

CHAPTER 1

ORGANIZATION

1.1 Structure

1.1.1 The Department of Animal Husbandry, Dairying & Fisheries (previously known as 'Department of Animal Husbandry & Dairying') is one of the Departments in the Ministry of Agriculture which came into existence on February 1, 1991 by converting two Divisions of the Department of Agriculture and Cooperation viz. Animal Husbandry and Dairy Development into a separate Department. The Fisheries Division of the Department of Agriculture and Cooperation and a part of the Ministry of Food Processing Industries were later transferred to this new Department on October 10, 1997.

1.1.2 The Department is under the overall charge of Shri Sharad Pawar, Hon'ble Minister of Agriculture. He is assisted by Shri. Mohd. Taslimuddin, Minister of State for Animal Husbandry. The administrative head of the Department is the Secretary (Animal Husbandry, Dairying & Fisheries). Ms. Charusheela Sohoni took over as Secretary on 1st August, 2006 on superannuation of Shri. P.M.A.Hakeem.

1.1.3 Secretary of the Department is assisted by Animal Husbandry Commissioner, four Joint Secretaries and one Advisor (Statistics), in the discharge of her administrative responsibilities. The organizational chart of the Department and work allocation among the Divisional heads is given at Annexure-I.

1.2 Functions

1.2.1 The Department is responsible for matters relating to livestock production, preservation, protection and improvement of stocks, dairy development and also for matters relating to the Delhi Milk Scheme and the National Dairy Development Board. It also looks after all matters pertaining to fishing and fisheries,

- The Department came into existence in February 1991 and Fisheries was transferred to the Department in October 1997.
- Main focus of the activities is on (a) development of requisite infrastructure in States/UTs for improving animal productivity (b) health and preservation of livestock health (c) strengthening of central livestock farms and (d) expansion of aquaculture in fresh / brackish water and welfare of fisherfolk, etc.
- The Department has 35 field offices/ subordinate offices.

which includes inland and marine sectors and National Fisheries Development Board.

1.2.2 The Department advises the State Governments /Union Territories in the formulation of policies and programmes in the field of animal husbandry, dairy development and fisheries. The main focus of the activities is on (a) development of requisite infrastructure in States/UTs for improving animal productivity (b) preservation and protection of livestock through provision of health care (c) strengthening of central livestock farms (Cattle, Sheep and Poultry) for development of superior germplasm for distribution to states and (d) expansion of aquaculture in fresh, brackish water and welfare of fisherfolk etc.

1.2.3 The list of the subjects allocated to the Department is given at Annexure-II.

1.3 Subordinate Offices

1.3.1 The Department looks after the administration of 35 field offices / subordinate offices spread all over the country, which deal with various

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disciplines of animal husbandry, dairy and fisheries sectors. Their category-wise breakup is as follows:

i) Central Cattle Development Organisations	12
ii) Central Poultry Development Organisations	5
iii) Central Sheep Breeding Farm	1
iv) Central Fodder Development Organisations	8
v) Animal Quarantine Certification Centres	4
vi) Delhi Milk Scheme	1
vii) Central Institute of Coastal Engineering for Fisheries, Bangalore.	1
viii) Central Institute of Fisheries Nautical and Engineering Training, Cochin.	1
ix) Integrated Fisheries Project, Cochin.	1
x) Fisheries Survey of India, Mumbai.	1
Total	35

1.3.2 A list of the aforesaid subordinate offices is given at Annexure-III.

1.4 National Dairy Development Board (NDDB)

1.4.1 National Dairy Development Board, located at Anand, Gujarat, is a premier institution. The Board was set up in 1987 to accelerate the pace of dairy development on cooperative lines. Dr. (Ms) Amrita Patel is the Chairperson of the Board since 26th November 1998.

1.5 National Fisheries Development Board (NFDB)

1.5.1 National Fisheries Development Board (NFDB) has been set up recently with its headquarters at Hyderabad. The Board has been registered under Andhra Pradesh Society Registration Act 2001 on 10th July, 2006 to realize the untapped potential of fisheries sector in inland and marine fish capture, culture, processing and marketing of fish, and over all growth of fisheries sector with the application of modern tools of research & development including biotechnology for optimizing production and productivity from fisheries. The Board was inaugurated on 9th September, 2006.

1.6 Advisory Boards

1.6.1 Six Advisory Committees/Councils/Boards have been constituted to advise the Department for promotion of activities in various fields of animal husbandry, dairy and fisheries sectors. These are as follows:

- (i) Gosamvardhan Advisory Council;
- (ii) Central Advisory Committee for Development of Sheep, Goats and Rabbits;
- (iii) Equine Development Board;
- (iv) Central Poultry Development Advisory Council;
- (v) Milk and Milk Products Advisory Board;
- (vi) Central Board of Fisheries.

1.7 Coastal Aquaculture Authority

1.7.1 The Coastal Aquaculture Authority Bill, 2005 passed by both the Houses of Parliament became an Act as notified on 23.06.2005 in the Official Gazette and rules have already been framed under the Act and notified in the Gazette on 22.12.2005. The composition of new Coastal Aquaculture Authority under the Chairmanship of Justice A.K.Rajan has also been notified in the Gazette on 22.12.2005.

1.8 Veterinary Council of India

1.8.1 Veterinary Council of India is a Corporate Body under the Indian Veterinary Council Act, 1984. While 100% grant-in-aid is provided for establishment and running of the Veterinary Councils of Union Territories, grant-in-aid is provided to states on 50:50 basis by the Centre and the States for this purpose. At present, 25 States and all UTs have adopted the Indian Veterinary Council Act, 1984. In accordance with the provisions under section 3(3) (G) of the Indian Veterinary Council Act, 1984, Government of India conducted the triennial election to the VCI in August, 2006 and the new Council has been constituted in October, 2006 with Dr. A.L. Choudhary as the President.

1.9 Staff Grievances Cell

1.9.1 A Staff Grievances Cell has been set up in the Department to look into grievances. Action is underway to extend this facility to subordinate offices of the Department. A Director level officer has been designated to look into grievance matters, both from the public and the staff of the Department.

1.10 Liaison Officer for SC/ST

1.10.1 An officer of the rank of Deputy Secretary in the Department has been designated as Liaison Officer for SC/ST employees of this Department as well as subordinate offices.

1.11 Vigilance Unit

1.11.1 A Vigilance Unit has been functioning in the Department to process vigilance cases pertaining to the Department and subordinate offices. One of the Joint Secretaries has been appointed as part-time Chief Vigilance Officer of the Department. The Chief Vigilance Officer monitors the vigilance cases at regular intervals.

1.11.2 The Department along with its field units observed Vigilance Awareness Week from 7th to 11th November, 2006. Secretary (ADF) administered the oath to the officers and staff in the headquarters at New Delhi.

1.12 Progressive use of Hindi

1.12.1 The Department has made concerted efforts during the year for promotion of Hindi in official work. The Hindi section was actively involved in translating various important documents like Annual Report, Performance Budget, Parliament Questions, documents related to Parliamentary Standing Committee and Cabinet Notes, etc. as well as in implementing the Official Language policy of the Government.

1.12.2 An Official Language Implementation Committee is functioning in the Department. In accordance with the prescribed rules, four meetings

of the Committee were held during the year. The progress in use of Hindi in the Department was reviewed in these meetings. Suggestions were given to promote the use of Hindi in official work. As a result of these suggestions, the percentage of original correspondence in Hindi has increased from 53.8% in the last year to 63% this year in the Department. In pursuance of orders of the Department of Official Language and with a view to assessing the progress of Hindi in subordinate offices, inspections were carried out in the field offices located at Anand and Cochin. During these inspections, difficulties being faced by the concerned offices in doing their work in Hindi were discussed and remedial measures suggested. Hindi Workshops were also organized during these inspections where officials were apprised of the Official Language Policy of the Government and also suggestions given as how to promote Hindi in Official Work. During the year, the Committee of Parliament on Official Language inspected the National Dairy Development Board, Anand and CIFNET, Cochin. These inspection meetings were also attended by representatives from the Department. In order to encourage officials to do their maximum work in Hindi, the Department has also introduced an incentive scheme providing for cash awards. Four Hindi Workshops were organized in the Department during the period under review.

1.12.3 Hindi Fortnight was celebrated in the Department from September 1-15, 2006. Various competitions were organised during this fortnight and successful participants suitably rewarded.

1.13 Animal Production and Health Informatics Division (NIC)

1.13.1 The Department in association with the Project Directorate of National Informatics Centre (NIC) of the Ministry of Communications and Information Technology (MCIT) has taken various measures during 2006-07 to usher in 'e-Governance' using Information and Communication Technology (ICT) applications for decision support.

1.13.2 The website of the Department (<http://>

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dadf.gov.in) was maintained and updated on daily basis in particular on the status of Avian Influenza till India declared freedom from Avian Influenza on Aug 11, 2006. All the notices and guidelines were placed on the website immediately after their release. The website has been enriched by publishing information under the Right to Information Act. The Department has developed a web-based system for 'Livestock Statistics'.

1.13.3 Detailed Agenda, Proceedings and Minutes of Meetings of Technical Monitoring on Fisheries are being made available on the Website. Video Conference facility of NIC has been extensively used for monitoring of the progress of Intensive Dairy Development Programme with States. Training on ArcGIS-1 at ESRI India under the project **GIS for Dairy Development** was conducted for the Officers of the Dairy Division of the Department.

1.13.4 A web based system for Sanitary Import Permit (SIP) has been developed and implemented to

facilitate online submission and tracking of applications for issue of import permits for Livestock Products and Grand Parent Stock of Poultry through the website of the Department <http://dadf.gov.in/sip>. International Video Conferences with Canada and USA on harmonization of Sanitary Standards for facilitation of trade under the SPS agreement of WTO were also organized.

1.13.5 The Department's LAN has been extended to meet the additional requirements with security features enabled.

1.14 Implementation of Right to Information (RTI) Act, 2005

1.14.1 For the purpose of providing information of public interest, the Department has designated Central Public Information Officers (CPIOs) under the relevant provision of the RTI Act. Similarly, separate CPIOs have been designated for various subordinate offices and autonomous organizations of the Department under the RTI Act.

CHAPTER 2

APPROACH AND STRATEGIES

2.1 Approach & Thrust Areas

2.1.1 Animal Husbandry, Dairying and Fisheries sectors play an important role in the national economy and in the socio-economic development of the country. These sectors also play a significant role in supplementing family incomes and generating gainful employment in the rural sector, particularly among the landless labourers, small and marginal farmers and women, besides providing cheap nutritional food to millions of people. Livestock are the best insurance against the vagaries of nature like drought, famine and other natural calamities.

2.2 National Agriculture Policy

2.2.1 The National Agriculture Policy, which aims to attain a growth rate in excess of 4 per cent per annum in the agriculture sector, stresses the importance of food and nutritional security issues and the importance of animal husbandry and fisheries sectors in generating wealth and employment. Since the present growth rate in crop production is around 2%, only higher growth rates of 6% to 8% in Animal Husbandry sector would help in achieving the targeted growth rate of 4% for the Agriculture sector as a whole. The Policy has accorded high priority to increasing protein availability in the food basket and generation of exportable surpluses. Health care, fodder production and freedom from animal diseases are some of the other areas of importance envisaged in the Policy document.

2.2.2 An integrated approach to marine and inland fisheries, designed to promote sustainable aquaculture practices, has been envisaged. The fields of biotechnological applications in the genetics and breeding, immunology and disease control are some of the other priority areas. The policy indicates that deep-sea fishing will be developed to take advantage

of the vast potential of the resources in the country's exclusive economic zone.

2.3 Approach of 10th Plan

2.3.1 In consonance with the overall strategy of the Tenth Plan, the major thrust of the policies and activities of the Department was concentrated on rapid genetic upgradation of cattle and buffaloes, provision of health cover including creation of disease-free zones, provision of nutritious feed and fodder, integrated approach to marine and inland fisheries, development of deep sea fishing, etc.

2.3.2 The major thrust during the 10th Five Year Plan has, therefore, been on the following critical areas:

- Rapid genetic upgradation of cattle and buffaloes and improvement in the delivery mechanism of breeding inputs and services to farmers.
- Extension of dairy development activities in hilly and backward areas, including clean milk production.
- Promotion of fodder crops and fodder trees to improve animal nutrition.
- Provision of adequate animal health services with special emphasis on creation of disease-free zones and control of foot and mouth disease.
- Improvement of small ruminants & pack animals
- Development of backyard poultry in rural areas.
- Provision of credit facility to farmers for viable activities.
- Development of reliable database and management information system.
- Adoption of integrated approach to marine and inland fisheries, designed to promote sustainable aquaculture practices.

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- Strengthening of infrastructure for production of fish seed, berthing and landing facilities for fishing vessels.
- Development of inland fishing.
- Mechanization of fishing boats.
- Development of the deep sea fishing industry to take advantage of the vast potential of country's exclusive economic zone.

2.4 Strategy

2.4.1 Accordingly, the strategy and objectives pursued for development of animal husbandry and fisheries sectors during the year can be summarized as follows:

- (i) Expand and strengthen the infrastructure for artificial insemination, improve its efficiency and effectiveness using frozen semen technology for crossbreeding purposes.
- (ii) Creation of seed stock of qualitative superior bulls and bull mothers which would form the nucleus germplasm pool for rapidly building a national milch herd of high productivity cattle and buffaloes.
- (iii) Facilitate genetic improvement of important livestock breeds through selective breeding and crossbreeding of low production, non-descript stock, both for milk and draught purposes. Important indigenous breeds will be conserved.
- (iv) Improve productivity of pasture lands by introducing improved fodder seeds and increased use of wastelands for fodder production.
- (v) Develop adequate animal health services for protection of livestock, with special emphasis on control of foot and mouth disease.
- (vi) Improve and strengthen the database in respect of livestock products.

THRUST AREAS

- Animal disease control.
- Livestock breed improvement & development.
- Fodder development.
- Dairy and Poultry development.
- Fisheries development.

STRATEGIES

- Expansion of infrastructure.
 - Creation of seed stock of superior bulls and bull mothers.
 - Adequate animal health services.
 - Facilitate genetic improvement and conservation of indigenous breeds
 - Improve productivity of pasturelands through improved fodder seeds.
 - Upgradation of fishing capabilities of existing vessels & introduction of intermediate fishing crafts.
 - Welfare programme for fisher folks.
- (vii) Enhance adoption of technological inventions for increasing productivity of livestock products.
 - (viii) Upgradation of fishing capabilities of existing mechanized vessels and introduction of intermediate range of fishing craft with a capacity to fish in depths of 70-150 metres.
 - (ix) Development of large, medium and small reservoirs and floodplain lakes for fish yield optimization.
 - (x) Development of Freshwater aquaculture through Fish Farmers Development Agencies by providing assistance to fish

- farmers on various technology packages of aquaculture.
- (xi) Popularization of freshwater prawn farming including setting up of small-scale prawn hatcheries.
 - (xii) Development of environmentally sustainable aquaculture practices in coastal areas.
 - (xiii) Development of fisheries and aquaculture in hill areas for both food and sports fishing.
 - (xiv) Publication of extension material in print and electronic media on various topics for popularization of fisheries and aquaculture.
 - (xv) Welfare programmes for farmers and fishermen through insurance cover, improvement of traditional habitats, etc.

2.5 Government's initiative and assistance to States

2.5.1 As Agriculture, including Animal Husbandry, Dairying and Fisheries, is a State subject, the emphasis of the Department has been on supplementing efforts of the State Governments in the development of these sectors. The Department has been providing assistance to the State Governments for the control of animal diseases, scientific management and upgradation of genetic resources, increasing availability of nutritious feed and fodder, sustainable development of processing and marketing facilities and enhance production and profitability of livestock and fisheries enterprises.

2.6 Allocation for the Tenth Plan

2.6.1 The Department has been allocated Rs. 2500.00 crore for the Tenth Plan. The Department proposed to implement 18 schemes, which comprised of four new schemes viz., Foot and Mouth Disease Control Programme, Dairy/Poultry Venture Capital Fund, Strengthening of Infrastructure for Quality and Clean Milk Production and Strengthening of Database & Information Networking for Fisheries. The Department

also proposed to adopt macro-management approach in respect of Centrally Sponsored Schemes and accordingly four schemes on macro management approach are being implemented to enhance the productivity of support programmes and to accord greater flexibility to State Governments to develop and pursue activities on the basis of regional priorities. Three schemes viz. Modernisation of Slaughter Houses/Carcass Utilisation Centres, Directorate of Animal Health and Delhi Milk Scheme were approved conditionally. However, on the Department's persuasion, Planning Commission agreed to continue the scheme of Directorate of Animal Health for the Tenth Plan.

2.6.2 As per the objectives of the National Common Minimum Programme, the Department proposed a new Centrally Sponsored Scheme viz. Livestock Insurance, which is being implemented during the last two years of the Tenth Plan. Also, in order to take up fisheries development schemes in a more purposeful and co-ordinated manner, National Fisheries Development Board has been set up.

2.7 Budget Estimates and Expenditure 2002-03, 2003-04, 2004-05 & 2005-06

2.7.1 The Department was allocated Rs. 300.00 crore for the Annual Plan 2002-03. Against this, the Ministry of Finance fixed RE at Rs 240.00 crore. The Department made an expenditure of Rs 238.90 crore.

2.7.2 The Department was allocated Rs.300.00 crore for the Annual Plan 2003-04. Against this, the Ministry of Finance fixed RE at Rs 275.00 crore. The Department made an expenditure of Rs 271.76 crore.

2.7.3 The Department was initially allocated Rs.500.00 crore for the Annual Plan 2004-05. However, in order to fulfill the spirit of the National Common Minimum Programme, the Department proposed new schemes and sought additional allocation. An additional allocation of Rs 100.00 crore was, accordingly, provided by the Planning Commission. Against this, the Ministry of Finance fixed RE at Rs 575.00 crore and an expenditure of Rs 566.22 crore was incurred.

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2.7.4 The Department was allocated Rs.669.08 crore for the Annual Plan 2005-06. Against this, the Ministry of Finance fixed RE at Rs 599.00 crore. The Department made an expenditure of Rs 589.37 crore.

2.7.5 The scheme-wise allocation for Tenth Plan, BE and expenditure during 2002-03, 2003-04, 2004-05 and 2005-06 is given at Annexure-IV and Annexure-V.

2.8 Budget Estimate 2006-07

2.8.1 Against the proposal of Rs.1262.37 crore, the Planning Commission allocated Rs.777.00 crore.

2.9 Revised Estimate 2006-07

2.9.1 Against BE of Rs 777.00 crore, the Ministry of Finance has fixed RE at Rs.750.00 crore.

2.9.2 The scheme-wise BE, expenditure till 31st December, 2006 and RE for 2006-07 are given at Annexure-V.

2.10 Schemes/Programmes

2.10.1 For achieving an accelerated growth in livestock and fisheries sectors, the Department implemented a total of 22 schemes during 2006-07. Of these 22 schemes, 11 relate to animal husbandry, 4 to dairy development, 6 to fisheries sector and 1 relates to the Secretariat and Economic Services.

2.11 Eleventh Plan Proposals

2.11.1 The Department has forwarded proposals to the Planning Commission involving a sum of Rs.17695.17 crore (including Rs.117.00 crore as External Aid) for the Eleventh Plan. This includes an amount of Rs.13641.77 crore for Animal Husbandry, Rs.847.40 crore for Dairy Development and Rs.3171.00 crore for the Fisheries sector.

2.11.2 The approach of the 11th Plan for the livestock sector aims at achieving an overall growth between 6 to 7 percent per annum for the sector as a

whole, with milk group achieving a growth of 5% per annum and meat and poultry achieving a growth of 10% per annum. The objective is that benefit of higher growth should be equitable, benefiting mainly the small and marginal farmers and landless laborers who maintain bulk of the livestock in the country. The aim is also to benefit poorly endowed areas like drought prone, arid and semi-arid areas. The sector will also provide additional employment opportunities to people in the rural areas especially to the female population who manage the livestock in the household, thereby empowering rural women with livestock in the household, proving as a source of economic empowerment. The strategy for the 11th Plan is based on the following considerations:

- (i) There is a need for institutional restructuring of the existing development machinery, both at the national and state level.
- (ii) A sustainable and financially viable livestock farming, which will generate wealth and self-employment through entrepreneurship, is the need of the day.
- (iii) The successful examples of public-private partnership initiative should be replicated and expanded during the 11th Five Year Plan.
- (iv) Initiatives on the pattern of producers' organizations like 'Anand' need to be taken up in other livestock products specially meat and poultry.
- (v) There is a need to provide efficient and effective decentralized services at the doorstep of livestock farmers.
- (vi) A mechanism for transfer of technological development to the producers' should be instituted.
- (vii) There is a need to build a line of credit to meet the requirement of livestock sector.

2.11.3 The Department has, accordingly, proposed to restructure some of the existing schemes and introduce new schemes for the Eleventh Plan.

2.11.4 Against the Annual Plan 2007-08 proposal of Rs.1217.52 crore, the Planning Commission has allocated Rs.910.00 crore.

2.12 Livestock resources

2.12.1 India has vast resource of livestock and poultry, which play a vital role in improving the socio-economic conditions of the rural masses. India ranks first in respect of buffalo, 2nd in cattle and goats, 3rd in sheep, 4th in ducks, 5th in chickens and 6th in camel population in the world. The country has 57% of the world's buffalo population. The State-wise breakup of different species of livestock is given at Annexure - VI.

S.No.	Species	Livestock Census (Millions)		Annual Growth Rate (%)	
		1997	2003	2003 over 1997	Annual (compounded)
1	2	3	4	5	6
1	Cattle	198.9	185.2	-6.89	-1.18
2	Buffalo	89.9	97.9	8.91	1.43
3	Yaks	0.06	0.07	16.67	2.60
4	Mithuns	0.2	0.28	55.56	7.64
	Total Bovines	289.0	283.4	-1.95	-0.33
5	Sheep	57.5	61.5	6.96	1.13
6	Goat	122.7	124.4	1.38	0.23
7	Pigs	13.3	13.5	1.58	0.26
8	Other animals	2.8	2.2	-22.18	-4.09
	Total Livestock	485.4	485.0	-0.08	-0.01
9	Poultry	347.6	489.0	40.68	5.85

2.13 Employment Generation

2.13.1 Animal Husbandry sector provides large self-employment opportunities. According to National Sample Survey Organization's latest survey (July 2004-June 2005 NSS 61st round), the estimate of employment in animal husbandry sector was 11.44 million in principal status and 11.01 million in subsidiary status, which is 5.50% of the total working population of the country. Out of this 22.45 million engaged in animal husbandry sector, 16.84 million are females. Animal Husbandry and Fisheries sectors together engage 23.68 million population which is around 5.80% of the total work force.

2.14 Value of Output

2.14.1 According to estimates of the Central

Statistical Organization (CSO), the value of output from livestock and fisheries sectors together at current prices was about Rs. 2,25,841 crore during 2005-06 (Rs. 1,85,166 crore for livestock sector and Rs. 40,675 crore for fisheries). It is about 31 per cent of the value of output of Rs.7,20,340 crore from Agriculture & allied Sectors, in toto. The contribution of these sectors to the total GDP during 2005-06 was 5.30 %.

2.15 Other Contributions

2.15.1 Livestock Sector not only provides essential proteins and nutritious human diet through milk, eggs, meat etc., but also plays an important role in utilization of non-edible agricultural by-products. Livestock also provides raw material / by products such as hides and skins, blood, bone, fat etc. The contribution of milk alone (Rs.1,15,970 crore) was higher than paddy

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(Rs.70,462 crore), wheat (Rs.48,052 crore) and sugarcane (Rs.23,167 crore). The value of output from meat group as per estimates of Central Statistical Organization (CSO) at current prices was Rs. 30,401 crore during 2004-05.

- India ranks first in respect of cattle and buffaloes, second in goats, third in sheep and seventh in poultry population in the world.
- About 22.45 million people work in livestock sector.
- The contribution of livestock and fisheries sector in the total GDP during 2005-06 was 5.30%.

2.16 Export Earnings

2.16.1 Total export earnings from livestock, poultry and related products was Rs. 5120 crore during 2004-05. Out of total exports, leather sector accounted for Rs. 2,660 crore in value terms.

2.19 Wool Production

2.19.1 Wool production at the end of Ninth Plan (2001-02) was 49.5 million kgs. as compared to 41.20 million kgs. during 1990-91. The production of wool was 44.9 million kgs. during 2005-06.

(Production in lakh tonnes)

Year	Marine	Inland	Total
1991-92	24.47	17.10	41.57
1992-93	25.76	17.89	43.65
1993-94	26.49	19.95	46.44
1994-95	26.92	20.97	47.89
1995-96	27.07	22.42	49.49
1996-97	29.67	23.81	53.48
1997-98	29.50	24.38	53.88
1998-99	26.96	26.02	52.98
1999-2000	28.52	28.23	56.75
2000-2001	28.11	28.45	56.56
2001-2002	28.30	31.20	59.56
2002-2003	29.90	32.10	62.00
2003-2004	29.41	34.58	63.99
2004-2005	27.80	35.20	63.04
2005-2006	28.16	37.55	65.71

2.19.2 The production of major livestock products from 1950-51 to 2005-06 is given at Annexure-VII.

2.20 Fish and Fish Seed Production

2.20.1 India is now the third largest producer of fish in the world, and second largest producer of fresh water fish in the world. During 2005-2006, total fish production was 65.71 lakh tonnes. The fish seed production was 22614.72 million fry during the same year.

2.21 Export Potential of Marine Products

2.21.1 During 2005-06, the country exported 5.51 lakh tonnes of marine products valued at Rs. 7018.68 crore compared to 4.82 lakh tonnes of marine products, valued at Rs. 6459.89 crore in 2004-05.

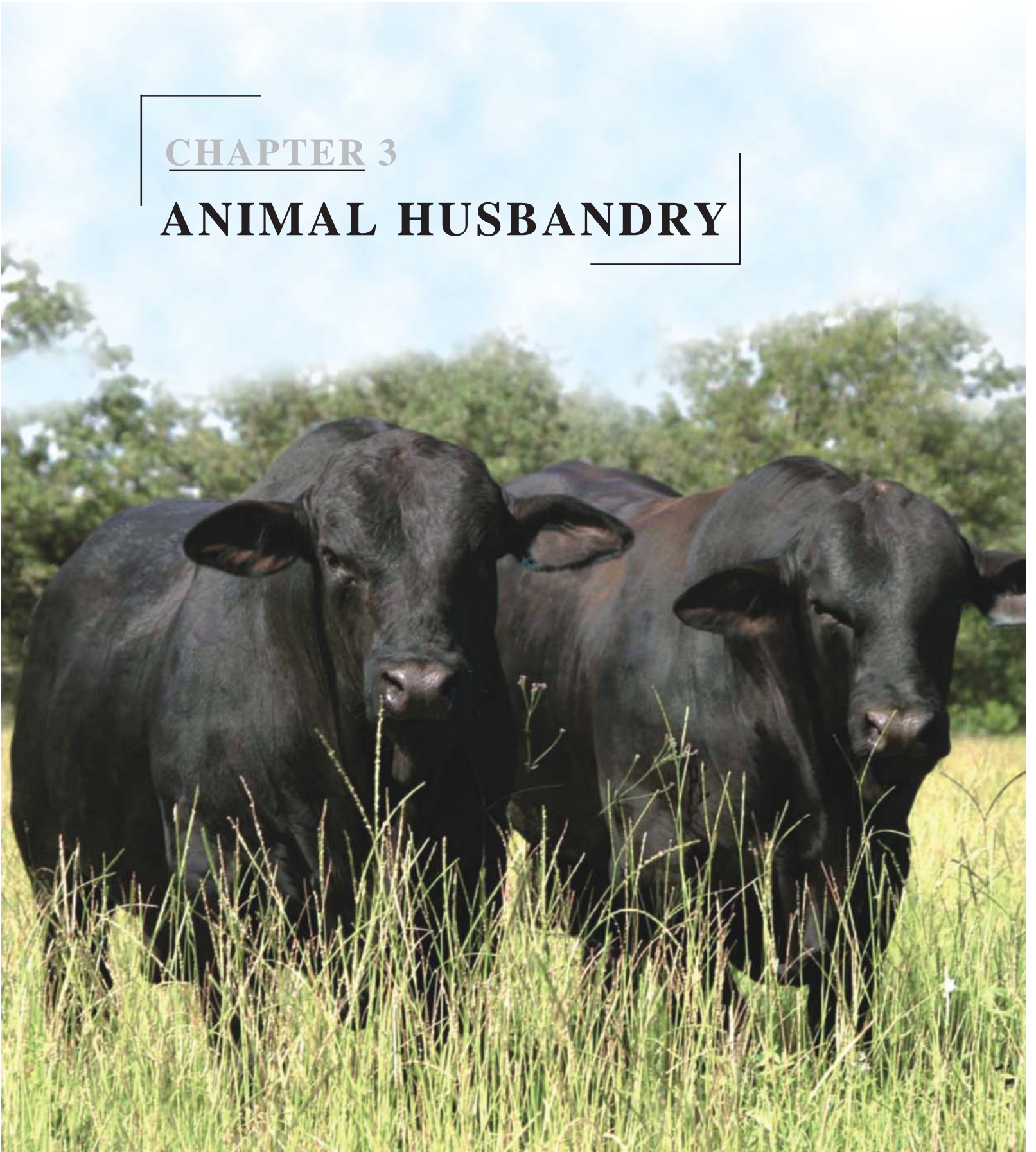
Growth in Export of Marine Products:

Year	Quantity ('000' Tonnes)	Value (Rs. in crore)
1991-92	171.80	
1992-93	208.60	1767.43
1993-94	244.00	2503.62
1994-95	320.90	3536.64
1995-96	327.40	3381.13
1996-97	394.50	4007.63
1997-98	398.20	4457.00
1998-99	311.20	4334.00
1999-00	390.70	5056.00
2000-01	502.60	6296.00
2001-02	457.60	5815.00
2002-03	520.70	6793.05
2003-04	412.01	6086.83
2004-05	482.22	6459.89
2005-06	551.28	7018.68

Source: Foreign Trade Statistics of India (Principal Commodities and Countries), DGCI&S

The State-wise details of fish production, marine fisheries resources and inland water resources are given at Annexure-XII, XIV & XV and the year-wise production of fish seed is given in Annexure-XIII.

CHAPTER 3
ANIMAL HUSBANDRY



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3.1 The Department has been operating 18 Central Livestock Organizations and allied Institutions for production and distribution of superior germ plasm to the State Governments for cross breeding and genetic upgradation of the stocks. Besides, the Department is implementing various central sector and centrally sponsored schemes for the development of requisite infrastructure and supplementing efforts of the State Governments for achieving accelerated growth of the animal husbandry sector.

3.2 Central Cattle Development Organizations

3.2.1 These organizations include seven Central Cattle Breeding Farms, one Central Frozen Semen Production and Training Institute and four Central Herd Registration Units established in different regions of the country for seeking production of genetically superior breed of bull calves, good quality frozen semen and identification of location of superior germplasm of cattle and buffaloes to meet the requirement of bulls and frozen semen in the country.

3.3 Central Cattle Breeding Farms (CCBF)

3.3.1 There are seven Central Cattle Breeding Farms (CCBFs) located at Alamadhi (Tamil Nadu), Andeshnagar (U.P), Chiplima, Sunabeda (Orissa), Dhamrod (Gujarat), Hesserghatta (Karnataka), and Suratgarh (Rajasthan). They are producing high pedigree bull calves of indigenous and exotic breeds of cattle and important buffalo breeds for distribution to States. The bull calves are produced from Tharparkar, Red Sindhi, Jersey, Holstein Friesian and Crossbred cattle and from Surti and Murrah buffalo. The Farms at Andeshnagar and Chiplima are producing HF x Tharparkar crossbred and Jersey x Red Sindhi crossbred bulls respectively. During 2006-07, these farms have produced 252 bull calves and trained 2086

farmers in dairy farm management (till December, 2006).

3.4 Central Frozen Semen Production and Training Institute, Hessarghatta

3.4.1 This is a premier institute located at Hessarghatta, Bangalore (Karnataka) producing frozen semen doses of indigenous, exotic crossbred and Murrah bulls for use in Artificial Insemination (AI). The institute also provides training in frozen semen technology to technical officers of the State Governments and acts as a Centre for testing the indigenously manufactured frozen semen and AI equipments. During 2006-07 (till December, 2006), the Institute produced 9.61 lakh doses of frozen semen.

3.5 Central Herd Registration Scheme (CHRS)

3.5.1 Central Herd Registration Scheme is for registration of elite cow and buffalo breeds of national importance and provides incentive for rearing of elite cows and male calves. It plays a vital role in sourcing indigenous germplasm required for the National Project for Cattle and Buffalo Breeding. The scheme has a significant role in assisting the Department of Animal Husbandry of States and Union Territories, Private Sector and Government Undertakings in procuring elite dairy cows and buffaloes as well as bulls and progeny of high genetic potential for use in the development programme.

3.5.2 Objectives of the Scheme

- (i) Identification and location of superior germ plasm
- (ii) Using this data for producing superior germ plasm.
- (iii) Preservation of indigenous germ plasm.

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- (iv) Milk recording of Cattle and Buffaloes for improving dairy farming.

3.5.3 A total of 92 Milk Recording Centres located in the States of Gujarat, Maharashtra, Rajasthan, Haryana, Delhi, Uttar Pradesh and Andhra Pradesh are functioning under the four CHRS Units established under this scheme at Rohtak, Ahmedabad, Ajmer and Ongole for recording the milk of indigenous breeds of Gir, Kankrej, Hariana and Ongole of Cattle and Murrah, Jaffrabadi, Surti and Mehsana breeds of buffalo for their confirmation of phenotypic breed characteristics and milk production level. These are identified in their breeding tracts and publicity is made for marketing of registered cows and buffaloes and their calves. The primary registration of 11,368 cows and buffaloes has been done till December, 2006 during 2006-2007.

3.6 National Project for Cattle & Buffalo Breeding

3.6.1 Genetic improvement is a long-term activity and the Government initiated a major programme



'National Project for Cattle and Buffalo Breeding' (NPCBB) in October 2000 for a period of ten years, in two phases, with an allocation of Rs 402 crore for phase-I and Rs. 775.87 Crore for Phase-II. The Project envisages genetic up-gradation on priority basis. The project also has its focus on the development and conservation of important indigenous breeds. The project provides 100% grant-in-aid to the State Implementing Agencies.

3.6.2 Objectives

The objectives of the scheme are:

- (a) to arrange delivery of vastly improved artificial insemination service at the farmers' doorstep;
- (b) bring all breedable females among cattle and buffalo under organized breeding through artificial insemination or natural service by high quality bulls within a period of 10 years;
- (c) undertake breed improvement programme for indigenous cattle and buffaloes so as to improve the genetic makeup as well as their availability.

3.6.3 Components

- (a) streamlining storage and supply of Liquid Nitrogen by sourcing supply from industrial gas manufacturers and setting up bulk transport and storage systems for the same,
- (b) introduction of quality bulls with high genetic merit,
- (c) promotion of private mobile A.I. service for doorstep delivery of A.I.,
- (d) conversion of existing stationary government centres into mobiles centres,
- (e) quality control and certification of bulls and services at sperm stations, semen banks and training institutions,
- (f) study of breeding systems in areas out of reach of A.I. and
- (g) institutional restructuring by way of entrusting the job of managing production and supply of genetic inputs as well as Liquid Nitrogen to a specialized autonomous and professional State Implementing Agency (SIA).

3.6.4 Progress of the Scheme

3.6.4.1 27 States and UTs participating in the project have been provided financial assistance of Rs.339.78 crores so far. During 2006-2007, an amount of Rs 46.33 crores has been released till December, 2006

including funds released under the special package for suicide prone districts in the country.

3.6.5 Constitution of State Implementing Agencies (SIAs)

3.6.5.1 Since inception of the project in October, 2000, twenty three SIAs have been constituted under the project. These agencies are implementing the project with a professional approach. In case of small States who are unable to constitute viable SIAs, funds have been released to the State Governments for implementation of the project. The remaining two States, Bihar and Jharkhand, would start participating in the project from the current financial year.

3.6.6 Increase in coverage of breedable animals

3.6.6.1 Semen production in the country has increased from 22 million straws (1999-2000) to 37 million straws (2005-2006) and the number of inseminations has increased from 20 million to 34 million. As per the impact analysis report submitted by NABARD, overall conception rate has increased from 20% to 35%. The coverage of the breedable bovine population has increased from 16% to 34%.

3.6.7 Development of minimum standard protocol for semen production (MSP)

3.6.7.1 In order to produce frozen semen of uniform standard, a Minimum Standard Protocol (MSP) for semen production has been developed in consultation with experts from BAIF, National Dairy Development Board (NDDB), National Dairy Research Institute (NDRI) (Karnal) and Central Frozen Semen Production and Training Institute (CFSP&TI) and the same has been made effective from 20th May, 2004.

3.6.8 ISO certification for semen stations

3.6.8.1 To ensure quality of frozen semen straws for AI programme, atleast one semen station in each State would obtain ISO certification. The semen stations at Ooty (Tamil Nadu Cooperative Milk

Producers' Federation), Bidaj (NDDB), Pune (BAIF), Hissar (Haryana Livestock Development Board), Gurgoan (Haryana Livestock Development Board), Jagadhari (Haryana Livestock Development Board), Haringhata (West Bengal), Salboni (West Bengal), Beldanga (West Bengal), Shyampur (Uttanchal), Nabha (Punjab) and Bhattain (Punjab Milk Federation), Nandani (Karnataka), Hessarghata (Karnataka), Mattupatty (Kerala), Vizag (Andhra Pradesh), Nandyal (Andhra Pradesh), Karimnagar (Andhra Pradesh), Banwasi (Andhra Pradesh), Bassi (Rajasthan) are ISO certified. It is envisaged that all the semen stations strengthened under the NPCBB would acquire ISO certification during next one year.

3.6.9 Testing of bulls used for semen production

3.6.9.1 The Department has prepared a schedule for disease testing of bulls for all the sexually transmitted diseases (STDs). The Central Disease Diagnostic Laboratory (CDDL) and Regional Disease Diagnostic Laboratories (RDDLs) have been given the mandate to test all breeding bulls and bull mothers of semen stations in the Central farms, State/ Co-operative/ Embryo Transfer Technology Laboratory and private farms. RDDLs have started testing of the bulls and bull mothers in most of the States and infected bulls and bull mothers have been segregated. The States have been requested to take up ring vaccination against FMD in a radius of 10 kms around frozen semen bull stations, farms and ET labs under the scheme 'Assistance to States for Control of Animal Diseases' (ASCAD).

3.6.10 Phase-II of NPCBB

3.6.10.1 In order to consolidate the gains made during Phase-I of the NPCBB, the CCEA in its meeting held on 30.11.2006, has approved Phase-II of National Project for Cattle and Buffalo Breeding for a further period of five years, with an allocation of Rs.775.87 crore. Administrative approval for the scheme has been issued in January, 2007. The Phase-II will generate self-employment for about 20,000 AI practitioners to provide delivery of AI at the farmer's

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doorstep. To improve viability of private AI workers, grants have been raised from Rs.3000/- to Rs.6000/-, about 80,000 bulls for natural service are being inducted to provide quality breeding services to poor livestock owners and enhance rural self-employment opportunities and increase farm income.

3.6.10.2 Issues to be addressed during Phase-II:

- i) Large cattle population and its low productivity per animal.
- ii) More emphasis on conservation of dwindling indigenous cattle and buffalo breeds.
- iii) Setting up of farmers' organisations and breeders societies in the country.
- iv) More effective extension network.

3.7 National Project for Improvement of Poultry and Small Animals

3.7.1 A new macro scheme 'National Project for Improvement of Poultry and Small Animals' comprising of existing components- Centrally Sponsored Fodder Development Scheme, Assistance to State Poultry/Duck Farms and Conservation of Threatened Livestock Breeds and new components Rural Backyard Poultry Development, Integrated Development of Small Ruminants and Assistance to States for Piggery Development has been initiated during 2005-06. The EFC memo for the new macro scheme is under progress.

3.8 Feed and Fodder Development

3.8.1 The nutritive value of feed and fodder has a significant bearing on productivity of livestock. Due to increasing pressure on land for growing food grains, oil seeds and pulses, adequate attention has not been given to the production of fodder crops. Further, on account of diversified use of agriculture residues, gap between the demand and supply of fodder is increasing. Frequent droughts in several states have also brought out the need to develop fodder banks in

vulnerable areas and strategies for improving the supply/transportation of fodder from one region to another region in the country. Presently, the Department is implementing a central sector scheme viz. Central Fodder Development Organization. The centrally sponsored scheme, 'Assistance to States for Feed and Fodder Development' was continued with two components viz. Enrichment of Straws/Cellulosic Waste and Establishment of Fodder Bank till third year (2004-05) of the Tenth Plan as a special dispensation in view of drought situation. A new scheme called 'Centrally Sponsored Fodder Development Scheme' was initiated during 2005-06.

3.9 Centrally Sponsored Fodder Development Scheme

3.9.1 This scheme provides central assistance to States to supplement their efforts in feed and fodder development sector. The scheme is being implemented from 2005-06 with the following four components:

- (A) Assistance to Fodder Block Making Units
- (B) Grassland Development, including Grass Reserves
- (C) Fodder Seed Production Programme.
- (D) Biotechnology Research Projects



A. Assistance to Fodder Block Making Units

3.9.2 The livestock feed is presently based mainly on dry roughage from crops. The bulk density of fodder, hay and straws after thrashing is very low and

hence requires large storage place. For this purpose, farmers neither have sufficient space nor time between harvesting of mature crop and sowing of next seasonal crop. As a result, crop residues, which are otherwise suitable for feeding, are quite often burnt in the fields. India produces approximately 540 million tons of crop residues annually, which could be useful for feeding the country's livestock population. Densification of roughage and waste crop residues in compact blocks is an effective solution for livestock feed management. It is also possible to formulate complete animal feed blocks using straw and diet supplements such as molasses, concentrates, minerals and salt. The activity could thus play an important role in productive utilization of crop residues. This will also enable efficient and cost effective transport of fodder upon its densification into fodder blocks. Upto 10 tons of feed blocks can be easily transported in a truck against 4 tons of loose fodder. The main emphasis here is on the prevention of wastage of crop residue and its concurrent utilization for livestock feeding by conversion into fodder blocks and bales.

3.9.3 In order to encourage setting up of such units, an assistance of up to 25% of the investment cost is provided under the scheme. This assistance is provided only in respect of bankable projects appraised by NABARD or any other nationalized bank. Cooperatives as well as private sector entrepreneurs are eligible for assistance under this scheme.

3.9.4 During 2005-06, an amount of Rs.19.80 lakhs was released to Andhra Pradesh for establishment of one fodder block making unit. During 2006-07, two proposals are under process for release of funds. The results reported from the unit established recently in Andhra Pradesh are encouraging.

B. Grassland Development including grass reserves

3.9.5 The scheme envisages improvement of degraded grasslands and rehabilitation of problematic soils like saline, acidic and heavy soils through vegetation cover. Under this programme, planting of

specific grasses and legumes suitable for particular type of soil is promoted so that a vegetation cover may be provided to give fodder and also to rehabilitate the degraded areas. The fertility status of land will also be improved by introducing suitable legumes. Grasslands requiring regeneration through the process of natural recovery by closure/exclusion of biotic interference are also eligible for funding under the scheme. This would involve fencing of the area, establishment of soil and moisture conservation structures to support natural regeneration such as contour bunding, furrowing, ploughing, fertilization, etc. A 10-hectare unit of such land is provided up to a maximum of Rs. 10.00 lakhs per unit for grassland development depending on the type of land.



3.9.6 The degraded grasslands will be slowly improved by introducing suitable grass cover on the same. The extensive erosion presently taking place on these lands will be minimized. The biomass produced will help to minimize the gap between availability and requirement. The forage that will be obtained from these lands could be utilized for establishing fodder banks depots. The bio-mass production from grassland will be cheaper and will support animal production. The Government of India provides 100% grant-in-aid for rehabilitation of degraded pasture/grasslands to the states to take up activity through NGO/cooperative society/village committees etc. During 2006-07 (till December 2006), an amount of Rs. 90.00 lakhs has been provided to the State of Nagaland.

C. Fodder Seed Production and Distribution Programme

3.9.7 The area under fodder cultivation has remained static on account of preference for more remunerative grains, oil seeds and other cash crops. It is, therefore, necessary to produce high yielding varieties of fodder seed to make fodder production more remunerative. In order to encourage the fodder seed production in states, it is proposed to assure procurement of fodder seeds by making arrangement for buy-back of fodder seeds from the farmers. Under this component, 75% of the procurement price is provided for purchase of fodder seeds from the farmers. The State Government will furnish a firm commitment for purchase of fodder seeds from such farmers. The buy-back arrangement will ensure interest of the farmers in taking up fodder seed production activity. The State Government will furnish, in its proposal, the details of fodder seeds, the extent of area, details of farmer with whom buyback has been entered into along with the modalities of this arrangement. During 2006-07 (till December 2006), an amount of Rs.30.00 lakhs has been provided to the State of Nagaland.

D. Biotechnology Research Projects

3.9.8 Research projects/special studies in collaboration with research institutes/agricultural universities etc. in the field of feed and fodder can be undertaken under the scheme. More research/biotechnology projects on the feed and fodder aspects can be initiated in collaboration with the research institutes concerning feed & fodder and livestock nutrition for which 100% Central grant is provided to each research institute. During 2006-07, two proposals from Indian Grassland and Fodder Research Institute (IGFRI) are under consideration for release of funds.

3.10 Central Fodder Development Organization

3.10.1 Under this central sector scheme, seven Regional Stations for Forage Production & Demonstration located in different agro-climatic zones

of the country and one Central Fodder Seed Production Farm, Hessarghatta, Bangalore are being operated. Besides this, a Central Minikit Testing Programme on Fodder Crops is being funded under this scheme. The details are as under:

A. Regional Stations for Forage Production and Demonstration and Central Fodder Seed Production Farm, Hessarghatta, Bangalore.

3.10.2 For production and propagation of certified seeds of high yielding varieties of fodder crops and pasture grasses/legumes, the Government has established seven Regional Stations at Mamidipally, Hyderabad (Andhra Pradesh), Gandhi Nagar (Gujarat), Hissar (Haryana), Suratgarh (Rajasthan), Sahema (Jammu & Kashmir), Alamadhi (Tamil Nadu) and Kalyani (West Bengal) and a Central Fodder Seed Production Farm at Hessarghatta (Bangalore). These stations are catering to fodder related requirements of the states in their respective regions. These stations also carry out extension activities through field demonstrations and farmers' fairs / field days. During 2006-07 (till December, 2006), these stations have produced 157 tonnes of fodder seeds, conducted 3384 demonstrations, organized 51 training programmes and 48 farmers' fairs / field days.

B. Central Fodder Seed Production Farm, Hessarghatta.

3.10.3 In addition to the regional stations, the central fodder seed production farm, Hessarghatta is also engaged in production of fodder seed and pasture species like grasses/legumes. The farm is fully equipped with modern machinery and equipment as well as seed storage and processing capacity. This station is also carrying out extension activities through field demonstrations and farmers' fairs/field days. During 2006-07 (till December, 2006), this farm produced 49 tonnes of fodder seeds against a target of 73 tonnes seeds. Besides this, the farm also organized 570 field demonstrations, organized 13 training programmes and 15 farmers days/field days as targeted.

C. Central Minikit Testing Programme on Fodder Crops

3.10.4 Minikit demonstrations on fodder crops aim at making farmers aware through field demonstrations about latest high yielding varieties of fodder crops and improved agronomic package of practices to increase production of green fodder. Seeds of high yielding fodder crops/grasses/legumes in fodder minikits are allotted to states for onward distribution to farmers, free of cost. The quantity of seeds per kit varies from 1 kg to 5 kgs depending on the kind and variety of fodder crop. During 2006-07, 6.82 lakh minikits have been planned for allotment to various states, during Kharif and Rabi. To observe the positive impact of the scheme, the programme has been taken up in selected States in North, South and North East. Flood affected states viz. Gujarat, Rajasthan, Maharashtra and Madhya Pradesh have been given priority for allotment during current year. The minikits are supplied to the State Directors of Animal Husbandry for onward distribution to the village level.

3.11 Poultry Development

3.11.1 Poultry Development has taken a quantum leap in the last three decades, emerging from a near backyard practice to a venture of industrial promotion. India is on the world map as one of the leading egg producing countries with about 45 billion eggs produced per annum. The broiler production has also gone up at an annual growth rate of about 10% and stands at about 1.9 Million Metric Tonnes of chicken meat (FAO 2005).



3.11.2 After the initial boost given by the Central Poultry Breeding Farms to promote poultry farming on commercial lines in the country, the poultry sector has flourished and now about 70% of the production management and marketing is under a highly organized sector. The remaining 30% of the unorganized sector whose contribution needs to be strengthened is now being focused upon by promoting backyard poultry.

3.12 Assistance to State Poultry/ Duck Farms

3.12.1 This centrally sponsored scheme is being implemented in all the states and UTs. The pattern of assistance is 100% in the case of North-Eastern States including Sikkim whereas it is 80:20 in respect of other states between Centre and State respectively. A maximum of Rs. 85.00 lakhs is provided for each farm. In the existing premises of the State farms, guinea fowl, quail and turkey can also be taken up as a new activity. One time assistance is provided to strengthen them in terms of hatching, brooding and rearing of the birds with provision for feed mill and their quality monitoring and in-house disease diagnostic facilities. These farms maintain the parent stock of low input technology birds duly identified by this Department. Revolving fund for purchase of breeding stock, feed ingredients, transportation, medicines and vaccines is also provided under the scheme. During 2006-07 (till December, 2006), Rs 16.82 crore has been released including Rs.4.95 crore to North Eastern regions under the scheme. Total 164 farms including 136 poultry farms, 21 duck farms, 4 turkey farms and 3 quail farms have been assisted till December, 2006.

3.13 Central Poultry Development Organisations

3.13.1 Four Central Poultry Development Organizations (CPDOs) at Bangalore (SR), Bhubaneswar (ER), Chandigarh (NR) and Mumbai (WR) are now operating to meet the following requirements of their respective States/UTs.

i) **Making available quality chicks:** The CPDOs multiply and supply identified low-input technology poultry stocks to all states in their respective

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regions for their rural poultry development programs. These organizations procure breeding stock of low input technology developed by the ICAR, State Agriculture Universities, Private Sector, NGOs, etc. Till December, 2006, the four organizations have supplied more than 0.84 lakh parent chicks and 7 lakh commercial chicks to the beneficiary States. In addition, 5.2 lakh hatching eggs were supplied to the beneficiaries for production of day-old chicks.

ii) Diversification program: So far, poultry development has been concentrated on only one of the species i.e. chicken. This Department has started diversification program as a thrust area under which other species such as Duck (Southern and Eastern region), Japanese quail (Western and Northern region), Turkey (Southern and Western region) and Guinea fowl (Eastern region) have been introduced to boost the poultry industry. Emu farming was started at CPDO (Southern region) as a pilot project for popularizing this amazing bird in India. Four CPDOs have supplied about 0.85 lakh ducklings, 1.5 lakh duck hatching eggs, 0.2 lakh turkey poults, 0.45 lakh keets



and 2.50 lakh Japanese quail to different parts of the country till December, 2006.

iii) Strengthening of Feed quality monitoring wing: The feed analytical laboratories are concentrating their activities on analysis of various feed/feed ingredients and developing least cost feed formulation based on locally available ingredients. About 4700 feed/ingredients sample have been analysed by the four organizations till December, 2006.

iv) Training Program: Suitable training programmes are conducted at all the CPDOs to meet the requirement of trainers, farmers, women beneficiaries, various public and private sector poultry organizations, NGOs, Banks, Cooperatives and foreign trainees etc. Need-based and flexible training courses are prepared as per requirement of the industry. The four organisations have trained about 2000 poultry farmers and 65 trainers by the end of December, 2006.

v) Random Sample Tests: The Random Poultry Performance Testing Centre (RSPPTC) located at Gurgaon (Haryana) is the lone centre at the National level to test various stocks of poultry available in the country. The tests are conducted under uniform environment and standard management practices for assessing the production performance of layers and broilers. Presently, one layer and two broiler tests are conducted each year.

3.14 Relief Measures to Poultry Industry

3.14.1 Financial Relief to Poultry Industry:



3.14.1.1 The outbreak of the avian influenza in parts of Maharashtra, Gujarat and Madhya Pradesh caused some panic in the country. As a result, the consumption and prices of poultry products nosedived. In view of a severe economic distress faced by the poultry industry, the Government of India announced a number of relief measures. The Reserve Bank of India issued necessary instructions in this regard to various banks on 4th April, 2006. These relief measures included the following:-

- (i) A moratorium of one year on repayment of existing principal and interest on term loans and working capital into term loans and working capital due to all scheduled banks, cooperative banks and Regional Rural Banks.
- (ii) Conversion of working capital into term loan. The first year of repayment would be after the expiry of moratorium period.
- (iii) Re-scheduling of term loans availed by poultry units over an additional period of two years from the agreed tenor of the term loan.
- (iv) After conversion of working capital into term loan, poultry units may be permitted to draw additional working capital depending on the commercial viability of each unit.
- (v) Barring willful defaulters, Reserve Bank of India is requested not to treat defaulted accounts as NPAs.
- (vi) Grant of one time interest subvention of 4% for a period of one year on the outstanding principal amount as on 31.03.2006 (not including any part of the principal amount that has become overdue).

3.14.1.2 The Government of India provided an amount of Rs.80 crore to the Reserve Bank of India for implementation of interest subvention granted to all poultry units, as mentioned at (vi) above.

3.14.2 Release of Maize to Poultry Farmers:

3.14.2.1 Maize constitutes, on an average, 50% of the ingredient of the poultry feed. The current annual consumption of an estimated 12 MMT of poultry feed

comprises of 6 MMT of maize. Thus, it plays an important role in the development and economics of the poultry industry. Accordingly, in order to provide relief to the poultry industry suffering from the effects of bird flue in certain parts of the country, the Government of India decided in August, 2006 to release 5 lakh MT of maize at a subsidized price of Rs.450 per quintal from stocks surplus to the requirement of the PDS held with the FCI. This involves a subsidy of Rs.100 per quintal taking into account the FCI's average sales realization of Rs.550 per quintal. The amount of subsidy on account of decision to release maize to the poultry industry works out to Rs.50 crore.

3.14.2.2 In pursuance of the above decision, subsidized maize was released to Andhra Pradesh, Tamil Nadu, Maharashtra, Karnataka, Orissa, Kerala, Madhya Pradesh, Gujarat and Goa. These States were identified keeping in view their poultry population and location of the FCI stocks. Subsequently in October, 2006, it was decided to extend the benefit of subsidized maize to Chhatisgarh, Uttar Pradesh, Haryana, Punjab and Rajasthan.

3.15 Conservation of Threatened Livestock Breeds

3.15.1 The centrally sponsored scheme 'Conservation of Threatened Livestock Breeds of Small Ruminants, Pack Animals, Pigs and Equine', initiated during the 10th Plan, aims at conserving and protecting threatened breeds of livestock, whose population is less than 10,000. The proposals are invited through the State Governments, which also provide opportunities for participation of semi-government organizations, universities, NGOs, breeders'/farmers' organizations, etc.

3.15.2 Against the outlay of Rs.15 crore during the Tenth Plan, expenditure of Rs.12.80 crore up to 2005-06 was incurred for conservation of 26 threatened breeds of livestock (7 horses/pony, 4 goats, 4 sheep, 6 pigs, 3 yak, 1 mithun and 1 camel) against the Tenth plan target of 24 breeds. These include Terresa Goat in Andaman & Nicobar Islands, Doom Pig, Bhutia Pony and Yak in Arunachal Pradesh, Kathiawadi Horse

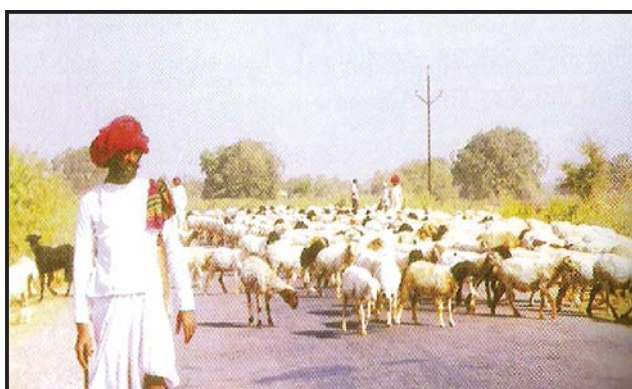
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in Gujarat, Spiti Pony and Yak in Himachal Pradesh, Zanskari Horse and Double Humped Camel in Jammu & Kashmir, Bandur Sheep in Karnataka, Malabari Goat and Angamaly Pig in Kerala, Sangamneri Goat and Madgyal Sheep in Maharashtra, Manipuri Pony in Manipur, Mithun and Zovawk Pig in Mizoram, Long haired Goat in Nagaland, Gray Sindhi Horse in Punjab, Marwari Horse in Rajasthan, Hazi Yak in Sikkim, Black Bengal Goat, Dome Pig and Mall Pig in Tripura, Jamunapari Goat in Uttar Pradesh, Ghoongro Pig, Bonpala Sheep, Garole Sheep and Black Bengal Goat in West Bengal. Detailed position of funds provided is given in Annexure-VIII.

3.15.3 During 2006-07, an amount of Rs. 169.46 lakh has been released till 31st December, 2006 for conservation of Spiti Pony (Rs.27.55 lakh) in Himachal Pradesh Double Humped Camel (Rs.25.17 lakh) and Zanskari Pony (Rs.34.24 lakh) in Jammu & Kashmir, Terresa Goat (Rs.50.00 Lakh) in Andaman & Nicobar Islands and Rs.32.50 lakh to Maharashtra for conservation of Sangamneri goat.

3.16 Central Sheep Breeding Farm, Hissar (Haryana)

3.16.1 The Farm was established during the Fourth Five Year Plan for producing and disseminating



acclimatized stud rams to various State Sheep Farms for cross-breeding programmes and genetic stock upgradation. The farm also runs training courses in mechanical sheep shearing, maintenance of sheep shearing machines as well as sheep management.

3.16.2 During first four years of Tenth Plan, the farm supplied 3757 rams and 80 bucks. A total of 333 farmers were trained in mechanical shearing and 780 farmers were trained in sheep management and allied activities during the period.

3.16.3 During the year 2006-07, the farm has supplied 257 rams and 51 bucks till 30th November, 2006. Beetal Goats were introduced at the farm during 2003-04. Besides this, the farm has trained 162 farmers/officials in mechanical shearing and 646 farmers in sheep management and other activities till 30th November, 2006.

3.16.4 Since 2005-06, the farm has been pursuing a programme for control of Brucellosis and Haemonchosis with an aim to improve productivity and reduce mortality in the flock. Testing and elimination of Brucella infected animals using ELISA test resulted in reduction in number of affected animals, which is likely to come down further after introduction of vaccination with Rev-I strain vaccine, which is being imported. Haemonchus infestation has been brought under control with regular monitoring of Eggs per Gram (EPG) in faeces, rotation of anthelmintic drugs, testing of efficacy of anthelmintic drugs in the flock and appropriate pasture management. These steps are likely to contain incidence of both the diseases and improve the quality of the flock.

3.17 Livestock Health

3.17.1 With the improvement in the quality of livestock through launching of extensive cross breeding programmes, the susceptibility of these livestock to various diseases including exotic diseases has increased. In order to reduce morbidity and mortality, efforts are being made by the State / Union Territory Governments to provide better health care through polyclinics / veterinary hospitals / dispensaries / first-aid Centres including mobile veterinary dispensaries. A net work of 26,540 Polyclinics / Hospitals / Dispensaries and 25,433 Veterinary aid centers (including Stockmen Centres / Mobile Dispensaries) supported by about 250 disease diagnostic laboratories, are functioning in the States and Union Territories for

quick and reliable diagnosis of diseases. Further, for control of major livestock and poultry diseases by way of prophylactic vaccination, the required quantity of vaccines are produced in the country at 29 veterinary vaccine production units. Of these, 22 are in the public sector and 7 in private sector. Import of vaccines is also permitted as and when required. The State-wise details of veterinary institutions are given at Annexure-IX.

3.17.2 While efforts are made to ensure better livestock health in the country, efforts are also made to prevent ingress of diseases from outside the country, and maintaining of standards of veterinary drugs and formulations. At present, the Drug Controller of India regulates the quality of veterinary drugs and biologicals in consultation with this Department.

A. Animal Quarantine and Certification Service

3.17.3 The objective of this service is to prevent ingress of livestock diseases into India by regulating the import of livestock and livestock related products, and providing export certification of International Standards for livestock and livestock products which are exported from India. There are four Quarantine Stations, one each at New Delhi, Chennai, Mumbai and Kolkata .

B. National Veterinary Biological Products Quality Control Centre, Baghpat

3.17.4 At present, the Indian Veterinary Research Institute is monitoring the quality of vaccines and biologicals. But in order to ensure better monitoring of the quality, it is essential to establish a separate Institute. For this purpose, it was decided to set up National Veterinary Biological Quality Control Centre (National Institute of Animal Health) at Baghpat, Uttar Pradesh. The construction work of the Institute is almost at completion stage and it is expected that the Institute will become functional by March, 2007.

C. Central / Regional Disease Diagnostic Laboratories

3.17.5 In order to provide referral services over and above the existing disease diagnostic laboratories in the states, one Central and five Regional Disease Diagnostic Laboratories have been set up by strengthening the existing facilities. The Centre for Animal Disease Research and Diagnosis (CADRAD) of Indian Veterinary Research Institute, Izatnagar is functioning as Central Laboratory. The Disease Investigation Laboratory, Pune, Institute of Animal Health and Veterinary Biologicals, Kolkata, Institute of Animal Health & Biologicals, Bangalore , Animal Health Institute, Jalandhar and Institute of Veterinary Biological, Khanapara, Guwahati are functioning as Regional Disease Diagnostic Laboratories (RDDLs) for Western, Eastern, Southern, Northern and North-Eastern regions respectively.

3.18 Livestock Health & Disease Control

3.18.1 Under the Macro Management Centrally Sponsored Scheme "Livestock Health and Disease Control", Government of India is implementing disease control activities by amalgamating 9th Plan schemes with some modifications. The scheme has the following components:

- (i) Assistance to States for Control of Animal Diseases (ASCAD)
- (ii) National Project on Rinderpest Eradication (NPRE)
- (iii) Professional Efficiency Development (PED)
- (iv) Foot & Mouth Disease Control Programme (FMD-CP)

3.18.2 Assistance to States for Control of Animal Diseases (ASCAD)

3.18.2.1 Under this component, assistance is provided to State / Union Territory Governments for control of economically important diseases of livestock and poultry by way of immunization, strengthening of existing State Veterinary Biological Production Units, strengthening of existing Disease Diagnostic Laboratories and in-

service training to Veterinarians and Para-veterinarians. Under this programme, during 2005-06, about 149.22 million vaccinations have been carried out against the target of 100.00 million. During 2006-07, about 120.00 million vaccinations are expected to be carried out against the target of 105.00 million. Besides this, the programme envisaged collection of information on the incidence of various livestock and poultry diseases from States and Union Territories and compiling the same for the whole country. The information so compiled is disseminated in the form of Monthly Animal Disease Surveillance Bulletin to all the States and Union Territories and also Organizations like Office International Des Epizooties (OIE), Animal Production and Health Commission for Asia and Pacific (APHCA), etc. This information system has been harmonized in accordance with the guidelines of OIE. The State Governments have been advised to publish their disease reports in local languages as well, for better dissemination of information to grass root level. Most of the States are publishing the reports in local languages also. Incidence of OIE Listed diseases of Livestock and Poultry in India during the year 2005 is at Annexure-X.

3.18.3 Professional Efficiency Development

3.18.3.1 The "Professional Efficiency Development" programme is being implemented as one of the components of the main scheme "Livestock Health & Disease Control" with a view to regulate veterinary practice and to maintain register of the veterinary practitioners. The programme envisages establishment of Veterinary Council of India at the Centre and State Veterinary Councils at State level in those States/Union Territories which have adopted the Indian Veterinary Council Act, 1984. All the States & UTs except Jammu & Kashmir have adopted the IVC Act.

3.18.4 National Project on Rinderpest Eradication (N.P.R.E)

3.18.4.1 Rinderpest is a highly infectious viral disease (Morbilli virus infection) of cloven hoofed animals inflicting heavy mortality in bovine population as well as in small ruminants. Rinderpest Control Programme

in India was initiated during 1954 as a part of the second Five Year Plan. Since then, the programme has been under execution adopting various strategies. The present National Project for Rinderpest Eradication (NPRE) was launched with effect from May, 1992 as a part of Project ALA/89/04: "Strengthening of Veterinary Services for Livestock Disease Control with special emphasis on Rinderpest Eradication" for which the European Union had entered into a financing agreement with the Government of India to provide grant. The financial agreement with EEC expired on 31-07-98 and thereafter, the scheme is being implemented with the available domestic resources for continuing all the on-going activities of the project. During 10th Five year plan, the Scheme was merged as one of the components of the centrally sponsored Macro-Management scheme "Livestock Health and Disease Control (LH&DC)".

3.18.4.2 The main objective of the project is to strengthen the veterinary services and to eradicate Rinderpest and Contagious Bovine Pleuro Pneumonia (CBPP) by strengthening the veterinary services across the Country and to obtain freedom status from Rinderpest & CBPP infection following the pathway prescribed by Office International des Epizooties (OIE), Paris.

3.18.4.3 India has been declared Rinderpest infection free country by the OIE on 25th May, 2006. Eradication programme for Contagious Bovine Pleuro-Pneumonia (CBPP) has been initiated in 8 districts of Assam. The country is provisionally free from CBPP from October, 2003. The dossier for seeking the freedom from CBPP infection has been submitted to OIE.

3.18.4.4 Current status of the Programme:

3.18.4.4.1 National Animal Disease Emergency Committee (NADEC) and National Emergency Task Force (NETF) have been set up to tackle any situation arising due to re-emergence of a foci of Rinderpest or any other exotic disease. State Animal Disease Emergency Committees (SADEC) has also been constituted in the States on the same line.

3.18.4.4.2 The physical surveillance through village, stock route & institutional searches is going on throughout the country with the help of the staff of Animal Husbandry Department of States & Union Territories to maintain freedom status.

3.18.4.4.3 A strategic reserve of 2.5 million doses of Rinderpest Vaccine is being maintained at 6 Vaccine Banks across the country to meet any eventuality arising due to re-emergence of Rinderpest.

3.18.5 Foot & Mouth Disease Control Programme

3.18.5.1 Under macro-management approach, a new component "Foot and Mouth Disease Control Programme" is being implemented in 54 specified districts in the country to control the Foot and Mouth Disease with 100% funding to cover cost of vaccine and supporting expenses. However, the State Governments are providing manpower, infrastructure and logistic support.



3.18.5.2 During the period 2003-04 to 2005-06, about 1107.17 lakh vaccinations have been carried out in the first, second, third and fourth round. Fifth round of vaccination is going on. About 280.00 lakhs vaccination are expected to be carried out in fifth round during 2006-07.

3.19 Avian influenza: Preparedness, control and containment

3.19.1 The first outbreak of Avian Influenza

occurred in India on 18th February 2006 in a small area in the State of Maharashtra running contiguously over an adjoining territory of the State of Gujarat. A second outbreak was reported from Maharashtra itself. There has been no outbreak after 18th April 2006. India declared freedom from Avian Influenza on 11th August, 2006. The report has also been hosted on the website of World Organization of Animal Health (OIE).

3.19.2 The Government of India initiated immediate action to control and contain the outbreak. Control and containment measures comprised of a series of strategic actions that are to be taken in accordance with the Action Plans of the Department of Animal Husbandry, Dairying and Fisheries (DADF) and the Ministry of Health and Family Welfare (MOHFW).

3.19.3 The actions taken to control and contain Avian Influenza are detailed below:

- (i) Demarcation of infected and surveillance areas was carried out in accordance with the Action Plan. An area of 3kms. was designated as the Infected Zone and a further area of 7 kms. was designated as the Surveillance Zone.
- (ii) However, the poultry, both backyard and commercial, were culled in a radius of 10 kms around the affected farm premises. Hence, 10,44,599 birds were killed in the control operations.
- (iii) Other infected materials such as poultry eggs, egg product, feathers, feed, feed materials, protective cloth used by the staff engaged in operations etc. have also been destroyed. More than 8500 metric tonnes of feed material and nearly 17 lakh eggs were destroyed.
- (iv) Thereafter, cleaning and dis-infection of the infected premises/ area was undertaken and the operations were concluded in each area with the issue of a sanitization certificate by the respective State Governments.
- (v) Post-Operation Surveillance was initiated in the

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affected area which includes physical surveillance in the 10 km radius where culling was carried out to ensure that no birds are stocked for next three months and sero surveillance in a further radius of 5 km.

- (vi) After completion of culling, dis-infection and further surveillance for a period of three months in accordance with the OIE protocol, India declared itself free from the disease on 11th August, 2006.
- (vii) Restocking of poultry has been allowed in affected areas based on periodic testing and sampling.
- (viii) Government of India has maintained strategic reserve of poultry vaccine. The option of vaccination is thus available to the country. However, vaccination has not yet been introduced in the country.
- (ix) The personnel involved in containment work were provided personal protective equipment and were brought under the cover of Tamiflu by the health authorities.
- (x) It is the policy of Government of India to pay compensation to the owner for culled poultry. The cost is shared on a 50:50 basis with the State Government. More than Rs 3 crore were paid as compensation. The compensation was paid soon after carrying out culling especially in case of backyard poultry.
- (xi) India has developed innovative strategies to control and contain Avian Influenza especially pertaining to backyard poultry. The decision to kill birds in a 10 km radius has been acknowledged as a bold and decisive step.

3.19.4 Appreciation by International Organizations:

3.19.4.1 The conduct of the operations has been appreciated by the International organizations especially on the following aspects:

- Immediacy of notification
- Transparency of information
- Killing of birds in the entire 10 km radius
- Immediate payment of compensation by the Government for poultry killed in the operations
- Co-ordination between Ministry of Health and Department of Agriculture and the Central and State Governments.

3.19.4.2 The FAO, by letter dated 23rd February, has informed that it has been closely watching the recent outbreak of Navapur and appreciates the quick response initiated by the Government of India in general and of the Department of Animal Husbandry in particular. It was very encouraging to see that the poultry farmers were quickly compensated for their culled birds. The Asian Development Bank has lauded India's efforts for similar reasons.

3.19.4.3 The WHO through letter of Regional Director, Office for South East Asia dated 18th August, 2006 has lauded the efforts made by Government of India in instituting early and effective measures through poultry culling and rapid dis-infection of the affected area and restricted movement of the poultry. As per



the WHO, timely compensations to poultry farmers also helped in early reporting of outbreaks among birds and facilitated immediate culling operations. Further, efficient surveillance during last four months culminated in achieving avian influenza free status for the country. WHO has appreciated the commitment of the country to continue monitoring for H5N1 infection. The multi-sectoral coordination of disease prevention activities

between the federal and the three provincial government authorities was considered as the key to preempt the spread of infection.

3.19.5 A joint IEC campaign has been launched by the Ministry of Health and Department of Animal Husbandry in print media and on radio. The campaign has focused on safe poultry practices, preparedness, food safety implications and consuming well cooked chicken and eggs. The poultry industry is being encouraged to carry out such campaigns and their campaign is endorsed by the Government of India in public interest.

3.19.6 An active surveillance programme is being carried out all over the country focusing on early detection of the disease. India has a fully equipped Bio-Security Level 3 laboratory at Bhopal. More than 85000 samples have been tested at Bhopal after the first outbreak of Avian Influenza in February 2006. Targeted surveillance will focus on areas where outbreak took place; areas visited by migratory birds with poultry concentrations around them and areas of major poultry population. Personnel of Animal Husbandry and Forest Departments are being regularly trained in sample collection and dispatch. Joint mechanisms are in existence between the Health, Forests and Animal Husbandry sectors at the Central and the State levels and have been fully operationalized. Reserves of essential equipment and materials have been developed.

3.20 Animal Husbandry Statistics

3.20.1 Animal Husbandry Statistics Division is responsible for maintaining database for animal husbandry, dairying and fishery activities. It coordinates data collection concerning production of major livestock products i.e. milk, egg, wool, meat and other livestock statistics through interaction with State Governments and other Central departments/organizations concerned with development of the Livestock Sector. Livestock products are estimated on the basis of sample surveys being conducted throughout the year under the central sector scheme "Integrated Sample Survey for the Estimation of major Livestock Products". All the States

and Union Territories are implementing the scheme. Under this scheme, financial assistance is provided on 50:50 basis to the State Governments and 100% assistance to Union Territories for conducting the surveys. The estimates of livestock production are worked out on seasonal and annual basis. At national level, statewise annual estimates are published in the biennial publication known as "Basic Animal Husbandry Statistics."

3.20.2 To streamline animal husbandry statistics, a "Technical Committee for Direction for Improvement of Animal Husbandry & Dairying Statistics" has been working for a long time. The Committee reviews progress of implementation of the scheme of Integrated Sample Survey for the estimation of major livestock products and approves estimates of production of milk, egg, wool and meat. The estimates of livestock production and other related statistics are published in the biennial publication known as "Basic Animal Husbandry Statistics". The latest published issue of the publication is of the year 2006 containing data up to 2005-06.

3.20.3 During the Tenth Plan, two new components have been added to the scheme- (i) to provide Information Technology solutions for the data analysis work relating to the sample survey and (ii) to conduct special studies to fill up the gaps in the animal husbandry statistics along with refresher training course in Integrated Sample Survey (ISS) methodologies for the staff of the States/UTs, who are engaged in the scheme. Under the IT solutions, the States of North Eastern region and the Union Territories have been provided 100% grant and the remaining States have been provided 50:50 grant. Refresher training course in ISS methodologies was started during the year 2005-06. Since then training has been held in the States/UTs of Andhra Pradesh, Arunachal Pradesh, Assam, Chandigarh, Chattisgarh, Daman & Diu, Goa, Gujarat, Haryana, Himachal Pradesh, Kerala, Lakshadweep, Madhya Pradesh, Maharashtra, Manipur, Nagaland, Orissa, Sikkim, Tamil Nadu, Tripura, Uttar Pradesh and West Bengal. Other States/UTs which are likely to hold Refresher training course during 2006-07 are Rajasthan, Karnataka, Pondicherry, Bihar, Jharkhand

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and Jammu & Kashmir. For special studies, Input Survey has been sanctioned to Government of Andhra Pradesh, Maharashtra and Tamil Nadu.

3.21 Livestock Census

3.21.1 The livestock population of different species is worked out on the basis of this 100% Central Sector Scheme conducted on quinquennial basis. Proper planning and formulation of any programme aimed at bringing improvement in livestock sector heavily depends on availability of information on number of livestock of various species by their age/sex, breed and their spatial distribution. Livestock Census is the only source which can give such detailed information. It also provides disaggregated information on poultry, agricultural implements and machinery, and fishery statistics. Till the 16th Livestock Census, conducted in 1997, the Directorate of Economics and Statistics in the Department of Agriculture and Cooperation, Ministry of Agriculture was the implementing agency for conducting the census. The 17th Livestock Census was done by the Animal Husbandry Departments of the State Governments under the supervision of the Department of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture, Government of India.

3.21.2 The 17th Livestock Census was conducted in October, 2003 by all the States/UTs. The broad objectives of the scheme are to collect data on Livestock and Poultry, Agriculture Implements and Fishery. The Census covers district wise information of all households with rural and urban breakups. Information regarding households' social status, occupations, availability of medical facility in the villages for animal, marketing for livestock and fishery sections are covered. Data in respect of Cattle, Buffalo, Sheep, Goats, Horses, Ponies, Donkey, Camels, Yak and Mithuns, Pigs, Rabbits, Dogs and Poultry are collected and published in different kinds and parts of reports. The All India census report along with 28 State reports and one report for UTs have been released. The Breed wise data report of Cattle and Buffalo in respect of the information received from some States has also been released. The All India Census report 2003 is available on the website of the Department as well as

the website of the Ministry of Statistics & Programme Implementation.

3.21.3 A Technical Advisory Committee has been set up for the review of the work of the 17th census as well as finalization of the schedule and instructions manual for the 18th Livestock Census, which is due in the month of October, 2007. The committee has finalized the schedule of 18th Census and the same has been sent to all the States for bilingual printing with new designing as per specifications of the Registrar General of India with State, Taluka and village codes etc. for printing. The EFC for 18th census has also been prepared and submitted for approval of the senior officers/members in various Ministries.

3.21.4 During 2005-06, Rs.2.51 crore was released to the States/UTs for Livestock Census. During 2006-07, an amount of Rs. 3.00 crore is expected to be released to the States/UTs.

3.21.5 The position of livestock in the country as per the 17th Livestock Census is given at Annexure-VI.

3.22 Livestock Insurance

3.22.1 This is a centrally sponsored scheme, which is being implemented on a pilot basis as a part of the Common Minimum Programme of the Government during the years 2005-06 and 2006-07 of the 10th Five Year Plan in 100 selected districts across the country with an approved outlay of Rs. 120.00 crore. Under the Scheme, crossbred and high yielding cattle and buffaloes are being insured at maximum of their current market value. Only 50 percent of premium of the insurance is to be paid by the beneficiary, while the rest of entire cost of subsidy is being borne by the Central Government.

3.22.2 The Livestock Insurance Scheme has been formulated with the twin objective of providing protection mechanism to the farmers and cattle rearers against any eventual loss of their animals due to death and demonstrating the benefit of the insurance of

livestock to the people in order to popularize rearing of improved animals leading to the ultimate goal of attaining qualitative improvement in livestock and their products.

3.22.3 The scheme is being implemented in all the states, except Goa. The Central Government is implementing the scheme through the State Livestock Development Boards of the respective states. In the States where no such Board exists, the scheme is being implemented through the Director of Animal Husbandry, Department of Animal Husbandry, of the State Governments. The scheme is expected to benefit the farmers (large/small/marginal) and cattle rearers having crossbred and high yielding cattle and buffaloes.

3.22.4 The funds under the scheme is being utilized for payment of premium subsidy, payment of honorarium to the Veterinary Practitioners for their services under the scheme and publicity campaign for creation of awareness among the target group. The entire funds for premium subsidy and honorarium and some amount of funds for publicity campaign are placed with the Chief Executive Officers of the State Livestock Development Boards. Some funds are being utilized by the Central Government for publicity campaign at national level.

3.22.5 Till 31st December 2006, more then 1.96 lakh animals were insured and more than 500 claims were also settled giving immediate benefit to concerned farmers.

CHAPTER 4

DAIRY DEVELOPMENT



CHAPTER 4

DAIRY DEVELOPMENT

4.1 The Indian Dairy Industry acquired substantial growth momentum from 9th Plan onwards, achieving an annual output of about 90.70 million tonnes of milk during 2004-05. India's milk output during the year 2005-2006 reached the level of 97.1 million tonnes (provisional) and is estimated to reach 100 million tones in 2006-07. This has not only placed the industry amongst the top in the world, but has also ensured sustained growth in the availability of milk and milk products for the burgeoning population of the country. Dairying has become an important secondary source of income for millions of rural families and has assumed the most important role in providing employment and income generating opportunities. The per capita availability of the milk is expected to reach 245 grams per day in the year 2006-07, but it is still low compared to the world average of 265 grams per day. Government of India is making efforts to increase the productivity of milch animals and thus increase the per capita availability of milk. Milk production and marketing system in India is unique. Most of the milk is produced by small, marginal farmers and landless labourers who are grouped into cooperatives at the village level. To provide them a steady market and a remunerative price for the milk produced, about 12 million farmers have been brought under the ambit of more than one lakh village level cooperative societies in the country as part of Operation Flood Programme.

4.2 The efforts of the Department in the dairy sector are concentrated on promotion of dairy activities in non-operation flood areas with emphasis on building up cooperative infrastructure, revitalisation of sick dairy cooperative federations and creation of infrastructure in the States for production of quality milk and milk products. For pursuing these objectives, the Department is implementing four schemes in the dairy sector during 2006-07, including a new central sector scheme Dairy/ Poultry Venture Capital Fund. Besides this, the National Dairy Development Board (NDDDB) continues

its activities for the overall development of Dairy Sector in Operation Flood areas.

4.3 Intensive Dairy Development Programme (IDDP)

4.3.1 The scheme 'Integrated Dairy Development Project (IDDP) in Non-Operation Flood, Hilly and Backward Areas' was launched in 1993-94 on 100% grant-in-aid basis. The main objectives of the scheme are as under:

- Development of milch cattle
- Increase the milk production by providing technical input services
- Procurement, processing and marketing of milk in a cost effective manner
- Ensure remunerative prices to the milk producers
- Generate additional employment opportunities
- Improve social, nutritional and economic status of residents of comparatively more disadvantaged areas.

4.3.2 The scheme was modified during March, 2005. The modified scheme has been named as 'Intensive Dairy Development Programme' (IDDP) and is being implemented in the districts, which received less than Rs.50.00 lakh for dairy development activities during Operation Flood programme.

4.3.3 The funds under the revised scheme are released directly to the Implementing agencies (State Milk federations/ Unions) and the projects are implemented by the State Milk federations/ Unions in view of their expertise and professionalism.

4.3.4 Since inception of the scheme, 77 projects have been approved spread over 188 districts in 25

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States and a UT with a total cost of Rs.427.15 crore and an amount of Rs.290.15 crore has been released till 31.12.2006. These projects have benefited over 12 lakh farmers in 19,556 villages procuring over 14.45 lakh litres of milk per day till 31.12.2006.

4.4 Strengthening Infrastructure for Quality & Clean Milk Production

4.4.1 With increase in milk production, quality standard prevalent today in milk production, milk collection and processing needs improvement. The microbiological quality of milk is poor due to lack of knowledge about clean milk production and lack of



post milking chilling facilities in the villages. To compete in international market for export of milk and milk products, it has become necessary to produce the dairy products of the international standards.

4.4.2 The Department has introduced a new centrally sponsored scheme viz. "Strengthening infrastructure for Quality & Clean Milk Production" during 10th Plan with an outlay of Rs.30.00 crores. The scheme, started in October, 2003, has the main objective of improving the quality of raw milk produced at the village level in the country. Under the scheme, there is a provision for training of farmers on good milking practices. The scheme is being implemented on 100% grant in aid basis to the State Governments / Union Territories for components viz. training of farmer members, detergents, stainless utensils, strengthening of existing laboratory facilities, etc. The pattern of funding for setting up of milk chilling facilities

at village level in the form of bulk milk coolers is in the ratio of 75:25 between Government of India and respective dairy cooperative society/union. The scheme was merged with IDDP during 2005-06.

4.4.3 Since inception, the Department has approved 112 projects spread over 20 States and 1 UT at a total cost of Rs.153.78 crore with a Central share of Rs.126.19 crore till 31st December, 2006. An amount of Rs.15.05 crore has been released during the current year (till 31st December, 2006) for implementation of approved projects.

4.5 Assistance to Cooperatives

4.5.1 The Central Sector scheme "Assistance to Cooperatives", started during 1999-2000, aims at revitalizing the sick dairy cooperative unions at the district level and cooperative federations at the State level. The rehabilitation Plan is prepared by NDDB in consultation with the concerned State Dairy Federation/District Milk Union. Each rehabilitation plan is to be implemented within a period of 7 years from the date of its approval.

4.5.2 The Department has approved 31 rehabilitation proposals of milk unions so far in Madhya Pradesh, Chattisgarh, Karnataka, Uttar Pradesh, Kerala, Maharashtra, Assam, Nagaland, Punjab, West Bengal, Haryana and Tamil Nadu, with a total outlay of Rs. 192.49 crores. The scheme is being implemented on 50:50 sharing basis between Government of India and the concerned State Governments. An amount of Rs. 73.14 crore has been released under the scheme till 31st December, 2006, since inception.

4.6 Dairy/Poultry Venture Capital Fund

4.6.1 To bring about structural changes in the unorganized sector, measures like milk processing at village level, marketing of pasteurized milk in a cost effective manner, quality up-gradation and up-gradation of traditional technology to handle commercial scale using modern equipment and management skills and to encourage new species of birds and low input

technology for poultry farming among rural farmers, a new central sector scheme viz. Dairy/Poultry Venture Capital Fund has been initiated during the 10th Five Year Plan with an outlay of Rs 25.00 crore. Under this scheme, assistance is provided to the rural/urban beneficiaries under a schematic proposal through bankable projects. The eligible beneficiaries, under the scheme, include agricultural farmers/individual entrepreneurs and groups of all sections of unorganized as well as organized sector including cooperatives and NGOs, from any part of the country.

4.6.2 The scheme is being implemented through NABARD and funds amounting to Rs.15.80 crore have been released to NABARD during 2005-06, to be kept as revolving fund for implementation of the scheme. There is a budget provision of Rs 15.00 crore for implementation of the scheme during 2006-07 and out of this, an amount of Rs 9.20 crore has been released to NABARD during the current financial year till 31st December, 2006.

4.6.3 The following components are eligible for financial assistance under the scheme:

Dairy Sector:

Sl.No.	Component	Maximum total project cost* (Rs. in lakhs)
1.	Establishment of small dairy farms-Ten animal unit (buffaloes/cross bred cows) for milk production	Rs.3.00 lakhs per unit (upto ten animals) - Any Non Operation Flood area. - The total cost depends on the infrastructural facilities required.
2.	Purchase of milking machines / milkotester / bulk milk cooling unit etc.	Rs.15.00 lakhs Milking Machine, Milk-o-tester and Bulk Milk Cooling units (upto 2000 lts capacity)
3.	Purchase of dairy processing equipment for manufacturing indigenous milk products.	Rs.10 lakhs per unit. Unit cost depends upon the quantum of milk to be handled and the type of products to be manufactured - The total cost depends upon the investment on civil structures, type and source of machinery.
4.	Establishment of dairy product transportation facilities including cold chain.	Rs.20 lakhs per unit - Unit cost depends upon the quantum of milk/milk products to be transported / handled and the type of products to be transported - The total cost depends upon the investment on type and source of transport vehicle and machinery

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Dairy Sector:

Sl.No.	Component	Maximum total project cost* (Rs. in lakhs)
5.	Cold storage facilities for milk and milk products.	Rs. 25 lakhs per unit - Unit cost depends upon the quantum of milk/milk products to be stored and the type of products to be stored - While the cost depends upon the investment on type and source of machinery used.
6.	Establishment of private veterinary clinics.	Rs.2.00 lakhs per unit for Mobile clinics and Rs.1.5 lakhs for Stationary clinic - Area of operation from 8 to 10 villages having 5000 to 6000 cattle units.

* The Government of India provides 50% of the total approved project cost as interest free loan.

Poultry Sector:

Sl.No.	Component	Maximum total project cost* (Rs. in lakhs)
1.	Establishing poultry breeding farm with low input technology birds and also for ducks/turkey/Guinea Fowl/Quail/Emu/Ostrich etc.	30.00
2.	Establishment of feed go-down, feed mill, feed analytical laboratory	16.00
3.	Marketing of poultry products (Specialized transport vehicles, cold room storage facilities and retention sheds for birds etc.)	25.00
4.	Egg grading, packing and storage for export capacity	80.005
5.	Retail poultry dressing unit (300 birds per day).	5.00
6.	Egg/broiler carts for sale of poultry products.	0.10
7.	Central grower unit (12,500 birds per batch and 4 batches per year)	20.00

4.6.4 Pattern of assistance:

- Entrepreneurs' contribution 10%
- Interest free loan from revolving fund provided by Government of India 50%
- Bank loan at interest applicable for agricultural activities 40%

4.6.4.1 The interest component applicable for agricultural activities is subsidized by Government of India to the extent of 50% in case of regular/timely repayment by the beneficiary.

4.6.4.2 Since inception, 2606 units of dairy and poultry have been sanctioned spreading over 27 States

at a total cost of Rs.24.96 crore by NABARD as on 31.10.2006.

4.7 Milk and Milk Product Order'1992, a regulatory mechanism

4.7.1 The Government of India promulgated the Milk and Milk Product Order (MMPO) 1992 on 9th June, 1992 under the provisions of Essential Commodities Act, 1955 consequent to de-licencing of the Dairy sector in 1991. As per the provisions of this order, any person/dairy plant handling more than 10,000 liters per day of milk or 500 MT of milk solids per annum needs to be registered with the registering authority appointed by the Central Government. The main objective of the order is to maintain and increase the supply of liquid milk of desired quality in the interest of the general public and also for regulating the production, processing and distribution of milk and milk products.

4.7.2 For faster pace of growth in the Dairy sector, Government of India has amended Milk and Milk Product Order 1992 from time to time in order to make it more liberal and oriented to facilitate the dairy entrepreneurs. During March 2002, Government of India decided to remove restrictions on setting up new capacity and to do away with the concept of milkshed while noting that the requirement of registration is mandatory for enforcing the prescribed sanitary, hygienic standards, quality and food safety.

4.7.3 Government of India has notified National Productivity Council and Export Inspection Council of India as Quality Auditors to conduct the periodic inspection of units registered under MMPO to ascertain the sanitary, hygienic conditions and food safety measures as specified in Schedule V of MMPO-92 in the exercise of powers conferred under Para 5 (5) (B) of MMPO-92 vide notification No. SO 1153 (E) dated 01.10.2003. Under this provision, the dairy establishments are required to get their plants inspected once in a year by the notified inspection agencies.

4.7.4 The Central and the State Registering Authorities altogether have registered 789 units with combined capacity of 980.51 lakh litres per day in

Cooperative, Private and Government Sector as on 31.03.2006. 425 dairy units have been inspected by the Inspection Agencies till 31st July, 2006.

4.8 Post Operation Flood and Consolidation of Cooperative Movement - by NDDDB

4.8.1 The National Dairy Development Board (NDDDB) is a statutory body corporate established by the Parliament as an institution of national importance under the NDDDB Act 1987. NDDDB promotes, plans and organises programmes for the development of dairy and other agriculture based and allied industries along cooperative lines and also provides assistance in the implementation of such programmes.

4.8.2 Operation Flood (OF), an integrated dairy development programme, completed its third phase on April 30, 1996. The main thrust of the programme was to consolidate the gains already achieved, and to strengthen the dairy cooperative structure for sustainable development of the dairy industry in India.

4.8.3 After the completion of Phase 3 of Operation Flood, a Programme Implementation Agreement (PIA) was signed in 1997 between the EEC and the NDDDB to strengthen cooperatives at the grassroot level. Consequently, measures were initiated from September 1997, which continued upto 2004-05.

4.8.4 Strengthening the cooperatives

4.8.4.1 During 2006-07, dairy cooperatives continued to avail technical and financial support from NDDDB in the areas of strengthening cooperative business infrastructure, productivity enhancement, quality assurance and the creation of a national information network. Up to March 2006, 91 plans of dairy cooperatives with a total outlay of Rs 1162.50 crore have been approved of which NDDDB's financial assistance in the form of interest bearing loans, interest free loans and grants aggregate to Rs. 937.65 crore. The balance of Rs. 224.85 crore would be contributed by the milk unions/federations. By March 2007, NDDDB's disbursement is expected to reach around Rs.500 crore.

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4.8.4.2 Dairy cooperatives continued to avail NDDB's services in organising a series of training programmes for their Board of Directors and employees and through farmer orientation programmes where producers were shown technologies and practices in dairying. Dairy cooperatives also continued to implement the programme 'Enhancing Women's Involvement in Cooperatives' (EWIC) to raise women's awareness about their rights and responsibilities as cooperative members and encourage them to participate in social and economic activities that contribute to their empowerment. Formation of Women Self Help Groups remained an important component of this programme.

4.8.5 Productivity Enhancement

4.8.5.1 During the year, NDDB assisted dairy cooperatives to implement their programmes in animal breeding, health and nutrition.

4.8.6 Animal Breeding

4.8.6.1 NDDB continued to implement the Dairy Herd Improvement Programme for evaluation of crossbred and buffalo bulls in Gujarat and Maharashtra. NDDB also continued to support the Open Nucleus Breeding System based on Multiple Ovulation and Embryo Transfer (MOET) technology for production and evaluation of crossbred bulls. Also during the year, the Anand Agricultural University in Gujarat continued to collaborate with NDDB to produce Holstein Friesian and pure Jersey calves through Multiple Ovulation and Embryo Transfer (MOET) technology.

4.8.6.2 NDDB also continued to support the Indigenous Breed Development project for the Rathi breed in Bikaner and Sri Ganganagar districts of Rajasthan, the Kankrej breed in Banaskantha and Patan districts of Gujarat, the Gir cattle and Jaffarabadi buffalo breeds in Rajkot, Amreli, Bhavnagar and Junagadh districts of Gujarat. In addition, NDDB is also making efforts to preserve select breeds of indigenous cattle and buffalo by in vitro methods.

4.8.7 Animal Nutrition & Feed Technology

4.8.7.1 During the year, dairy cooperatives availed NDDB's services to test samples of compound cattle feed, bypass protein feed, their raw materials and samples of mineral mixture and mineral salts. In addition, work on testing pesticide residues in feeds and fodders was initiated by using gas chromatograph with electron capture detector. During the year, dairy cooperatives continued to avail NDDB's assistance in implementing the computer-based ration-balancing programme.

4.8.7.2 The milk unions availed NDDB's help in mineral mapping and developing formulation of area-specific mineral mixtures. During the year, a mineral mixture plant was set up in Gubbi under the Karnataka Milk Federation and a urea molasses mineral block plant was established at Rudrapur, Uttaranchal. Also, NDDB continued to coordinate the procurement of breeder seeds of various fodder crops for further multiplication by milk unions and federations.

4.8.8 Animal Health

4.8.8.1 NDDB facilitated dairy cooperatives to organise wider vaccination of animals to control the foot and mouth disease, haemorrhagic septicaemia and black quarter. NDDB also supported dairy cooperatives to implement the regular use of antiseptic teat spray and detection of sub-clinical mastitis by Mastect in villages. Dairy cooperatives reported an increase in the number of villages providing veterinary first-aid and deworming.

4.8.8.2 During the year, NDDB also continued to support the Government of Kerala in implementing the Foot and Mouth Disease Control Project in Kerala through a combination of activities like mass vaccination, animal movement management, outbreak management, sero-monitoring, disease surveillance etc.

4.8.8.3 NDDB's continued pursuit of research in the development of vaccines against Bovine Rotavirus, Brucellosis and Infectious Bovine Rhinotracheitis has yielded promising results. Studies were also undertaken

for standardising laboratory-based diagnosis of paratuberculosis, bovine tuberculosis and bovine genital campylobacteriosis. Animal disease diagnosis services for Tuberculosis, Paratuberculosis, Infectious Bovine Rhinotracheitis (IBR) and Brucellosis were also continued.

4.8.9 Managing Quality

4.8.9.1 During the year, NDDDB continued to support the quality initiative of dairy cooperatives to bring about sustainable improvement in quality of milk and milk products. The emphasis was on increased use of technology in milk collection and cooling, implementation of Food Safety Management System at dairy plant level and use of insulated vans to ensure milk quality till delivery to retail points. Energy conservation and dairy plant improvement activities were also supported during the year. During the year, 11 milk unions continued to implement the UNICEF-NDDDB joint programme on rural sanitation. The programme envisages that improvement in hygiene and sanitation conditions in the implementing villages will lead to improved raw milk quality.

4.8.10 Milk Procurement and Marketing

4.8.10.1 The average milk procurement by dairy cooperatives during April-October 2006 was slightly



over 201 lakh kg per day. The average liquid milk marketing by dairy cooperatives during the same period was close to 182 lakh litres per day. In the area of marketing, dairy cooperatives continued to avail NDDDB's assistance to expand their distribution

networks, diversify product portfolio, improve services, sales promotion and carry out consumer awareness activities.

4.8.11 New Generation Cooperatives

4.8.11.1 Milk Producer Companies, incorporated under the Producer Company chapter of the Companies Act 1956, retain the character of cooperatives, both in spirit and practice, while operating within the same business and regulatory framework enjoyed by companies. It is for this reason that Producer Companies are referred to as New Generation Cooperatives.

4.8.11.2 The first step in promoting a New Generation Cooperative in the Saurashtra-Kachchh region of Gujarat was taken in November 2005, when a team from NDDDB, after feasibility surveys, started organizing milk producers into Milk Producers Institutions (MPIs) under the provisions of the Producer Company law, in the villages of Junagadh. In order to ensure transparency in milk procurement operations, innovative practices have been introduced for milk collection, testing and payment to milk producers. Similarly, in Chittoor district of Andhra Pradesh, where the management of Balaji Dairy, a unit of Chittoor Milk Union, has been handed over to NDDDB, milk producers have been encouraged to form MPIs. As milk procurement operations through MPIs in both the regions attain scale and stability, they would be encouraged to promote their own producer companies.

4.8.12 Building a National Information Network

4.8.12.1 NDDDB has assisted in the creation of a National Information Network where Dairy cooperatives are the main participants and users of an internet-based Dairy Information System (iDIS). This endeavour supports dairy cooperatives in compiling information in a timely manner and also helps them in effective decision-making. NDDDB is also facilitating the deployment of Dairy Geographical Information System (DGIS) in milk unions as a cost-effective source of digitized information.

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4.8.13 Projects

4.8.13.1 NDDDB continued to provide technical assistance to various cooperative milk unions across the country to create new milk processing and milk product manufacturing infrastructure as well as to expand/strengthen existing facilities on turnkey or consultancy basis. Also, during the year, NDDDB provided technical inputs to the International Dairy Federation (IDF) and extended analytical support to various milk unions and the Bureau of Indian Standards (BIS). During the current financial year (till December 2006), thirteen turnkey projects and nine consultancy projects were completed.

4.8.14 Product Development

4.8.14.1 During 2006-07, NDDDB initiated technology transfer for production of dahi and misti doi to Lucknow Milk Union, Uttar Pradesh and makhana kheer to Mithila Milk Union, Bihar. In addition, NDDDB developed manufacturing processes for vegetable-impregnated fresh as well as fried paneer. NDDDB also continued its work in standardizing process parameters for cream cheese and chhana payasam and in the formulation/ processing technology for a refreshing fermented probiotic milk drink in four different flavours.

4.9 Delhi Milk Scheme (DMS)

4.9.1 DMS was set up in 1959 with the primary objective of supplying wholesome milk to citizens of Delhi at reasonable prices, as well as for providing remunerative prices to milk producers. Manufacture and sale of milk products like Ghee, Table Butter, Yoghurt, Paneer, Chhachh and Flavoured Milk is also undertaken as an allied activity. The initial installed capacity of Delhi Milk Scheme was for processing/packing of 2.55 lakh litres of milk per day. However, in order to meet the increasing demand for milk in the city, the capacity was expanded in phases to the level of 5.00 lakh litres of milk per day. DMS has installed about 70 PCs and LAN to automate its business activities. The Department has developed a web site <http://dms.gov.in> for use by related users.

4.9.2 Management

4.9.2.1 DMS is headed by a General Manager. He is assisted by Senior Officers viz. Deputy General Manager (Administration.), Deputy General Manager (Technical) and Financial Adviser & Chief Accounts Officer.

4.9.2.2. There is a Management Committee which enjoys powers of a Department of Government of India, except for creation of posts, writing off losses and re-appropriation of funds exceeding 10% of the original budget provision. The present Management Committee comprises of the Joint Secretary (Dairy Development) as Chairman, Director (Finance), two representatives of consumers and General Manager, DMS as its members. Director/Dy. Secy. (Dairy Development) is the special invitee.

4.9.3 I.S.O.9001/2000 - Certification

4.9.3.1 DMS has been awarded with ISO Certification from M/s SGS United Kingdom Limited (System and Service Certification) vide Certificate No.SG06/0827 valid from 12.04.2006 to 11.04.2009 for raw material procurement, processing, packing storage and distribution of milk & milk products. This is one of the highly rated and valuable certificates for a Government organization, which proves DMS functioning on the ground of technology and efficiency at par with other Dairies in public & private sector.

4.9.4 HACCP Certification

4.9.4.1 As assurance of food safety & quality products, the Hazard Analysis & Critical Control Point (HACCP) Certificate has also been obtained from M/s HACCP Codex Alimentarius vide Certificate No.IN06/NA09.0112 valid from 22.03.2006 to 21.03.2009 for systematic working in manufacture and marketing of quality products. This certificate ensures that DMS is prepared to provide quality products to consumers of NCT of Delhi.

4.9.5 Procurement of Milk

4.9.5.1. Delhi Milk Scheme has been mainly procuring

raw/fresh milk from the State Dairy Federations of the neighbouring States and some quantity of milk from the Co-operative Societies to augment the supplies.

4.9.5.2 The total quantity of milk procured by Delhi Milk Scheme since 2003-2004 is indicated below:

(In lakh Kgs)

Year	Total Qty. of milk procured	Average/per day
2003-04	756.87	2.07
2004-05	992.16	2.71
2005-06	1029.33	2.82
2006-07(upto Nov.,06)	373.68	1.53

4.9.6 Production and Distribution of Milk

4.9.6.1 Delhi Milk Scheme is processing and supplying following types of milk at the selling price as indicated against each:

Year	Capacity utilization	Milk Sale (In percentage)	Variable cost (In lakh litres)	Fixed cost	Total cost (per litre)
2003-04	54.6	923.53	13.85	3.11	16.96
2004-05	70.2	1212.68	14.63	2.64	17.27
2005-06	73.0	1276.39	14.35	2.23	16.58
2006-07 (Upto Nov., 06)	61.0	736.30	15.70	2.43	18.13

*The above rates have been revised upwards by Re. i/- w.e.f. 24.01.2007.

4.9.6.2 DMS has a network of over 1631 outlets, which includes 442 All Day Milk Stalls spread all over the city, for the sale of milk & milk products as shown below: -

(a) DMS Outlets	1631
(b) Loose Milk Outlets	164
(c) DMS All Day Milk Stalls including 15 in Govt. Building	442

4.9.6.3 The milk booths are manned by Ex-servicemen, retired Government/Semi-Government servants, physically handicapped persons, widows, unemployed persons as Concessionaires. The DMS also supplies milk to about 143 institutions such as Hospitals, Government Canteens, Hostels, Defence Units etc.

4.9.7 Performance Utilization

4.9.7.1 The present sale of milk by DMS is around 2.85 lakh litres per day (LLPD). To utilize surplus processing capacity, around 40,000 litres of milk per day is being custom packed for Mother Dairy, Delhi.

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4.9.7.2 The sale of DMS and custom packing of Mother Dairy Milk by DMS taken together has reached 3.00 LLPD enhancing the capacity utilization of DMS plant. Due to enhancement in capacity utilization, the cost of production of milk has also come down, as shown below:

Sl.No.	Type of milk	Fat(in %)	SNF(in %)	Rate/per litre *	With effect from
1.	Toned Milk (Poly pack)	3.0	8.5	Rs.17.00	07.09.2006
2.	Toned Milk (loose)	3.0	8.5	Rs.16.00	07.09.2006
3.	Double Toned Milk	1.5	9.0	Rs.15.00	07.09.2006
4.	Full Cream Milk	6.0	9.0	Rs.21.00	07.09.2006

4.9.7.3 During the year 2006-07, due to shortage of milk during the lean and transitory period because of rains, floods and drought in various States, DMS could not procure sufficient quantity of milk and, therefore, could utilize only 61.0% capacity of its plant up to November, 2006.

4.9.7.4 DMS is also manufacturing and selling Ghee and Table Butter. The production and sale of Ghee and Table Butter since 2003-04 are indicated below: -

(Figures in M.T.)

YEAR	GHEE		TABLE BUTTER	
	PRODUCTION	SALE*	PRODUCTION	SALE*
2003-04	452.35	290.60	74.02	53.63
2004-05	483.91	576.15	25.20	41.18
2005-06	658.88	593.95	38.85	33.84
2006-07 (Up to Nov., 06)	168.72	247.00	8.55	19.49

Note: - * Sale includes previous year stocks also.

4.9.7.5 DMS is also manufacturing and marketing Yoghurt (in kullars), Flavoured Milk (in pouches), Paneer (in 200 gm /1 kg pack) and Chhachh (in 200 ml. pouch) for supply to the citizens of Delhi. The quantity of flavoured milk, yoghurt, paneer and chhachh manufactured and sold since 2003-04 is indicated below: -

(In thousand numbers)

YEAR	Flavoured Milk (In 200 ml. Pouches)		Yoghurt (In 100 gm. Kullars)	
	PRODUCTION	SALE*	PRODUCTION	SALE*
2003-04	703	698	1427	1418
2004-05	617	611	1389	1323
2005-06	517	514	1354	1344
2006-07 (Up to Nov., 06)	112	115	695	688

Note: - * Sale includes previous year stock also.

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YEAR	PANEER (In 200 Gm /1 Kg. pack) (In M.T.)		CHHACHH(In 200 ml. pouches/ Thousand Numbers)	
	PRODUCTION	SALE	PRODUCTION	SALE*
2003-04	55.02	54.96	103	102
2004-05	59.72	59.58	151	147
2005-06	59.98	59.74	195	193
2006-07 (Up to Nov., 06)	23.19	23.07	102	101

Note: - * Sale includes previous year stock also.

4.9.8 Physical Targets and Achievements

4.9.8.1 The targets and achievements regarding procurement of milk, production/sale of milk and milk products (ghee & butter) for 2005-06 and target for 2006-07 are indicated below: -

Sl.No	Major Component of the Scheme	2005-2006		2006-2007	
		Target*	Achievement	Target*	Achievement (up to Nov., 06)
1.	Procurement of milk (in lakh Kgs)	1106	1029.33	1145	373.68
2.	Sale of Milk (in lakh litres)	1460	1276.39	1560	736.30
3.	Production of (i) Ghee (in M.T) (ii)Table Butter (in MT.)	878	658.88 38.85	709	168.72 8.55

* As per Budget Estimates

4.9.9 Financial Outlay

4.9.9.1 Expenditure on all heads of accounts including the expenditure on inputs like raw milk, SMP, Butter, Butter Oil, etc. and capital items is made from consolidated fund of Government of India through annual (Rupees in Crore)

Head/Scheme	2005-06		2006-07			2007-08
	R.E. (Approved)	Expenditure*	B.E. Proposed	R.E. Proposed	Expenditure (Upto Nov 2006)	B.E. Proposed
1	2	3	4	5	6	7
I. NON-PLAN	193.00	192.50	225.00	196.06	137.16	207.36
II. PLAN						
(i) For purchase of machinery & construction of booths	-	-	0.50	0.50	0.12	0.50
(ii) For execution of Civil and electrical works through CPWD.	-	-	0.50	0.50-	0.15	0.50
TOTAL (II)	-	-	1.00	1.00	0.27	1.00

Note : * This includes plan expenditure of Rs.1.97 crores on modernization and up-gradation of plant & machinery, major works (Civil) etc. under plan schemes of DMS as no funds had been provided under the Plan Head during the year 2005-06.

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budgetary allocation. Sale proceeds of milk and milk products are credited to the revenue account of the Government. The funds provided/proposed and expenditure for the year 2005-06, 2006-07 and 2007-08 in B.E. and R.E. are indicated below :-

4.9.10 Cost of Production and Losses

4.9.10.1 The main reasons for losses are:

- (i) Continuous increase in the cost prices of raw materials, light diesel oil (LDO), water, polythene film, electricity and other consumables.
- (ii) Lower capacity utilization of plant during 2000-01 to 2004-05.
- (iii) No up-gradation of major part of plant and machinery.

4.9.11 Improving Efficiency/Functioning of DMS

4.9.11.1 Quality Control Measures

The quality control standards have been made stringent to ensure supply of good quality milk. Recently an instant sodium meter has been installed in Quality Control Laboratory for rapid assessment/detection of neutralizers or alkaline adulterants (if any) added to milk and milk products by unscrupulous elements. For detection of contaminants & pollutants in milk, a Gas Liquid Chromatogram has also been installed. For further up-grading the quality control working, the following testing instruments have also been installed during 2005-06.

- Milko Scan - 133B - 2 Nos.
- Electronic Milk Testing Centrifuges
- Potentiometric Titrator with Karl Fischer attachment.

4.9.12 Marketing of Milk

- Custom packing of 40,000 litres of milk for Mother Dairy to utilize idle capacity
- Modernization of DMS milk booths
- Out-sourcing for transporting milk & milk products.
- Appointment of Distributors/Dealers to promote the sale of milk.
- Ensuring regular and timely supply as per market demand
- Training of DMS personnel

4.9.13 Steps taken to reduce the losses

4.9.13.1 Increasing the sale of DMS

4.9.13.1.1 The DMS plant is having a capacity of processing/packing of 5.00 lakh litres of milk per day

(LLPD). With the increase in price of DMS milk with effect from 01.03.2000, sale of milk came down from 4.5 LLPD to about 2.00 LLPD. The sale of milk started picking up from April, 2003 onwards and reached 3.50 LLPD (average) upto the year 2005-06 including custom packing of milk for Mother dairy.

4.9.13.1.2 The present sale of milk by DMS is around 2.49 lakh litres per day (LLPD). DMS is making full supply of milk as per market demand of DMS milk. However, since there is surplus processing capacity available with the DMS, it was decided to continue with custom packing of Mother Dairy milk. Presently around 40,000 litres of milk per day is being custom packed by DMS for Mother Dairy, Delhi and this can be increased further.

4.9.13.1.3 The sale of DMS and custom packing of Mother Dairy milk by DMS taken together has eached 2.89 LLPD enhancing capacity utilization of DMS plant. Due to floods in the State of Gujarat and Rajasthan, DMS could not procure sufficient quantity of milk and could utilize only 61% of its capacity during the financial year 2006-07 (up to November, 2006).

4.9.13.2 Reduction in the staff strength of DMS

4.9.13.2.1 In pursuance of the instructions issued by Ministry of Finance to down size the Government machinery and to reduce the administrative expenses, the DMS has decided to reduce its work force. The table given below indicates the reduction in staff strength of DMS:

Group	Sanctioned Strength as on 01.04.97	Sanctioned Strength as on 31.03.2003	Sanctioned strength as on 31.10.2005	Actual in position as on 30.11.2006
'A'	29	25	25	18
'B'	56	46	46	25
'C'	1022	853	697	482
'D'	1299	1222	1108	917
TOTAL	2406	2146	1876	1442

4.9.13.2.2 Due to reduction in the staff strength, the estimated reduction in fixed cost is expected to be to the tune of Rs 4.00 crore approximately.

4.9.13.3 Reduction in return milk and fat & SNF losses

4.9.13.3.1 Prior to 2002-03, the return milk of about 15-20 thousands litres per day was received in DMS. It was reprocessed/recycled before dispatching it the next day. Due to this re-processing, DMS was incurring an extra cost and it was causing a recurring loss to the organization. Now strict measures have been taken and as a result thereof, the quantity of return milk has come down to the barest minimum of 1-2 thousand litres per day.

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The Fat & SNF losses have also come down as indicated below:-

Year	Fat Loss (%)	SNF Loss (%)
2002-03	2.65	2.52
2003-04	2.43	2.25
2004-05	2.42	1.68
2005-06	2.78	2.23
2006-07 (Up to Nov.06)	2.42	2.16

4.9.13.4 Outsourcing of transport for transportation of milk

4.9.13.4.1 Outsourcing of the transport fleet in phases has been taken up. As on 01.11.2006, 79 routes have been outsourced, which cover 56 routes in the morning and 23 in the evening. With phasing out of vehicles from DMS transport fleet more insulated vehicles will be deployed with labour and cash collection duties as per requirement of DMS.

4.9.13.5 Upgradation and modernization of DMS plant

4.9.13.5.1 The DMS plant, which was installed at the time of its commissioning, has become quite old and is consuming much electricity and therefore, adding to the loss of the organization. The installed capacity of the plant was for processing 5.00 lakh litres of milk per day. The DMS is processing about 3.5 lakh litres of milk per day. As the plant is quite old, it is almost running to its optimum level and therefore, it may not be possible to process the milk at the level of its installed capacity. If the DMS plant is upgraded, it will bring down losses to the barest minimum and after some time it may bring profits. During 2006-07, self-desludging separators, plate condenser and installation of recycling system for ETP waste water have been procured and are under commissioning. It will reduce cost of electricity for on production of milk. Further, up gradation of DMS plant will also be undertaken depending on availability of funds.

4.9.13.5.2 The present capacity utilization of DMS is about 61%. Efforts are being made to utilize its capacity by increasing the sale of milk and milk products leading to reduction in losses.

4.10 Corporatization of DMS:

4.10.1 The activities of DMS are purely commercial in nature and, therefore, in order to run it as a commercial entity and make it financially viable, the Government has decided to corporatize it. Accordingly, the Union Cabinet has given 'in principle' approval to this Department's proposal to corporatize DMS to make it autonomous. The Department will bring a comprehensive proposal before the Cabinet in this regard within a period of 12 months.

CHAPTER 5
FISHERIES



CHAPTER 5

FISHERIES

5.1 Introduction

5.1.1 Fisheries sector occupies a very important place in the socio-economic development of the country. It has been recognized as a powerful income and employment generator as it stimulates growth of a number of subsidiary industries and is a source of cheap and nutritious food besides being a foreign exchange earner. Most importantly, it is the source of livelihood for a large section of economically backward population of the country. The main challenges facing fisheries development in the country include development of sustainable technologies for fin and shell fish culture, yield optimization, infrastructure for harvest and post-harvest operations and landing and berthing facilities for fishing vessels.

- India is 3rd largest producer of fish and second largest producer of fresh water fish in the world.
- The fish production during 2005-06 is estimated to be 65.72 lakh tonnes.
- A network of 429 Fish Farmers' Development Agencies (FFDAs) sanctioned covering all the potential districts in all the States and Union Territory of Pondicherry.
- Till 2005-06, about 6.98 lakh hectare water area brought under scientific fish farming through FFDAs.
- 8.25 lakh fish farmers/ fishermen trained in improved practices & 12.04 lakh persons benefited till 2005-06.

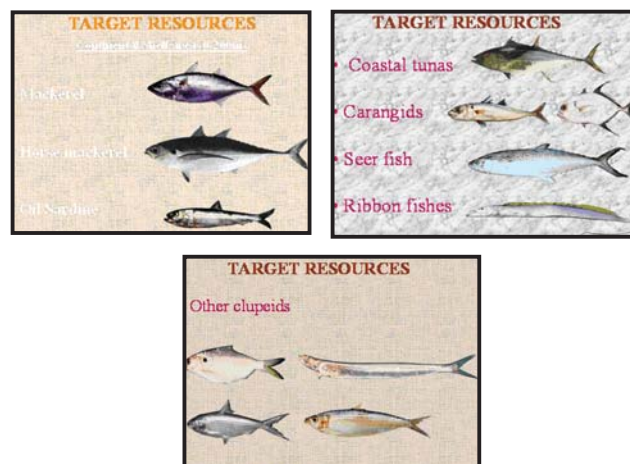
5.2 Thrust areas

5.2.1 Fisheries is a State subject and as such the primary responsibility for its development rests with

the State Governments. The major thrust in fisheries development has been on optimizing production and productivity, augmenting export of marine products, generating employment and improving welfare of fishermen and their socio-economic status.

5.3 On-going Schemes

- Development of Inland Fisheries and Aquaculture
- Development of Marine Fisheries, Infrastructure and Post Harvest Operations
- Welfare Programme for Fishermen
- Fisheries Training and Extension
- Strengthening of Data-base and Information Networking for the fisheries sector.
- Assistance to Fisheries Institutes



5.4 Development of Inland Fisheries and Aquaculture

5.4.1 Under macro-management approach, a centrally sponsored scheme on Development of Inland Fisheries and Aquaculture has been formulated for implementation through the State Government / UT Administrations. This scheme covers all inland fishery resources available in the country in the form of

freshwater, brackishwater, coldwater, waterlogged areas, saline / alkaline soils for aquaculture and capture fishery resources (reservoir / rivers etc.). The scheme has six components, viz., Development of Freshwater Aquaculture, Development of Brackishwater Aquaculture, Development of Coldwater Fisheries and Aquaculture in the Hilly Regions, Development of Water-logged Areas into Aquaculture Estate, Utilisation of Inland Saline / Alkaline Soils for Aquaculture and Inland Capture Fisheries (Reservoirs / Rivers etc.). The component Development of Freshwater Aquaculture is implemented by Fish Farmers Development Agencies (FFDAs) in the respective States and Union Territories. A network of 429 FFDAs has been established in the country.

5.4.2 Development of Freshwater Aquaculture

5.4.2.1 The main objectives of the scheme are to popularize fish farming, creating employment opportunities and diversifying aquaculture practices and providing assistance to fish farmers with a view to creating a cadre of trained and well organized fish farmers fully engaged in aquaculture.

5.4.2.2 In order to boost inland fish production, assistance in the form of subsidy is given to the fish farmers for construction of new ponds, reclamation / renovation of ponds and tanks, first year inputs (fish seed, fertilizers, manures, etc.), integrated fish farming, running water fish culture, establishment of fish seed hatcheries and fish feed mills, etc. Assistance is also given to progressive fish farmers for purchase of aerators to further enhance the productivity of fish. Subsidy for the above-mentioned activities is given at higher rates to fish farmers who belong to scheduled tribes / scheduled castes. Further financial assistance is also provided for freshwater prawn seed hatchery, laboratory, soil & water testing kits, integrated units for ornamental fish and transportation of seed in hilly areas. The expenditure towards developmental activities is being shared on 75:25 basis between the Government of India and State Governments/UT's.

5.4.2.3 During 2005-06, additional area of 22,758 hectare was brought under fish culture and 29,952

Fishers were trained in improved practices. Due to introduction of improved technology of fish farming and the efforts of FFDA's, the national average productivity of ponds and tanks covered under the programme has been about 2300 kg/ha/annum. Since inception of the scheme, till 2005-06, about 6.98 lakh ha water area has been brought under fish culture and 8.25 lakh fishers have been trained in improved practices of fish farming and the number of beneficiaries covered under the programme is about 12.04 lakhs.

5.4.3 Development of Brackish Water Aquaculture

5.4.3.1 With a view to providing technical, financial and extension support to shrimp farmers in the small scale sector, 39 Brackish Water Fish Farmers Development Agencies (BFDA's) have been sanctioned in all the coastal states and the UT of Andaman & Nicobar Islands. During 2005-06, additional area of about 1127 ha. was brought under shrimp culture and 798 fishers were trained in improved practices.

5.4.3.2 Since inception of the scheme, till 2005-06, about 28885 ha. water area has been brought under shrimp culture and 26536 shrimp farmers have been trained in improved practices of shrimp farming and the number of beneficiaries covered under the programme is about 25726 numbers.

5.4.4 Progress of the scheme during 2005-06 and 2006-07

5.4.4.1 A sum of Rs. 25.66 crore was released during the financial year 2005-06 and Rs.12.45 crore has been released till December, 2006 during 2006-07 to the States and UTs for the development of inland fisheries and aquaculture.

5.5 Development of Marine Fisheries, Infrastructure and Post-Harvest Operations

5.5.1 Programmes for Development of Marine Fisheries

5.5.1.1 The Department continued to extend financial

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assistance for the development of marine sector throughout the plan period to implement several central sector and centrally sponsored schemes such as motorization of traditional crafts, assisting the small scale mechanized sector by subsidizing the excise duty on fuel, setting up of infrastructure for safe landing, berthing and post-harvest operations etc. and thereby improving the socio economic conditions of the traditional fishermen.

5.5.1.2 On the basis of Zero Based Budgeting (ZBB) exercise, the ongoing schemes have been brought under a comprehensive scheme, namely, 'Development of Marine Fisheries, Infrastructure and Post Harvest Operations' after due modifications based on the feedback received from the coastal States/UT's/beneficiary groups. The modified integrated scheme includes components of (i) Development of Coastal Fisheries (ii) Development of Deep Sea Fishing (iii) Development of Infrastructure Facilities and (iv) Development of Post Harvest Infrastructure also for overall development of the sector with focused approach to exploit deep-sea fishery resources.

5.5.2 Component-wise details of the scheme

5.5.2.1 Development of Coastal Fisheries

5.5.2.1.1 Introduction of Intermediate crafts of improved design

5.5.2.1.1(i) Out of the estimated 3.9 million tonnes of potential marine fisheries resources, the current harvest is about 2.8 million tonnes. The remaining one million tonne is currently unexploited because the resources exist mainly in the deep sea and beyond the fishing capacity of the small-scale fishing boats in the country. Adequate number of appropriately designed boats would be required to judiciously exploit the fishable potential of the country's EEZ. Accordingly, a new component has been included in the macro scheme to acquire an appropriate design and to provide financial incentives to fishermen groups to take up this new generation craft.

5.5.2.1.1(ii) This component on multi-day

intermediate class of resource specific fishing vessels in the length range of about 18 meters is to be implemented with a unit cost of Rs.40.00 lakh on which a back-ended subsidy equivalent to 10% of the cost restricted to Rs.4.00 lakh is provided. This component is implemented through National Cooperative Development Corporation (NCDC).

5.5.2.1.2 Motorization of Traditional Craft

5.5.2.1.2(i) Motorization of Traditional Craft, a production oriented scheme was introduced during 7th Plan with the objective of technological upgradation of traditional fishing sector, to help the fishermen to reduce their physical strain and to extend the range of their fishing operation primarily to increase the quantum of fish catch, income and thereby to raise their socio-economic status. The scheme is being continued with the modification that the subsidy benefit will be extended for Out Board Motor (OBM) of 8-10 HP. Under this component, 50% of the cost of engine is provided as subsidy subject to a maximum of Rs.20,000/- per Out Board Motor (OBM) shared equally by the Centre and the State Governments. In case of UTs, the Centre meets the entire cost of subsidy. About 39,000 traditional crafts have been motorized so far since Seventh Plan in the maritime States/UTs.

5.5.2.1.3 Fishermen Development Rebate on HSD Oil

5.5.2.1.3(i) The scheme for reimbursement of Central Excise Duty on HSD Oil used by fishing vessels below 20 M length was introduced from 1990-91 onwards with a view to helping the small mechanized fishing owners/operators to bring down the operational cost of these vessels and thereby encouraging them to increase the fishing days, fish catch and income. The cost of Central excise duty on HSD oil @ Rs. 1.50 per litre is subsidized under this component, which is shared on 80:20 basis between the Centre and States and met fully by the Centre in case of States which have exempted sales tax fully on HSD oil and UTs.

5.5.2.1.4 Safety of Fishermen at Sea

5.5.2.1.4(i) The hazardous nature of sea fishing often results in loss of life and fishing boats and implements besides injury and permanent impairment. Recent studies have pointed out that calamities occur mostly due to ill-equipped vessels and non-availability of an early warning system on board. The scheme addresses this issue by equipping the small-mechanized craft by providing a package of position finding and communication equipment. This component envisages installing one Global Positioning System (GPS) and a wireless set on the small-mechanized fishing vessels below 20m length. The unit cost of these equipment together works out to about Rs.1.50 lakh of which 20%, subject to the ceiling of Rs.30,000, is provided as back-ended subsidy through the National Cooperative Development Corporation (NCDC) to benefit 1,666 boats in the 10th Plan.

5.5.2.2 Development of Deep Sea fishing

5.5.2.2.1 Resource Specific Deep Sea Fishing Vessels

5.5.2.2.1(i) On the basis of the new guidelines issued by the Department during November, 2002 permitting Indian Flag Vessels in the Indian Exclusive Zone, 25 Indian companies were issued Letters of Permission (LsOP) for 95 resource specific vessels till December, 2005. 34 LsOP have been surrendered by 13 Indian companies and further 9 companies were issued LsOP for 26 resource specific vessels. Thus, 21 companies have been issued 87 LsOP till December, 2006.

5.5.2.2.1(ii) A fleet of stern trawlers/shrimp trawlers earlier introduced into the deep sea fishing sector of the country with the encouragement of the Government is currently under-utilized due to collapse of shrimp fishery in the known grounds and bottom trawling for fish has become non-remunerative. In view of the fact that a sizeable quantity of oceanic tuna and allied species in the EEZ remain practically unexploited and thus, conversion of these trawlers to mono-filament long lining is considered to be the most

appropriate technological intervention to meet the aforesaid dual challenges of under utilization of the existing trawler fleet and of the tuna resources. Under new component for technology acquisition and financial incentive, conversion of 10 numbers of the existing shrimp trawlers is envisaged for which a back-ended subsidy of Rs.15 lakh per vessel is provided. Till December 2006, 6 trawlers have been converted to Tuna Long Liners. The scheme is implemented through the Fishery Survey of India, a subordinate office of the Department by suitably modifying the imported technology through the ICAR Institute of Central Institute of Fisheries Technology. Under this component, introduction of VMS for initially covering 50 deep-sea fishing vessels with the Coast Guard is also implemented.

5.5.2.3 Development of Infrastructure Facilities

5.5.2.3.1 Establishment of Fishing Harbours & Fish Landing Centres

5.5.2.3.1(i) Development of infrastructure facilities for the fishery sector is one of the important factors that contribute in augmenting marine fish production and increasing exports for earning foreign exchange. In order to meet the infrastructure requirement of fisheries sector, a centrally sponsored scheme, with the objective of providing infrastructure facilities for safe landing and berthing of traditional fishing craft, mechanized fishing vessels and deep sea fishing vessels, was initiated in 1964. The facilities being created under the scheme are fishing harbours and fish landing centres which includes breakwater, wharf, jetty, dredging, reclamation, quay, auction hall, slipway, workshop, net mending shed and other ancillary facilities.

5.5.2.3.1(ii) Since inception of the scheme, 6 major fishing harbours, 58 minor fishing harbours and 189 fish landing centres have been taken up for implementation in various coastal States/UTs. Besides, 12 minor fishing harbours and 11 fish landing centres have been taken up for repair and renovation/modernization.

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5.5.2.3.1(iii) During the Tenth Five Year Plan, the scheme has been merged with the macro management scheme as a component on 'Establishment of Fishing Harbours and Fish Landing Centres'. An outlay of Rs.100.00 crore has been allocated for implementation of this component during the Tenth Five Year Plan. The Central financial assistance under this component provided to various implementing agencies consists of (i) 50% of project cost to coastal states and 100% to UTs for construction of minor fishing harbours and fish landing centres; (ii) 100% assistance to the coastal states, UTs & Port Trusts and Fishermen Associations/Organization for construction of major fishing harbours; (iii) 50% assistance for construction of minor fishing harbours and fish landing centres on Build, Operate & Transfer (BOT) basis. Besides construction of new fishing harbours/fish landing centres, modernization of existing facilities have also been undertaken under this component. The central financial assistance to the tune of 50% of the project cost to the coastal states as well as Port Trusts and 100% to the UTs for repair and renovation/modernization of existing fishing harbours and fish landing centres is provided.

5.5.2.4 Maintenance of Dredger TSD Sindhuraj

5.5.2.4(i) In order to cater to the needs of safe landing and berthing facilities for various categories of fishing vessels plying along the coast of the country, fishing harbours and fish landing centre facilities have been developed under the centrally sponsored scheme in association with maritime states, Union Territories and Port Trusts. Every fishery harbour/ fish-landing centre is subjected to siltation due to natural phenomenon. The rate of siltation depends on site conditions and other hydraulic parameters as well as coastal phenomenon prevailing at the site. Periodical maintenance/ dredging is inevitable to keep the harbour/ landing centres basin fit for safe navigation. The fishery harbours and fish landing centres already in existence and those to be developed in future require regular maintenance/dredging.

5.5.2.4(ii) Realising the siltation problem being faced by existing fishing harbours and fish landing centres

developed with the central assistance, a Trailing Suction Hopper Dredger 'TSD Sindhuraj' has been procured under the Japanese Grant-in-aid programme with an aid of Japanese Yen 1248.00 million. The dredger TSD Sindhuraj is the most ideal for dredging in shallow waters. The ability of the dredgers with 2.00 to 2.50 mts draft and 200 cubic mtrs hopper capacity can remove siltation of about 2.00 lakh cubic meters annually.

5.5.2.4(iii) The operation and maintenance of the dredger has been carried out through the Department of Ports, Government of Kerala, for which the maintenance cost and insurance etc. is borne by the Centre under the scheme. Besides, central assistance to the tune of 50% of the cost of dredging / desilting at existing fishing harbours and fish landing centers has been provided to various implementing agencies for dredging/desilting of existing fishing harbours and fish landing centres. In case of Union Territories 100% cost of maintenance; dredging is borne by the Union Government.

5.5.2.5 Development of Post Harvest Infrastructure

5.5.2.5(i) A central sector scheme was introduced in 1992-93 to create facilities for providing remunerative price to the fish farmers for their produce and making available fresh fish at reasonable price to the consumers. Under this scheme, State Fisheries Cooperative, Cooperative Federation and primary cooperatives are assisted in strengthening their marketing infrastructure in the shape of fish handling sheds, ice plants, cold storage, retail outlets, etc. Up to 1996-97, 41 marketing units have been sanctioned in 19 states. The scheme was continued in the 9th Plan to provide balance central assistance to complete the units sanctioned in the 8th Plan. However, with a view to strengthening the post harvest infrastructure and minimizing the post harvest losses through ideal marketing system, this scheme has been continued as a component of the macro scheme during the 10th Plan.

5.5.2.5(ii) The programme under this component for

the Tenth Five Year Plan consists of two sub-components i.e. (i) developing fish preservation and storage infrastructure and (ii) developing marketing infrastructure such as retail vending kiosks, aqua-shops, insulated/refrigerated vehicles, ice-box, fish display cabinets, visi coolers, etc. This programme is implemented through self-help groups of fisher-women, NGOs, cooperatives, joint sectors, government undertakings, corporations in a location specific manner. The funding pattern under the component is (i) 100% grant (limited to Rs.1.00 crore) to government undertakings/corporations/federations; (ii) 75% grant (limited to Rs.0.75 crore) to NGOs/cooperatives/joint sector/group of fisher-women in NE Region / hilly/ tribal areas and 50% grant (limited to Rs.0.50 crore) in general areas; and (iii) 50% grant (limited to Rs.0.40 crore) to assisted/private Sector in North Eastern Region/hilly/ tribal areas and 25% grant (limited to Rs.0.25 crore) in general areas.

5.5.3 Progress of the scheme during 2005-06 and 2006-07

5.5.3.1 A sum of Rs. 61.08 crore was released during 2005-06 and Rs. 33.15 crore has been released during 2006-07 (till 31st December 2006) to the implementing agencies for the development of marine fisheries, infrastructure and post harvest operation.

5.6 Welfare Programme for Fishermen

5.6.1 This scheme has following three components: -

- i) Development of Model Fishermen Villages
- ii) Group Accident Insurance for Active Fishermen
- iii) Saving-cum-relief

5.6.1.1 Development of Model Fishermen Villages

5.6.1.1.1 The objective of the component is to provide basic civic amenities such as housing, drinking water and construction of community hall for fishermen. A

fishermen village may consist of not less than 10 houses. The villages would be provided with tube wells at the rate of one tube well for every 20 houses. For recreation and common working place, a fishermen village with at least 75 houses is eligible to avail financial assistance for construction of a community hall. Unit costs under the scheme since 2000-01 is Rs. 40,000/- for a house, Rs.30,000/- for the tube-well (Rs.35,000 for North Eastern Region) and Rs. 1,75,000/- for community hall. The expenditure is shared equally between central and state government. In case of union territories, the expenditure is fully borne by the Centre.

5.6.1.2 Group Accident Insurance Scheme for Active Fishermen

5.6.1.2.1 The objective of this component is to provide insurance cover to fishermen engaged actively in fishing. Such active fishermen are insured for Rs. 50,000/- for one year against accidental death or permanent total disability and Rs. 25,000/- for permanent partial disability. The upper limit for insurance premium is Rs. 15/- per head. 50% of the annual premium is subsidized as grants in aid by the Centre and remaining 50% by State Governments. In case of a Union Territory, 100% premium is borne by Government of India. A single policy is taken in respect of all those states/ union territories who are participating through FISHCOPFED.

5.6.1.3 Saving-cum-Relief Scheme

5.6.1.3.1 The objective of this component is to provide financial assistance to fishermen during lean fishing season. Under this component, beneficiary has to contribute a part of earnings during non-lean months. The monthly contribution of marine fishers is Rs. 75/- for eight months, while that of inland fishers is Rs.50/- for nine months. A matching amount is provided with equal contribution from Central and State Governments and the accumulated amount is distributed back in four/three equal installments at the rate of Rs.300/- per month to marine/inland fisher. In case of UTs, entire matching share is borne by the central government.

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5.6.2 Progress of scheme during 2005-06 and 2006-07

5.6.2.1 A sum of Rs 33.03 crore was released to states / UT's / FISHCOPFED during 2005-06 to cover about 3.28 lakh fishers under Saving-cum-Relief component, for construction of 22053 houses and to cover 16.31 lakh fishermen under Group Accident Insurance component.

5.6.2.2 During 2006-07, a sum of Rs 19.06 crore has been released till 31st December, 2006 to cover about 0.30 lakh fishers under Saving-cum-Relief component, to construct 1800 houses for fishers and to cover 14.27 lakh fishers under Group Accident Insurance.

5.7 Fisheries Training and Extension

5.7.1 The main objective of the scheme is to provide training to fishery personnel so as to assist them in undertaking fisheries extension programmes effectively. The scheme provides assistance to fisher folk in upgrading their skills. To enhance training facilities, assistance is also provided for setting up/upgradation of training centres in states/union territories. From the year 1999-2000, this scheme is operated with 80 per cent central assistance in case of states and 100 per cent central assistance in case of union territories and other organizations. Other components of the scheme are to publish manuals to provide adequate extension material, production of video films on the technologies and its publicity, to conduct meetings/workshops/seminars, etc. of national importance. The scheme has been merged with 'Welfare Programme for Fishermen' during 2005-06.

5.8 Progress of the scheme during 2005-06 and 2006-07

5.8.1 During 2005-06, an amount of Rs 2.15 crore was released to various states/organizations for training of fish farmers, setting up/up gradation of 4 training centres, establishment of awareness centre, preparation of training/extension manuals, publication of handbooks, production of documentary film and organization of Workshops and Seminars.

5.8.2 During 2006-07 (till 31st December, 2006), an amount of Rs 1.82 crore has been released to various States/Organizations for training of fish farmers, setting up/up gradation of training centre, establishment of awareness Centre, preparation of training/extension manuals, publication of handbooks, production of documentary film and organization of Workshops and Seminars.

5.9 Strengthening of Database and Information Networking for Fisheries Sector

5.9.1 The central sector scheme on Strengthening of Database and Information Networking for Fisheries Sector, with an outlay of Rs. 24.50 crore, is under implementation with 100% Central assistance. The new scheme consists of the following major components:

- Catch Assessment Survey of Inland Fisheries,
- Information Technology Networking,
- Development of Geographical Information System using satellite data,
- Census on important attributes of Marine Fisheries, and
- Catch Assessment Survey of Marine Fisheries.

5.9.1.1 Catch Assessment Surveys on Inland Fisheries

5.9.1.1.1 This component is entrusted to Central Inland Fisheries Research Institute (CIFRI), ICAR, Barrackpore, West Bengal, with the responsibility of standardization of concepts, definitions and methodology for collecting fisheries statistics and training of staff concerned therewith. The work on supervision, training and data analysis is undertaken by CIFRI.

5.9.1.1.2 CIFRI has already developed the methodology for the survey and organized various training programmes in different regions to train state government officials. Officers of all the states / UTs have been imparted training. The software for compilation of data collected through the Catch

Assessment Survey has been developed and released by CIFRI and the officers of states / UTs are being trained on the use of the software so that necessary reports of estimates on Inland Fish production may be generated.

5.9.1.2 Information Technology

5.9.1.2.1 Under the component of Information Technology, a provision has been made for procurement of equipment by state governments/ union territories/ CIFRI/ DADF Headquarters/ Fishery Survey of India, Mumbai. So far, funds have been released to 25 states and 1 union territory for procurement of IT equipment.

5.9.1.3 Development of Geographical Information System

5.9.1.3.1 The development of GIS has been entrusted to Central Inland Fisheries Research Institute (CIFRI), Barrackpore. At the time of formulation of the scheme, it was decided to obtain the satellite imageries from IRS-1D for post monsoon period from NRSA for assessment of shape and size of the water bodies. Water bodies of area 0.5 ha. and above were located, mapped and area statistics for few states like Bihar and Rajasthan were generated. It was further decided to merge the component of census of inland fisheries with the component on Development of GIS. Under modified methodology, the Geographical Information System (GIS) of the Inland Waterbodies will be developed by CIFRI, Barrackpore, using LISS-III images of resolution 5.8 metre in multiple spectral bands for pre and post monsoon seasons covering the entire country and LISS-IV images in black & white in two seasons for the states of West Bengal, Andhra Pradesh, Madhya Pradesh and Uttar Pradesh. Ground truthing for waterbodies of above 10 hectare in 30 % of the districts will be carried out. During Ground truthing, information on various parameters such as type of waterbodies, water spread area, water retention, utilization for fishery, etc. would also be collected, which will be further superimposed in the GIS. With this modified technology, cost of the project has been increased to Rs.758.24 lakh. Potential areas

will be highlighted on the maps for future planning and development. A geo-referenced fishery data base management system will be evolved and the information linked and networked for the users. Mapping of waterbodies for post-monsoon period has been completed for all the states and the work of pre-monsoon period is in progress.

5.9.1.4 Census on Marine Fisheries

5.9.1.4.1 The component on conduct of census on marine fisheries entrusted to Central Marine Fisheries Research Institute (CMFRI) for main land maritime states and Fishery Survey of India (FSI) in respect of A&N Islands and Lakshadweep, was launched in 2005 in all the maritime states/UTs to count the men and material involved in the marine fisheries sector. The report of the census was published and released on 26th July, 2006. As per the report, there are 3322 marine fishing villages in all the maritime states/UTs of India and 10 inhabited islands of Lakshadweep with a total population of marine fishers of about 35.75 lakh. Nearly 56.5% fisherfolk are educated with varying level of education in all the coastal states/UTs whereas the figure for Andaman & Nicobar and Lakshadweep are 67% and 76% respectively. About 46.8% of fisherfolk are occupied with active fishing and fisheries related activities in all the coastal states/UTs whereas the figure for A&N and Lakshadweep are 77.2% and 20.00% respectively. A fleet of 29241 trawlers, 983 purse-seiners, 14183 gillnetters, 8862 dolnetters, 1190 liners, 76748 motorised, 107448 non motorised and 5284 other mechanized crafts are engaged in the marine fisheries sector in India.



5.9.1.5 Catch Assessment Survey on Marine Fisheries

5.9.1.5.1 For streamlining the catch assessment surveys on marine fisheries, Fishery Survey of India (FSI) acts as an interface between Ministry and the State Fishery Departments. FSI is entrusted to collect data with emphasis on biological aspect of species, gear and market and reconcile the data received from State Governments and CMFRI. In this regard, the Department constituted a Committee under the chairmanship of DG, FSI to review the status of implementation and also to sort out the problems faced by the states, if any, in adopting the CMFRI methodology. The Committee met at four places, namely, Mumbai, Chennai, Kolkata and Mangalore taking 2-3 maritime states/UTs together at a time to discuss the issue in detail.

5.9.2 Progress of scheme during 2005-06 and 2006-07

5.9.2.1 A sum of Rs. 4.75 crore was released during 2005-06 and a sum of Rs. 2.89 crore was released till 31st December, 2006 during 2006-07, under the scheme.

5.10 Assistance to Fisheries Institutes

5.10.1 Central Institute of Fisheries Nautical and Engineering Training (CIFNET), Kochi

5.10.1.1 Central Institute of Fisheries Nautical & Engineering Training (CIFNET) was established in 1963 at Cochin for organizing suitable fisheries training system at the national level. Subsequently, two units of the Institute were set up at Chennai and at Visakhapatnam. The primary objective of the Institute is to make available sufficient number of trained operatives for fishing vessels and technicians for shore establishments.

5.10.1.2 Two regular courses of 18 months duration viz. Mate Fishing Vessel Course (MFVC) and Engine Driver Fishing Vessel Course (EDFVC) are being

conducted with a total intake capacity of 200 trainees. In addition to the above main courses, various short term / ancillary courses are also conducted at these centres. The Institute has also started four-year degree course, Bachelor of Fishing and Nautical Science during 2005-06 at Cochin.

5.10.1.3 During 2005-06 and 2006-07 (till December 2006), 74 persons and 65 persons were trained respectively in these two main training courses (MFVC & EDFVC). In addition, 892 and 50 candidates were trained in short-term training programmes for sponsored / departmental candidates in fishing technology, gear technology, etc. during 2005-06 and 2006-07 (till December 2006) respectively.

5.10.1.4 Expenditure to the tune of Rs. 2.55 crore and Rs. 1.86 crore were incurred during 2005-06 and 2006-07 (till 31st December 2006) respectively.

5.10.2 Integrated Fisheries Project (IFP), Kochi

5.10.2.1 This Project envisages processing, popularization and test marketing of unconventional varieties of fish. The Project has well established fishery complex consisting of ice cum freezing plant, a well equipped processing unit for processing and marketing of diversified value added fish products, a research and development laboratory to carry out quality analysis of raw fish, finished products handled by the project and testing and developing suitable packages for different value added products. The project is also engaged in imparting institutional training in disciplines like fish Processing Technology, Marine refrigeration and Apprenticeship Training in Fish Quality Control.

5.10.2.2 Present Status of Integrated Fisheries Project

5.10.2.2.1 As per review of the performance of Integrated Fisheries Project by the Planning Commission and Expenditure Reforms Committee, it was observed that Integrated Fisheries Project required pruning / downsizing. Based on this, two committees

were constituted by the Department including cadre review committee for studying the working of Integrated Fisheries Project and the committees made several recommendations in this regard including revision of its mandate, re-orientation of its activities, transfer of some of its activities to other subordinate offices of the Department and upgradation of the posts in Integrated Fisheries Project, keeping in view its revised mandate. After examining the recommendations, it was decided to transfer lone fishing vessel and existing Gear section to CIFNET and Marine Engineering Division including Slip way and other facilities to Fishery Survey of India (FSI). The existing charter of IFP was also reviewed and processing of low value fish and value addition by converting such fish into marketable commodities was identified as core activity for IFP.

5.10.2.2.2 Accordingly, staff members of Fishery section and Gear Section have been transferred to CIFNET and that of marine engineering section, including departmental canteen to Fishery Survey of India. The revised mandate in IFP after reorganization has been identified as under:-

1. Technology development and transfer to beneficiaries consisting of rural fishermen community, small-scale industries and Export Processing Houses through consultancy and job work.
2. Value added product development by way of process and product diversification from all varieties of fish including low value, un-conventional species and seasonally abundant fishes.
3. Imparting training in the field of post harvest technology, refrigeration technology, quality control and value added products.
4. Providing consultancies and training for rural development programmes / women empowerment programmes in fish processing, supporting local fish farmers, self help groups of fisher community, fishermen's co-operative societies functioning and Panchayati Raj Institution.

5. Popularization and test marketing of value added products of all fish varieties including low value, un-conventional species and seasonally abundant fishes.
6. Extension, popularization and test marketing of value added products to new areas and develop market in all states in phased manner with added attention to rural areas enthusing entrepreneurs to enter into sea food processing industry.

5.10.2.2.3 During 2005-06, 100.73 tonnes of fish were processed and 57.50 tonnes of fish were marketed. During 2006-07 (till 31st December 2006), 72.11 tonnes of fish were processed and 56.49 tonnes of fish were marketed.

5.10.2.2.4 Expenditure to the tune of Rs. 0.96 crore and Rs. 1.50 crore were incurred during 2005-06 and 2006-07 (till 31st December 2006) respectively.

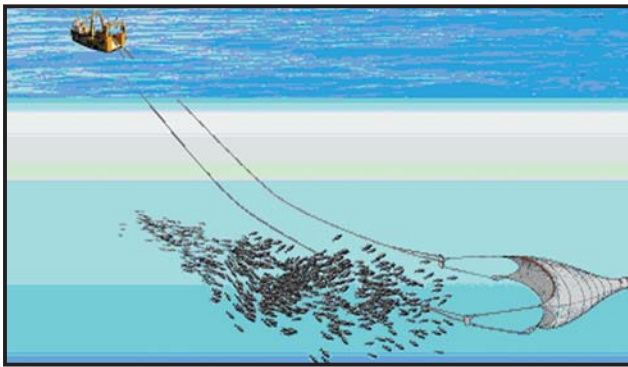
5.10.3 Fishery Survey of India

5.10.3.1 The Fishery Survey of India (FSI) is the nodal agency for survey and assessment of marine fishery resources of the Indian EEZ with its headquarters at Mumbai. The Institute has seven operational bases at Porbandar, Mumbai, Mormugao and Kochi along the West Coast, Chennai and Visakhapatnam along the east coast and Port Blair in the Andaman & Nicobar Islands. A total of 13 ocean ongoing survey vessels are deployed for fisheries resources survey and monitoring. Besides resources surveys, the FSI's work includes monitoring of fishery resources for the purpose of regulation and management, assessment of suitability of different types of craft and gear for deep-sea and oceanic fishing, providing in-vessel training to CIFNET/ Polytechnic trainees, dissemination of information on fishery resources through various media to the fishing community, industry, other end users, etc. The Institute is recognized by the Universities of Mumbai, Andhra Pradesh, Chennai, Cochin and Goa as a Research Centre for M.Sc. and Ph.D Degrees. The survey fleet of the Institute undertakes bottom trawl survey, midwater/columnar resources survey and long line survey for demersal, columnar and oceanic tunas and

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allied resources and also for oceanic sharks. Besides, several experimental projects for the development of eco-friendly fishing methods are also undertaken. Scientists participate regularly in survey cruises and collect data on fishery resources and related biological and environmental parameters.

5.10.3.2 During the period 2005-06 and 2006-07 (till December, 2006), the survey vessels conducted actual fishing for 1756 days and 1058 days respectively



expanding actual fishing effort of 4519 hours and 2737 hours and operated 266360 hooks and 179935 hooks respectively.

5.10.3.3 Expenditure to the tune of Rs. 29.20 crore and Rs. 15.11 crore were incurred during 2005-06 and 2006-07 (till 31st December 2006) respectively.

5.10.3.4 The Institute has procured two monofilament long liners on 21st February, 2005 in replacement of two decommissioned vessels. These vessels, provided with facilities for carrying out scientific work on board, would also be utilized for demonstrating the monofilament fishing technology to fishermen apart from carrying out survey of the oceanic tuna resources.

5.10.4 Central Institute of Coastal Engineering for Fishery (CICEF), Bangalore

5.10.4.1 The objective of this institute set up in 1968 at Bangalore is to conduct techno-economic feasibility studies for development of fishing harbours (FH) and brackish water farms. The institute monitors the progress of construction of ongoing fishery harbours sanctioned under the centrally sponsored scheme of

the Department and renders technical guidance to the maritime States/ UTs in the speedy implementation of the projects. The institute also assists the maritime state governments in finalization of project reports prepared by them. The institute has shifted to a new building located in HMT Complex at Jalahalli, Bangalore during August, 2003. Some of the major activities conducted by the Institute are as follows:

- (i) Reconnaissance survey and identification of suitable sites for fishing harbours.
- (ii) Preparation of preliminary construction plans and detailed estimate.
- (iii) Engineering and economic investigations.
- (iv) Preparation of project feasibility reports for brackish water shrimp farms and training of personnel.

5.10.4.2 During 2005-2006, the institute conducted detailed engineering and economic prepared and issued techno-economic feasibility reports of development of fishery harbours at Thengapattinam FH, Anthervedipalem/Biyyaputhippa FH in Andhra Pradesh, Colachel FH. It prepared and issued the updated project report on Ghogla Fish Landing Centre, Vanakbara FH, Deogad FH in Maharashtra.

5.10.4.3 During 2006-2007 (till 31st December 2006), the Institute conducted joint reconnaissance survey of 68 sites and submitted report to concerned states/ UTs; conducted economic investigations at Thalai FH in Kerala; prepared and issued TEFR for development of fishery harbour/fish landing centre at Nizampatnam FH Stage II in Andhra Pradesh and Mayabunder FLC in Andaman & Nicobar Islands; prepared and issued draft technical reports on Bhadeli Jaglala FH in Gujarat and Honnavar FH Stage II in Karnataka; prepared and issued Master plan reports for the development of fishery harbour/fish landing centres in Orissa, Goa and Andaman & Nicobar Island (UT); submitted action taken report by the institute on TRP regarding development of 20 FLCs in the states of Tamil Nadu, Andhra Pradesh, Kerala and UTs of Pondichery, Andaman & Nicobar Islands.

5.11 National Fisheries Development Board

5.11.1 National Fisheries Development Board (NFDB) has been set up recently with its headquarters at Hyderabad. The Board has been registered under Andhra Pradesh Society Registration Act 2001 on 10th July, 2006 to realize the untapped potential of fisheries sector in inland and marine fish capture, culture, processing and marketing of fish, and over all growth of fisheries sector with the application of modern tools of research & development including biotechnology for optimizing production and productivity from fisheries.

5.11.2 Objectives of the National Fisheries Development Board are:

- i) To bring major activities relating to fisheries and aquaculture for focused attention and professional management;
- ii) To coordinate activities pertaining to fisheries undertaken by different Ministries / Departments in the Central Government and also coordinate with the state / union territory Governments;
- iii) To improve production, processing, storage, transport and marketing of the products and culture fisheries;
- iv) To achieve sustainable management and conservation of natural aquatic resources including the fish stocks;
- v) To apply modern tools of research and development including biotechnology for optimizing production and productivity form fisheries;
- vi) To provide modern infrastructure mechanisms for fisheries and ensure their effective management and optimum utilization;
- vii) To generate substantial employment;
- viii) To train and empower women in the fisheries sector; and
- ix) To enhance contribution of fish towards food and nutritional security.

5.11.3 Major activities to be taken up by the National Fisheries Development Board:

- i) Intensive aquaculture in ponds and tanks: This is aimed at increasing the productivity to a level of 5 tonnes per ha. from the present level of 2 tonnes per ha. About 8 lakh ha. will be brought under intensive culture out of 24.1 lakh ha. by providing better inputs in terms of seed, feed and fertilizer as well as through use of latest technologies. In addition another 50,000 hectares of fresh land will be brought under intensive aquaculture.
- ii) Enhancing productivity from Reservoir Fisheries: Another important source for raising fish production substantially is through reservoirs where the average productivity is at present about 16kg per ha., which can be increased by proper stocking of fingerlings to a level of 150 kg per ha.
- iii) Brackish Water Coastal Aquaculture: This is a potential sector for enhancing export earnings and with the enactment of the Coastal Aquaculture Authority Act 2005, the uncertainties arising out of the Supreme Court's directives on shrimp aquaculture have been removed. Hence, substantial expansion in the next five years is expected for bringing in an additional one lakh ha. area for shrimp culture. Besides, another 50,000 ha. are to be developed for culturing brackish water finfish.
- iv) Deep Sea Fishing and Tuna Processing: The present scheme of granting Letter of Permit for acquisition of resource-specific vessels would be encouraged besides promoting introduction of intermediary vessels to exploit deep sea fishing resources, including tuna.
- v) Mariculture: Substantial increase in marine fish production and foreign exchange earnings are possible by popularizing mariculture through adoption of appropriate technology which has been tried out successfully in many countries. The technology would be imported, if necessary,

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for production of seed. Also, some of the existing shrimp hatcheries are to be encouraged to diversify into production of finfish seeds by providing a subsidy to the extent of 20%.

- vi) **Sea Ranching:** Sea ranching by introducing hatchery bred fry into marine waters which would help in rejuvenating the dwindling stock of major fish species in the sea, will be one of the conservation measures to be adopted by the Board. Production of appropriate seed will be a major activity under this, which shall be done through coordination with existing hatcheries, establishment of nurseries and necessary training of technicians.
- vii) **Seaweed Cultivation:** Seaweed cultivation is a diversified activity in mariculture having a potential to provide supplementary income and employment to about 2 lakh families. NFDB's role would be confined to training and demonstration in a big way over a period of five years.
- viii) **Infrastructure for Post Harvest Programmes:** NFDB will concentrate on improving existing infrastructural facilities and creating additional facilities as post-harvest programmes for hygienic handling of catch, including such facilities at completed fishing harbours and landing places.
- ix) **Fish Dressing Centres and Solar Drying of Fish:** Fish Dressing Centres are to be set up near major landing centres with facilities to handle process and pack fish hygienically for sale through retail outlets on order to reduce the losses from poor handling etc.
- x) **Domestic Marketing:** NFDB may enter into equity participation (up to 20 percent) with private entrepreneurs for modernization of wholesale markets in 10 cities and chains of retail outlets in about 50 cities/towns.
- xi) **Other Activities :** The other proposed activities which NFDB may take up include trout culture, installation of artificial fish habitats, fish

aggregation devices, mahseer breeding and culture, ornamental fish culture, mariculture of bivalves, marine pearl culture, setting up of aquaculture service centers, fisheries service centers, etc

5.11.4 The Board was inaugurated on 9th September, 2006. For effective monitoring and implementation of the National Fisheries Development Board activities, a Governing Body consisting of 50 members and an Executive Committee consisting of 14 members have been constituted.

5.11.5 Budget proposed for the year 2006-2012 is Rs.2100.00 crore. For the year 2006-07, Rs.151.00 crore was allocated for taking up various activities of the Board. However, actual expenditure is expected to be Rs.30.00 crore during the current financial year as the scheme could take off only in September, 2006.

5.12 Tsunami Relief Package

5.12.1 The Tsunami on 26th December 2004 had a devastating impact in the coastal states of Tamil Nadu, Kerala, Andhra Pradesh and union territories of Pondicherry and Andaman and Nicobar Islands. Since the fishing community resides along the coastal belt due to occupational necessity, they faced the brunt of tsunami to a greater extent.

5.12.2 More than 10,749 people lost their lives in the tidal waves and majority of them were fishermen. Besides, they lost dwellings and assets for livelihood such as boats, nets etc. Hence, a special package viz. 'Rajiv Gandhi Rehabilitation Package' encompassing various tsunami affected areas and envisaging immediate rehabilitation and restoration of fishing activities and means of livelihood to fishermen, was put in place. The special package has provision for repair / replacement of Catamaran, engine fitted boats and mechanised boats, motors, nets etc. Out of the total relief package of Rs 2822.17 crore for the Tsunami affected States / UTs except Andaman & Nicobar Islands, a sum of Rs. 1208.05 crore has been released for fisheries sector comprising of Rs. 568.81 crore as subsidy and Rs. 639.24 crore as loan. The subsidy in the fishing sector consists of Rs. 23.21

crore for repair of fishing harbours and Rs. 545.60 crore for repair and replacement of crafts and gear. The rehabilitation programme is almost over in all the affected states / UTs so far as repair/replacement of crafts and gear is concerned. However, long term measures such as construction of fish landing centre, livelihood support and other activities approved by the Core Group under the Tsunami Rehabilitation Programme (TRP) are at various levels.

5.13 Hosting of Third Session of FAO'S COFI Sub-Committee on Aquaculture In India during 4-8 September 2006

5.13.1 India hosted the 3rd Session of Committee on Fisheries (COFI), Sub Committee on Aquaculture of the Food and Agriculture Organisation (FAO) of the United Nations in New Delhi from 4 to 8 September, 2006. Honourable Agriculture Minister Shri Sharad Pawar inaugurated the session at Hotel Ashok, New Delhi on 4th September, 2006. The session was

attended by participants from 48 member nations of FAO besides representative of one specialized agency of United Nations and four observers from Inter



Governmental and four international non-governmental organisations. Various issues relating to aquaculture sector were discussed in the session. Shri Ajay Bhattacharya, Joint Secretary (Fisheries) was elected as Chairperson of the Sub Committee.

CHAPTER 6

TRADE MATTERS

6.1 Introduction

6.1.1 After the removal of Quantitative Restrictions (QR) on various livestock products, the Department amended the Livestock Importation Act, 1898 bringing all the livestock products under its purview for the purpose of import. Accordingly, Notifications No.655(E) dated 7th July, 2001 for livestock products, No.1043(E) dated 16th October, 2001 for fishery products and No.1175(E) dated 27th November, 2001 for Grand Parent (GP) Stock of Poultry were issued making it mandatory to import all livestock products against Sanitary Import Permit. In addition to this, a Notification No.1842(E) dated 29th December, 2005 was issued (with corrigendum Notification No.10(E) dated 4th January, 2006) in respect of sanitary conditions for allowing import of pet food items of animal origin. The Sanitary Import Permit is issued after conducting risk analysis on the basis of disease situation of the exporting country vis-à-vis disease situation of this country.

6.2 Procedure for Imports

6.2.1 The Department processes proposals for import / export / manufacturing / marketing of livestock and livestock-related commodities, including vaccines, drugs and biologicals received from various state governments/farms/organizations. The views of the Department on these proposals are communicated to the Directorate General of Foreign Trade (DGFT)/ Drugs Controller of India (DCI) for issue of necessary import licence in favour of concerned state governments/firms/organizations after considering the same by a Committee on Trade & Investment Matters. The Committee on Trade & Investment Matters also

meets under the Chairmanship of Animal Husbandry Commissioner with all the Joint Secretaries as its Members. The meeting of the said committee is held regularly every month. 14 meetings of the committee were held during this year and 129 "No Objection Certificates" issued to various firms/organizations as well as to various state governments till December, 2006.

6.2.2 A Committee on Risk Analysis has been constituted under the Chairmanship of the Animal Husbandry Commissioner with all the Joint Secretaries as its members. The application form for import of livestock products is available on the website (www.dahd.nic.in) of the Department. The applications received are examined and analyzed by the technical experts of the Department conducting risk analysis on the basis of scientific evidence and OIE regulations. The recommendations of the technical experts are examined by the Risk Analysis Committee for either rejecting the application or issuing SIP. Aggrieved applicant can seek a review of the decision of the Risk Analysis Committee by filing a review/representation addressed to Joint Secretary (Trade). 1154 Sanitary Import Permits have been issued to import various livestock products including fisheries products, till December, 2006.

6.2.3 The Department has recently put in place a system of submission of on-line applications for issue of Sanitary Import Permit to various firms/organisations engaged in activities of import of livestock and livestock products. The procedure for applying on-line for Sanitary Import Permits is available on the website (www.dahd.nic.in) of the Department.

CHAPTER 7

SPECIAL COMPONENT PLAN (SCP) AND TRIBAL SUB-PLAN (TSP)

7.1 Allocation of separate funds for Special Component Plan and Tribal Sub-Plan is not feasible in view of the specific nature of activities/schemes, which are being implemented by the Department. The Department is not implementing any directly beneficiary oriented programme. However, wherever possible, efforts have been made for providing maximum coverage to SCs/STs. Under Central Minikit Distribution Programme, there is a provision for distribution of fodder seed minikits and undertaking demonstration on 25% fields belonging to the SCs/STs farmers. Under Foot and Mouth Disease Control Programme, there is a provision for utilization of 20%

of Central grant for vaccination of animals belonging to the Scheduled Castes and Scheduled Tribes. Similarly under the scheme of Development of Freshwater Aquaculture there is a provision for providing enhanced subsidy assistance to the SC/ST population under various component activities like construction of new fish ponds, renovation/ reclamation of ponds, first year inputs, integrated fish farming etc.

7.2 The State Governments have, however, been requested to separately allocate funds for above activities while formulating their State Plans.

CHAPTER 8

EMPOWERMENT OF WOMEN

8.1 Women in Animal Husbandry & Dairying

8.1.1 The Department does not have any specific scheme designated for empowerment of women. However, the Department has always emphasized providing benefits to weaker sections of the society.

8.1.2 In the Animal Husbandry sector, men and women work hand in hand with certain activities especially feeding and milking of animals etc. being mostly performed by women. There are many functions like using the same animals for transportation, taking for grazing or ploughing, which are performed by men.

- In India food consumption basket is also diversified in favour of non-food grain items like milk, meat, egg and fish. Women will be playing a larger role in value addition and marketing of these items.

Hence, roles of both men and women are complementary in the field of animal husbandry and it is not possible to segregate these into specific grouping. Animal Husbandry, in general is an activity through which lot of employment takes place. It increases the earning capacity of women which ultimately leads to the economic empowerment of women in various fields. According to latest National Sample Survey Organisation's report (July 04 to June 05 NSS 61st Round), out of 22.45 million people engaged in Animal Husbandry sector under principal and subsidiary status, around 16.84 million are females.

8.1.3 Women have been at the fore-front of dairy cooperative movement which was initially spear-headed through the Operation Flood Programme and later also



under the Integrated Dairy Development Programme implemented by the Government. The National Dairy Development Board (NDDB) is implementing a Woman Dairy Cooperative Leadership Programme in 50 district unions across the country. This has resulted in increasing the participation of women dairy farmers in dairy cooperatives. Till March 2006, 133 women thrift cooperatives with a membership of 9000 have been organised.

8.1.4 In the Poultry Sector, especially in the scheme for promotion of rural poultry, it has been emphasized that as rural poultry is an income supplementing scheme and mostly implemented by women, emphasis in training should be given to women.

8.2 Women in fishery sector

8.2.1 The contribution of women in the development of fisheries and the active role played by them in different sub-sectors of fisheries in diverse capacities is a well-recognized fact. In marine fisheries, women do not participate in sea fishing activities. However, a small percentage of fisherwomen inhabiting the coastal areas are engaged in fish seed collection, fishing of juvenile fishes, collection of mussels, edible oysters, sea weeds etc. employing traditional gears and techniques,

as a means of livelihood. These fisheries related activities are taken up by women as means to support the family and not as a full-time or part-time profession or business to derive benefits from the fishing industry.

8.2.2 Fish marketing, fish processing and product development are major areas of the post harvest activities where women's contribution is significant. Training, micro finance, organizing them into groups and

capacity building are the thrust areas for enhancing their involvement and participation in the fishery sector.

8.3 Schemes/Programmes implemented by the Department have been beneficial to women as well, directly or indirectly, but specific data in this regard is not available. However, efforts are being made to collect category-wise details such as women, SC/ST etc. of beneficiaries under various schemes from the State Governments to create such a database.

CHAPTER 9

INTERNATIONAL COOPERATION

**9.1 Memorandum of Understanding/
Agreement with other countries**

9.1.1 During the year 2006-07, no Agreement/
Memorandum of Understanding has been signed
independently by the Department.

**9.2 International Cooperation for foreign-
funded projects**

9.2.1 The foreign agencies funding animal
husbandry/fisheries projects in India are mainly
Switzerland (SDC) and the French Government.

9.2.2 The Indo-Swiss Project at Sikkim assisted
by the Swiss Government was valid up to 31.03.2006.
A request from the State Government of Sikkim for
extension of the project beyond 31.03.2006 was
considered from technical clearance angle and with
the approval of the competent authority, the matter
has been referred to the DEA for consideration of
extension beyond 31.03.2006 for four years.

9.2.3 Two projects for establishment of Fresh
Water Prawn Hatchery are presently under
implementation in the States of Gujarat and
Maharashtra. These projects are being implemented
with assistance from the French Government and were
extended upto 31.12.2006.

9.3 A Regional Conference of Ministers of
Health and Agriculture from South-East Asia Region

and Pakistan on Avian Influenza was held in
collaboration with the Ministry of Health and Family
Welfare on 28th July, 2006 at New Delhi.

9.4 International Memberships

9.4.1 This Department is a regular member (paying
annual membership contribution) of the following
International Organizations related to animal health
and fisheries:

- a) Office International des Epizooties (OIE), Paris,
France.
- b) Indian Ocean Tuna Commission (IOTC),
Seychelles - an organization under FAO.
- c) Animal Production and Health Commission for
the Asia and the Pacific (APHCA), Bangkok,
Thailand - an organization under FAO.
- d) Bay of Bengal Project/ Inter Governmental
Organization (IGO) on Fisheries.

9.4.2 India is a permanent member of the Office
International des Epizooties (O.I.E.), Paris, France,
an International Organization responsible for setting
Animal Health Standards. India was so far making
Annual Contribution / Membership fee to OIE as 4th
Category member country till 2002. However, OIE
has upgraded the status of India from 4th category to
3rd category member country.

CHAPTER 10

Special Livestock Sector and Fisheries Package for Suicide Prone Districts of Andhra Pradesh, Karnataka, Kerala and Maharashtra

10.1 A number of districts in the States of Andhra Pradesh, Maharashtra, Karnataka and Kerala have seen higher incidence of suicide by farmers due to economic distress. There are 31 such identified districts (16 in Andhra Pradesh, 6 in Maharashtra, 6 in Karnataka and 3 in Kerala). In order to provide economic relief to the farming population in these districts, this Department is implementing a special livestock and fisheries package for a period of three years.

10.2 Following are the components of the special package:

(i) Induction of high yielding milch animals:

It is proposed to induct 1000 high yielding milch animals per district per year so that small and marginal farmers who are more vulnerable to economic distress may have an alternate source of income.

(ii) Calf rearing programme: Induction of 1000 high yielding milch animals per district per year for three years will also entail induction of 500 female calves per district in each of these years. Farmers in the identified districts may not be able to meet the rearing cost of the calves. Therefore, it is contemplated to provide 50% subsidy on the rearing cost of the calf animals for a period of one year.

(iii) Providing cattle/buffalo breeding services: The National project for Cattle & Buffalo Breeding (NPCBB) is already being implemented in four States. It is proposed to extend the services, free of cost, to all the breedable cattle and buffaloes in the 31

districts and intensify the same through door-to-door service. This relaxation will be made applicable only once for every animal in these districts. Further, it is also proposed that 70% of the breedable animals may also be covered by estrus synchronization.

(iv) Provision of health care to dairy animals:

In view of the expense involved in proper health care of the high yielding cows/buffaloes, the farmers in the affected districts may not be able to afford the same. The package provides health care services in respect of animals inducted for a period of one year by the Government.

(v) Establishment of milk chilling units: It is necessary to provide chilling centres for handling milk to facilitate its procurement. It has been decided to provide necessary funds under this package to set up chilling centres for every 10000 - 12000 litres of milk producing cluster of dairy units.

(vi) Feed and fodder supply programme (new component): Daily requirement of 31,000 high yielding cows and buffaloes being inducted under the package comes to 31,000 fodder blocks (14-15Kg. each). For feeding of such blocks, 25% expenditure involved for a year for each batch of induction will be provided as subsidy by the Government.

(vii) Establishment of fodder block making units: It is proposed to establish fodder block making units in the affected districts, where adequate quantity of crop residues, dry fodder, etc. are available. It has



been decided to increase the subsidy to 50% to attract entrepreneurs of such plants and establish 20 units in the suicide prone districts.

(viii) **Fisheries Programme:** It is initially proposed to take up fisheries in 100 ha. area in each of these Districts. The existing subsidy of 20% in the case of general category farmers and 25% for SC/ST farmers has been doubled to 40% and 50% respectively under the package. Further, full burden of the subsidy will be borne by the Central Government.

10.3 Total Funds Requirement

10.3.1 The Special Package involves a total investment of Rs.698 crore consisting of Rs.510.79 crore as budgetary support and Rs.187.21 crore by way of credit. The following table summarises the position:

(Rs. in Crore)

S.No.	Component	Budgetary requirement for 3 years	Budgetary requirement for 2006-07	Additional outlay required by Department for 2006-07	Credit Requirement for 3 years
1.	Induction of high-yielding milch animals	139.50	46.50	46.50	139.50
2.	Calf rearing programme	33.96	11.32	11.32	-
3.	Breeding services	195.55	65.00	40.00	-
4.	Provision of health care to dairy animals	2.79	0.93	-	-
5.	Establishment of milk chilling units	12.00	4.00	-	-
6.	Feed and fodder supply programme	86.40	28.80	28.80	-
7.	Establishment of Fodder Block Making Units	8.50	2.85	-	8.50
8.	Fisheries Programme	32.09	10.00	7.00	39.21
	Total	510.79	169.40	133.62	187.21

10.4 The component relating to provision of health care to dairy animals is being implemented by the State Animal Husbandry Departments; establishment of milk chilling plants by State Dairy Federations and fisheries programme by FFDAs, set up in the districts. The rest of the components are being implemented by the Special Implementing Agencies (SIAs) set up in the four states for implementation of the National Project for Cattle and Buffalo Breeding (NPCBB).

10.6 An amount of Rs.70.95 crore has been released to these States till 31st December, 2006.