

CHAPTER 7

AGRICULTURE

'Food for all' is the prime commitment of the present Government. As such the Government has given top priority to agriculture sector to achieve self sufficiency in food again by 2013 through increased production. In fact, agriculture is regarded as the most important sector of Bangladesh economy. The contribution of this sector to GDP was 20.83 percent in FY 2007-08. The overall contribution of the broad agriculture sector at constant price is projected at 20.60 percent of GDP in FY 2008-09. Though the direct contribution of the agriculture sector has decreased slightly, it has indirect contribution to the overall growth of GDP. The growth of broad service sector, particularly the growth of wholesale and retail trade, hotel and restaurants, transport and communication sector is strongly supported by the agriculture sector. Besides, about 48.1 percent of the total labour forces of the country are engaged in agriculture (BBS Labour Force Survey, 2005-06). In FY 2008-09, Bangladesh earned 870.11 million US\$ by exporting agricultural products which is 5.59 percent of total export earning. Further, the exports of main agricultural commodities such as, raw jute, jute goods, tea, frozen foods, the Government has taken initiatives to increase exports of non-traditional agricultural commodities. Within the broad agriculture sector in FY 2008-09, the contribution of agriculture and forestry and fisheries are estimated at 16.03 percent and 4.57 percent respectively. In FY 2007-08, the contribution of these two sectors stood at 16.18 percent and 4.65 percent respectively. According to the provisional estimate of GDP for FY 2008-09, the contribution of the three sub-sectors i.e. crops and vegetables, livestock and forestry are 11.55 percent, 2.73 percent and 1.75 percent respectively.

Management of Agriculture

The economic growth of an agro-based country like Bangladesh mainly depends on the development of agriculture sector. Since provision of food security, improvement of the living standard and generation of employment opportunities of the huge 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. National Agriculture Extension Policy, National Seed Policy, and Integrated Pest Management Policy are under implementation to ensure overall development of agriculture sector. Moreover, revision of National Agriculture Policy '99 is in progress. In order to increase agricultural production, special emphasis has been given to build up a modern agricultural system, invention of new technology and creating greater opportunity for agricultural research. Furthermore, measures such as increase of subsidy on inputs to agriculture, making agriculture inputs more available, expansion and making irrigation facility more available, sufficient steps for preserving the harvest and ensuring fair price of crops and agro-products have been taken with the aim to increase agricultural productivity. Bangladesh

Bank has allocated Tk.1183 crore for refinancing agricultural credit (Bangladesh *Krishi* Bank Tk. 500 crore, Rajshahi *Krishi* Bank Tk.300 crore, and Sonali bank Tk. 383 crore) with the objective of widening the scope of agriculture credit and to simplify its disbursement procedure. An allocation of Tk.1500 crore has been provided in the revised budget for the recapitalization of Bangladesh *Krishi* Bank (BKB), Rajshahi *Krishi Unnoyon* Bank (RAKUB) and *Karmashanthan* Bank in order to revamp the rural economy by increasing credit access, thereby supporting self-employment. Emphasis has been given to make investment in the areas of expansion of irrigation facility in various regions of the country, remove water logging, drainage of low lying areas (haors), high quality and high yielding seed production and supply with a view to meet the increasing food demand by increased domestic production. Against the backdrop of global recession, a decision has been taken to increase export assistance for jute products from the current level of 7.5 percent to 10 percent and for leather and leather products from current level of 15 percent to 17.50 percent under the stimulus package declared recently. Moreover, export assistance for potato, hatching eggs and one day chicken, 100 percent halal meat, agricultural products (vegetables, fruits etc.) and processed agro-products will also continue.

Food Grains Production

According to BBS final estimate, the volume of food grains production in FY 2008-09 was 328.96 lakh metric tons of which *Aus* accounted for 18.95 lakh metric tons, *Aman* 116.13 lakh metric tons, *Boro* 178.09 lakh metric tons and wheat 8.44 lakh metric tons. Food grains production for FY 2007-08 was 311.21 lakh metric tons of which *Aus* accounted for 15.07 lakh metric tons, *Aman* 96.62 lakh metric tons, *Boro* 177.62 lakh metric tons and *wheat* 8.44 lakh metric tons. Table 7.1 represents the food grains production status from FY 2002-03 to FY 2008-09:

Table 7.1: Food Grain Production

(In lakh metric ton)							
Food Grains	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
<i>Aus</i>	18.51	18.32	15.00	17.45	15.12	15.07	18.95
<i>Aman</i>	111.15	115.21	98.20	108.10	108.41	96.62	116.13
<i>Boro</i>	122.22	128.37	138.37	139.75	149.65	177.62	178.09
Total Rice	251.88	261.90	251.57	265.53	273.18	289.31	313.17
Wheat	15.07	12.53	9.76	7.35	7.25	8.44	8.44
Maize	1.75	2.41	3.56	5.22	8.99	13.46	7.30
Total	268.70	276.44	264.89	277.87	289.42	311.21	328.96

Source: Bangladesh Bureau of Statistics (BBS).

Food Budget

Domestic Procurement of Food Grains

Budgetary target of domestic food grains procurement for FY 2008-09 was 13.35 lakh metric tons (Rice: 13 lakh metric tons and Wheat: 0.35 lakh metric tons). The actual quantity of rice procured under the domestic procurement programme this year was 14.49 lakh metric tons as on June 2009 (Boro rice: 12.87 lakh metric tons and Aman rice: 1.62 lakh metric tons). Price of *Aman* paddy procurement was fixed at Tk 16 /Kg and rice *Aman* was Tk 26 /Kg. Price for *Boro* paddy was fixed at Tk. 14 /Kg and rice Tk. 22 /Kg respectively.

Food Grains Import by the Public Sector

The budget provision of food grain imports using Government's own resources for FY 2008-09 was 7.90 lakh metric tons (Rice: 4.0 lakh metric tons and Wheat: 3.90 lakh metric tons). The total quantity of public import of food grains for FY 2008-09 is 6.80 lakh metric tons (Rice: 3.86 lakh metric tons and Wheat: 2.94 lakh metric tons) as on June 2009. On the other hand, 1.16 lakh metric tons of food aid (rice: 0.30 lakh metric ton and wheat: 0.86 lakh metric ton) was received against the targeted quantity of 1.42 lakh metric tons of food aid (Rice: 0.41 lakh metric ton and Wheat: 1.01 lakh metric ton) till June 2009. Food grains imported by government's own resources for FY 2007-08 were 6.33 lakh metric tons (rice: 5.36 lakh metric tons and wheat: 0.97 lakh metric tons).

Food Grains Import by the Private Sector

In FY 2008-09 private import reached 22.16 lakh metric tons (Rice: 1.87 lakh metric tons and Wheat: 20.29 lakh metric tons). Food grains imported by the private sector in FY 2007-08 were 25.69 lakh metric tons (Rice: 14.31 lakh metric tons and Wheat: 11.38 lakh metric tons).

Overall Import of Food Grains

In FY 2008-09, the overall food grains import reached 30.13 lakh metric tons (Rice: 6.03 lakh metric tons and Wheat: 24.10 lakh metric tons). The overall import of food grains for FY 2007-08 was 34.57 lakh metric tons (Rice: 20.47 lakh metric tons and Wheat: 14.10 lakh metric tons).

Public Food Distribution

The target for food grains distribution through public food distribution system for FY 2008-09 was 22.83 lakh metric tons (Rice: 19.17 lakh metric tons and Wheat: 3.66 lakh metric tons). Total quantities distributed were 21.29 lakh metric tons (Rice: 17.57 lakh metric tons and Wheat: 3.72 lakh metric tons). In FY 2007-08, the target for food grains distribution through public food distribution system was 21.98 lakh metric tons (Rice: 17.91 lakh metric tons and Wheat: 4.07 lakh metric tons). Total quantities distributed were 13.29 lakh metric tons (Rice: 10.81 lakh metric tons and Wheat: 2.48 lakh metric tons).

Seed and Planting Materials

To increase food production in FY 2009-10 Tk.280.00 crore has been allocated for implementation of 7 programmes and 6 projects for developing high yielding variety seeds. Bangladesh Agriculture Development Corporation (BADC) has been producing variety of seeds through 23 seed multiplication farms and 31 contract grower zones. Besides, BADC has been producing potato seeds in 2 (two) farms and contract grower zones, jute seeds in 2 (two) contract grower zones, pulse and oil seeds in 3 (three) farms and vegetables seeds in other farms. Achievement of production and distribution of seeds through BADC's own farms and contract growers for FY 2007-08 and the production and distribution targets of seeds for FY 2008-09 are shown in Table 7.2 :

Table 7.2: Seed Production and Distribution through Seed Multiplication Farms and Contract Grower Zones

(In metric ton)

Name of Seeds	2007-08		2008-09 (production)		2008-09 (distribution)	
	Production	Distribution	Target	Achievement	Target	Achievement
Paddy	48179	47316	54329	54379	53106	50231
Wheat	19874	18224	19952	19971	17605	15713
Potato	15032	12218	18000	14439	11850	10846
Jute	750	950	1250	942	925	892
Oil seed	950	527	820	808	963	866
Pulse	795	509	870	891	536	497
Maize	87	154	200	83	83	30
Vegetables	76	40	55	58	57	41
Total	85,743	79,938	95,476	91,171	85,125	79,116

Source: Bangladesh Agricultural Development Corporation (BADC)

Fertilizer

Use of chemical fertilizer for crop production is increasing with the increasing demand of food. In FY 2006-07, the total quantity of fertilizer use was 35.51 lakh metric tons which increased to 40.90 lakh metric tons in FY 2007-08. In FY 2008-09, the use of total fertilizer is estimated at 30 lakh metric tons. The use of urea fertilizer alone was the highest. In FY 2007-08, the use of urea was 26.85 lakh metric tons which increased to 24 lakh metric tons in FY 2008-09. This is mainly due to expansion of diversified use of urea. The wastage of urea fertilizer can be reduced by using super/mega-granules (*guti* urea). Besides, 'Guti Urea Programme' is under implementation in 150 upazilas since FY 2007-08 and will continue up to FY 2009-10 from the non-development budget at a cost Tk. 5.65 crore. Under this programme Tk.2.60 crore has been spent for supplying 361 *guti* urea machine in FY 2007-08. Furthermore, another programme called 'Leaf Colour Chart' was introduced in FY 2007-08 with an allocation of Tk.3.99 crore. In FY 2008-09, this programme has been extended for three years with an additional allocation of Tk. 7.32 crore. Under this programme 1.83 lakh leaf colour chart was imported from Philippines and was

distributed among the farmers in FY 2007-08. In FY 2008-09, one lakh leaf colour chart has been imported and will be distributed very soon. Now a days, super/ mega-granules (*guti urea*) are also being used in other *rabi* crops. Besides, use of different types of mixed fertilizer is being encouraged for balanced use of fertilizer. A number of private organizations are producing and marketing different graded mixed Nitrogen, Phosphorus, Potassium, Sulphur (NPKS) fertilizers. Importation of nutrition rich fertilizer i.e. TSP, DAP and MOP and their use by farmers are also being encouraged. Maintenance of quality, control of adulteration/ low content fertilizer and its production/ import are being handled strictly in accordance with the 'Fertilizer (Management) Act, 2006'. The year wise use of fertilizer since FY 2002-03 is shown in Table 7.3:

Table 7.3: Use of Chemical Fertilizer

('000' metric ton)

Type of Fertilizers	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Urea	2239.00	2324.08	2523.39	2451.37	2515.00	2685.00	2400.00
TSP	405.00	361.00	420.02	436.47	340.00	380.00	200.00
DAP	112.00	90.00	140.72	145.00	115.00	240.00	50.00
MOP	250.00	240.00	260.38	290.67	230.00	380.00	150.00
SSP	130.00	148.00	170.93	130.39	122.00	100.00	20.00
NPKS	30.00	45.00	90.00	110.00	125.00	100.00	50.00
AS	10.00	9.00	5.59	6.32	6.700	0.00	0.00
Zinc	2.00	7.00	8.00	7.50	26.00	45.00	30.00
Gypsum	120.00	140.00	135.70	104.95	72.00	160.00	100.00
Total	3298.00	3364.08	3754.73	3682.67	3551.70	4090.00	3000.00

Source: Department of Agriculture Extension (DAE).

Irrigation

Irrigation is considered as an important input to agriculture. Since the inception of minor irrigation projects (power pump, DTW, STW and floating pump etc.) in early sixties, area under irrigation i.e. irrigated area has been expanding.. Area under irrigation estimated for the FY 2008-2009 is 60.52 lakh hectare. In FY 2002-03 it was 48.23 lakh hectares, which increased up to 58.07 lakh hectare in 2007-08. BADC provided irrigation facilities to 4.75 lakh hectares of land in 2005-06, 4.88 lakh hectares of land in 2006-07 and 4.95 lakh hectares of land in 2007-08 through utilization of deep tube wells, shallow tube wells, floating pumps and low lift pumps as well as re-excavation of canals and construction of sluice gate, water control structures and other infrastructures under different projects. Activities are there to bring 5 lakh hectares of land under irrigation in FY 2008-09. The irrigated land area from FY 2002-03 to FY 2008-09 is shown in Table 7.4:

Table 7.4: Area under Irrigation

(Area in Hectare)

Types of Irrigation	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
A) Surface Water:							
Major Irrigation	485000	48700	605570	785220	618549	637180	577150
LLP	764300	766153	838377	803170	810027	1045115	1255210
Traditional	176280	175200	107000	-	137064	-	-
Sub-Total (A)	1425580	1428353	1550947	1588390	1565640	1682295	1832360
B) Underground Water							
Deep Tube Well	583692	583692	654189	700662	725258	755210	670500
Light Tube Well	2756558	2776557	3159899	3120607	3196127	3369897	3550000
(Surface/Deep/Very Deep Set)							
Others	58122	44397	-	-	14403	-	-
Sub-Total (B)	3398372	3404646	3814088	3821269	3935788	4125107	4220500
Total Irrigation (A and B)	4823952	4832999	5365035	5409659	5501428	5807403	6052860

Source: Department of Agricultural Extension (DAE), Ministry of Agriculture.

Agricultural Credit

To uphold the role of agriculture sector and rural areas in the overall socio-economic development of the country, the Government has been pursuing the disbursement programmes of agriculture and rural credit through State-owned Commercial Banks (SCBs). Recently, all scheduled banks operating in Bangladesh, including the private and the foreign banks have been included in the agricultural credit programme at the marginal level. Besides, some new policies have been formulated recently to make the credit easily available to the farmers. Along with providing credit in agricultural sector, SCBs and agricultural banks are also carrying out micro-credit interventions for poverty alleviation. During FY 2007-08, credit disbursement stood at Tk. 8580.66 crore against the target of Tk 8308.55 crore. The target of credit disbursement through Bangladesh *Krishi* Bank, Rajshahi *Krishi Unnoyon* Bank, four SCBs, Bangladesh Rural Development Board (BRDB) and Bangladesh *Shilpo* Bank, the private and foreign commercial banks has been set at Tk.9379.23 crore for FY 2008-09. Out of which, Tk.9284.46 crore has been disbursed up to June 2009 which is 99 percent of the target. The overall situation relating to agricultural credit during FY 2002-03 to FY 2008-09 is presented in Table 7.5:

Table 7.5: Agricultural Credit Disbursement, Recovery and Outstanding Balance

(In crore Tk.)

Fiscal Year	Target	Disbursement	Recovery	Balance
2002-03	3560.53	3278.37	3516.31	11913.35
2003-04	4378.94	4048.41	3135.32	12705.95
2004-05	5537.91	4956.78	3171.15	14039.84
2005-06	5892.21	5496.21	4164.35	15376.79
2006-07	6351.30	5292.51	4676.00	14582.56
2007-08	8308.55	8580.66	6003.70	17822.50
2008-09	9379.23	9284.46	8377.62	19598.15

Source: Bangladesh Bank.

Budget Allocation for Agriculture Sector

In order to ensure increased agricultural production, poverty reduction and food security, the Government has allocated Tk. 7649.00 crore (Tk.6875.00 crore for non-development sector and Tk.774.00 crore for development sector) in the revised budget of FY 2008-09 for the Ministry of Agriculture. A total of Tk. 120.00 crore has been allocated in the RADP for 29 on going programmes and a non-development outlay of Tk. 973.61 crore has been provided for programmes under the Ministry of Agriculture. With a view to assist the farmers in producing more crops, Tk.4,285 crore has been allocated in the budget for FY 2008-09 to give subsidy on fertilizer, diesel and for other agricultural /inputs. This amount has been increased to Tk.5785 crore by allocating an additional amount of Tk.1500 crore in the stimulus package declared recently. Import cost has been increased due to abnormal price hike of urea and non-urea fertilizer in the world market. Government has significantly increased the amount of subsidy in this sector so that farmers can afford urea and non-urea fertilizer at a price fixed by the Government. To keep the price intact as it was in the last year, the price of TSP, DAP, and MOP is fixed at Tk.40, Tk. 35 and Tk. 45 respectively at farmers' level. Subsidy on the total cost including import price and local costing has been increased. Beside this, a block allocation of Tk. 144.39 crore for agricultural rehabilitation has been made in the budget for FY 2008-09.

In addition to the normal allocation in agriculture sector, the Government has taken initiatives to provide 30 percent cash incentives for exporting agricultural products. Government is giving 20 percent rebate on electricity bills to the entrepreneurs of agro-based industries. The Government has also reduced the rate of interest from 8 percent to 2 percent for disbursement of loan for the production of pulse, oil-seed and spices.

Development Activities in Agriculture Sector

(A) Annual Development Programme (ADP)

In the Revised Annual Development Programme (RADP) of FY 2008-09, there are 64 development projects in crop and irrigation sub sectors under the Ministry of Agriculture. Out of them, there are 58 investment projects and 06 technical assistance projects. A total of Tk. 791.25 crore has been allocated for implementation of these projects of which Tk.580.76 crore will be provided from GOB fund (73.40 percent of total) and Tk.210.49 crore will be financed from the project aid (26.40 percent of total). A total of Tk.708.35 crore has been spent up to June 2009, which is about 90 percent of the total allocation. It may be mentioned that in the RADP of FY 2007-08, a total of Tk.749.31 crore was allocated for implementation of 81 projects.

(B) Non- development Budget

Twenty nine (29) development programmes are being implemented with an allocation of Tk.120.00 crore under the non-development budget for FY 2008-09 of which Tk 112.66 crore has

been spent up to June 2009 which is 94 percent of the allocation. It may be mentioned that a total of Tk. 204.61 crore was allocated for the 30 programmes in revised non-development budget in FY 2007-08, out of which Tk 196.43 crore has been spent (96% of the allocation).

Budget in Fisheries and Livestock Sector

In the revised budget of FY 2008-09, a total of Tk. 587.25 crore (Tk.408.30 crore from non-development budget and Tk.178.95 crore for development budget) has been allocated for the Ministry of Fisheries and Livestock. A total of Tk. 30.73 crore has been allocated for 09 on going development programmes and Tk. 377.57 crore for programmes under the non-development budget of the Ministry of Fisheries and Livestock and its Departments and Agencies.

Fish Production

Different projects and programmes have been undertaken to enhance protein supply through increased fish production. These include– strengthening community based aquaculture extension, ensure the access of fishermen to the *khas Jalmahals*, establishment of *beel* nursery and release of fish fries in the open water, extension of *gher*, pen and cage culture, habitat restoration through re-excavation of silted rivers and innovation of new technologies through research and their extension. In FY 2007-08 and FY 2008-09 total fish production of the country was 25.63 lakh metric ton and 27.01 lakh metric ton respectively.

Table-7.6 shows the increasing trend of fish production from FY 2002-03 to FY 2008-09.

Table-7.6: Fish Production Statistics from Different Sources

(In lakh metric ton)								
Sector	Area (Lakh hactor)	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
1. Inland:								
<u>(A) Capture</u>								
River and Estuaries	10.32	1.38	1.37	1.40	1.38	1.37	1.37	1.69
Sunderban	-	0.14	0.15	0.16	0.16	0.18	0.18	0.20
Beel	1.14	0.75	0.75	0.75	0.78	0.75	0.78	0.93
Kaptai lake	0.69	0.07	0.07	0.07	0.07	0.08	0.08	0.09
Flood plain	28.33	4.75	4.98	6.21	7.18	7.68	8.19	6.17
Sub-Total	40.47	7.09	7.32	8.59	9.57	10.06	10.60	9.08
<u>(B) Culture</u>								
Ponds	2.42	7.52	7.96	7.57	7.60	8.12	8.66	0.27
Baors	0.05	0.04	0.04	0.04	0.04	0.04	0.05	0.06
Shrimp farms	1.41	1.01	1.15	1.21	1.28	1.29	1.35	1.49
Sub-Total	3.88	8.57	9.15	8.82	8.92	9.46	10.06	11.82
Total (Inland)	44.36	15.66	16.47	17.41	18.49	19.52	20.66	20.90
2. Marine Fisheries								
(A) Industrial	0.48							
(B) Artisanal	sq.n.m	0.28	0.32	0.34	0.34	0.35	0.34	0.48
		4.04	4.23	4.41	4.46	4.52	4.63	5.63
Total (Marine)	-	4.32	4.55	4.75	4.80	4.87	4.97	6.11
Total	-	19.98	21.02	22.16	23.29	24.40	25.63	27.01

Source: Department of Fisheries, Ministry of Fisheries and Livestock

Production of Fish Spawn and Fingerlings

Availability of high quality fish fingerlings is the basic requirement for increasing fish production. The production and collection of fry/fingerling from natural sources has declined due to to construction of unplanned flood dams, irresponsible use of insecticides in the crop fields and pollution of water. Several steps have been taken by the Government for the restoration of the natural breeding habitats. Inbreeding is the major problem regarding production of spawn in the hatcheries. To overcome this problem, DoF developed infrastructural facilities in 33 government farms and raised brood stock there by collecting fries from the natural stocks. These brood fishes are distributed to private hatchery owners at a concessional price. At present 113 government hatcheries along with 873 private hatcheries are operational to meet the increasing demand of fingerlings.

The production statistics of fish spawn and fish fries both by public and private sector are shown in the table 7.7:

Table-7.7: Production Statistics of Carp Spawn/Fingerling by Public and Private Sector Hatcheries

Year	No.of hatcheries		Spawn (MT.)			No. of fry/fingerlings (crore)		
	Public	Private	Public	Private	Total	Public	Private	Total
2003	112	696	3.90	297.78	301.68	3.50	517.00	520.50
2004	112	756	4.80	345.23	350.03	1.84	520.00	521.84
2005	112	731	5.13	315.89	321.02	2.08	461.03	463.11
2006	112	764	4.82	407.83	412.65	1.24	428.28	429.52
2007	113	860	6.24	457.29	463.53	2.03	622.13	624.16
2008	113	873	7.04	416.95	423.99	2.76	549.04	551.80
Up to June/09	113	873	2.71	*	*	0.41	*	*

Source: Department of Fisheries, Ministry of Fisheries and Livestock

* No information available about the production of private level spawn/fingerlings in 2009.

Protection and Conservation Programme for *Jatka*

Conservation programme for *jatka* is observed for seven months starting from November to May every year. Considering the contribution of Hilsa fish to the fisheries sector, Government has allocated Tk. 2.00 crore for special operational purpose under non-development budget for the implementation of 'Jatka Protection Act'. Tk.2.00 crore has been allocated for the rehabilitation and alternate livelihoods for the poor *Jatka* fishing community under development budget. A project is under implementation with an allocation of Tk.22.89 crore to protect Jatka, alternate livelihoods for the *jatka* fishing community and research purpose and it will continue up to 2013. At the same time, in FY 2007-08 and 2008-09, government has allocated 4360 MT and 5730 MT food grains respectively for them. As a result, Hilsa production rose from 1.99 lakh MT in FY 2003-04 to 2.90 lakh MTs in FY 2007-08.

Export of Fish and Fish Products

Fisheries sector has been earning a huge foreign exchange. Bangladesh exports frozen shrimp and other fish and fisheries products to the USA, UK, Japan, France, Hong Kong, Singapore, the Kingdom of Saudi Arabia, Sudan and other countries. In FY 2006-07 and FY 2007-08 Bangladesh earned Tk. 3353.00 crore and Tk.3396.00 crore by exporting 73704 MT and 75299 MT fish and fish products respectively. Export assistance for frozen shrimp and other fishes has been increased from current level of 10 percent to 12.5 percent under the stimulus package declared recently. In FY 2009-10, beel nursery activities and release of fingerlings in open water will be undertaken to increase fish production. On the other hand, to ensure the quality of the fish and fish products from production to consumption, HACCP and Traceability system will be strengthened. At the same time, three PCR laboratories will be established to ensure the export of virus free shrimp.

Amendment of Existing Laws and Formulation of New Laws

‘Fish Feed Act’, ‘Fish and Shrimp Hatchery Act’ and ‘Fish Quarantine Act’ have been enacted with a view to accelerate the development programmes in fisheries sector. These measures will ensure environmental protection, production of quality fish and marine fisheries and increased fish exports. Amendment to ‘the Fisheries Preservation Act’ and ‘the Fish and Fish Product (Inspection and Quality Control) Rules 1997 are underway to redefine the size of Jatka. Beside this, formulation of ‘National Shrimp Policy’ is going on.

Annual Development Programme (ADP) under fisheries sub sector

In the RADP of FY 2008-09, a total of Tk. 90.55 crore (GOB Tk. 48.54 crore, PA Tk. 42.01 crore) has been allocated for implementation of 22 projects(Investment Project: 17 and Technical Assistance Project: 05) under fisheries sub sector. Up to June 2009 an amount of Tk. 67.71 crore (GOB Tk. 40.64 crore, PA Tk. 27.25 crore) has been spent which is 75 percent of the allocation.

Livestock

The present Government is committed to take necessary steps to achieve self sufficiency in milk, chicken and livestock production with a view to meet the protein demand of the nation. In FY 2008-09 the estimated share of the livestock sub-sector in GDP at constant prices is 2.73 percent. In the current fiscal year, the estimated growth rate in this sector is 3.46 percent which was 2.44 percent in FY 2007-08. For the development of Livestock sector, the following activities have been undertaken-

- Production and distribution of vaccine for poultry and livestock.
- Supply of duckling and chicks in a cheaper price.
- Artificial insemination extension programme by using both diluted and frozen semen for improved variety.
- Necessary action for the prevention and control of avian influenza.

A plan has been undertaken to establish buffalo and sheep farm and distribute cash incentive to 12000 farmers for increased the milk and meat production and also for increased the semen production for breeding program of livestock. According to the estimate by the Ministry of Fisheries and Livestock, expected number of the livestock and poultry will be 4 crore 95 lakh 58 thousand and 26 crore 26 lakh 28 thousand respectively in 2008-09

Table 7.8 shows the growth of the livestock and poultry of the country over the past few years:

Table-7.8: Number of the Livestock and Poultry in Bangladesh

Livestock/ Poultry	Number (in million)						
	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Cattle	22.58	22.60	22.67	22.80	22.87	22.90	22.97
Buffalo	1.01	1.06	1.11	1.16	1.21	1.26	1.30
Goat	17.69	18.41	19.16	19.94	20.75	21.56	22.40
Sheep	2.29	2.38	2.47	2.57	2.68	2.78	2.87
Total (Livestock)	42.52	43.45	44.41	46.47	47.51	48.5	49.55
Chicken	162.44	172.63	183.45	194.82	206.89	212.47	221.3
Duck	35.54	36.40	37.28	38.17	39.08	39.84	41.23
Total (Poultry)	197.98	209.03	220.73	232.99	245.97	252.31	262.62

Source: Department of Livestock Services, Ministry of Fisheries and Livestock

The production of milk, meat (beef, mutton and chicken) and eggs have been on the increase over the past several years. Table 7.9 summarises the production statistics of milk, meat and eggs since 2002-03:

Table-7.9: Production of Milk, Meat and Eggs

Product	Unit	Production						
		2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Milk	Million ton	1.82	1.99	2.14	2.27	2.28	2.65	2.28
Meat	Million ton	0.83	0.91	1.06	1.13	1.04	1.04	1.08
Eggs	Million	4777	4780	5623	5422	5369	5653	4696

Source: Department of Livestock Services, Ministry of Fisheries and Livestock.

Artificial Insemination of Cattle

Artificial Insemination is an important and successful programme for livestock development. Semen is collected from the bulls reared in the Central Cattle Breeding Station at Savar and other 22 District Artificial Centres, and processed as diluted and frozen semen to run the Artificial Insemination Extension Programme. A total number of 2069 sub-centres and points are in operation to run the Artificial Insemination Extension Programme by using both diluted and frozen semen. The number of cows inseminated stood at about 2.00 million in FY 2008-09.

Vaccination of Livestock and Poultry

The Government has been producing nineteen different types of cattle and poultry vaccines to immune cattle and poultry population to prevent some diseases. During the period from FY 2001-02 to FY 2008-09, a total of 20.78 crore doses of vaccines have been produced. Treatment has given to 3.04 million of cattle and 15.68 million of poultry in FY 2008-09

Livestock Act

To control diseases and to protect diseases of the livestock coming from abroad and to ensure public health, 'Livestock Disease Act-2005' and 'Fish and Cattle Feed Ordinance-2008'. 'Animal & Animal Products Quarantine Act-2005' and the "National Livestock Development Policy-2007" have been enacted.

Development of Infrastructure

Sixty-four District Veterinary Hospitals have been established in district headquarters for the expansion of modern veterinary services to the farmers. In addition to veterinary services, technical supports on nutrition are provided to poultry and dairy farms to carry out analysis of animal and poultry feeds. Moreover, 464 upazila Veterinary Dispensaries located at upazilas have been converted into Upazila Livestock Development Complex (ULDC). Currently, 386 ULDCs are functioning to provide consultation services and training to small scale dairy farms and poultry farmers. The construction of the rest 78 ULDCs is underway.

Avian Influenza/Bird Flu

The outbreak of Avian Influenza/Bird Flu was first identified on 22 February 2007 at the Biman Poultry Complex at Savar, Dhaka. It is reported that a total of 1690564 poultry have been culled and 2251508 eggs have been destroyed up to June/09. Farmers who have lost their birds due to stamping out drive, have so far received Tk.13.00 crore as compensation. Besides, Two projects namely "Avian Influenza Preparedness and Response Project" supported by the World Bank and "Strengthening of Support Services for Combating Avian Influenza (HPAI) in Bangladesh" funded by USAID are under implementation.

Annual Development Programme (ADP) for Livestock sub sector

In the RADP of FY 2008-09, a total of Tk. 78.27 crore has been allocated for implementation of 16 projects(Investment Projects: 13 and Technical Assistance Projects: 03) under livestock sub sector. Up to June'09, an amount of Tk. 62.79 crore (GOB Tk. 34.18 crore, PA Tk. 28.61 crore) has been spent which is 80 percent of the allocation.