	24	11	9	4	49
Total		47	19	23	7	100
Chittagong	<40	17	7	20	2	46
	>40	23	12	13	6	54
Total		40	19	33	8	100
Rajshahi	<40	15	12	11	7	45
	>40	18	14	15	8	55
Total		33	26	26	15	100
Khulna	<40	17	9	14	8	48
	>40	22	7	17	6	52
Total		39	16	31	14	100
Sylhet	<40	21	6	16	4	47
	>40	19	8	17	9	53
Total		40	14	33	13	100
Barisal	<40	18	11	21	8	58
	>40	16	6	15	5	42
Total		34	17	36	13	100

The results showed that the small farmer and male farmer dominated the population which was selected randomly. While the age group proportion varied from 44 to 58%.

C. Identifying the Constraints Involving Farmer Group

The constraints of agribusiness development in Bangladesh were identified considering several sectors consisting 30 primary parameters which are given in the Table 5 below. The criteria selection aspects are mentioned in the methods and materials chapter and the detailed data are given in the appendices. However, the obtained data are presented and explained here in terms of production, pricing, processing and marketing.

I. Pricing of Commodities

Agreeing with the definition that agribusiness is a complex of interlinked activities related to the commercial production of agricultural crops, livestock, fisheries and forestry commodities, including its transformation and marketing, the results and situation as regards major constraints, potentials and recommendations for its development in Bangladesh are furnished here. The availability of accurate and reliable costs of production and crop budgets is a prerequisite for analysis of comparative advantage and competitiveness. Given the time limitations of the current study, it was not possible to collect primary data for all potential crop and livestock activities, even on a limited basis. Initial analyses relied on secondary data compiled from a variety of sources and updated using the latest available price data from DAM. These will be supplemented by collection of limited primary data to fill any important gaps. The main potential data sources identified were DAM, BIDS, BARI, BBS, and various Department of Agricultural Extension (DAE) projects including the Northwest Crop Diversification Project. The results obtained from this study as regards commodity pricing constraints and related aspects are given here. The result showed that the farmer respondent scored 77% as highest for pricing constraints now active in Bangladesh creating problems against the development of agribusiness in the country.

Table 11: Identifying the agribusiness constraints by farmer respondents%

Sl	Factors Influencing Agribusiness	% responded
1	Improved technological knowledge	68
2	Laws: Policy, rules and regulations	41
3	Media Promotion: Print and electronic	64
4	Input Associations: Fertilizer, seed, pesticide	51
5	Education: General education	13
6	Training: Skill development	56
7	Research: Basic and applied	46
8	Extension: Agri-crops, livestock, fish forestry	57
9	Price: Trend, control, locality, reliability	77
10	Transport: Main and feeder	47
11	Storage: Govt, corporal and private	45
12	Marketing: Rural and urban	61
13	Post harvest: technology	62

Some of the factors which scored very less were to be the general education, agricultural higher education, civil administration etc which are also important to consider for establishing agribusiness in the country.

II. Agribusiness and Production Constraints

The results obtained from this study as regards production constraints and related aspects are given in the Table and fig. The result showed that the farmer respondent scored 68% as second highest for production constraints now active in Bangladesh creating problems against the development of agribusiness in the country. Agriculture and agribusiness were estimated to account for about 35% of GDP in 1999-2000, being about 40% ten years earlier. The most likely reasons as stated for this are the decline in relative importance of agriculture together with the continued reliance of most Bangladeshi consumers on non-processed basic own agricultural products. The reason was found to be the unreliable price changes in case of processed, imported and marketed products. Performance of agriculture over the past decade has been weak; the growth rate of agricultural GDP has averaged an annual rate of 2.4% versus an overall GDP growth of 5% and a growth of population of 1.48%. In recent years, agricultural growth has improved, reaching an average growth rate of 3.7% which is still below the overall GDP growth of 5.2%. Over the past decade, the most dynamic sub-sector has been fishery, due mainly to the shrimp sub-sector; however, in recent years, the fishery sub-sector has performed weakly. (Interim Poverty Reduction Strategy Paper, ERD 2002). At present, most agricultural production is concentrated on a limited number of crops, with rice occupying 82.6% of total cultivated area. While crops such as sugarcane or jute have seen their production stagnating or declining over the past decade, there has been increased production of spices and tea. In the non-crop sector, poultry, dairy and seafood have witnessed considerable growth. Farm size and production: The vast majority of farms in Bangladesh are very small. Out of more than 11.8 million farms as recorded in the 1996 Agricultural Census, about 50% of farms are less than one acre and 80% are less than 2.5 acres. Given trends toward land fragmentation, the future situation will be even more skewed towards smaller farms. During the inter-census period 1983-84 and 1996, the percentage of small farms (less than 2.5 acres) increased from 70% of total farms to 80% of total farms. This situation is particularly discouraging since it is these crops that provide one of the potential sources of growth of agribusiness and value addition to agriculture.

Identification of Constraints by Agribusiness man Group

The results obtained from different studies within the piece of research are sequentially presented and described in this chapter. The major results are presented as identification of constraints, identification of potentials, general discussion followed by recommendations and highlight conclusions. The first and the most important objective of the study were to identify the major constraints the removal of which will ease the establishment and development of agribusiness in Bangladesh. The study was designed to survey through a pre-tested questionnaire to two groups namely:

c. Farmer group: Mostly farmers were selected from the small and medium group.

d. Agribusiness man group: Mostly Agribusiness men were selected from the small and medium group. The study areas covering 6 Divisions were below.

Study Areas

The areas selected for the study are given in the Table 1 below. It may be seen from the table that the study was conducted 23 Upazila of 22 Districts of 6 Divisions. The total number farmers involved in the study were 3340, the Rajshahi Division having the highest number 1105. This is due to the fact that the North West Crop Diversification Program (NCDP) with an agribusiness component was working in the area under the administration of Department of Agricultural Extension, Ministry of Agriculture.

Table 12: The agribusiness constraint study areas involving agribusiness man

Division	District	No. of Respondents Achieved
Dhaka	Dhaka	161
	Narayanganj	178
	Munsiganj	127
	Netrakona	122
	Gazipur	65
Divisional total		653
Rajshahi	Dinajpur	161
		122
	Rangpur	65
	Gaibanda	172
	Serajganj	193
	Pabna	129
	Joypurhat	248
Divisional total		1090
Chittagong	Feni	68
	Chittagong	134
	Coxs bazar	161
Divisional total		363
Barisal	Barisal	178
	Patuakhali	127
	Perojpur	122
Divisional total		427
Khulna	Jessore	65
	Jhenaida	172
	Magura	193
Divisional total		430
Sylhet	Habiganj	129
	Moulvibazar	248
Divisional total		377
Grand Total		3340

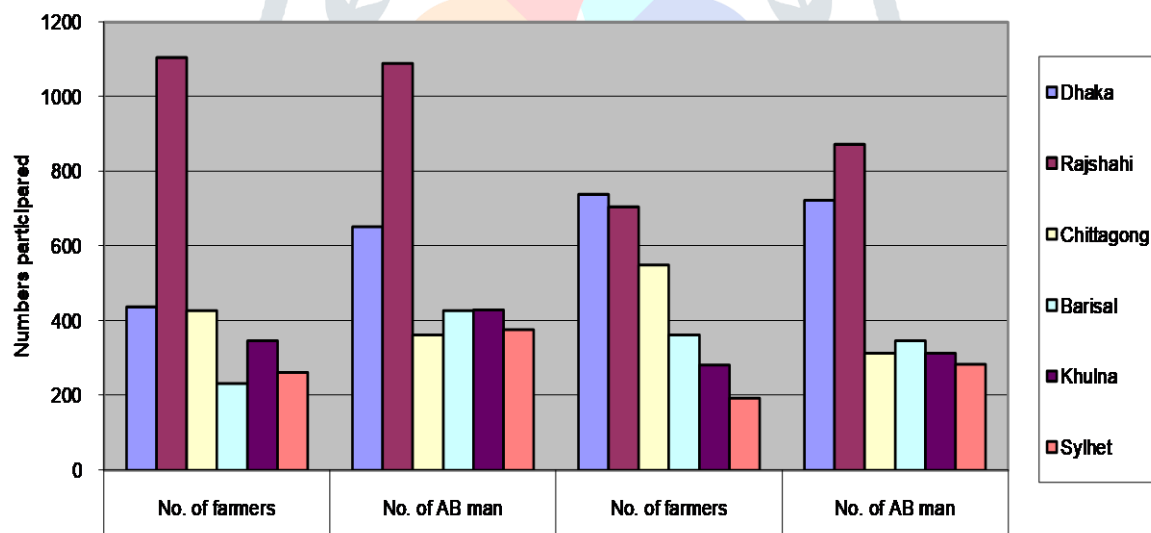
A. The Major Characteristics of the Agribusiness man Group

The details of the characteristics of the randomly selected agribusiness man group involved in the study are mentioned here which are given in the Table 4. the criteria and categories of the farmers selected here also same as with farmer group selection though the site were found to vary according to the availability of business activities.

Table 13: Major characteristics of the agribusiness group studied for identifying the constraints

Division	Age in years	Small farmer-male %	Small farmer-female%	Medium farmer-male%	Medium farmer-female%	Total
Dhaka	<40	21	8	15	3	47
	>40	23	7	15	8	53
Total		44	15	30	11	100
Chittagong	<40	27	8	12	4	51
	>40	17	3	26	3	49
Total		44	11	38	7	100
Rajshahi	<40	27	10	11	3	51
	>40	26	6	15	2	49
Total		53	16	26	5	100
Khulna	<40	18	8	13	5	44
	>40	22	11	19	4	56
Total		40	19	32	9	100
Sylhet	<40	23	8	17	3	51
	>40	24	11	9	4	49
Total		47	19	23	7	100
Barisal	<40	25	6	18	2	51
	>40	29	5	13	2	49
Total		54	11	30	3	100

However a thorough check up of the table data shows that the male: female, age and divisional proportions greatly varied when compared to the data farmer group. Specially female agribusiness women were greatly less than female farmers in all divisions as given below.

**Figure 2: Agribusiness Constraint Study Areas Involving Farmers**

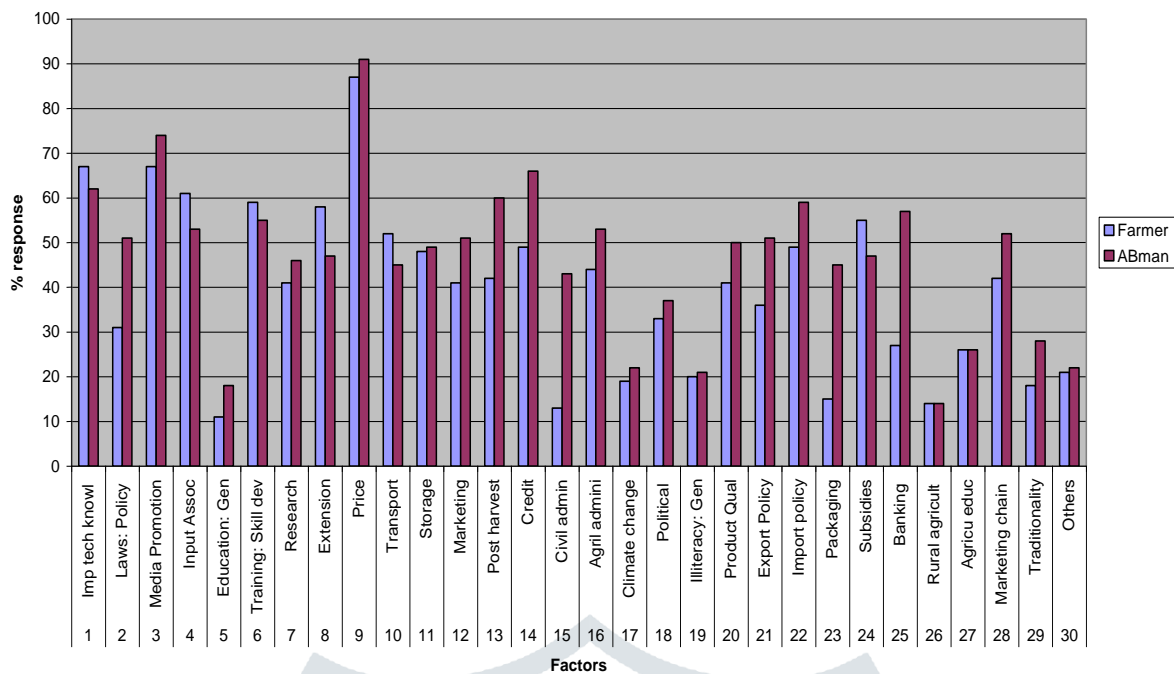


Figure 3: Identifying AB Potentials by Farmer and AB Man

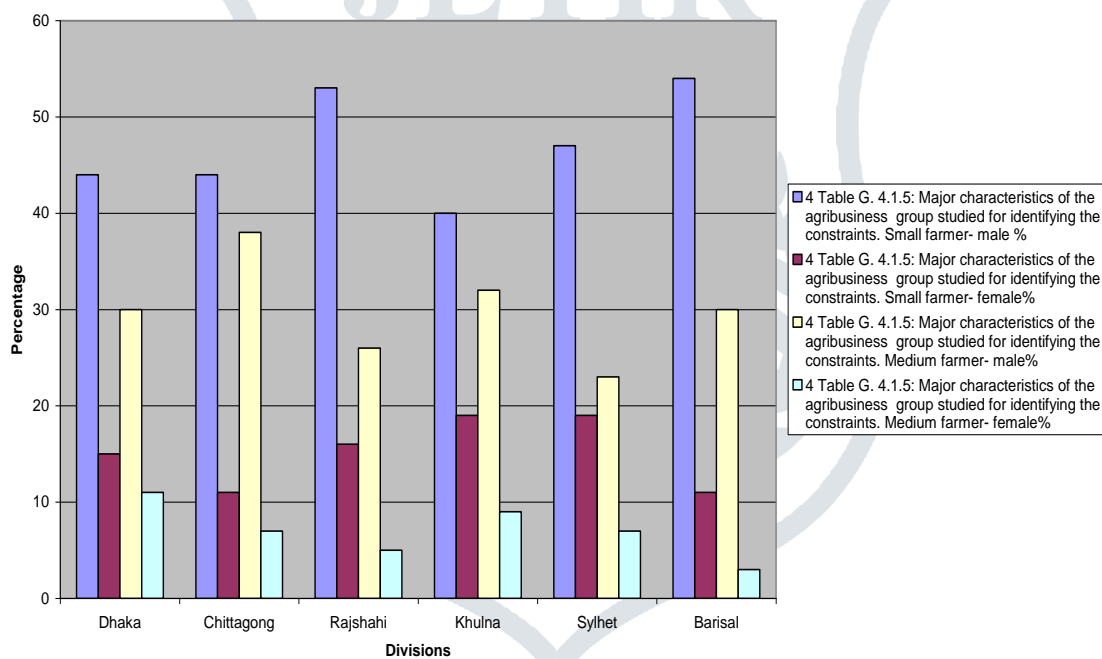


Fig 4: Major Characteristics of the Agribusiness Group Studies for Identifying the Constraints

B. Identifying the Constraints Involving Agribusiness man Group

The results obtained from the study as major constraints identified by the agribusiness man of different characters for different areas are presented here in the Table 2. The results show that out of the 30 parameters used in the study, the 3 parameters namely media promotion, improved technological knowledge and process of commodity scored first, second and third respectively by the agribusiness man. Business man always wants publicity for sale while they try to keep the price non-transparent, while the farmer score price of commodity as highest.

Table 14: Identifying the agribusiness constraints as prioritizing by the agribusiness man respondents%

Sl	Factors Influencing Agribusiness	% responded
1	Improved technologies knowledge	66
2	Laws: Policy, rules and regulations	53
3	Media Promotion: Print and electronic	82

4	Input Associations: Fertilizer, seed, pesticide	61
5	Education: General education	47
6	Training: Skill development	41
7	Research: Basic and applied	46
8	Extension: Agri-crops, livestock, fish forestry	35
9	Price: Trend, control, locality, reliability	63
10	Transport: Main and feeder	52
11	Storage: Govt. corporal and private	52
12	Marketing: Rural and urban	57
13	Post harvest: techs	42

Combined Response of Farmer and Agribusiness man on Constraints

The mean response of the farmer and the agribusiness man towards the identification of constraints are presented in the Table....The Table shows that the farmer and the agribusiness man responded differently on the parameters, but their responses were greater in cases of some parameters like media sector, pricing policy and improved agro technologies, which are briefly mentioned here.

SUMMARY

The Finding and Situation Based Outputs

The points highlighted by the most respondents are highlighted here. This has been found to be closely linked to the observations made by sectoral resource persons of the Agri-Invest 2003 by BARC-SEDF proceeding, GED and Planning Commission may briefly be mentioned. The agribusiness development potential should give more emphasis on improving price and regulatory environments, creating a contact point for agribusiness administration within MOA including the modality of establishing Agro-export processing zones, organizing agribusiness groups and association, foundation and federation activities, enhancing ICT and ATT research, development of agro-technologies and participation of rural peoples ensuring income generation.

Considering all the findings obtained from the appraisal and survey, studies, FGD, PRA, RRA, RPRA etc. from different groups, sectors, levels and professionals, the following points were found to be most important potentials for agribusiness development in Bangladesh.

1. Bangladesh continues to show improved economic growth, GDP increasing by 5.7% in 2005-06 and expected to increase in subsequent years.
2. With the GDP at current prices exceeding Tk. 3,500 billion, the agriculture sector continues to account for 23% of GDP.
3. It is positive as promotion of crop-based agribusiness is likely to benefit the poorer farmers as the suppliers of raw materials.
4. Production of maize and potatoes has increased significantly and these two crops may be reaching a take-off point where commercial production is a possibility.
5. The production of pulses, sugarcane, jute and tobacco may be increased developing sustainable agribusiness in the country.
6. Policies that have specific and positive immediate impacts to agribusiness development for example include the Price policy, Agro-technology transfer and ICT policies, NAP, the fish/livestock Policies as set out in the respective Action Plans and the Strategies, the Industry Policy, the Eximpor Policies, the Land Policy, taxation policy and many other related policies.
7. The tax regime for promotion of agriculture and agribusiness is generally favorable with imports of raw materials taxed at a lower rate than imports of semi-processed materials, and processed commodities are taxed at the highest rate.
8. The import of commodities required for agriculture and agribusiness is generally free of VAT, which provides a further incentive to the sector.
9. Inconsistencies in the tax structure are being continuously eliminated by the Government, for example the import of equipment for the poultry and dairy industries has recently been exempted from customs duty and VAT which is expected to assist development of these industries.
10. Attention to identifying and resolving the underlying problems would undoubtedly have a greater benefit than increasing the policy distortions that try to favor agribusiness development.

11. Bangladesh is developing the capacity to comply with WTO requirements in areas such as the SPS and TBT Agreements.
12. Very recently a pilot agribusiness development program has been conducted through the NCDP project in the northwest region of Bangladesh, and a national level program namely Hortex Foundation have been initiated and worked in limited fields.
13. Steps taken by the government for price control helping development of Agribusiness.
14. Agricultural initiatives for dealing with agribusiness based agro-technology transfer by private/ NGOs producing positive effects despite desk-based BARC Projects.

General Recommendations and Solutions

There are numerous constraints to the development and growth of agribusiness enterprises in Bangladesh, as noted above. There are also, however, the constraints and the promising opportunities for the sector are discussed here highlighting most important issues. The agribusiness sectoral issues frequently mentioned by the different respondents and the comment they made in their explanation, and indicative recommendations made by sectoral persons are briefly mentioned here. The response in these matters of agribusiness development is similar giving emphasis on improving regulatory environments, creating a contact point for agribusiness administration, establishing Agro-export processing zones, organizing agribusiness foundation activities, enhancing research, development of agro-technologies and participation of rural peoples ensuring income generation. Considering all the findings obtained from the appraisal from different groups, sectors, levels and professionals, the following major points reflecting the agribusiness aspects are mentioned here in brief.

Agribusiness Development Perspective

- i. Demand of the increasing population
In spite of widespread poverty, the mere fact that Bangladesh has a large population implies that a large number of household in the upper income brackets have a disposable income that allow them to be consumers in supermarkets. According to the Household Income and Expenditure Survey (HIES) of 2000, about 10% of the households have an average monthly income above \$200. The current population estimate of 140 million would suggest that about 14 million people could afford to buy relatively high-quality products.
- ii. Natural and comparative advantage
A number of agricultural commodities grown in Bangladesh appear to have at least some degree of comparative advantage. With a very few exceptions, however, this comparative advantage has not been translated into competitive advantage at the farm and firm levels. Among the commodities with export potential are shrimp, fish, jute, tea, vegetables and fruits (fresh and processed) and possibly herbs and spices and medicinal plants. While there is a growing, although still relatively small, export of vegetables, shrimp, jute and tea, they are the only commodities whose export potential have been exploited to some significant degree. However, in the case of shrimp, the volume of raw material available seriously constrains the degree to which the commercial shrimp processors can supply foreign markets.
- iii. The NAP, NAEP and its Strategy of Implementation
 - a. Increasing agricultural productivity is presented as a more complex issue, requiring action in ten areas: Improved information of the trade-off between production and employment resulting from increased mechanization as a guide to future policy decisions;
 - b. Promotion of IPM/ICM/INM/IPNS with attention to its lateral spread from households that have received training;
 - c. Prioritization of the research agenda to identify those areas with greatest potential pay-off; including the responsibility of technology transfer by the scientist
 - d. Maintaining cereal self-sufficiency and increasing crop diversification;
 - e. Correcting technical distortions in input use efficiency in the concept of systems; and
 - f. Protecting the environment;
- iv. Improving access for poorer farmers to formal credit representing a complex program of interventions with little indication of how it can be achieved.
Bangladesh has a long history of local and national industry associations. Many of the associations related to agriculture are said to be members of the Agribusiness Development Association of Bangladesh (ADOB) whose existence is still under doubt. A primary activity for the majority of

these associations consists of serving as a mediator between their membership and local and national governments. Most of the associations provide very little in the way of business development services to their members. The associations do, however, represent a very important resource base for agribusiness enterprise development. Strengthening the capability of the associations to provide services to members and providing them with incentive and means to do so might be a more preferable approach for a donor-sponsored program than attempting to provide business development services to individual enterprises.

Media promotion: Production Agro technology Knowledge

Data from the 1996 Agricultural Census (Bangladesh Bureau of Statistics 1996) provide the most recent comprehensive information on farm holdings and characteristics by farm size. While there have undoubtedly been changes since the census, particularly in the poultry sector, it is highly unlikely that the main characteristics have changed significantly.

Of the 17.8 million holdings identified by the Agricultural Census, 6 million were classified as landless and marginal (or non-farm) holdings, having less than 0.02 ha of land, and 9.4 million were classified as small, 0.02 to 1.01 ha. These together represented about 86.5% of the holdings covered by the census. Of the remaining 13.5%, about 2 million (11.7%) were classified as medium, 1.01-3.03 ha, and only 300,000 (1.7%) as large, over 3.03 ha. The average cultivated area was 0.30, 1.47 and 4.25 ha for the small, medium and large holdings, respectively, while 8.8%, 5.4% and 5.0%, respectively, of the net cultivated area was dedicated to permanent crops such as fruit trees. Examination of the subdivisions within the small holding category indicates that the relative importance of permanent crops declines with increasing holding size. This supports the argument that perennial crops might be important for poverty alleviation. The demand for higher quality processed foods appears to be growing by at least 10% per annum. That demand is currently being filled primarily through imports. Import substitution would thus seem to be a promising area for the local food-processing sector. The establishment of local supermarket chains in Dhaka is a positive development, since growth of the supermarket sector has been a strong motivator of improvements in agribusiness production and marketing in a number of developing countries. For the purpose, crop diversification and even agricultural diversification should be done as experienced in NCDP through: i. standardization of goods, higher value addition, and improved model or design; ii. Adoption of modern technologies including use of computers and e-commerce through Agro-ICT.

Price and Pricing

With respect to the agriculture sector, the Minister outlined some of the specific steps recently undertaken to reduce agricultural production costs, including: reduction of the interest rate for agricultural loans to 8%. Waiving of interest on classified agricultural loans up to Tk. 5,000 and withdrawal of court cases against all concerned loanees, relieving about 1.5 million farmers of interest charges amounting to about Tk. 5 billion and making them eligible to obtain fresh financial help. Creating provision of 15-20% subsidy for electricity/ fuel consumption in irrigation and agriculture related activities were found to be highly beneficial. The cash subsidy paid through the banks on exports of agricultural commodities financed under LC has been increased to 25% produced mixed contribution which need detailed analysis as to the mode payment and the quality of the judging the project for finance. An increase of 20% in the disbursement of agricultural loans compared to last year, thus amounting to Tk. 35 billion in the year made similar opaque effects which were not at par with the national as regards production target and price of the commodities. Preparing for marketing through processing, pricing, storage and others Expansion of summer vegetable has been fairly dramatic, although the absolute areas remain very small. The area of eggplant appears to have expanded very rapidly, at an estimated 9.8% per year, about double the growth of other crops. However, examination of the underlying data reveals that the increase has been almost entirely due to the statistical adjustment made following analysis of the Agricultural Census data. As a consequence, these data should be treated with caution: while the area has doubtless increased, it is probably at a slower rate. Yields of summer vegetables have generally remained stable, or declined, with the result that production, which is estimated as the product of areas and yields has generally increased slower than area. A similar pattern emerges for winter vegetables, which occupy a substantially larger area than summer vegetables. The area of eggplant again appears to be increasing rapidly, but this is due to a similar statistical adjustment. Otherwise the area of individual summer vegetables is increasing at 2-4% per year. However, in common with winter vegetables, yields appear to be stable or declining, other than for cabbage, so that production is growing slower than area. Overall it can be concluded that vegetable yields are well below their potential and as a result fail to provide farmers with the incomes they should reasonably expect.

Given the lack of success of the thrust sector program, the new Export Policy proposes a new system of "Sectors with the Highest Priority," a list that the government can add to or remove as required.

Recommending the solutions

Controlling prices of commodities

1. Agribusiness entrepreneurs need to be linked as per price of commodities at different tiers.
2. The financial institutes and Banks should have mechanisms as regards their multidimensional capabilities so that they can control the market price and give support for sustainable agribusiness.
3. Information on commodity price and availability of business services should fit the local needs.
4. Grouping of agribusiness promoter/service providers to give common effort for price sustainability should to be strengthened keeping in mind the market chain management segments.
5. The policy environments for agribusiness development in the country should thoroughly work commodity grades or standards.
6. Education and training facilities for agri-marketing profession should be linked in curricular forms to government and University agencies, so that most people understand things in an integrated but similar way.
7. The number and type of business with price sensitive commodities should have provisions for regional review and revision in scheduled time.

B. Transferring Agro-Technologies through Media

1. Small-scale agro technologies need more attention of the policy makers.
2. The employment promoters should priorities labor intensive technologies.
3. Information on agro-technologies and availability of experts services need to be circulated in Medias those are within the reach of the first-line user beneficiaries.
4. Grouping of agro technologies with agribusiness items should give common effort for its transfer.
5. Creating favorable policy, legal and enabling environments for adoption of improved agro-technologies in the country.
6. Research and applied training facilities for technology transfer profession need to be strengthened.
7. The recommendation domain for agro-technologies and related commodities and potential areas should be identified regionally for Agro-Processing Zones need to be established.

Supporting Agribusiness through Media

1. Media should give priority to technologies suitable for small-scale agribusiness entrepreneurs and produces/ processors.
2. The information stated media for a commodity promotion should include the financial involvements: its scopes and solutions.
3. Information on agribusiness scopes, systems, facilities, and availability of technical services should state and broadcasted.
4. Grouping of agribusiness associations should have scope for giving common effort for advertisements.
5. The favorable media environments through policy and legal reforms should be made integrated considering the technical knowledge of the farmer beneficiaries.
6. Training for media professionals by the Government, Universities and its agencies need to be done under the care of Agribusiness associations/ foundations.

Recommended National Agribusiness Model Media Guidelines

1. All agribusiness entrepreneurs need to be linked functionally.
2. The financial institutes, Banks and employment programs should give all type support for agribusiness in an integrated way.
3. Information on agribusiness scopes, systems, facilities, and availability of expert's services for an agro-technology should be included in the recommendation patent or package.
4. Grouping of agribusiness associations to give common effort for agribusiness development.
5. The favorable policy and legal environments creation for agribusiness development in the country should be thoroughly reformed with the direct participation of agriculturists and producers.
6. Education, research and training programs must include the agribusiness model development guidelines in the curriculum and syllabus.

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BIOGRAPHY

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