CHAPTER 7

AGRICULTURE

Agriculture is an important sector of the economy of Bangladesh and one of the main drivers of economic growth. In order to ensure food security, the present government is committed to achieve self sufficiency in food by 2013 through increased production. The contribution of this sector to GDP stood at 20.49 percent in FY 2008-09. According to the revised estimate of BBS, the overall contribution of the broad agriculture sector at constant price is 20.24 percent of GDP in FY 2009-10. Though the direct contribution of the agriculture sector has decreased slightly, its indirect contribution to the overall growth of GDP is significant. 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 43.6 percent of the total labour forces of the country are engaged in agriculture sector (MES, 2009, BBS). In the current fiscal year (FY 2009-10), Bangladesh earned US$ 687.53 million by exporting agricultural products which is 4.24 percent of total export earning (US$16,204.65 million). In addition to the exports of main agricultural commodities such as, raw jute, jute goods, tea, frozen foods, the Government has taken steps to increase exports of non-traditional agricultural commodities.

Within the broad agriculture sector in FY 2009-10, the contribution of agriculture and forestry and fisheries are estimated at 15.75 percent and 4.49 percent respectively (revised estimate of BBS). In FY 2008-09, the contribution of these two sectors stood at 15.91 percent and 4.58 percent respectively. According to the revised estimate of GDP by BBS for FY 2009-10, the contribution of the three sub-sectors namely crops and vegetables, livestock and forestry are 11.34 percent, 2.66 percent and 1.74 percent respectively.

Management of Agriculture

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. Implementation of National Agriculture Extension Policy, National Seed Policy, and Integrated Pest Management Policy are underway to ensure overall development of agriculture sector. In order to increase agricultural production, special emphasis has been laid on building up a modern agricultural system, invention of new technology and creating greater opportunity for agricultural research. Furthermore, steps have been taken to increase subsidy on inputs to agriculture, ensure increased availability of agriculture inputs and irrigation facility as well as fair price of crops and agro-products to increase agricultural productivity. The target of agricultural credit disbursement through BKB, RAKUB, SCBs, PCBs, FCBs, BRDB and BSBL in FY 2009-10 was set at Tk. 11,512.30 crore of which Tk.11,116.88 crore was disbursed which is 96.57 percent of the target. Against the backdrop of global recession coupled with acute shortage of food, emphasis has been given on investment in the areas of expansion of

irrigation facility in various regions of the country, removal of water logging, drainage system in low lying areas (haors), production and supply of high quality and high yielding seeds. Consistent with this, a budget provision of Tk 400 crore has been made for the Ministry of Agriculture in FY 2009-10 to augment food production by expanding cropped area and surface water irrigation facilities to 53,000 hectares of land in the southern region. In addition, water-logging from 16,000 hectares of land in the south-western region has been removed and planned drainage system in the Haor areas has been implemented. 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. Moreover, export assistance for potatoes, eggs, chicken, 100 percent halal meat, agricultural products (vegetables, fruits etc.) and processed agro-products will also continue.

Food Grains Production

The volume of food grains production in FY 2008-09 was 328.96 lakh metric tonnes of which *Aus* accounted for 18.95 lakh metric tonnes, *Aman* 116.13 lakh metric tonnes, *Boro* 178.09 lakh metric tonnes and wheat 8.49 lakh metric tonnes and maize 7.30 lakh metric tonnes. According to BBS final estimate, the total food grains production in FY 2009-10 was 341.13 lakh metric tonnes of which *Aus* accounted for 17.09 lakh metric tonnes, *Aman* 122.07 lakh metric tonnes, *and Boro* 183.41 lakh metric tonnes. The production of wheat and maize in FY 2009-10 stood at 9.69 lakh metric tonnes and 8.87(provisional) lakh metric tonnes respectively. The government took various steps to provide agro-inputs assistance, which include reduction of price of non-urea fertilizers (TSP, MOP, DAP etc.) and cash incentive for diesel. Introduction of non-urea fertilizer ensured use of balanced fertilizers by the farmers. The favorable impacts of those steps in turn contributed to the increased yield of Boro. Table 7.1 presents the food grains production status from FY 2002-03 to FY 2009-10:

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**	**2009-10**
Aus	18.51	18.32	15.00	17.45	15.12	15.07	18.95	17.09*
Aman	111.15	115.21	98.20	108.10	108.41	96.62	116.13	133.07*
Boro	122.22	128.37	138.37	139.75	149.65	177.62	178.09	183.41*
Total Rice	**251.88**	**261.90**	**251.57**	**265.53**	**273.18**	**289.31**	**313.17**	**322..57**
Wheat	15.07	12.53	9.76	7.35	7.25	8.44	8.44	9.69*
Maize	1.75	2.41	3.56	5.22	8.99	13.46	7.30	8.87p
Total	**268.70**	**276.44**	**264.89**	**277.87**	**289.42**	**311.21**	**328.96**	**341.13**

Source: 1. Bangladesh Bureau of Statistics (BBS). * Final Estimate. p denotes provisional estimates

Food Budget

Food Grains Import by the Private Sector

In FY 2009-10 private import reached 2.89 million metric tonnes (Rice: 0.037 million metric tonnes and Wheat: 2.86 million metric tonnes). Food grains import by the private sector in FY 2008-09 stood at 2.217 million metric tonnes (Rice: 0.187 million metric tonnes and Wheat: 2.03 million metric tonnes).

Overall Food Grain Import

During FY 2009-10, the total import of food grain was 3.45 million metric tonnes (rice 0.087 million metric tonnes, wheat 3.36 million metric tonnes), whereas import in FY 2008-09 year was 3.013 million metric tonnes (0.603 million metric tonnes of rice and 2.41 million metric tonnes wheat).

Public Food Distribution

In FY 2008-09, total food grains distribution through public food distribution system was 2.132 milion metric tonnes (Rice: 1.76 million metric tonnes and Wheat: 0.372 million metric tonnes). The target for food grains distribution through public food distribution system for FY 2009-10 was 2.68 million metric tonnes. The total quantity distributed was 1.964 million metric tonnes (rice: 1.311 million metric tonnes and wheat: 0.653 million metric tonnes).

Seed and Planting Materials

Quality seed is the main input to increased agricultural production. Bangladesh Agriculture Development Corporation (BADC) has been producing variety of seeds in the Seed Multiplication Farms (SM Farms) and contract grower zones. BADC produces quality cereal seeds through its 23 SM Farms and jute, vegetables, potato, pulse and oil seeds in 9 different farms. Besides, foundation seeds and quality seeds of rice, wheat, maize, jute, vegetables, spices, potato, pulse and oil seeds are also being produced through 75 contract growers' zones. Quality seeds are distributed by the BADC to the farmers after being processed in 28 cereal seed processing centers, 18 potato seed cold storages, 2 jute seed processing centers, 3 pulses and oil seed processing centre and 1 vegetable processing centre. Taking into account the demand for quality seeds in Bangladesh, BADC set a target to produce 1,32,005 metric tonnes seeds (84,247 metric tonnes paddy seeds, 2,600 metric tonnes wheat seeds, 18000 metric tonnes potato seeds, 1,014 metric tonnes pulse seeds, 1,188 metric tonnes oil seeds, 1,263 metric tonnes jute seeds, 102 metric tonnes vegetable seeds and 191 metric tonnes maize seeds) out of which 1,29,083 metric tonnes seeds was actually produced. In FY 2008-09 BADC supplied 36,574 metric tonnes *boro* seeds to the farmers (HYV: 36,525 metric tonnes and Hybrid: 49 metric tonnes). In FY 2009-10, 44,496 metric tonnes *boro* seeds (HYV: 44,427 metric tonnes and Hybrid: 69 metric ton) were supplied to the farmers which were 7,922 metric tonnes higher than the supply of the previous year. This distribution is 50 percent of the national demand. Achievement of production and distribution of seeds through BADC's own farms and contract

growers for FY 2008-09 and the production and distribution of seeds for FY 2009-10 are shown in Table 7.2 :

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

(Metric tonnes)

Name of Seed	Actual Achieve in 2008-09		Production in 2009-10		Distribution in 2009-10	
	production	Distribution	Target	Achievement	Target	Achievement
Total Seed Paddy	63,564.00	54,379.00	84,247.00	79,486.00	63,199.00	62,944.00
Wheat Seed	23,514.00	19,971.00	26,000.00	27,074.00	23,532.00	23,429.00
Jute Seed	503.00	892.00	1,263.00	1,240.00	552.00	1,230.00
Potato Seed	14,535.00	14,439.00	18,000.00	18,835.00	14,801.00	13,987.00
Oil Seed	727.00	1,010.00	1,188.00	1,006.00	727.00	727.00
Pulse seed	668.00	960.00	1,014.00	1,208.00	668.00	668.00
Vegetable Seed	87.00	58.00	102.00	103.00	86.00	86.00
Maize Seed	43.00	83.00	191.00	131.00	40.00	40.00
Total :	103,641.00	91,792.00	132,005.00	129,083.00	103,605.00	103,111.00

Source: Bangladesh Agricultural Development Corporation (BADC), M/O. Agriculture.

Fertilizer

In FY 2008-09, the total quantity of fertilizer used was 30.05 lakh metric tonnes which increased to 34.35.lakh metric tonnes in FY 2009-10. The use of urea fertilizer alone was the highest- 24.09 lakh metric tonnes . The wastage of urea fertilizer can be reduced by using super/mega-granules (*guti* urea). Besides, '*Guti* Urea Programme' had been under implementation in 150 Upazilas since FY 2007-08 and it continued up to FY 2009-10, being funded from the non-development budget at a cost Tk. 5.65 crore. 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. 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 mixed Nitrogen, Phosphorus, Potassium, Sulpher (NPKS) fertilizers of different grades. Importation of nutrition rich fertilizer i.e. TSP, DAP and MOP and their use by farmers are also being encouraged. In order to encourage balanced use of fertilizer to augment production, subsidy on import cost of TSP, DAP and MOP has been continuing since FY 2004-05. In the current fiscal year, government has planned to provide subsidy on 4.75 lakh metric tonnes TSP, 2.5 lakh metric tonnes DAP and 4 lakh metric tonnes MOP fertilizer. 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 tonnes)

Type of Fertilizers	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Urea	2239.00	2324.08	2523.39	2451.37	2515.00	2685.00	2400.00	2409.00
TSP	405.00	361.00	420.02	436.47	340.00	380.00	200.00	420.00
DAP	112.00	90.00	140.72	145.00	115.00	240.00	50.00	136.00
MOP	250.00	240.00	260.38	290.67	230.00	380.00	150.00	5.00
SSP	130.00	148.00	170.93	130.39	122.00	100.00	20.00	50.00
NPKS	30.00	45.00	90.00	110.00	125.00	100.00	50.00	263.00
AS	10.00	9.00	5.59	6.32	6.700	0.00	0.00	20.00
Zinc	2.00	7.00	8.00	7.50	26.00	45.00	30.00	32.00
Gypsum	120.00	140.00	135.70	104.95	72.00	160.00	100.00	100.00
Total	**3298.00**	**3364.08**	**3754.73**	**3682.67**	**3551.70**	**4090.00**	**3000.00**	**3435.00**

Source: Department of Agriculture Extension (DAE) and MOA

Irrigation

Irrigation is considered as an important input for agricultural development. Efforts have been continuing to ensure coordinated and planned use of underground and surface water, increase cropping intensity, diversify crop to ensure higher yield. For this purpose, a couple of projects were implemented in different regions of Bangladesh which include: (1) Enhancement of agricultural production and rural employment through extension of agricultural engineering and technologies (2) Pilot Project for agricultural production in Monga prone area through modern minor irrigation practices. Since the inception of minor irrigation projects (power pump, DTW, STW and floating pump etc.) in the early sixties, area under irrigation has been expanding. In 2009-10, area under irrigation stood at 56.9 lakh hectares. In FY 2003-04 it was 48.33 lakh hectares, which increased to 59.54 lakh hectares in 2008-09. BADC provided irrigation facilities to 4.75 lakh hectares of land in FY year 2005-06, 4.88 lakh hectares of land in FY 2006-07 and 4.95 lakh hectares of land in FY 2007-08 and 5 lakh hectares of land in FY 2008-09 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 and water control structures under different irrigation and area development projects. BADC has planned to provide irrigation facilities to 5.35 lakh hectares of land in 2010-11 and 5.55 lakh hectors of land in 2011-12 fiscal years, This is for the first time that 36 minor irrigation programs are being implemented all over the country specifically in the water logged areas by BADC at an estimated cost of Tk. 31,344.26 lakh during the period from July, 09 to December, 10 to increase the agricultural production. The irrigated land area from FY 2002-03 to FY 2009-10 is shown in Table 7.4:

Table 7.4: Area under Irrigation

(Area in Hectare)

Irrigation method	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
(a) Surface							
Major irrigation	48700	605570	785220	618549	637180	575150	1041000
LLP	766153	838377	803170	810027	1045115	1157037	894707
Indigenous method	175200	107000	0	137064	0	43965	157867
Sub-total (a)	1428353	1550947	1588390	1565640	1682295	1776147	2093574
b) Underground							
Deep tube well	583692	654189	700662	725258	755210	790115	660260
Shallow tubewell (surface/deep/very deep)	2776557	3159899	3120607	3196127	3369897	3372338	2931181
Others	44397	0	0	14403	0	15448	4518
Sub-total (b)	3404646	3814088	3821269	3935788	4125107	4177901	3595959
Total (a+b)	4832999	5365035	5409659	5501428	5807402	5954048	5689533

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

Barind Multipurpose Development Authority (BMDA) has extended their irrigation facilities to all districts of Rajshahi and Rangpur divisions. In FY 2009-10 BMDA utilized 12,453 DTWs for irrigation with underground water. Crop production of *Barind* area stood 12.80 lakh MT which was worth of Tk. 2,304 Crore.

BMDA has constructed buried pipe line to prevent the losses of water and to reduce the wastage of cultivable land. Up to the FY 2009-10, 11,403 DTWs of buried pipeline has been constructed. BMDA has also developed the irrigation charge system by using pre-paid meters in the pump houses in order to ensure proper use of water at low cost. For this purpose 3000 pre-paid meters were installed in the pump houses, 30000 user cards were distributed among the farmers and 100 mobile vending units were supplied to the dealers.

Agricultural Credit

With a view to ensuring food security and improving the socio-economic condition of the country, operation of disbursement programmes of agriculture and rural credit through State-owned Commercial Banks (SCBs) and specialized banks are underway.. All scheduled banks operating in Bangladesh, including the private and the foreign banks have already been included in the agricultural credit programme. Besides, some new policies have been formulated to make the credit available to the farmers. The objective of these initiatives is to accelerate agricultural credit programme at the marginal level. In tandem with providing credit to the agricultural sector, SCBs and agricultural banks are also carrying out micro- credit interventions for poverty alleviation. During FY 2008-09, credit disbursement stood at Tk. 9,284.46 crore against the target of Tk 9,379.23 crore. A 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. 11,512.3 crore for FY 2009-10. Out of which, Tk.11,116.88 crore was disbursed which is 96.57 percent of the target.

The overall situation relating to agricultural credit during FY 2002-03 to FY 2009-10 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
2009-2010	11512.30	11116.88	10112.75	22588.58

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. 7,404.71 crore (Tk. 6,509.53 crore for non-development sector and Tk. 8,95.18 crore for development sector) in the revised budget of FY 2009-10 for the Ministry of Agriculture.

A total of Tk. 895.18 crore has been allocated in the RADP for 49 on going programmes and a non-development outlay of Tk. 379.03 crore has been provided for programmes under the Ministry of Agriculture. With a view to assist the farmers in producing more crops, Tk.4,950 crore has been allocated in the budget for FY 2009-10 to give subsidy on fertilizer and for other agricultural inputs. In FY 2009-10 Tk. 4,922 crore was released as subsidy. Beside this, an allocation of Tk. 50 crore for agricultural rehabilitation was 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 Programmes (RADP) of FY 2009-10, there are 76 development projects in crop and irrigation sub sectors under the Ministry of Agriculture, Out of them, there are 71 investment projects (including 5 projects under JDCF) and 5 technical assistance projects. A total of Tk.

943.15 crore has been allocated for the implementation of these projects of which Tk. 688.59 crore will be financed from GoB Fund (73 percent of total) and the rest 27 percent (Tk. 254.56 crore) will be funded from the project aid. A total of Tk. 901.75 crore has been spent during July 2009 to June 2010 which is about 96 percent of the total revised allocation. It may be noted that as many as 64 development projects were included the RADP of FY 2008-09. A total of Tk. 791.25 crore was allocated for these projects of which TK 580.76 crore was financed from GoB fund and TK 210.49 from the project aid. During July 2008 to June 2009 Tk. 708.35 crore was spent, which was about 90 percent of the total allocation.

(B) Programmes under Non- development Budget

In FY 2009-10, an amount of Tk. 379.03 crorehas been allocated for 66 approved programmes under the Ministry of Agriculture. Out of which, an amount of Tk. 103.32 crore was allocated for 36 programmes for small irrigation. Up to June'10 an amount of Tk. 318.78 crore was utilized for 66 programmes in the revenue budget, which is 84 percent of the annual allocation for 66 progarmmes. During the corresponding period of the previous fiscal year (2008-09), a total of 29 programmes were under implementation and Tk. 112.66 crore was utilized which was 94 percent of the annual allocation for 30 programmes.

Budget in Fisheries and Livestock Sector

In the revised budget of FY 2009-10, a total of Tk.727.47 crore (Tk.469.61 crore from non-development budget and Tk.225.75 crore from development budget) has been allocated for the Ministry of Fisheries and Livestock.

Budget in Fisheries Sub- Sector

In FY 2009-10, a total of Tk. 120.79 crore (GOB: Tk. 72.57 crore and Project Aid : Tk. 48.22crore) has been allocated for 28 on going development projects (22 investment projects and 6 TA projects. Up to June'10, an amount of Tk. 107.21 crore (GoB Tk. 69.62 crore, Project Aid Tk. 37.59 crore) has been spent which is 89 percent of the allocation.

Fish Production

A number of projects and programmes have been undertaken to enhance protein supply through increased fish production. These include: Strengthening Community Based Aquaculture Extension, Ensuring the access of fishermen to the *khas Jalmahals*, Establishment of *beel* nursery and release of fish fries in the open water, Extension of *gher*, pane and cage culture, habitat restoration through re-excavation of silted rivers and innovation of new technologies through research and extension. According to the provisional report, the total fish production of the country stood at 28.99 lakh metric tonnes in FY 2009-10. Table-7.6 shows the trend of fish production from FY 2003-04 to FY 2008-09.

Table-7.6: Fish Production Statistics from Different Sources

(In lakh metric tonne)

Sector	Area (Lakh hector)	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
1. Inland:								
(A) Capture								
River and Estuaries	10.32	1.37	1.40	1.38	1.37	1.37	1.38	1.82
Sundarban	-	0.15	0.16	0.16	0.18	0.18	0.20	0.08
Beel	1.14	0.75	0.75	0.78	0.75	0.78	0.79	1.27
Kaptai lake	0.69	0.07	0.07	0.07	0.08	0.08	0.09	0.07
Flood plain	28.33	4.98	6.21	7.18	7.68	8.19	8.79	7.05
Sub-Total	**40.48**	**7.32**	**8.59**	**9.57**	**10.06**	**10.60**	**11.24**	**10.29**
(B) Culture								
Ponds	2.42	7.96	7.57	7.60	8.12	8.66	9.12	11.85
Baors	0.05	0.04	0.04	0.04	0.04	0.05	0.05	0.09
Shrimp farms	1.41	1.15	1.21	1.28	1.29	1.35	1.46	1.56
Sub–Total	**3.88**	**9.15**	**8.82**	**8.92**	**9.46**	**10.06**	**10.63**	**13.52**
Total (Inland)	**44.36**	**16.47**	**17.41**	**18.49**	**19.52**	**20.66**	**21.87**	**23.82**
2. Marine Fisheries	0.48							
(A) Industrial	sq.n.m	0.32	0.34	0.34	0.35	0.34	0.35	0.34
(B) Artisanal		4.23	4.41	4.46	4.52	4.63	4.79	4.83
Total (Marine)	**-**	**4.55**	**4.75**	**4.80**	**4.87**	**4.97**	**5.14**	**5.17**
Total	**-**	**21.02**	**22.16**	**23.29**	**24.40**	**25.63**	**27.01**	**28.99**

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 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 32 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, 115 government hatcheries along with 880 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 Table 7.7:

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

Year	No. of hatcheries			Spawn (metric tonne.)			No. of fry/fingerlings (crore)		
	Public	Private	Total	Public	Private	Total	Public	Private	Total
2003	112	696	808	3.90	297.78	301.68	3.50	517.00	520.50
2004	112	756	868	4.80	345.23	350.03	1.84	520.00	521.84
2005	112	731	843	5.13	315.89	321.02	2.08	461.03	463.11
2006	112	764	876	4.82	407.83	412.65	1.24	428.28	429.52
2007	113	860	973	6.24	457.29	463.53	2.03	622.13	624.16
2008	113	873	986	7.04	416.95	423.99	2.76	549.04	551.80
2009	115	854	969	4.52	459.28	462.80	1.66	960.01	961.67
2010	120	862	982	5.59	460.20	465.79	2.11	983.87	985.98

Source: Department of Fisharies, Ministry of Fisharies and Livestock

Protection and Conservation Programme for *Jatka*

Conservation programme for *jatka* for seven months starting from November to May is an annual event. Considering the contribution of Hilsa fish to the fisheries sector, in FY2009-10, Government has spent Tk. 4.03 crore under a project to protect Jatka.. In FY 2009-10, government has allocated Tk. 2 crore for the rehabilitation and alternate livelihoods for the poor *Jatka* fishing community under revenue budget. Besides, government has also allocated 20,000 metric tonnes and 5,730 metric tonnes food grains for them. As a result, Hilsa production rose from 1.99 lakh metric tonnes in FY 2003-04 to 3.12 lakh metric tonnes in FY 2009-10.

Export of Fish and Fish Products

Fisheries sector earns huge foreign exchange by exporting 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 2008-09 Bangladesh earned Tk. 3,396.28 crore and Tk.3,243.41 crore by exporting 75,299 metric tonne and 72,888 metric tonne fish and fish products respectively. Besides, in FY 2009-10, Tk. 3,408.51 crore was earned by exporting 77,643.00 metric tonne fish and fish products. Export assistance for frozen shrimp and other fishes has been enhanced 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, Hazard Analysis and Critical Control Point (HACCP) and Traceability system will be strengthened. At the same time, three PCR laboratories will be established to ensure export of virus-free shrimp.

Amendment of Existing Laws and Formulation of New Laws

Several enactments like 'Fish Feed Act 2010', 'Fish Hatchery Act 2010' and 'Fish Quarantine Act' have been made with a view to accelerate the development programmes in the fisheries sector. These measures will ensure environmental protection, production of quality fish and marine fisheries and increased fish exports. Besides, the finalization of 'Fish Feed Rules 2010' and 'Fish Hatchery Rules 2010' is underway.

Annual Development Programme (ADP) for the Fisheries Subsector

In the RADP of FY 2009-10, a total of Tk. 120.79 crore (GOB Tk. 72.57 crore, PA Tk. 48.22 crore) has been allocated for implementation of 28 projects (Investment Project: 22 and Technical Assistance Project: 6) under fisheries sub sector. Up to June 2010 an amount of Tk. 107.21 crore (GOB Tk. 69.62 crore, PA Tk. 37.59 crore) has been spent which is 89 percent of the allocation.

Livestock

The present Government is committed to take necessary steps to achieve self sufficiency in milk, chicken and livestock production to meet the protein demand of the nation. In FY 2009-10, the estimated share of the livestock sub-sector in GDP at constant prices is 2.67 percent. In the current fiscal year (FY 2009-10),

the growth rate in this sector is 2.66 percent (BBS revised estimate) which was 2.73 percent in FY 2008-09. 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 at a cheaper price.
- Artificial insemination extension programme by using both diluted and frozen semen for improved variety.
- Prevention and control of avian influenza.

According to the estimate by the Ministry of Fisheries and Livestock, expected number of the livestock and poultry will be 506.52 lakh and 2,707.12 lakh respectively in FY 2009-10.

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

	Number (in Lakh)						
Livestock/ Poultry	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Cattle	226.0	226.7	228.0	228.7	229.0	229.76	230.51
Buffalo	10.6	11.1	11.6	12.1	12.6	13.04	13.49
Goat	184.1	191.6	199.4	207.5	215.6	224.01	232.75
Sheep	23.8	24.7	25.7	26.8	27.8	28.77	29.77
Total livestock	**434.5**	**444.1**	**464.7**	**475.1**	**485**	**495.58**	**506.52**
Chicken	1726.3	1836.5	1948.2	2068.9	2124.7	2213.94	2280.35
Duck	364.0	372.8	381.7	390.8	398.4	412.34	426.77
Total Poultry	**2090.3**	**2207.3**	**2329.9**	**2459.7**	**2523.1**	**2626.28**	**2707.12**

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 FY 2002-03:

Table-7.9: Production of Milk, Meat and Eggs

Product	Unit	**Production**						
		2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Milk	Million tonnes	1.99	2.14	2.27	2.28	2.65	2.29	2.37
Meat	Million tonnes	0.91	1.06	1.13	1.04	1.04	1.08	1.26
Eggs	Million	4780	5623	5422	5369	5653.2	4692	5742.4

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

Artificial Insemination of Cattle

Artificial Insemination is an important programme for livestock development. Semen is collected from the bulls reared in the Central Cattle Breeding Station at Savar and other 22 District Artificial Insemination Centres, and processed as diluted and frozen semen to run the Artificial Insemination Extension Programme. A total number of 2,219 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 1.64 million in FY 2009-10

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 FY 2009-10, a total of 243.7 million doses of vaccines have been produced. Treatment has given to 4.15 million of cattle and 33.20 million of poultry in FY 2009-10.

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 and Animal Products Quarantine Act-2005' and the "National Livestock Development Policy-2007' have been enacted.

Development of Infrastructure

In the current fiscal year, Fisheries and Livestock feed Act-2010 has been passed by Parliament. 64 Districts Veterinary hospital has been established in district headquarters and 464 Upazila Livestock Development Centres (ULDC) for the expansion of modern veterinary services to the farmers. Technical supports are provided to poultry and dairy farm to test the quality of animal and poultry feeds, besides ensuring the modern veterinary services.

Avian Influenza/Bird Flu

Outbreak of Avian Influenza/Bird flu was identified first on 22nd March 2007. According to the latest report, a total of 358 (304 commercial farms and 54 backyard farms) were infected. It is also reported that a total of 18.7 Lakh poultry, ducks and pigeons and 25.93 lakh eggs had been culled and properly disposed. A massive program has been taken up by the Government and Tk. 1,336 Lakh has been distributed among farmers by way of compensation. 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 being implemented for the control avian influenza in the country and in the Annual Development Programme (ADP) of 2009-10, Tk. 1,400 Lakh and Tk. 1,080 Lakh respectably have been allocated for these two projects.

Annual Development Programme (ADP) for Livestock sub sector

In the RADP of FY 2009-10, a total of Tk. 85.25 crore (GOB Tk.40.73 crore and Project Aid Tk. 44.52 crore) has been allocated for implementation of 14 projects under livestock sub sector. Up to June'10, an amount of Tk. 72.53 crore (GOB Tk. 37.39 crore, PA Tk. 35.14 crore) has been spent which is 85 percent of the allocation.