CHAPTER 7

AGRICULTURE

Agriculture has been playing a vital role in socio-economic progress and sustainable development through upliftment of rural economy, ensuring food security by attaining autarky in food grains production, alleviation of poverty and so on. In FY 2004-05, the combined contribution of all sub-sectors of agriculture (crop, livestock, forestry and fisheries) to GDP is 21.91 percent (Table 7.2). The crop sub-sector alone is projected to contribute 12.10 percent to GDP and fisheries sub-sector accounts for 5.03 percent. Of the total labour force in Bangladesh, 51.7 percent are engaged in agriculture (BBS Labour Force Survey, 2002-2003). The contribution of agricultural products (including raw jute, jute goods and tea) to the total exports of the country is 5.79 percent[1] (FY2004-05). In terms of value addition, the contribution of agriculture to the national economy is immense.

Box 7.1: Main Objectives of the National Agriculture Policy, 1999

- Ensure a profitable and sustainable agricultural production system and raise the purchasing power by increasing real income of the farmers;
- Retain and develop the productivity of land
- Minimise risk by reducing over dependence on a particular crop
- Increase production and supplies of more nutritious food crops and thereby ensuring food security and improving nutritional status;
- Retain existing bio-diversity of different crops
- Adopt programmes for introduction, use and extension of bio-technology
- Produce and supply agricultural commodities required as input by the industrial sector;
- Reduce imports of agricultural commodities and open newer opportunities for increasing exports as well;
- Create opportunities for establishing agro-processing and agro-based industries;
- Protect interests of the small and marginal farmers and share-croppers;
- Update the agricultural system in the light of the Agreement on Agriculture under WTO, SAFTA and other international treaties by protecting the national interests.

Source: Ministry of Agriculture.

In FY 2003-04, while GDP posted a growth of 6.27 percent, the agriculture sector grew by 4.38 percent (Base Year 1995-96=100). Of this, the growth of crop sub-sector was 4.27 percent; livestock sub-sector 4.98 percent and forestry sub-sector 4.18 percent. The growth of the fisheries sector was 3.09 percent in FY 2003-04. According to provisional estimates, in FY 2004-05 the growth of agriculture and fisheries sectors would be -0.73 and 4.02 percent respectively. Table 7.1 shows the growth of agriculture and fisheries sectors during FY 1994-95 to 2004-05.

1. According to Statistics of EPB.

Table 7.1: Growth Rate of Agriculture and its Sub-sectors including Fisheries
(Base year 1995-96)

(In percent)

Sector/Sub-sector	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02	02-03	03-04	04-05 (prov)
GDP growth rate	4.93	4.62	5.39	5.23	4.87	5.94	5.27	4.42	5.26	6.27	5.38
1. Agriculture	-1.9	2.0	5.6	1.6	3.2	6.9	5.5	-0.6	3.29	4.38	-0.73
a. Crop	-3.4	1.7	6.4	1.1	3.1	8.1	6.2	-2.4	2.88	4.27	-3.30
b. Livestock	2.5	2.5	2.6	2.6	2.7	2.7	2.8	4.7	4.51	4.98	7.82
c. Forestry	2.8	3.5	4.0	4.5	5.2	4.9	4.9	4.9	4.43	4.18	4.25
2. Fishery	6.8	7.4	7.6	9.0	10.0	8.9	-4.5	2.2	2.3	3.09	4.02

Source: Bangladesh Bureau of Statistics

Table 7.2: Share of Agriculture and Fisheries in GDP
(Base year 1995-96)

(In percent)

Sector/ Sub-sector	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02	02-03	03-04	04-05 (Prov)
Agriculture	20.81	20.32	20.39	19.67	19.35	19.49	19.51	18.58	18.22	17.97	16.88
Crop	15.43	15.03	15.21	14.59	14.33	14.59	14.70	13.75	13.43	13.23	12.10
	(74.17)	(73.96)	(74.57)	(74.15)	(74.06)	(74.87)	(75.37)	(74.0)	(73.69)	(73.63)	(71.68)
Livestock	3.42	3.36	3.27	3.19	3.12	3.02	2.95	2.96	2.93	2.91	2.97
	(16.45)	(16.53)	(16.06)	(16.22)	(16.13)	(15.50)	(15.10)	(15.9)	(16.09)	(16.19)	(17.59)
Forestry	1.95	1.93	1.91	1.89	1.90	1.88	1.87	1.88	1.86	1.83	1.89
	(9.38)	(9.51)	(9.37)	(9.63)	(9.81)	(9.63)	(9.53)	(10.1)	(10.22)	(10.18)	(10.72)
Fishery	5.21	5.36	5.48	5.67	5.93	6.09	5.51	5.40	5.25	5.11	5.03

Source: Bangladesh Bureau of Statistics.
Note: Figures in parentheses indicate share (%) of sub-sectors in agriculture

Chart 7.1: Contribution of Agriculture & Fisheries in GDP for 2003-04

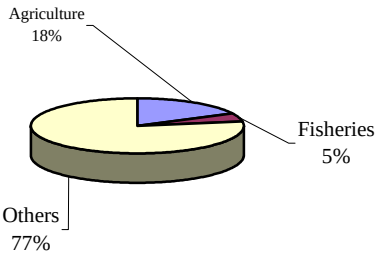
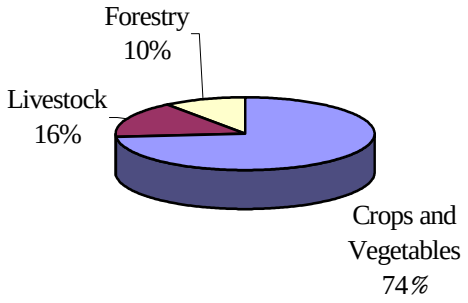


Chart 7.2:Contribution of sub-sectors of agriculture in GDP for 2003-04



Food Grains Production

According to the final estimates, the volume of food grains production in 2003-04 was 274.43 lakh metric tons of which Aus accounted for 18.32 lakh metric ton, Aman 115.21 lakh metric ton, Boro 128.37 lakh metric tons and Wheat 12.53 lakh metric tons (Table-7.3).

Food grains production target for FY 2004-05 has been estimated at 300.49 lakh metric tons of which Aus accounts for 20.45 lakh metric tons, Aman 127.88 lakh metric tons, Boro 137.53 lakh metric tons and wheat 14.63 lakh metric ton. Meanwhile, Aus and Aman seasons are over. Actual output of Aus against target finally stood at 15.00 lakh metric tons while Aman recorded an output of 98.20 lakh metric tons. Two crops could not achieve the target due to huge damage caused by floods during last year. It is expected that the yield of wheat will be 13.00 lakh metric tons this year. For the increased production of Boro this year, the total foodgrains production will be around 263.20 lakh metric tons (Table-7.3).

Table 7.3: Food grain Production

(In lakh Metric ton)

	94/95	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05 (Prov)
Aus	17.9	16.8	18.71	18.75	16.17	17.34	19.16	18.08	18.51	18.32	15.00*
Aman	85.0	87.9	95.52	88.50	77.36	103.06	112.50	107.26	111.15	115.21	98.20*
Boro	65.4	72.2	74.60	81.37	105.52	110.27	119.21	127.66	122.22	128.37	137.00
Total rice	168.3	176.9	188.83	188.62	199.05	230.67	250.87	243.00	251.88	261.90	250.20
Wheat	12.5	13.7	14.54	18.02	19.08	18.40	16.70	16.06	15.07	12.53	13.00
Maize	-	-	-	-	-	-	1.49	1.52	1.75	2.41	3.00
Total (with Maize)	180.8	190.6	203.37	206.64	218.13	249.07	269.06	260.58	268.70	276.43	266.20
Total (w/o Maize)	180.8	190.6	203.37	206.64	218.13	249.07	267.57	259.06	266.95	274.43	263.20

Source: Bangladesh Bureau of Statistics.
*Actual Production.

Cropping Intensity

In 1981-82, the total land area in Bangladesh was 14.29 million hectares. Of this, the area of net cultivable land was 9.38 million hectares, which was 65.63 percent of the total land area. During this period, the cropping intensity was 153.84. In 1992-93, the total land area in the country increased a little and stood at 14.84 million hectare but the area of net cultivable land declined to 8.75 million hectare, which was only 58.96 percent of total land area. However, the cropping intensity increased to 174.35 during this period. In 2001-02, the total land area in the country was 14.84 million hectares and the net area of cultivable land was 8.40 million hectares, which was 57.14 percent of total land area. The cropping intensity however gradually increased to 176.98 in FY 2001-02.

Table 7.4 Trends of Cropping Intensity in Bangladesh

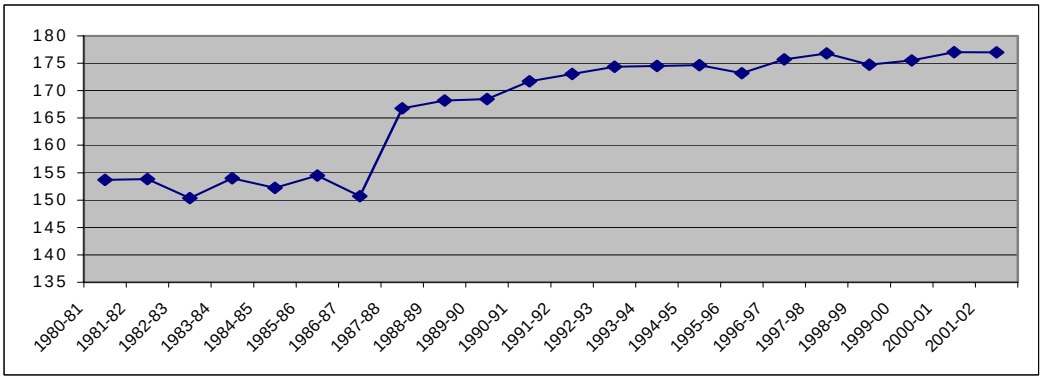
(1980-81 to 2000-01)

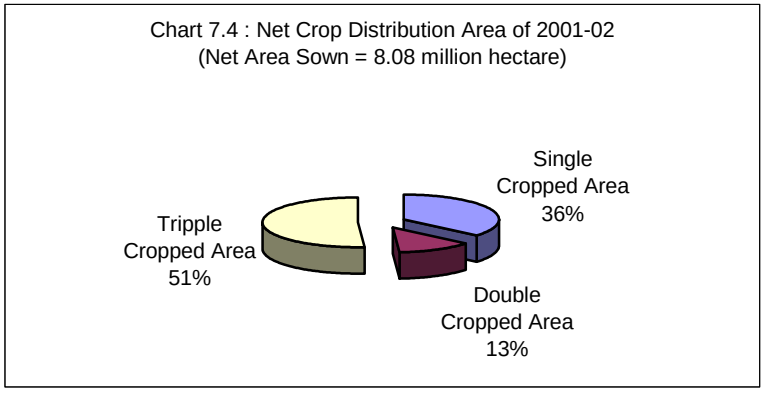
(Area in million ha.)

Year	Total land area of the country	Net cultivable land	% of net cultivable land of total area	Shown net land area	Total cropping area	Cropping intensity
1981-82	14.29	9.38	65.63	8.58	13.20	153.84
1982-83	14.29	9.36	65.63	8.65	13.00	150.35
1983-84	14.45	9.46	65.41	8.68	13.36	153.96
1984-85	14.48	9.43	65.10	8.64	13.15	152.22
1985-86	14.48	9.44	65.19	8.75	13.54	154.48
1986-87	14.70	9.51	64.68	8.85	13.34	150.73
1987-88	14.84	9.82	66.22	8.29	13.82	166.75
1988-89	14.84	9.84	66.33	8.15	13.71	168.19
1989-90	14.84	9.78	65.95	8.35	14.06	168.44
1990-91	14.84	9.72	65.50	8.17	14.03	171.70
1991-92	14.84	9.09	61.25	7.98	13.81	173.02
1992-93	14.84	8.75	58.96	7.85	13.70	174.35
1993-94	14.84	8.75	52.02	7.72	13.48	174.52
1994-95	14.84	8.77	59.10	7.74	13.52	174.64
1995-96	14.84	8.72	58.76	7.80	13.51	173.18
1996-97	14.85	8.24	55.49	7.85	13.80	175.71
1997-98	14.85	8.36	56.30	7.97	14.09	176.79
1998-99	14.85	8.43	56.77	7.99	13.96	174.73
1999-00	14.85	8.45	56.90	8.13	14.27	175.52
2000-01	14.85	8.40	56.57	8.08	14.30	177.00
2001-02	14.84	8.48	57.14	8.08	14.30	176.98

Source: BBS; Sector Monitoring Unit, Ministry of Agriculture July, 2004

Chart 7.3 Trends of Cropping Intensity in Bangladesh





Crop damage due to flood

Flood has become a regular cause of crop damage in Bangladesh. In 2001, 0.99 lakh metric ton of crops on 0.418 lakh hectares of land in 79 of 131 Upazilas under 16 districts were damaged due to flood of which the loss of paddy was 0.58 lakh metric tons. In 2002, 8.52 lakh metric tons of crops on 3.85 lakh hectare of land in Upazilas under 45 districts were damaged of which the loss of paddy was 5.08 lakh metric tons. In 2003, 3.36 lakh metric tons of crops on 2.45 lakh hectares of land in 266 Upazilas under 47 districts were damaged of which the loss of paddy was 2.24 lakh metric tons. During the early flash flood in the Haor of Sylhet in 2004, huge quantity of Boro crops has been damaged. Besides this, during July-September floods of 2004, the crops on 14.12 lakh hectares of land under 56 districts have been damaged. This resulted in the loss of 35.02 lakh metric tons of crops of which rice alone was 20.49 lakh metric tons (Table 7.5).

In order to make good the damage arising from the devastating flood in 2004 the Government has undertaken massive rehabilitation programme with an allocation of Tk. 185.50 crore as grant to assist the small and marginal farmers in crop cultivation. Under the programme required quantity of seeds, seedlings and fertilizers for cultivation of various crops on one bigha of land have been distributed to flood affected 30.55 lakh small and marginal farmers.

Table 7.5: Crop damages due to flood

(2002 to 2004)
(Area in lakh ha., Production loss in lakh metric tons, Monetary loss in crore taka)

Crops	2002			2003			2004		
	Area	Production loss	Financial loss	Area	Production loss	Financial loss	Area	Production loss	Financial loss
Aus	0.41	0.60	96.08	0.72	0.10	145.61	2.60	3.95	553.17
Aus seed bed	0	0	0	0	0	0	0	0	0
B.aman	0.62	0.69	96.08	1.0	1.0	139.54	3.42	3.42	512.98
T.aman	0.77	0	74.46	0.04	0.09	14.02	3.64	7.66	1149.22
T.aman seed bed	0.21	0	37.04	0.09	0	15.83	0.60	0	30.21
Boro	1.24	3.79	530.41	0.28	1.04	145.80	1.78	5.46	873.38
Boro seed bed	0	0	0	0.02	0	2.79	0	0	0
Total Rice	3.25	5.08	821.43	2.14	2.24	463.61	12.05	20.49	3118.96
Jute, vegetables, trees, others	0.60	3.44	326.86	0.31	1.12	43.76	2.07	14.53	1542.98
Total	3.85	8.52	1148.29	2.45	3.36	507.34	14.12	35.02	4661.94

Source: Department of Agriculture Extension, Ministry of Agriculture.

Food Budget

Food grains (rice and wheat) production target during 2004-05 was set at 300.49 lakh metric tons in July'04 and the net food grain production (after adjustment of 10% for seeds, animal feed and wastage) stood at 270.44 lakh metric tons. But actual food grains production may decrease to 40 lakh metric tons compared with the target due to damage of Aus and Aman cultivation due to abnormal flood and excessive rainfall during July-September'04. The Government's internal

procurement of food grains stood at 9.33 lakh metric tons (rice 8.28 lakh metric tons and wheat 0.15 lakh metric tons) in 2003-04. In FY 2004-05, 8.97 lakh metric tons of rice is internally procured. In FY 2003-04, Bangladesh received 2.89 lakh metric tons of foodgrains as food aid. In FY 2003-04, the quantity of food grains import by private sector was 24.81 lakh metric tons. The total foodgrains import by private sector in FY 2004-05 was 29.82 lakh metric tons (rice 11.96 lakh metric tons and wheat 17.86 lakh metric tons) which is almost 20 percent higher than the private import of previous fiscal year. Food grain import during FY1981-82 to 2004-05 is shown at Appendix Table 28.

Management of Agriculture

Since provision of food security, improvement of the living standard and generation of employment opportunities of the vast population of the country are directly linked to the development of agriculture, there have been continued efforts by the Government for the overall development of this sector. Considering the importance of agriculture in the overall economic development, the Government has attached top-most priority to the agriculture sector. To fulfill the food and nutritional demand of the growing population of the country and to ensure and sustain dependable food security, special emphasis has been given on building up a modern agricultural system based on appropriate technology. Against this background, various reform measures have been taken which include ensuring the availability of agricultural inputs including fertilizer at the door-steps of the farmers, implementation of the agricultural extension policy, simplification of the disbursement procedures of agricultural credit, creating opportunities for investment in agriculture, modernisation of research methods for quality improvement of agro-products, the utilisation and extension of the integrated technologies derived from research.

In the light of National Agriculture Policy, Government has been steering a range of development programmes in agriculture sector. Also an Action Plan is in place for proper implementation of National Agriculture Policy. Along with poverty reduction, this Action Plan will assist in building a sustainable food security system by achieving optimum growth in agriculture. Included among the objectives of the Action Plan are to:

- take the extension service to the grass-root level,
- ensure decentralisation of administration in this sector
- mobilise external assistance to strengthen and popularise the trading of agricultural commodities and also to turn it profit making
- adopt comprehensive reform programmes to facilitate extension of activities of NGOs and development partners

Measures have been taken to put in place a more robust and effective national agricultural research arrangements. At the same time emphasis has been laid on increased coordination between research and extension. Besides, efforts are underway to bring about overall improvement in agriculture by taking a range of steps like protection of ever-increasing erosion of soil, assessing utility of irrigation water, monitoring abuse of land and preventing crop nutrition deficiencies.

Because of the regular monitoring of fertilizer distribution situation and adopting timely measures, fertilizer supply and distribution across the country has improved. The measures for the improvement of fertilizer distribution include *inter alia* setting up monitoring system in the

Ministry of Agriculture, extension of the dealership system up to upazila level, increasing the number of buffer stock centres, strengthening the monitoring system both at the district and upazila level, motivating the farmers to use super quality fertilizers like DAP/NPKS, using granular urea for transplanted paddy cultivation, prohibiting import of granular and coloured SSP fertilizer, withdrawal of advance income tax and development surcharge from TSP, DAP, MOP and NPKS fertilizers to encourage the farmers to use nutrient rich phosphatic fertilizers, etc. These steps resulted in steady and smooth supply of fertilizers throughout the country.

Steps have been taken for testing soils at field levels across the country through mobile soil laboratories. Crop-diversification programmes have been taken up to retain the soil fertility. In order to develop agricultural marketing system and ensure fair price of agro-commodities, development work in wholesale market is under way.

Quality seeds are a precondition for further development in agriculture. Considering this, steps have been taken to increase supply of quality seeds through BADC. Also steps are under way to strengthen seed distribution activities. Sample seeds are being tested at farm level by the seed certification agency. Besides, various research institutes like Bangladesh Agricultural Research Institute (BARI), Bangladesh Rice Research Institute (BRRI), Bangladesh Institute of Nuclear Agriculture (BINA) and other associated institutes have been developing new technologies, HYVs, in their respective fields. Application of newly developed technologies is ultimately contributing to enrich the country through increased agricultural production. Despite significant achievement in food grains production, Bangladesh has much potential to increase crop production through the application of biotechnology and this potentiality is now being explored.

The Agriculture Commission, constituted for providing overall policy guidelines for the development of agriculture sector, has already submitted its report to the Ministry of Agriculture. The recommendations of the Commission have been submitted to the Prime Minister. A report titled 'Actionable Policy Brief' (APB) has been prepared following a thorough review of the crop sub-sector with the support of FAO and UNDP. Proper implementation of these two reports will play an important role in the development of agriculture sector in future.

Agricultural Subsidies and Assistance

The very survival of agriculture against inadequacy of investment coupled with increasing input cost warrants huge subsidy. During FY 2004-05 a total of Tk. 1315.77 crore has been provisioned for agriculture subsidy on TSP, DAP and MOP fertilizer including Urea as well as for providing other forms of assistance to agriculture sector. In addition, 30 percent cash incentive is being provided to agricultural exports. A programme for providing 25 percent subsidy on the import cost of TSP, DAP, MOP is being implemented to encourage the use of balanced fertilizer for increased production. These supports are encouraging many people involved in agriculture sector.

Irrigation

Irrigation is considered as the critical input for production of food grains and other crops. Since inception of minor irrigation projects (power pump, DTW, STW and floating pump etc) in early

sixties, area under irrigation has been expanding. However, this expansion is yet to be in commensurate with the availability of increased number of irrigation equipment. Use of irrigation water at the field level requires to be more economical for augmenting agricultural production. Better irrigation water management can largely minimise wastage of irrigation water and also increase production and save much of fuel cost. Keeping this in view, irrigation water management at farm level has been given top priority in the National Agriculture Policy. There are continued efforts to intensify and increase crop production and crop diversification by ensuring well integrated and planned use of both surface and under-ground water while protecting environment. A number of projects are being implemented in different places of the country for the development of irrigation. Notable among them are: (1) Survey and Monitoring Project for Minor Irrigation Development; (2) Rubber Dam Establishment Project to increase irrigated area through preservation of surface water in the dry season; (3) Prevention of intrusion of saline water and the development of drainage system in Kumira-Sonai Chari region of Sitakunda upazila and the construction of Guptakhali water reservoir and irrigation project (4) Project for the development of irrigation area (Barendra project); (5) Project for installation of deep tube-wells in Barendra area; (6) Ashugonj Palash agro-irrigation project etc. Overall, the objectives of these projects include: development of minor irrigation, proper use of the surface water, extension of irrigation facilities in drought-prone areas and poverty reduction through command area development.

In addition, efforts are underway to strengthen small irrigation programmes of BADC to extend irrigation facilities to the farmers.

According to the statistics released by National Census on Small Irrigation, the total irrigated land in the country was 45.06 lakh hectares in FY 1999-2000. It increased to 45.16 hectares in FY 2000-01, 48.04 lakh hectares in 2001-02, 48.14 lakh hectares in 2002-03 and 48.33 lakh hectares in 2003-04 and 48.53 lakh hectares in 2004-05. The irrigated land area increased by 7 percent in 2004-05 compared to that of 1999-2000 (Table 7.6).

Table 7.6: Area Under Irrigation

(Hectare)

Irrigation Types	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-05 (Estimated)
a. Surface water						
Major irrigation*	422656	352000	469575	485000	48700	490000
Low Lift Pump (LLP)	645053	647300	761439	764300	766153	770000
Traditional	224172	222000	182240	176280	175200	175000
Sub-Total (a)	1291881	1221300	1413254	1425580	1428353	1435000
b. Ground water						
Deep Tube well (DTW)	522066	524330	581599	583692	583692	583700
Light Tube Well (Surface/Deep/Very Deep Sot)	2645474	2673944	2747098	2756558	2776557	2790000
Others**	46902	86906	62518	58122	44397	44000
Sub-Total (b)	3214442	3285180	3391215	3398372	3404646	3417700
Total (a+b)	4506323	4506480	4804469	4823952	4832999	4852700

Source: Department of Agricultural Extension, Ministry of Agriculture

*Estimated irrigated area under Water Development Board.

** Tredle pump, roar pump, artificial well, hand tube well etc with un-mechanized units.

Fertilizer

The use of fertilizer has been consistently increasing for agricultural production. In FY 1993-94, the total quantity of fertilizer use was 22.17 lakh metric ton which increased to 37.55 lakh metric ton in FY 2004-05. The use of urea fertilizer alone was 15.79 lakh metric tons in FY 1993-94 which increased to 25.23 lakh metric tons in FY 2004-05. The percentage increase in urea use in FY 2004-05 is 59.78 percent i.e. 9.44 lakh metric tons compared to that of FY 1993-94. This is attainable to increase of irrigated areas and diversified use of urea. On the other hand, the use of phosphatic fertilizer (TSP, DAP and SSP) increased by 92.8 percent in FY 2004-05 compared to that of FY 1993-94. Total fertilizer use has increased by 69.3 percent compared to that of 1993-94 (Table -7.7).

The Market Monitoring and Information System (MMIS) of the Ministry of Agriculture have been regularly monitoring the fertilizer situation in the country. In order to ensure smooth supply to districts as per estimated demand of Urea, restriction has been imposed on inter-district movement of urea. There is no such restriction on the movement of super granules Urea. The smooth supply of fertilizer and its distribution have been made possible due to close monitoring of supply, stock, availability, price and evaluation of performance of dealers by the District Fertilizer and Seed Monitoring Committee and introduction of upazila-based dealership network and monitoring of fertilizer centrally by a National Co-ordination Committee. The price situation has been under control and within the reach of the farmers. Smuggling and border trade of fertilizer has also been under control. To avoid any crisis of urea fertilizer during the peak season, the system of maintaining buffer stock of urea by Bangladesh Chemical Industries Corporation (BCIC) has been introduced.

Since 1995-96 Urea super/mega granules are being manufactured and marketed through private sector. This has resulted in reduction of the misuse of Urea, saving of 30 to 35 percent of Urea and increase in yield together with creation of employment opportunities in the rural areas. The number of machines for manufacturing Urea super granules has gradually increased since 1996-97. Super/mega-granules are also being used in other Rabi crops. Besides, use of different types of mixed fertilizer is being encouraged for balanced use of fertilizer. TSP complex in Chittagong has started production and marketing of NPKS fertilizer on experimental basis. Some factories in the private sector have started producing and marketing NPKS. Import of NPKS is also being encouraged under private sector.

Import of DAP, TSP, NPKS and Potash with more nutrient contents, instead of low nutrient content SSP fertilizer is being encouraged and farmers are also being motivated to use such fertilizer. In order to maintain the quality of fertilizer and also to control production, import and marketing of adulterated/low quality fertilizer, steps are being taken to enforce Fertilizer (Control) order, 1999. Post-landing inspection has been strengthened in the case of imported fertilizer in the private sector. Besides, manuals for fertilizer inspection and fertilizer analysis have also been prepared.

Table 7.7: Use of Chemical Fertilizer

('000' metric ton)

Type	93/94	94/95	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05
Urea	1579.0	1748.5	2045.5	2141.0	1867.0	1902.0	2151.0	2121.0	2247.42	2239.0	2324.08	2523.39
TSP	234.2	122.9	111.1	72.6	62.4	170.2	259.3	399.5	425.31	405.0	361.0	420.02
DAP	28.7	1.8	0	0	6.8	38.6	109.2	90.1	127.03	112.0	90.0	140.72
MP	103.9	154.2	155.9	219.3	193.5	210.8	239.5	139.8	222.26	250.0	240.0	260.38
SSP	170.6	533.5	596.9	525.3	473.3	362.4	237.2	138.6	127.13	130.0	148.0	170.93
NPKS	0	0	0	0	0	0	0	10.2	12.87	30.0	45.0	90.00
AS	10.0	2.5	8.7	11.7	9.7	12.4	26.0	13.0	20.19	10.0	9.0	5.59
Zinc	5.2	0	1.0	1.2	0.7	0.3	1.2	3.0	0.24	2.0	7.0	8.00
Gypsum	86.1	77.2	103.6	86.6	113.4	128.2	189.4	102.3	96.05	120.0	140.0	135.70
Others	0.1	0	0	0	0	0	0	0	0	0	0	0
Total	2217.8	2640.6	3022.7	3057.7	2726.8	2824.9	3212.9	3017.5	3278.50	3298.0	3364.08	3754.75

Source: Ministry of Agriculture

Agricultural credit

Agricultural credit as an input has a special significance since more than fifty percent labour force are engaged in agriculture sector and agriculture still remains at the subsistence level in Bangladesh. The Government has waived interest on classified agricultural loan up to Tk. 5000 and has also withdrawn all certificate cases against concerned loanees. As a result, 15 lakh farmers have been relieved of interest charges amounting to about Tk. 500 crore in 2003-04. This is going to make far-reaching contribution towards augmenting agricultural production. The repayment period of principal amount is extended from 30 March 2005, as fixed earlier, to 30 March 2006. Disbursement of agricultural credit rose from Tk.841.85 crore in 1992-93 to Tk.4048.41 crore in 2003-04. During FY 2004-05, disbursement stood at Tk.4956.78 crore up to June '05 against the target of Tk.5537.91 crore, which is 89.50 percent of the target. The overall situation relating to agricultural credit during FY 1992-93 to 2004-05 is presented in Table 7.8.

Table 7.8: Agricultural Credit Disbursement, Recovery and Outstanding Balance

(In crore Tk.)

Financial year	Target	Disbursement	Recovery	Balance
1992-93	1474.41	841.85	869.23	5692.84
1993-94	1643.08	1100.79	979.12	6222.00
1994-95	2161.72	1605.44	1124.11	7045.22
1995-96	2434.27	1635.81	1340.02	7769.07
1996-97	2394.22	1672.43	1646.38	8256.00
1997-98	2525.83	1814.53	1779.29	8515.04
1998-99	3270.01	3245.36	2039.65	9702.51
1999-00	3331.00	2851.29	2996.29	10648.90
2000-01	3265.92	3019.67	2877.87	11137.26
2001-02	3326.64	2954.91	3250.27	11355.58
2002-03	3560.53	3278.37	3516.31	11913.35
2003-04	4388.94	4048.41	3135.32	12705.95
2004-05	5537.91	4956.78	3171.15	14408.94

Source: Bangladesh Bank.

Box 7.2: Policy and Programmes undertaken by Government in order to reduce the sufferings of flood-affected agri loanees and to rehabilitate agriculture.

1. All outstanding and recoverable dues (including default agricultural credit) of the NCBs and Bangladesh Krishi Bank (BKB) distributed among the flood-affected farmers during the post-flood period in FY 2004-05 have been rescheduled for next one year and in this case conditions for providing down payment by the defaulters of agri loan have also been made flexible.
2. Meanwhile, the filed certificate cases against the above mentioned rescheduled loans and the actions of newly filed certificate cases within one year have been postponed for next one year.
3. The distribution of new loans as per actual demand has been arranged in the flood-affected areas by the NCBs and BKB.
4. The flow of agricultural loans has been reinforced by the NCBs at the union level where there is no branch of BKB or of Rajshahi Krishi Unnayon Bank.
5. Steps have been taken by the concerned banks for refixing the amount of agricultural loans in a single field according to the demand of the time.
6. In addition, to provide new loans to the farmers at the quickest possible time "Complain and Credit Supervision Cell" has been set up to monitor loan disbursement.

Source: Bangladesh Bank

Annual Development Programme (ADP) in Agriculture Sector

In FY 2003-04, a total of Tk. 493.11 crore has been allocated in the RADP for implementation of the projects under the Ministry of Agriculture. Of the total amount Tk.331.13 crore has been funded from GOB and the rest Tk.161.98 crore has been funded through project aid. Up to June’04 a total of Tk.440.98 crore has been spent which is 89 percent of the total allocation.

The RADP for FY 2004-05 provides a total allocation of Tk.493.83 for implementation of 75 projects. The GoB portion of the total allocation is Tk.352.08 crore (71.30 percent of the allocation) and the project aid amounts to Tk.141.75 crore (28.70 percent of the allocation). Up to June’05, a total of Tk.462.80 crore has been spent which is 94.32 percent of the total allocation.

Development programmes financed under non-development budget

Twenty-seven development programmes are being implemented under the non-development budget in the current financial year. In revised non-development budget of FY 2004-05, a total of Tk. 139.32 crore has been allocated for the implementation of these programmes, out of which Tk. 131.51 crore has been spent (94 percent of the allocation). A special fund of Tk 100 crore has been created under the non-development budget in the current financial year in order to assist for setting up of agro-based industries.

Fisheries

Fisheries sector plays a significant role in meeting the protein demand, earning foreign exchange and socio-economic development of the rural poor by alleviating poverty through employment generation. Total area under inland open and closed water bodies in the country is about 44.4 lakh hectares of which 91.1 percent and the remaining 8.9 percent area is closed water bodies. Total production of fish in 2003-04 was about 21.02 lakh metric tons in which the shares of inland open water body, fisheries and shrimp and marine fisheries were 7.32 lakh metric tons, 9.15 lakh metric tons and 4.55 lakh metric tons respectively. Fish provides about 63 percent of dietary protein requirements of the country. Against the minimum requirement of 35 grams of fish per capita per day, actual availability is 28 grams. Fish and fish products accounted for about 3.09 percent of GDP and 5.71 percent of total export earnings in 2003-04. In FY 2002-03, the export earnings amounted to Tk.1941.59 crore from the export of 47371 metric tons of fish and fish products. In 2003-04, this earning amounted to Tk.2363.47 crore from the export of 54,141 metric tons of fish and fish products.

Fish output from closed water bodies such as ponds and tanks continues to increase following the involvement of private sector in artificial production of fish fries and application of improved technology. In fact, the number of private fish farms and hatcheries is now increasing. Total area of closed water bodies in the country is 412341 hectares of which pond area is 265500 hectares, baor 5488 hectares and 141353 hectares of shrimp farms. Average fish production is 2.5 ton/hectare in carp poly-culture and average shrimp production is 500 kg per hectare from fish-shrimp mixed culture. Shrimp aquaculture has developed substantially in the coastal area of the country. Shrimp farm production in FY 2003-04 was 114660 metric tons which was 68349 metric tons in FY 1995-96. Total area of marine waters of Bangladesh is 166,000 square kilometers.

Marine Fisheries account for about 22 percent of total fish production. Programmes for infrastructure development and setting up of hatcheries and training are being implemented for expansion and development of shrimp culture. 20 shrimp landing and service centres have been established to maintain the post-harvest quality of shrimp. According to Survey of 2004, there are 112 fish hatcheries in the public sector and 696 hatcheries in the private sector. Altogether 808 hatcheries and farms are there in the country. About 517 crore of fingerlings and 297.78 metric tons of fish spawn were produced from private farm and hatcheries in 2003. Trend of fish production during 1996-97 to 2004-05 is presented in Table 7.9.

Fisheries development and management of open water bodies

To increase the productivity of inland open water bodies, several programmes are being implemented. The programmes include: implementation and enforcement of Fish Conservation Acts; establishment of fish sanctuaries; restoration of fish habitats and implementation of new fisheries management policy. Community-based fisheries management activities are conducted in the open water bodies, especially in the *jalmohals* transferred to the concerned project management and in rain-fed floodplain in some upazilas of Comilla district. This approach succeeded in creating significant employment opportunities at local level.

Shrimp culture in coastal area

Over the years shrimp culture area in the coastal districts has increased at a greater pace to meet the ever-increasing export demand. Shrimp culture area has now increased from 64,000 hectares to 2,03,071 hectares with concomitant increase in shrimp production from 68,349 metric tons in FY 95-96 to 1,14,660 metric tons in FY 03-04, Besides, through leasing shrimp farm areas by the Directorate of Fisheries (DOF) and Ministry of Fisheries and Livestock (MoFL), an amount of TK.300.00 lakh in the from of revenue has been earned during last 3 years.

Table 7.9: Fish Production

(1996-97 through 2004-05)

(Lakh metric ton)

Water Body	Area (lakh ha)	96-97	97-98	98-99	99-00	00-01	01-02	02-03	03-04	04-05 (Projected)
Inland fisheries: Open water										
River & estuaries	10.32	1.60	1.57	1.51	1.54	1.50	1.44	1.38	1.37	1.72
Sunderbans	-	0.09	0.07	0.11	0.12	0.12	0.12	0.14	0.15	0.15
Beels	1.14	0.63	0.68	0.70	0.73	0.75	0.76	0.75	0.75	0.91
Kaptai Lake	0.69	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.09
Flood plain	28.33	3.62	3.78	4.10	4.25	4.45	4.49	4.75	4.98	5.35
Total open water	**40.47**	6.00	6.16	6.49	6.71	6.89	6.88	7.09	7.32	8.22
Closed water										
Ponds	2.42	4.04	4.84	4.99	5.61	6.16	6.85	7.52	7.96	8.18
Baor	0.05	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.05
Shrimp farm	1.41	0.79	0.88	0.90	0.92	0.93	0.98	1.01	1.15	1.17
Total closed water	**3.88**	4.86	5.75	5.93	6.57	7.13	7.87	8.59	9.15	9.40
Total inland	**44.36**	10.86	11.91	12.42	13.28	14.02	14.75	15.66	16.47	17.62
Marine Fisheries:										
Commercial	0.48 sq*	0.14	0.15	0.16	0.16	0.24	0.25	0.28	0.32	0.30
Artisanal	-	2.61	2.58	2.94	3.17	3.55	3.90	4.04	4.23	4.66
Total marine		2.75	2.73	3.10	3.33	3.79	4.15	4.32	4.55	4.96
Grand total		13.60	14.64	15.52	16.61	17.81	18.90	19.98	21.02	22.58

Source: Department of Fisheries, Ministry of Fisheries and Livestock. * Square Nautical Mile

Jatka Protection Programme

About 15 percent of total fish production comes from hilsa. To protect this important resource, Jatka Protection Programme has gained considerable prominence. The present Government, realising the potential of hilsa in the national economy, has come up with a massive participatory approach to improve the situation. To implement this programme effectively, Government has constituted a coordinated body ensuring participation of all concerned, such as people from administration, Bangladesh Navy, Coast Guard, law enforcing agencies, local representative, DoF, etc. In 2003-2004, the Government allocated Tk. 1.41 crore to implement Fish Conservation

Act from November 2003 to May 2004 to protect Jatka from being caught. During this period, a total of 1,655 mobile courts were conducted which confiscated and destroyed about 1.22 crore meter of banned 'current' net, seized 348 metric tons of Jatka and filed 155 cases against the violators. As a consequence of these concerted efforts, hilsa production has increased from a total of 2.00 lakh metric tons in previous fiscal year to 2.56 lakh metric tons in current fiscal year. In addition, following an action programme, an elaborate programme is being implemented for protection of Jatka. During 2004-05, Tk.1.47 crore has been allocated from the revenue budget for the implementation of Jatka Protection Action Plan. Besides, Tk. 10 crore has been allocated for a programme to be implemented over a period of 3 years to rehabilitate the fishermen involved in *catching Jatka* of which Tk.2.00 crore has been spent in FY 2004-05.

Post-flood Rehabilitation Programme

Immediately after the devastating floods of 2004, DoF started collecting information of flood-loss on fisheries. This prompt and thorough monitoring made it possible to send comprehensive information about fisheries losses to the Ministry quickly. An amount of Tk. 10.80 crore has already been provided to the affected farmers through district administration. Besides, following the directives of the Hon'ble Prime Minister, the 2004 -Fish Fortnight formalities were cancelled and the money thus saved (Tk.2.60 crore) was used for the procurement of fingerlings for distribution among the flood affected marginal farmers and small hatchery/nursery owners. Moreover, steps have been taken for rehabilitation of many more through credit assistance programme of the various credit providing agencies.

Annual Development Programme (ADP) in fisheries sector

Sixteen development projects (11 investment and 5 technical assistance projects were included in RADP of FY 2004-05 with an allocation of Tk. 99.40 crore (Tk. 32.20 crore in local currency and Tk. 67.20 crore project aid) for this sector. Up to June’05, Tk. 99.78 crore has been spent (Tk.29.97 crore local currency and Tk.69.89 crore foreign currency) implying 100.4 percent utilisation of total allocation.

Livestock

Livestock is now considered as one of the important sectors for creating jobs and alleviation of poverty. The role of this sub-sector in earning foreign exchange through export of livestock products like leather, feather, wool, bone etc. is quite important. The contribution of this sub-sector to GDP in FY 2003-04 accounts for 2.91 percent and the growth rate of this sub-sector was about 4.98 percent. In tandem with mechanised cultivation, 75 percent of tilling is still done by bullocks. Nearly 25 percent of population is dependent on this sub-sector on full time basis and 50 percent on part time basis. Involvement of private sector and NGOs holds out the opportunity of managing this sector on commercial basis.

Data from Ministry of Fisheries and Livestock reveal that the number of cattle and poultry population in 1991-92 were 4.19 crore and 11.05 crore respectively. In 2003-04, these numbers

increased to 4.35 crore and 20.90 crore respectively. In 2004-05 this number increased to 4.44 crore and 22 crore respectively. Production of eggs (hen and duck) stood at 379 crore in 1999-2000. In 2004-05, this figure increased to 516 crore. Milk and meat output grew from 13.52 lakh metric tons and 4.60 lakh metric tons respectively in 1991-92 to 20.30 lakh metric tons and 9.60 lakh metric tons in FY 2004-05.

In a bid to develop livestock resources, the government has set up a large number of livestock and poultry farms through implementation of ADP projects. Also in order to alleviate poverty, the Government implemented goat-rearing projects throughout the country on a priority basis. The livestock and poultry farms set up at the self-initiative while making a substantial contribution to this sector and generating self-employment opportunities for the unemployed youth is also attracting huge investment. The present Government in an attempt to strengthen the dairy sector distributed Tk. 5 crore among 4,775 registered private dairy farms as an incentive package in FY 2003-04. The provision of this incentive greatly inspired the farmers and as a result, the number of dairy farms has markedly increased.

Vaccination of Livestock and poultry to control disease

Since long time, the Government of Bangladesh has been producing ten different types of livestock and poultry vaccines to immune them so that they can be able to resist some diseases. During 2004-05 (up to June’05) a total dose of 9.01 crore vaccine was produced and distributed. Meanwhile, a small quantity of PPR vaccine was imported because of the fact that PPR vaccine for goat was not produced in our country. As a result, large number of goats died due to lack of PPR vaccine at that time. The present government considered matter on priority basis and started PPR vaccine production from January 2002. The production of PPR vaccine raised to 176.6 lakh doses in 2004-05, which was already distributed. At present, (up to June’05) 70.10 lakh doses of PPR vaccine are available.

Supply of balanced feed for livestock & poultry

Balanced feed plays an important role for the development of livestock and livestock products. At present, countrywide 43 private feed mills are playing a great role by producing balanced poultry feed. The opportunity for the importation of animal feed from abroad without paying any tax has already been made by the present government to meet the shortage of livestock and poultry feed. Meanwhile, maize cultivation as poultry feed has been expanded countrywide.

Goat Rearing a special initiative

Black Bengal Goat is an important animal resource. Ministry of Fisheries and Livestock has undertaken a national programme namely "**Poverty Reduction Through Improvement of Goat and Increasing Its Production**". Hon’ble Prime Minister formally inaugurated the programme on 27 April 2002. The programme would be primarily implemented during July 2004 to June 2008 from non-development budget. Under this programme, steps have been taken for supplying different supportive technologies and inputs for increasing goat production to reduce poverty.

From this programme, a total amount of Tk.15.00 crore has already been disbursed as micro credit to 26,400 beneficiaries of 400 upazilas for purchasing goats and an amount of Tk.3.75 lakh was allocated for each selected Upazila. The beneficiaries have purchased 1,08,000 goats with the help of that micro credit. There is a provision for the beneficiaries of the farms to get anthelmintics, vaccines and other inputs free of cost. Moreover, training on vaccination, animal breeding, duck management and fodder cultivation are offered at field level.

Flood Rehabilitation Programme

A livestock rehabilitation programme at a total cost of Tk. 103.71 crore has been adopted to rehabilitate the affected farmers and provide support like poultry, goats, calves, emergency drugs, vaccines, feeds, fodder, poultry & livestock sheds to the affected farmers. Repairing of affected livestock infrastructures has also been included in the rehabilitation programme. The estimated total costs were about Tk.103.71 crore. The government allocated Tk. 12.36 crore in livestock rehabilitation programme. The rehabilitation programme went into implementation in the flood-affected districts since September 2004.

The Department of Livestock (DOL) has undertaken a total of 8 projects in FY 2004-05 with an allocation of Tk. 77.04 crore (GoB allocation is Tk.62.72 crore and PA component Tk.14.27 crore) in the RADP. Up to June’05, Tk. 67.95 crore has been spent which is 88.20 percent of the total allocation.