

Chapter-1

ORGANIZATION

1.1 Structure

1.1.1 The Department of Animal Husbandry and Dairying (AH&D) is one of the Departments in the Ministry of Agriculture and 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 the Department of Animal Husbandry and Dairying with effect from 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 Kantilal Bhuria, Minister of State for Agriculture. The administrative head of the Department is the

Secretary, Animal Husbandry and Dairying. Shri P.M.A. Hakeem took over as Secretary on 12th July, 2004.

1.1.3 Secretary of the Department is assisted by Animal Husbandry Commissioner, four Joint Secretaries and one Advisor Statistics, in discharge of his administrative responsibilities. The organizational chart of the Department and work allocation among the Divisional heads is given at Annexure-1.

1.2 Functions

1.2.1 The Department is responsible for matters relating to livestock production, preservation, protection and improvement of stocks and dairy development and also for matters relating to the Delhi Milk

- ❑ 1. The Department came into existence in February 1991 and Fisheries was transferred to the Department in October 1997.
- ❑ 2. Main focus of the activities is on (a) development of requisite infrastructure in States/UTs for improving animal productivity (b) preservation and livestock health care (c) strengthening of central livestock farms and (d) expansion of aquaculture in fresh and brackish water and welfare of fisherfolk etc.
- ❑ 3. The Department has 36 field offices/subordinate offices.

Scheme and the National Dairy Development Board. It also looks after all matters pertaining to fishing and fisheries, inland and marine.

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 the 36 field offices / subordinate offices spread over the country, which deal with various disciplines of animal husbandry 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 Development Organisation	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
xi)	Aquaculture Authority, Chennai.	1
	Total	36

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 1965 to

accelerate the pace of dairy development on cooperative lines. Dr. (Ms) Amrita Patel is the Chairperson of the Board with effect from 26th November 1998.

1.5 Advisory Boards

1.5.1 Six Advisory Committees/Councils/Boards have been constituted to advise the

Department for promotion of activities in various fields of animal husbandry 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;

1.6 Aquaculture Authority, Chennai

1.6.1 The Aquaculture Authority has been set up under the Environment Protection Act, 1986 as per the directives of the Supreme Court. Its main objective is to regulate the shrimp farming activities and to ensure that these activities are done in an environment friendly and sustainable manner. It is located at Chennai and Justice Ramanujam is its present Chairman.

1.7 Staff Grievances Cell

1.7.1 A Staff Grievances Cell has been established 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.

1.8 Liaison Officer for SC/ST

1.8.1 An officer of the rank of Deputy Secretary in the Department has been designated as Liaison Officer for SC/ST employees. Action has also been taken to extend the facility to subordinate offices.

1.9 Vigilance Unit

1.9.1 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.

1.10 Progressive use of Hindi

1.10.1 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.

1.10.2 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 and programmes were formulated to achieve better results.

1.10.3 Hindi Fortnight was celebrated in the Department from September 1-15, 2004. Various competitions were organised during this fortnight and successful candidates were suitably rewarded.

1.11 Management Information System

1.11.1 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 2004-05 to usher in 'e-Governance' using Information and Communication Technology (ICT) applications for decision support. An intranet <http://intadahd.nic.in> has been developed for the internal use of the Department.

1.11.2 In order to strengthen Animal Disease Surveillance Information System, the Department

has established ICT infrastructure facilities in the Directorates of States/UTs as well as at the National Project for Rinderpest Eradication Central Project Monitoring Unit (NPRE CPMU). Rinderpest Eradication Information System (REIS) has been developed and implemented in 35 States. Three national level workshops were conducted at Chandigarh, Lucknow and Goa to train about 70 officers of the State Directorate of Animal Husbandry in using the REIS.

Chapter-2

APPROACH AND STRATEGIES

2.1 Approach & Thrust Areas

2.1.1 The Animal Husbandry 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, small and marginal farmers and women, besides providing cheap nutritional food to millions of people.

2.2 National Agriculture Policy

2.2.1 The National Agriculture Policy 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%, 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 proposes to accord 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, as envisaged in the Policy document.

2.2.2 On fisheries, 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 for 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 is, hence, 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 non-Operation Flood, 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.
- ❑ 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

MAIN THRUST AREAS

- ❑ Animal diseases 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.

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 pasturelands 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 the database in respect of livestock products.
- (vii) Enhance the 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 capacity to fish in depth 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 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 coverage, improvement of traditional habitats etc.

2.5 The 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 the efforts of the State Government 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 enhancement of 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 crores for the Tenth Plan. The Department proposed to implement 18 schemes, which comprised of the 4 new schemes viz., Foot and Mouth Disease Control Programme, Poultry/Dairy Venture Capital Fund, Strengthening of infrastructure for quality and clean milk production and Strengthening of Database & Information Networking. The Department also proposed to adopt macro-management approach in respect of Centrally Sponsored Schemes and accordingly 5 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 Centre, 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 and the scheme of DMS, till the matter of transferring it to NCT of Delhi or corporatization of it is settled. The scheme of Livestock Census has been taken up by the Department on transfer from the Department of Agriculture and Cooperation from 2002-03.

2.7 Budget Estimates and Expenditure 2002-03 & 2003-04

2.7.1 The Department was allocated Rs. 300.00 crore for the Annual Plan 2002-03. Against this, Ministry of Finance had 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, Ministry of Finance had fixed RE at Rs 275.00 crore. The Department made an expenditure of Rs 271.76 crore.

2.8 Budget Estimate 2004-05

2.8.1 Against the proposal of Rs.561.19 crore, the Planning Commission allocated Rs.500.00 crore. However, in order to fulfill the spirit of National Common Minimum Programme, the Department proposed new schemes and sought additional allocation. The Planning Commission accordingly, provided an additional allocation of Rs 100.00 crore.

2.9 Revised Estimate 2004-05

2.9.1 Against BE of Rs 500.00 crore and additional allocation of Rs 100.00 crore, Ministry of Finance fixed RE at Rs.575.00 crore.

2.9.2 The scheme wise financial allocation for Tenth Plan period and Expenditure (till 31st January, 2005) is indicated at Annexure - IV.

2.10 Harmonization with National Common Minimum Programme

2.10.1 The Department is implementing various Schemes/Programme, which are in consonance with the National Common Minimum Programme (NCMP). However, in order to achieve the objectives laid down in the NCMP, some of the schemes related to Animal Husbandry, Dairying and Fisheries Sectors need to be modified, re-formulated or revived. The Department, therefore, proposed number of new schemes including the centrally sponsored

scheme 'Livestock Insurance' which is being formulated.

2.11 Annual Plan 2005-06

2.11.1 For the year 2005-06, the Department proposed to implement 23 schemes, which also includes the new centrally sponsored scheme of Livestock Insurance and Setting up of National Fisheries Development Board. The Department formulated the Annual Plan proposals 2005-06 at Rs. 1150.00 crore without any funding from External Aided Project (EAP) or Internal External Borrowed Resources (IEBR), against which the Planning Commission has agreed to allocate Rs 669.08 crore. These include Rs. 397.91 crore for the development of animal husbandry sector, Rs. 92.00 crore for dairy development and Rs. 174.36 crore for fishery development. The central sector schemes of Central Fodder Development Organization and Central Poultry Development Organization have been weeded out by the Planning commission w.e.f 2005-06. In the animal husbandry sector, the centrally sponsored schemes of Livestock Census and Integrated Sample Survey have been reclassified as central sector schemes. A new macro scheme "National Project for Improvement of Poultry and Small Animals" has been included comprising existing components "Feed & Fodder Production Enhancement Programme", "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". In the dairy sector, the schemes of Integrated Dairy Development Project and Strengthening Infrastructure for Quality & Clean milk Production have been merged together as a single scheme. In the fisheries sector, the schemes of National Welfare of

Fishermen and Fisheries Training & Extension have been merged together as a single scheme. Also, the centrally sponsored scheme of Strengthening of Database & Information Networking has been reclassified as a central sector scheme. The scheme wise financial allocation for BE 2005-06 is indicated in a Statement at Annexure - V.

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 cattle and buffalo, 2nd in goats, 3rd in sheep and 7th in poultry population in the world. India has 57% of the world's buffalo population. The State-wise breakup of livestock is given at Annexure - VI.

2.13 Employment Generation

2.13.1 Animal Husbandry sector provides self-employment opportunities. According to National Sample Survey Organization's latest survey (1999-2000), the estimate of employment in animal husbandry sector was 11 million in principal status and 8 million in subsidiary status, which is 5% of the total working population.

- ❑ India ranks first in respect of cattle and buffaloes, second in goats, third in sheep and seventh in poultry population in the world.
- ❑ About 19 million people work in livestock sector.
- ❑ The contribution of livestock and fisheries sector in the total GDP during 2003-04 was 6.29%.

Livestock Population

(Million Nos)

S.No.	Species	Livestock Census		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	0.18	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	347.1	489.0	40.88	5.88

Source: Livestock Census, Department of Animal Husbandry & Dairying, Ministry of Agriculture.

2.14 Value of Output

2.14.1 According to estimates of the Central Statistics Organization (CSO), the value of output from livestock and fisheries sectors together was about Rs 1,96,181 crore at current prices during 2003-04 (Rs. 1,64,509 crore for livestock sector and Rs. 31,672 crore for fisheries) which is about 29.9 per cent of the value of the output of Rs. 6,22,065 crore from total Agriculture & allied Sector. The contribution of these sectors in the total GDP during 2003-04 was 6.29 %.

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 byproducts such as hides and skins, blood, bone, fat etc. The contribution of milk alone (Rs.1,10,085 crore) was higher than paddy (Rs. 78,205 crore), wheat (Rs.48,452 crore) and sugarcane (Rs.22,671 crore) in the year 2003-04. The value of output from meat group as per estimates of Central Statistical Organization (CSO) at current prices was Rs. 29,319 crore during 2003-04.

2.16 Export Earnings

2.16.1 Total export earnings from livestock, poultry and related products was Rs. 4,734 crore in 2003-04. Out of the total exports, leather sector accounted for Rs. 2,568 crore in value terms.

2.17 Milk Production

2.17.1 India's milk output during 2003-04 was 88.10 million tonnes and is expected to reach

the level of 91.00 million tonnes during 2004-05. Thus India continues to be the largest producer of milk in the World. The per capita availability of milk has increased to 231 gm per day during 2003-04 from 202 gm per day in 1996-97.

2.18 Egg Production

2.18.1 Poultry development in the country has shown steady progress over the years, primarily due to research and development schemes of Government and effective management and marketing by organized private sector. The egg production in India was 40.40 billion in 2003-04 and is expected to increase to 41.00 billion during 2004-05. Currently, India ranks fifth in egg production in the World.

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 48.5 million kgs. during 2003-04 and is expected to increase to 50.0 million kgs, during 2004-05.

2.19.2 The production of major livestock products since 1950-51 to 2003-04 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 the year 2003-2004, the total fish production was 63.99 lakh tonnes. The fish seed production was 19,173 (provisional) million fry during the same year. It is expected that the fish production during 2004-2005 would be 65.10 lakh tones.

(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(provisional)	29.41	34.58	63.99
2004-2005(Anticipated)	30.10	35.00	65.10

2.21 Export Potential of Marine Products

2.21.1 During 2002-03, the country exported 5.21 lakh tonnes of marine products valued at Rs. 6793.05 crore compared to 4.58 lakh tonnes of marine products, valued at Rs. 5815 crore in 2001-02. However, the exports of fish and fish

products declined to Rs. 5739.33 (P) crore in 2003-04 mainly due to decline in the export of frozen fish as compared to the previous years. Efforts are being made to boost the exports through diversification and encouraging exports of frozen squid, cuttle fish variety of other fin fishes etc.

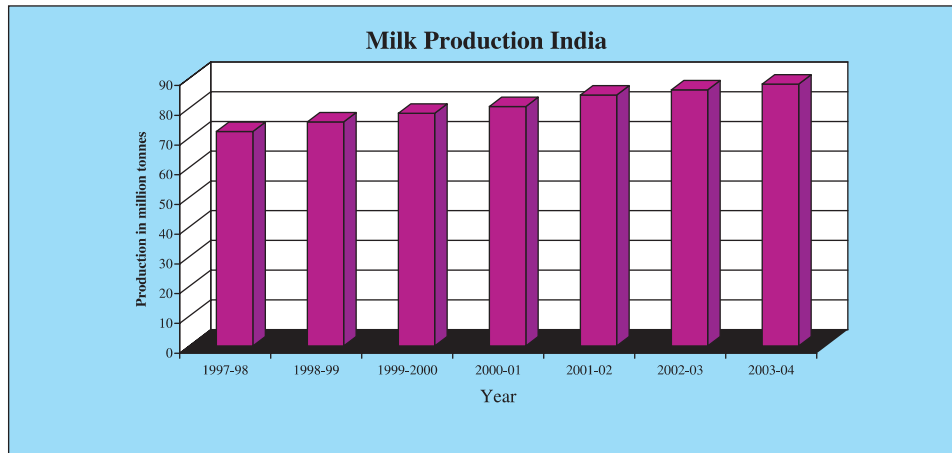
Growth of Export of Marine Products since 1991-92:

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 (P)	412.01	5739.34

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 - VIII,

X & XI and the year-wise production of fish seed is given in Annexure-IX.



Chapter-3

ANIMAL HUSBANDRY

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

3.2 Central Cattle Development Organizations

3.2.1 These organizations include 7 Central Cattle Breeding Farms, one Central Frozen Semen Production and Training Institute and 4 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 germplasms 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 2004-05, these farms have produced 279 bull calves (till January, 2005).

3.4 Central Frozen Semen Production and Training Institute, Hesserghatta

3.4.1 This is a premier institute located at Hesserghatta (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 act as a Centre for testing the indigenously manufactured frozen semen and AI equipments. During 2004-05, the Institute produced 10.36 lakh doses of frozen semen (till January, 2005).

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 elite cows and male calves. Implementation of the scheme is being synchronized with the National Project for Cattle

and Buffalo Breeding. The scheme has a significant role in assisting the States in procuring elite dairy cows and buffaloes as well as bulls and progeny of high genetic potential.

3.5.2 Field performance recording (FPR) plays a vital role in the genetic improvement of bovine population. It is essential to develop field performance recording system in the identified breeding tracts of the recognised indigenous breeds. FPR area acts as an important source for supply of bulls for Progeny Testing Programme. CHRS is useful for identification of superior germ plasm, propagation of superior genetic stock and information to breeder societies.

3.5.3 Objectives of the Scheme

1. Identification and location of superior germ plasm
2. Using this data for producing superior germ plasm.
3. Preservation of indigenous germ plasm.
4. Milk recording of Cattle and Buffaloes for improving Dairy Industry.

3.5.4 Four Units have been established under this scheme at Rohtak, Ahmedabad, Ajmer and Ongole for identification of superior germ plasm, laying down selection standards and formation of breeders' associations. In these units, Gir, Kankrej, Hariana and Ongole Cattle breeds and Murrah, Jaffrabadi, Surti and Mehsana buffalo breeds are identified in their breeding tracts. Under Field Performance Recording Programme, 92 Milk Recording Centres are functioning in Gujarat, Maharashtra, Rajasthan, Haryana, Delhi, Uttar Pradesh and Andhra Pradesh in collaboration with the State Department and other agencies. A seminar on field performance recording and a field visit were organized during the current year. The primary

registration of 10,471 cows and buffaloes has been done till January, 2005 during 2004-2005.

3.6 National Project for Cattle & Buffalo Breeding

3.6.1 Genetic improvement is a long-term activity and Government of India has initiated a major programme "National Project for Cattle and Buffalo Breeding" (NPCBB) from October 2000 over a period of ten years, in two phases, with an allocation of Rs 402 crore for phase-I. The Project envisages genetic up gradation on priority basis. The project also has the focus on the development and conservation of important indigenous breeds. The project provides 100% grant in aid to the State implementing agencies.



Indigenous Cattle Breed

3.6.2 Objectives :

The mandate of the scheme is to:

- (a) 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 stationery 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.

3.6.4 Progress of the Scheme:

26 States participating in the project have been provided financial assistance of Rs.195.65 crores so far. During 2004-2005, an amount of Rs 61.08 crores has been released till February, 2005 for strengthening of 5718 AI centres, 9 semen stations, 38 semen banks and 20 training centres.

3.6.5 Constitution of State Implementing Agencies (SIA's)

Since inception of the project in October, 2000, twenty-one SIA's have been constituted under the project. These implementing agencies are implementing the project with professional approach. In case of small States who are unable to constitute viable SIA's, funds are released to the State Governments for implementation of the project. Participation by Karnataka, Tamil Nadu in 2003-04 and by Gujarat and Maharashtra in 2004-05 has increased the coverage of the Project. However, Bihar and Jharkhand have yet to participate in the project.

3.6.6 Increase in coverage of breedable animals:

Semen production in the country has increased from 22 million straws (1999-2000) to 30 million straws (2003-2004) and the number of inseminations has increased from 20 million to 28 million. As per the impact analysis report submitted by NABARD for the four states (Andhra Pradesh, Haryana, Uttranchal, Madhya Pradesh), over all conception rate has increased from 20% to 35%. The coverage of the breedable bovine population has been increased from 16% to 28%.

3.6.7 Evaluation of semen stations:

The Department constituted a Central Monitoring Unit (CMU) to evaluate frozen

semen stations. The CMU has evaluated 59 out of total 64 frozen semen stations in the current year.

3.6.8 Development of minimum standard protocol for semen production (MSP):

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



Quality semen production & liquid Nitrogen delivery

3.6.9 ISO certification for semen stations:

To ensure the quality of frozen semen straws for AI programme, atleast one semen station in each State would obtain ISO certification. The semen stations at Ooty, Bidaj, Pune, Hissar, Gurgoan (Haryana), Jagadhari (Haryana) and Haringhata (West Bengal) have already obtained ISO certification. The semen stations located at Vizag, Nabha (Punjab), Bassi (Rajasthan) and Mattupatty are in the process to get ISO certification.

3.6.10 Testing of bulls used for semen production:

The Department has prepared a schedule for the disease testing of the bulls for all the sexually transmitted diseases (STDs). Central Disease Diagnostic Laboratory (CDDL) and Regional Disease Diagnostic Laboratories (RDDDLs) have been given the mandate to test all the breeding bulls and bull mothers of the semen stations in the central farms, State/ co-operative/ Embryo Transfer Technology Laboratory and private farms. RDDDLs 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 km around frozen semen bull stations, farms and ET labs under the scheme 'Assistance to States for control of Animal Diseases' (ASCAD).

3.7 Poultry Development

3.7.1 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 40 billion eggs produced per annum. The broiler production has also sky rocketed at an annual growth rate of about 15% and stands at about 1000 million broiler at present.

3.7.2 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 rest 30% of the unorganized sector whose contribution needs to be strengthened is now being focused upon by promoting backyard poultry.

3.8 Central Poultry Development Organisations (Regional Directorate on Poultry Development)

3.8.1 Twelve Poultry Units working under this Department have been restructured by clubbing the Units of respective regions and named as Central Poultry Development Organizations, so as to converge the poultry development activities in a single window system. These organizations are now operating to meet the following requirements of their respective region.



- i) Making available quality chicks: At regional centre, identified low-input technology poultry stocks will be multiplied and supplied to all States of the region for their rural poultry development programs. These organizations procure breeding stock of low input technology developed by ICAR, Agriculture Universities, private sectors, NGOs etc.
- ii) Diversification program: So far poultry development has been concentrated on only one of the species i.e. chicken. This Department has identified diversification of this program as a thrust area and other species such as Duck and Turkey (Southern region), Japanese Quail (Northern and Western region) and Guinea fowl and Duck (Eastern region) will be suitably strengthened.
- 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.
- iv) Training Program: The training programme is being suitably tailor-made at all the regional Centres 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 will be evolved as per the requirement of the Industry. For the first time, industry sponsored 25 candidates were trained for 'feed analysis'.
- v) Random Sample Tests: The Random Poultry Performance Testing Center located at Gurgaon, Haryana is being strengthened to convert the center to National level standards providing all modern facilities in the areas of housing, feeding, watering so as to enable the department to test regularly the various stocks available in the country as well as imported from outside India by various poultry industrial sectors so as to assess the performance of those stocks in India and also the center will be helpful for monitoring the disease status.



Meat type duck

3.9 Centrally Sponsored Scheme "Assistance To State Poultry/ Duck Farms"

3.9.1 The 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 at the rate of maximum Rs. 85.00 lakhs for each farm. In the existing premises of the State farms poultry guinea fowl, quail, turkey can also be taken up as a new activity. The scheme also applies to the farms of the State Governments farms running in collaboration with cooperatives/private sector/NGOs etc. 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 replacement breeding stock, feed ingredients, transportation, medicines and vaccines is also

provided under the scheme. During 2004-05, Rs 9.75 crore has been released till February, 2005 under the scheme.

3.10 Central Sheep Breeding Farm, Hissar (Haryana)

3.10.1 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, grading of wool and maintenance of sheep shearing machines as well as sheep management. The farm supplied 3725 exotic and crossbred rams and 74 ewes to beneficiaries through the State Governments during Ninth Five Year Plan.

During the year, the farm has supplied 1233 rams and 50 ewes till February, 2005. Besides this, the farm has trained 107 officials/farmers in mechanical shearing and 143 persons in sheep management.



3.11 Conservation of Threatened Livestock Breeds

3.11.1 A new Centrally Sponsored Scheme "Conservation of threatened livestock breeds of small ruminants, pack animals and equine" to conserve and protect threatened breeds of livestock, has been initiated during 10th Plan. Under the scheme, assistance is provided to the States for the conservation of sheep, goat, pigs, camels, yak, horse, donkey and ponies. The grant is given through the State Governments to the State Government farms/State Government Undertakings/Boards/Federations/Government Institutes like ICAR, etc./NGOs/Self-help Groups/farmers/breeders/professional scientists of repute involved in conservation work.

3.11.2 During 2004-05, an amount of Rs. 207 Lakhs has been released till January, 2005 for conservation of Hazi Yak of Sikkim (Rs. 58.50

Lakh), Yak of Himachal Pradesh (Rs. 37.00 Lakh), Malabari Goat of Kerala (Rs. 28.55 Lakh), Long Haired Goat of Nagaland (Rs. 61.30 Lakh) and conservation of Ghongro pig of West Bengal (Rs. 22.35 Lakh).

3.12 Meat and Meat Products

3.12.1 Country is endowed with more than 11 per cent of the World livestock population comprising a variety of meat animals such as buffaloes, goat, sheep, pigs, cattle, and poultry. The per capita animal protein availability is about 10 g as against the World average of 25 g. Considering the targeted minimum requirement of 20g per capita per day for animal protein, 4 g will come from meat and remaining 16 g from other livestock products. The estimated demand of meat for the present population would be 7.7 million tonnes as against the present production of 5.7 million tonnes.



Kathiawadi Horse

3.12.2 Various un-productive categories of livestock are slaughtered for their effective utilization for production of meat. There is an urgent need for measures to provide safe and wholesome meat, gainful utilization of animal by-products and prevention of bird-hit menace to aircrafts, environmental pollution and cruelty to animals. Keeping these objectives in view, a Centrally Sponsored Scheme "Assistance to States for improvement/modernization of slaughter houses and establishment of carcass utilization centers" was being implemented with effect from 8th Five Year Plan.

3.12.3 For "Modernization of Slaughterhouses", financial assistance is provided to State Governments on a 50:50 (Central:State) basis.

3.12.4 For "Establishment of Carcass Utilization Centers", 100% central assistance is provided for building, plants and machinery and water supply and 50% for electric installation fittings, generator, etc.

3.12.5 During the current year, Rs 50.00 lakh for establishment of carcass utilization centers at Jodhpur (Rajasthan) and Rs 100.00 lakh for modernization of slaughter house at Amritsar (Punjab) were revalidated and grants of Rs.12.63 crore were released till February, 2005 to Andhra Pradesh, Arunachal Pradesh, Maharashtra, Rajasthan and Tamil Nadu.

3.13 Feed and Fodder Development

3.13.1 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, the 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 efficiencies of fodder supplies from one region to the other 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 for third year of the Tenth Plan as a special dispensation in view of drought situation. A new scheme called "Feed & Fodder Enhancement Programme" is being approved shortly.

3.14 Central Fodder Development Organization

3.14.1 Under this scheme, 7 Regional Stations for Forage Production & Demonstration located in different agro-climatic zones of the country and 1 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.

3.14.2 For production and propagation of certified seeds of high yielding varieties of fodder crops and pasture grasses/legumes, the Government has established 7 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



Fodder Demonstration Unit

regions. These Stations also carry out extension activities through field demonstrations and farmers' fairs / field days. During 2004-05 (till January, 2005), these Stations have produced 172 tonnes of fodder seeds, conducted 4009 demonstrations, organized 49 training programmes and 82 farmers' fairs / field days.

B. Central Minikit Testing Programme on Fodder Crops

3.14.3 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 the State 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 2004-05, 4.90 lakh minikits have been allotted to various States.

3.15 Assistance to States for Feed and Fodder Development.

3.15.1 This Centrally Sponsored Scheme provides central assistance to States to supplement their efforts in feed and fodder

development sector. The scheme was operated with seven components upto 9th Plan, however, it has been discontinued during 10th Plan and only two components: i) establishment of fodder banks and ii) enrichment of straw/cellulosic waste have been revived up to March 2005 to facilitate assistance to States to combat the drought situation.

A. Establishment of Fodder Banks.

3.15.2 Under this scheme, assistance is provided to the States for establishment of fodder banks to preserve fodder for use during drought and scarcity period. During 2004-05 (upto January 2005), Rs.245.25 lakhs have been provided with the funding pattern of 75:25 (Central:State) for establishing 6 fodder banks in Nagaland (2), Mizoram (2), Maharashtra (1) and Arunachal Pradesh (1) respectively.

B. Enrichment of Straw and Cellulosic Wastes.

3.15.3 Under this scheme, 100% assistance is provided to States for enrichment of straw/cellulosic waste for use as feed for livestock. This helps in increasing productivity and reducing the cost of milk production. During 2004-05 (upto January, 2005), Rs.593.93 lakhs have been provided to the State Governments of Uttar Pradesh (Rs 337.66 lakhs), Nagaland (Rs 30.00 lakhs), Mizoram (Rs.30.00 lakhs), Himachal Pradesh (Rs 5.00 lakhs), Maharashtra (Rs 5.28 lakhs), Assam (Rs 68.35 lakhs), Arunachal Pradesh (Rs 60.00 lakhs) and Sikkim (Rs.57.65 lakhs).

3.16 Livestock Health

3.16.1 With the improvement in the quality of livestock through launching of extensive cross breeding programmes, the susceptibility of these stocks 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, 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 26 veterinary vaccine production units. Of these, 19 are in the public sector and 7 are in private sector. Import of vaccines by private agencies is also permitted as and when required. The State-wise details of veterinary institutions are given at Annexure-XII.

A. Animal Quarantine and Certification Service

3.16.2 The objective of this service is to prevent ingress of livestock diseases by regulating the import of livestock and livestock related products, and providing certification for export of livestock and livestock products. Four existing Quarantine Stations at New Delhi, Chennai, Mumbai and Kolkata are operating with a small laboratory. Details of the activities of the Stations are given at Annexure-XIII.

B. National Veterinary Biological Products Quality Control Centre

3.16.3 At present, the Indian Veterinary Research Institute has been assisting in the task of monitoring the quality of vaccines and biologicals. But in order to obtain better monitoring of the quality, it is essential to establish a separate Institute. Chaudhary Charan

Singh Institute of Veterinary Health is being set up at Baghpat, Uttar Pradesh.

C. Strengthening of Central / Regional Disease Diagnostic Laboratories

3.16.4 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. 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 and Animal Health Institute, Jalandhar and Institute of Veterinary Biological, Khanapara, Guwahati are functioning as referral laboratories for Western, Eastern, Southern, Northern and North-Eastern regions respectively.

3.17 Livestock Health & Disease Control

3.17.1 A Macro Management Centrally Sponsored Scheme "Livestock Health and Disease Control" is being implemented to control disease with 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)

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

Assistance is provided to State / Union Territory Governments for control of



Veterinary care

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. During 2003-04, 400 lakhs of vaccination have been carried out against the target of 140 lakhs and about 1040 lakhs vaccinations are expected to be carried out during 2004-05 against the target of 630 lakhs. Besides this, the programme envisaged collection of information on the incidence of various livestock and poultry diseases in the 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 to 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. Most of the States publish their disease reports in local languages for better dissemination of information to all concerned. Incidence of OIE List A, B and other diseases in India during the year 2003 is given at Annexure-XIV.

3.17.3 Professional Efficiency Development

The "Professional Efficiency Development" programme is being continued during the 10th Five Year Plan, with a view to regulate veterinary practices and to maintain register of the veterinary practitioners. The programme envisages establishment of Veterinary Council of India at Centre and State Veterinary Councils at state level in those States / Union Territories which have adopted the Indian Veterinary Council Act, 1984.

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

Rinderpest is a highly infectious viral disease (Morbilli virus infection) of cloven hooved animals inflicting heavy mortality in bovine population as well as in small ruminants. Rinderpest Control Programme 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 ECU 40.30 million as grant. The main objective of the project is to eradicate Rinderpest and Contagious Bovine Pleuro Pneumonia (CBPP) by strengthening the veterinary services across the Country and to obtain freedom from Rinderpest & CBPP infection following the pathway prescribed by Office International des Epizooties (OIE), Paris. The total allocation of the project for 6 years was Rs. 261.00 crores with Rs.33.00 crores as contribution of Government of India. The financial agreement with EEC expired on 31-07-98 and thereafter, the scheme is being implemented with domestic resources. During 10th Five-year plan, the scheme is being continued as one of the components of the "**Livestock Health and Disease Control**".

3.17.4.1 Major benefits of the Project

The successful implementation of this project will yield major economic benefits to owners of livestock, particularly small, marginal farmers and landless labourers. Besides, the project is expected to give a boost to export of meat and other livestock products and expenditure on livestock health care would substantially be reduced due to eradication of Rinderpest and CBPP. Strengthening of Veterinary Services will pave the way for taking up control programme against other diseases like Foot & Mouth Disease (FMD) etc.

3.17.4.2 Project Frame

The Project is being implemented by the Department of Animal Husbandry & Dairying, with the participation of States and Union Territories, ICAR and Research Institutes etc.

The implementation and monitoring of the Project is done by both Central Project Monitoring Unit and the State Monitoring Units.

3.17.4.3 Salient Achievements

The project pursued different components during Eighth and Ninth Plan period from 1992 to satisfy the OIE pathway. The same pathway is being continued in the 10th plan. The salient achievements of the Project are as follows: -

1. Based on the past incidence of Rinderpest and the risk assessment, the country was divided into four zones viz. Zone A - North Eastern States, Zone B - Indo-Gangetic Plains from Kashmir to Bindhas including Maharashtra and Goa, Zone C - Southern Peninsular States & UTs, Zone D - Island Territories of Andaman & Lakshadweep. The country was declared provisionally free from Rinderpest with effect from 1st March, 1998.
2. To implement the NPRES Programme, the Project established 32 ELISA Laboratories in the states, strengthened National Morbilli Virus Laboratory at Indian Veterinary Research Institute (IVRI), Mukteswar, Elisa Testing and Data Management Centre (ETDMC) at Institute of Animal Health & Veterinary Biologicals (IAH&VB), Bangalore to support the programme.
3. Veterinary services were also strengthened by providing vehicles, sophisticated equipment, cold chain equipment and other support for infrastructure development of the veterinary services of the States and Union Territories.
4. Nine Biological Production Units were strengthened for production of Rinderpest and other vaccines.

5. The vaccination in the country was totally banned with effect from March, 1998 excepting a 30 KM. wide immune belt maintained along the Indo-Pak border because of existence of Rinderpest in Pakistan. This has also been stopped with effect from October, 2000.
 6. Six strategic vaccine banks with a Rinderpest vaccine reserve of 2.5 million doses have been established to meet any eventuality due to re-emergence of disease at any stage.
 7. The programme for eradication of Contagious Bovine Pleuro Pneumonia (CBPP) has been initiated in Assam, jointly by State and Indian Veterinary Research Institute (IVRI), Izatnagar. The country has been declared provisionally free from CBPP w.e.f. October 2003.
 8. To control PPR, a Rinderpest like disease in sheep and Goats, indigenous vaccine against PPR has been developed at TANUVAS, Chennai under the aegis of NPRI. It has also been developed at IVRI, Mukteshwar. Six Biological Production Units in the states have been identified for production of PPR vaccine.
 9. The second stage "freedom from Rinderpest disease" for the country has been attained w.e.f. from 22.05.2004.
 10. C-ELISA kit for Rinderpest Surveillance and Sero Monitoring has been developed with Participation of IVRI, Mukteshwar. This kit has been validated by WRL, Pirbright, UK and has been approved by OIE.
1. The active physical surveillance of all the villages in the country is being continued along with the stock route search.
 2. The passive surveillance is being done by inspection of day book of all the veterinary hospital/dispensaries etc. to detect any hidden foci of Rinderpest.
 3. The sero-surveillance programme is being undertaken in 1162 villages across the country as per the sampling frame provided by ETDMC, Bangalore in the selected villages where identification of eligible animals has been done and sera samples are being collected from these animals to subject these to further testing. On completion of this programme, the dossier to seek freedom from Rinderpest infection for the country will be submitted to OIE.
 4. Under National Animal Disease Emergency Plan, Early Warning and Response System has been initiated under this, National Animal Disease Emergency Committee (NADEC) has been set up at Government of India level and State Animal Disease Emergency Committees (SADECs) are being set up in the States.
 5. For effective implementation of the scheme, Vehicles/Mobile labs/sophisticated equipment etc. have been supplied to States/UTs./Research Institutes.
 6. Installation and commissioning of R.F. / E-Mail facility to all States/UTs are under process through NIC.

3.17.4.4 Targets and Activities of the Project

The States are undertaking following activities for effective implementation of the scheme so as to reach the ultimate target of "Freedom from Rinderpest infection":

3.17.5 Foot & Mouth Disease Control Programme

3.17.5.1 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



Gir Cattle Breed

Foot and Mouth Disease with 100% funding including the cost of vaccine and supporting expenses. The State Governments are providing manpower, infrastructure and logistic support.

3.17.5.2 About 270 lakhs vaccinations have been carried out under this programme during the first round in the year 2003-04 and about 550.00 lakhs vaccinations are expected to be carried out in second and third round during 2004-2005.

3.18 Animal Husbandry Statistics

3.18.1 The Animal Husbandry Statistics Unit 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 Centrally Sponsored 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, which are published in the consolidated annual report of the sample survey prepared by the States/UTs.

3.18.2 To streamline animal husbandry statistics, an Expert Committee "Technical Committee for Direction for Improvement of Animal Husbandry & Dairying Statistics" has been working for a long time. The Committee also 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 annually as "Basic Animal Husbandry Statistics". The issue of 2004 providing estimates

of livestock products up to 2003-04 has been released in November 2004.

3.18.3 During the Tenth Plan, two new components have been added to the scheme- one to provide Information Technology solutions for the data analysis work relating to the sample survey and other is to conduct special studies to fill the gaps in the animal husbandry statistics. Under the IT solutions, the States of North Eastern region and the Union Territories will be provided 100% grant and the remaining States will be provided 50:50 grant.

3.19 Livestock Census

3.19.1 The livestock population of different species is worked out on the basis of livestock

census conducted quinquennially. 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 coordinating the scheme. But during the 17th census the work has been transferred to Department of Animal Husbandry & Dairying.

3.19.2 The 17th Livestock census has been conducted by all the States/UTs. All India provisional census report along with 28 State reports and one report for UTs was released on 19.01.2005.

3.19.3 During 2003-04, Rs. 31.48 crore was released to the States/UTs. During 2004-05, an amount of Rs. 68.00 crore has been released till February, 2005.

Chapter-4

DAIRY DEVELOPMENT

4.1 The Indian Dairy Industry acquired substantial growth from 8th Plan onwards, achieving an annual output of over 69 million tonnes of milk. India's milk output during the year 2003-2004 has reached the level of 88.1 million tonnes. This has not only placed the industry first in the world, but also represents 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. The per capita availability of the milk has also increased to a level of about 231 grams per day, but still low compared to the world average of 285 g per day. Government of India is making efforts to increase the productivity of milch animals and thus increase the per capita availability of milk.

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 good quality milk and milk products. For pursuing these objectives, the Department is implementing 4 Schemes in the dairy sector during 2004-05, including a new central sector scheme Dairy/Poultry Venture Capital Fund. Besides this, the National Dairy Development Board (NDDB) continues its activities for the overall development of Dairy Sector in Operation Flood areas.

4.3 Integrated Dairy Development Project (IDDP) in Non-Operation Flood, Hilly and Backward Areas

4.3.1 An Integrated Dairy Development Programme in Non-Operation Flood, Hilly and Backward areas was launched during the 8th Plan. The scheme continued during the 9th Plan and is being continued during 10th Plan with a total outlay of Rs.175 crores as a Centrally Sponsored Plan Scheme with 100% grants in aid basis to the States. The main objectives of the scheme are as under:

- i) Development of milch cattle;
- ii) Increase the milk production by providing technical inputs services;
- iii) Procurement, Processing and Marketing of milk in a cost effective manner;
- iv) Ensure remunerative prices to the milk producers;
- v) Generate additional employment opportunities;
- vi) Improve social, nutritional and economic status of residents of comparatively more disadvantaged areas.

4.3.2 Since inception of the scheme, 53 projects with the total outlay of Rs.292.19 crores have been sanctioned covering 149 districts in 23 States and one U.T. The scheme has benefited about 6.60 lakh (provisional) farm families organized into over 11,000 Village level Dairy Cooperative Societies, which have produced about 5.82 lakh litres of milk per day

upto 30th September, 2004. A sum of Rs.224.07 crores has been released to the State Governments/UT's for implementation of approved projects upto December, 2004.

4.3.3 The Scheme is presently in the process of being restructured on the basis of the findings of the two impact evaluation studies conducted in the past few years. The restructured scheme envisages direct release of funds to the implementing agencies, apart from strengthening the village level co-operatives and provision of bench mark survey/ concurrent evaluation etc.

4.4 Assistance to Cooperatives

4.4.1 The scheme "Assistance to Cooperatives" aims at revitalizing the sick dairy cooperative unions at the district level and cooperative federations at the State level. So far, NDDB has identified tentatively 43 unions for rehabilitation assistance under the scheme. Each rehabilitation plan is to be implemented within a period of 7 years from the date of its approval.

4.4.2 The Department had approved 24 rehabilitation proposals of milk unions in Madhya Pradesh, Chattisgarh, Karnataka, Uttar Pradesh, Kerala, Maharashtra, Assam, Nagaland, Punjab, West Bengal and Tamil Nadu, with a total outlay of Rs. 145.62 crores. Three more rehabilitation proposals of Aligarh in Uttar Pradesh and Bhatinda and Sangrur Milk Unions in Punjab were approved with an outlay of Rs 915 lakh, Rs 234 lakh and Rs 52 lakh respectively during the year 2004-05. The scheme is being implemented on 50:50 sharing basis between Government of India and concerned State Governments. An amount of Rs. 59.20 crore has been released under the scheme till 30th November, 2004.

4.5 Milk And Milk Product Order'1992

4.5.1 The Government of India had 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 interests of the general public and also for regulating the production, processing and distribution of milk and milk products.

4.5.2 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 for enforcing the prescribed standards of quality and food safety. The salient features of the amendments are as follows:

- ❑ The concept of reservation of milkshed and priority treatment for cooperative has been done away with.
- ❑ The registrations under MMPO-92 will now cover sanitary, hygienic condition, quality and food safety aspects.
- ❑ The provision for annual inspection of dairy plants has been made mandatory and flexible.

- ❑ 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, food safety measures and other conditions as specified in Schedule V of MMPO. The units are required to get their plants inspected once in a year by the above inspection agencies.
- ❑ Submission of half-yearly returns to the Registrar by Dairy Units is mandatory.

4.5.3 The Central and the State Registering Authorities altogether have so far registered 746 units with combined capacity of 813.78 lakh liters per day in Cooperative, Private and Government Sector as on 31.03.2004. For the first time, 175 units have been inspected by the inspection agencies till 30th November, 2004.

4.6 Strengthening Infrastructure for Quality & Clean Milk Production

4.6.1 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 Indian dairy products of the international standards.

4.6.2 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, approved in October, 2003, has the main objective of improving the quality of 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% grants in aid basis to the State Governments / Union Territories, specially 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 levels in the form of bulk milk coolers is in the ratio of 75:25 between Government of India and respective dairy cooperative society/union.

4.6.3 The Department has approved 12 projects for the States of Uttar Pradesh, Rajasthan, Madhya Pradesh, Orissa, Himachal Pradesh, Maharashtra and Nagaland at a total cost of Rs.1502.32 lakh during 2004-05. Out of this, an amount of Rs.748.28 lakh has been released till 31st January, 2005 as central share to these States.



Clean Milk Production

4.7 Dairy/Poultry Venture Capital Fund

4.7.1 To bring about structural changes in the unorganized sector, a new scheme of Dairy Venture Capital Fund with an outlay of Rs.25.00 crore during the 10th Five Year Plan has been initiated w.e.f. 14th December, 2004. Under this, assistance is provided to the rural beneficiaries under a schematic proposal through bankable projects.

4.7.2 Similarly, a considerable segment in the poultry sector is also still unorganized and is spread over in the form of small farms in far-flung areas that still needs organized effort to exploit their potential. Training and marketing also continue to be the weakest links in the facet of various poultry development programs. Due to these limitations poultry development particularly in the North Eastern States and Eastern States are still at very primitive stage. In order to boost these unattended sectors and also to give incentive and create infrastructure facilities for organized sector, it is felt necessary to create a Poultry venture capital fund for providing financial assistance, which will encourage new species of birds and low input technology for poultry farming among rural farmers.

4.7.3 The scheme with an outlay of Rs.25.00 crores during the Tenth Five Year Plan will be implemented through NABARD. The following components will be eligible for financial assistance:

Dairy Sector:

- Establishment of small dairy farms
- Purchase of milking machines/milk-o-tester/bulk coolers, etc.
- Purchase of dairy processing equipment for manufacturing indigenous milk products

- Establishment of dairy product transportation facilities including cold chain
- Establishment of cold storage facilities for milk and milk products
- Establishment of private veterinary clinics

Poultry Sector:

- Establishing poultry breeding farm with low input technology birds and also for ducks/ turkey/ guinea fowl/ quail/ emu/ ostrich, etc.
- Establishment of feed go-down, feed mill, feed analytical laboratory
- Marketing of poultry products (specialized transport vehicles, cool room storage facilities and retention sheds for birds, etc.)
- Egg grading, packing and storage for export capacity
- Retail poultry dressing unit (300 birds per day)
- Central grower unit (12,500 birds per batch and 4 batches per year)

4.7.4 Pattern of assistance:

- | | |
|---|-----|
| <input type="checkbox"/> Entrepreneurs' contribution | 10% |
| <input type="checkbox"/> Loan from revolving fund at 'Zero' interest | 50% |
| <input type="checkbox"/> Bank loan at interest applicable for agricultural activities | 40% |

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

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

4.8.1 National Dairy Development Board (NDDB), an institution of national importance was set up by the Government of India to promote, plan and organize programmes for development of dairy and other agriculture based and allied industries along cooperative lines on an intensive and nationwide basis.

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 NDDB to strengthen cooperatives at the grassroot level. Consequently, measures were initiated from September 1997 and are continuing during 2004-05.

4.8.4 Perspective Plan, 2010

4.8.4.1 NDDB's Perspective Plan 2010, developed in consultation with the 126 identified cooperative milk unions and covering four thrust areas - strengthening the cooperative business, enhancing productivity, managing quality and building a national information network - aims to professionalise the working of dairy cooperatives in the emerging liberalised business environment.

4.8.4.2 As on March 2004, under Phase I, NDDB approved the plans of cooperative milk unions with an investment outlay of Rs 923 crore

for 87 plans of milk cooperatives. Out of this, Rs 342 crore has been disbursed to the milk unions. It is expected that Rs 400 crore will stand disbursed under the Plans by end of 2004-05.

4.8.5 Strengthening the cooperatives

4.8.5.1 NDDB's Institution Building Programme to strengthen dairy cooperatives in aspects like governance, management and economic viability, is being implemented in cooperative milk unions across the country. NDDB also organised 8 training programmes during the year for milk union personnel to enable them to facilitate these village level Institution Building programmes. So far, about 150 union personnel have been trained. During the year, 105 board members attended the programmes organised by NDDB to sensitise and involve the board of directors of milk unions in institution building.

4.8.5.2 Besides increasing the enrolment of women members in DCS and spreading awareness among rural women about health & nutrition, literacy & numeracy, the activities under Enhancement of Women Involvement in Cooperatives (EWIC) have encouraged women to organise thrift groups and take up income generation activities. So far about 6149 Thrift Groups have been organised with membership of more than one lakh women and collection amounting to Rs 9.88 crore. About 75 per cent of this amount is being utilised to service the credit needs of members.

4.8.6 Productivity Enhancement

4.8.6.1 During the year, NDDB continued to assist dairy cooperatives to develop and deliver appropriate services in villages, in areas of animal breeding, nutrition and health-care, leading to improved productivity of dairy animals and an increase in farmers' net income.

4.8.7 Animal Breeding

4.8.7.1 About 96 lakh frozen semen doses had been produced by the eight cooperative owned and two NDDB managed Semen Production Stations till November 2004. Under the artificial insemination programme, the cooperative milk unions covered about 29,885 villages and performed about 66.40 lakh inseminations using good quality genetic material.

4.8.7.2 Under the project for preservation of endangered and rare cattle and buffalo breeds, 60 Sahiwal and Jaffarabadi embryos were cryopreserved. Three cattle breeds - Sahiwal, Red Sindhi and Krishna Valley - and three buffalo breeds - Toda, Jaffarabadi and Pandharpuri - have been characterised at the molecular level using the technique of bin allele genotyping.

4.8.7.3 NDDB during the current year initiated breed development projects for Kankrej and Gir cattle and Jaffarabadi buffalo in Gujarat. A project for development of Rathi breed of cattle is ongoing in Bikaner and Sri Ganganagar

districts of Rajasthan. In all these projects, a milk recording programme for identification of elite bull mothers has been taken up in select villages. Arrangements have been made for rearing of bull calves born to elite mothers and for their distribution for natural service or semen production.

4.8.8 Animal Nutrition & Feed Technology

4.8.8.1 During the year, NDDB tested about 2200 samples of cattle feed and raw materials and 2000 samples of mineral mixture and mineral salts from the cooperative cattle feed plants. The analysis results and suggestions for quality improvement, communicated to the concerned agencies, have helped improve product quality.

4.8.8.2 NDDB has standardised the technology and process to produce bypass protein meal. Encouraged by the success of the first bypass protein plant set up in Itola, Vadodara, two bypass protein plants are now being installed at Godhra, Gujarat and Kolhapur, Maharashtra.



4.8.8.3 With farmers' participation, about 40,000 quintals of quality fodder seeds of sorghum, maize, cowpea, millets, berseem, lucerne and oats were produced and sold to milk producers in eight states.

4.8.8.4 A computer based ration balancing programme developed and field tested in seven States, is now being implemented on a large scale. Mineral mapping studies were completed in Kerala and initiated in the States of Maharashtra and Punjab. During the year, three more mineral mixture plants were installed in Gujarat, Haryana and Punjab, raising the number of such plants to thirteen.

4.8.9 Animal Health

4.8.9.1 NDDDB endeavoured to reduce the incidence of enzootic and epizootic diseases in animals by facilitating the cooperative milk unions to implement measures like first aid, deworming and intensive vaccination against foot and mouth disease, haemorrhagic septicaemia, black quarter and anthrax. NDDDB also facilitated the unions to undertake Mastitis Control Programmes and Brucellosis Control Programmes. Under the Mastitis Control Programme, regular use of antiseptic teat sprays and mastrips for detection of sub-clinical mastitis was encouraged. Vaccination of female calves commenced under the Brucellosis Control Programme. The first round of mass vaccination under the foot and mouth disease control project in Kerala was initiated in October 2004. The project is being jointly funded by NDDDB, Government of India and Kerala Government.

4.8.10 Managing Quality

4.8.10.1 During the year, about 11,000 additional village level cooperative societies in 106 milk unions were covered under the clean milk production programme, taking the

cumulative total to 26,328. Besides, around 176 bulk milk chillers, 3561 automatic milk collection units and 2811 electronic milk testers were installed and commissioned at the village level cooperative societies.

4.8.10.2 Efforts to achieve plant efficiency through energy management programmes and bring about improvement in plant operations with focus on plant hygiene and sanitation continued during the year. Energy conservation activities have been undertaken in dairy plants of milk unions in Karnataka, Kerala, Punjab, Rajasthan and Maharashtra to bring about savings in energy bills. Hassan Union's dairy plant in Karnataka has received the National Energy Conservation Award for 2004. So far, 73 dairy and cattle feed plants have obtained ISO certification, 59 dairy plants have HACCP and 9 have Environment Management certifications.



Quality control

4.8.11 Milk Procurement and Marketing

4.8.11.1 The average milk procurement during April-November 2004 was 188.87 lakh kg per day, about 17.6 per cent higher than the same period last year. During 2004-05 (April-November), an average of about 156.49 lakh litres of milk per day was marketed as against 148.76 lakh litres per day during the corresponding period last year.

Physical Progress

Particulars	2001-2002	2002-2003	2003-2004	2004-2005 *
Societies Organised ('000) ~	100.56 #	103.28 #	108.57 #	112.59 # \$
Farmer Members (in lakhs) ~	110.50	114.90	119.90	121.20 \$
Avg rural milk procurement (lakh kg per day)	176.02	180.14	174.83	188.87 @
Liquid milk marketing (lakh litres per day)	134.23	137.34	148.76	156.49 @

~ Cumulative # Includes conventional societies and taluka unions formed earlier,

* Provisional \$ Refers to September 2004 @ Refers to April-November 2004

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 ever-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.

4.9.2 Management

4.9.2.1 DMS is headed by a General Manager. He is assisted by Senior Officers viz. Dy. General Manager (Admn.), Deputy General Manager (Tech.) and Financial Adviser & Chief Accounts Officer in discharge of his duties.

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, and Director (Finance), Ministry of Agriculture, Department of Animal Husbandry & Dairying, two representative of consumers and General Manager, DMS as its members.

4.9.3 Procurement of Milk

4.9.3.1. 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.

4.9.3.2 The total quantity of milk procured by Delhi Milk Scheme since 2002-2003 is indicated below: -

(In Lakh Kgs)

Year	Total Qty. of milk procured	Average/per day
2002-03	663.86	1.82
2003-04	756.87	2.07
2004-05 (upto Dec., 2004)	734.09	2.67

4.9.4 Production and Distribution of Milk

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

Sl. No.	Type of milk	Fat	SNF	Rate/per litre	With effect from
1.	Toned Milk (Poly pack)	3.0%	8.5%	Rs.15.00	16.07.2004
2.	Toned Milk (loose)	3.0%	8.5%	Rs. 14.00	16.07.2004
3.	Double Toned Milk	1.5%	9.0%	Rs. 13.00	16.07.2004
4.	Full Cream Milk	6.0%	9.0%	Rs. 19.00	16.07.2004

4.9.4.2 DMS has a network of over 1470 outlets and 249 All Day Milk Stalls spread all over the city, for the sale of milk & milk products as shown below: -

(a) Concessionaire on DMS booths (Mor.1026 +Eve.444)	1309
(b) Loose Milk Outlets	169
(c) DMS All Day Milk Stalls	234
(d) All Day Milk Stalls (Government Building)	15

4.9.4.3. 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 144 institutions such as Hospitals, Government Canteens, Hostels and Defence Unit etc.

around 2.75 Lac Litre Per Day (LLPD). To utilize surplus processing capacity, around 75,000 litres of milk per day is being custom packed by DMS for Mother Dairy, Delhi.

4.9.5 Performance Utilization

4.9.5.1. The present sale of milk by DMS is

4.9.5.2 The sale of DMS and custom packing of Mother Dairy Milk by DMS taken together has reached 3.50 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:

Year	Capacity utilization (In percentage)	Milk Sale (In lakh litres)	Variable cost	Fixed cost	Total cost (per litre)
2000-01	48.4	783.19	12.55	3.81	16.36
2001-02	47.6	752.74	12.31	4.29	16.60
2002-03	43.6	711.86	12.38	4.46	16.84
2003-04	54.6	923.53	13.85	3.11	16.96
2004-05 (Estimated)	70.0	1277.50	12.70	2.62	15.32

4.9.5.3 DMS is also manufacturing and selling of Ghee and Table Butter since 2000-01 are Ghee and Table Butter . The production and sale indicated below :-

(Figures in M.T.)

YEAR	GHEE		TABLE BUTTER	
	PRODUCTION	SALE*	PRODUCTION	SALE*
2000-01	648.36	760.83	69.43	70.84
2001-02	718.02	666.94	83.70	86.96
2002-03	706.49	795.05	86.55	91.66
2003-04	452.35	290.60	74.02	53.63
2004-05 (Upto Dec, 2004)	322.66	468.49	10.10	37.73

Note :- * Sale includes previous year stock also.

4.9.5.4 DMS is also manufacturing and marketing Yoghurt (in cups & 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 2000-01 is indicated below: -

(In Thousand numbers)

YEAR	Flavoured Milk (In 200 ML. Pouches)		Yoghurt (In 100 gm. Cups & Kullars)	
	PRODUCTION	SALE	PRODUCTION	SALE
	2000-01	512	500	962
2001-02	892	879	1321	1300
2002-03	802	794	1320	1307
2003-04	703	698	1427	1418
2004-05(Upto Dec,2004)	541	539	1039	1038

Note: * Sale includes previous stock also.

YEAR	PANEER (In 200 Gm /1 Kg. pack) (In M.T.)		CHHACHH (In 200 ml. pouches/ Thousand Numbers)	
	PRODUCTION	SALE	PRODUCTION	SALE*
	2001-02	16.71	16.53	-
2002-03	52.26	51.90	-	-
2003-04	55.02	54.96	103	102
2004-05 (Upto Dec, 2004)	43.76	43.66	138	135

Note : The production/sale of Paneer and Chachh have been introduced with effect from October,2001 and 27th May,2003 respectively.

4.9.6 Physical Targets and Achievements

4.9.6.1 The targets and achievements regarding procurement of milk, production/sale of milk and milk products for 2003-04 and 2004-05 are indicated below: -

Sl. No	Major Component of the Scheme	2003-2004		2004-2005	
		Target	Achievement	Target	Achievement (upto Dec., 04)
1.	Procurement of milk (in Lakh Kgs)	819.31	756.87	967.79	734.09
2.	Sale of Milk (in Lakh litres)	901.94	923.52	1277.50	922.08
3.	Production of	700.00		370.00	
	(i) Ghee (in M.T)		452.35	322.66	
	(ii) Table Butter (in MT.)		74.02	10.10	

4.9.7 Financial Outlay

4.9.7.1 Expenditure on all accounts including the expenditure on inputs like raw milk, SMP, Butter, Butter Oil etc. and capital items is made from consolidated funds of India through annual

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 2002-03, 2003-04 and 2004-05 in B.E. and R.E. are indicated below: -

Head/Scheme	2003-04		2004-05		
	R.E. (Approved)	Exp.	B.E.	R.E.	Exp. (upto Dec,04)
I. NON-PLAN	162.63	159.94	190.26	193.70	145.87
TOTAL	162.63	159.94	190.26	193.70	145.87
II. PLAN					
(i) For purchase of machinery and construction of booths)	0.26	0.25	0.60	3.10	0.60
(ii) For execution of Civil and electrical works through CPWD.	0.74	0.40	0.40	0.40	0.39**
TOTAL	1.00	0.65	1.00	3.50	0.99

** Funds amounting to Rs.0.39 Crores have been diverted to PAO, DGW, CPWD, Nirman Bhawan for execution of important Civil & Electrical works.

4.9.8 Cost of Production and Losses

4.9.8.1 The main reasons for losses are:

- (i) Continuous increase in the cost prices of raw materials, POL, Water, Electricity and other consumables.
- (ii) Low selling price of milk than the cost of production.
- (iii) Lower capacity utilization of plant during 2000-01 to 2003-04.
- (iv) Non up-gradation and modernization of plant and processing technology.

4.9.9 Improving Efficiency/Functioning of DMS

4.9.9.1 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 neutralisers 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

4.9.10 Marketing of Milk

- Custom packing of 80,000 litres of milk for Mother Dairy to utilize idle capacity
- Incentive schemes to promote sale of milk.

- Modernization of DMS milk booths
- Out-sourcing for transporting milk & milk products.
- Appointment of Distributors/Dealers to promote the sale of milk.
- Training of DMS personnel

4.9.11 Increasing the sale of DMS

The DMS plant is having capacity of processing/packing of 5 lakh litres of milk per day (llpd). With increase in price of DMS milk with effect from 01.03.2000, sale of milk came down from 4.5 llpd to about 2 llpd. The sale of milk has started picking up from April, 2003 onwards, and reached 2.71 llpd in the month of September, 2004. By custom packing of milk for Mother Dairy, DMS has earned Rs.147.46 lakhs in first nine months of the current financial year. It is expected that total contribution from custom packing of Mother Dairy will be around Rs.2.00 crores during the financial year 2004-05.

4.9.12 Reduction in the staff strength of DMS

In pursuance of the instructions issued by Ministry of Finance to downsize the Government machinery and to reduce the administrative expenses, the DMS has decided to reduce its working strength. The following table indicates the reduction in staff strength of DMS: -

Group	Sanctioned strength as on 1.4.97	Sanctioned strength as on 31.3.2003	Sanctioned strength as on 31.3.2004	Actual strength as on 31.12.2004
A	29	25	25	15
B	56	46	46	33
C	1022	853	701	549
D	1299	1222	1121	1011
Total	2406	2146	1893	1608

4.9.13 Outsourcing of transportation of DMS

In view of the Supreme Court directive not to ply more than 15 years old vehicle on roads and on account of budgetary constraints,

outsourcing of the transport fleet has been taken up. At present, 55 vehicles have been outsourced. Due to the outsourcing of transportation of DMS, along with the efficiency, saving of Rs 122.85 lakh will also be made in the current year.



Milk Packaging Unit



DMS

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 now is 3rd largest producer of fish in the world and second largest producer of fresh water fish in the world.
- ❑ The fish production during 2003-04 is estimated to be 63.99 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 2003-04, about 6.49 lakh hectare water area brought under scientific fish farming through FFDAs.
- ❑ 34,123 fish farmers/ fishermen trained in improved practices & 46,782 persons benefited during 2003-04.

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.

- (iii) Welfare Programmes for Fishermen
- (iv) Fisheries Training and Extension
- (v) Strengthening of Data-base and Information Networking
- (vi) Assistance to Fisheries Institutes

5.3 On-going Schemes

- (i) Development of Inland Fisheries and Aquaculture
- (ii) Development of Marine Fisheries, Infrastructure and Post Harvest Operations

5.4 Development of Inland Fisheries and Aquaculture

5.4.1 The ongoing Centrally Sponsored Schemes of i) Development of Freshwater Aquaculture and ii) Integrated Coastal Aquaculture have been combined with four new components viz. Development of Coldwater Fisheries and Aquaculture in the Hilly Regions, Development of Water-logged Areas into



Aquaculture Estates, Utilization of Inland Saline/Alkaline Soils for Aquaculture, Inland Capture Fisheries (Reservoirs/Rivers etc.) and has been renamed as "**Development of Inland Fisheries and Aquaculture**".

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 provide assistance to fish farmers with a view to create a cadre of trained and well organized fish farmers fully engaged in aquaculture.

5.4.2.2 A network of 429 Fish Farmers' Development Agencies (FFDA's) have been sanctioned for establishment under this programme covering all the potential districts in the country. Most of the FFDA's operate at district level and some at regional/State level where the district level resources are inadequate.

5.4.2.3 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.

5.4.2.4 During 2003-04, additional area of 25,394 hectare was brought under fish culture and 34,123 Fishers were trained in improved practices. The scheme has benefited 46782 persons involved directly or indirectly in the fisheries related activities. The targets of coverage of water area of 40,000 ha and training to 27,000 fishers are likely to be achieved in the year 2004-05. 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 2270 kg/ha/annum during 2003-04. Since inception of the scheme, about 6.49 lakh ha water area has been brought under fish culture and 7.61 lakh fish farmers/fishers have been trained in improved practices of fish farming and the number of beneficiaries covered under the programme is about 11.25 lakh.

5.4.3 Development of Brackish water Aquaculture

5.4.3.1 With a view to provide 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.

5.4.3.2 The performance of the scheme was tardy due to legal intervention (Supreme Court Judgment of December, 1996) prohibiting non-traditional shrimp culture activities within the Coastal Regulation Zone i.e. 500 m from the high tide line. The matter is still sub-judice. However, the Aquaculture Authority has been set up under the Environment Protection Act, 1986 with the objective to regulate the shrimp farming activities and to ensure that these are carried out in an environment friendly and sustainable manner. "The Coastal Aquaculture Authority Bill, 2004" has been introduced in the Rajya Sabha on 20th December, 2004.

5.4.4 Progress of scheme during 2003-04 and 2004-05

A sum of Rs. 10.05 crore was released during the financial year 2003-04 and Rs. 14.74 crore has been released till 31st January, 2005 during 2004-05 to the implementing agencies 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 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 craft, 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 to improve 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.

5.5.1.3 The scheme envisages improving production and productivity from marine fishing, so as to enhance food security, export earnings and livelihood system of coastal communities. A 'growth centre' approach will be followed wherever possible to ensure overall development of pre-identified coastal locations by synergising developmental programmes of other Departments, besides implementing the various components under the present scheme.

5.5.2 Component-wise details of the scheme:

5.5.2.1 Development of Coastal Fisheries

5.5.2.1(i) Introduction of Intermediate crafts of improved design

Out of estimated 3.9 million tonnes potential marine fisheries resources, the current harvest is about 2.9 million tonnes. The remaining one million tones 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 the financial incentives to fishermen groups to take up this new generation craft.

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 will be provided. This component is to be implemented through National Cooperative Development Corporation (NCDC).

5.5.2.1(ii) Motorization of traditional Craft

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 UT's, the Centre meets the entire cost of subsidy. About 37,950 traditional craft have been motorized so far since Seventh Plan in the maritime States/UT's.

5.5.2.1(iii) Fishermen Development Rebate on HSD oil

The scheme on 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 help the small mechanized fishing owners/operators to bring down the operational cost of these vessels and thereby to encourage 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 UT's.

5.5.2.1(iv) Safety of Fishermen at Sea

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 of below 20m length. The unit cost of these equipments together works out to about Rs.1.50 lakh, 20% of which but not exceeding 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(i) Resource Specific Deep Sea Fishing Vessels

On the basis of the new guidelines issued by the Department during November, 2002 permitting Indian Flag Vessels in the Indian Exclusive Zone, 15 numbers of Indian companies were issued Letters of Permission (LOP's) for 48 numbers of resource specific vessels till March, 2004. In order to exploit deep-sea resources, a revised comprehensive marine fishing policy has been issued by the Department in 2004.

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. The scheme would be 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 will also be implemented.

5.5.2.3 Development of Infrastructure Facilities

5.5.2.3(i) Establishment of Fishing Harbours & Fish Landing Centres

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 centre which includes breakwater, wharf, jetty, dredging, reclamation, quay, auction hall, slipway, workshop, net mending shed and other ancillary facilities.

5.5.2.3(ii) Since inception of the scheme, 6 major fishing harbours, 54 minor fishing harbours and 188 fish landing centres have been taken up for implementation. Out of these, 6 major fishing harbours, 38 minor fishing harbours and 142 fish landing centres have been completed and put to use. The remaining 16 fishing harbours and 46 fish landing centres are at various stages of construction at present.

5.5.2.3(iii) During the Tenth Five Year Plan, the scheme was 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 the coastal States Governments and 100% to UT's for construction of minor fishing harbours and fish landing centres; (ii) 100% assistance to the coastal State Governments, UT's & 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 is also undertaken under this component and the central financial assistance to the tune of 50% to the coastal State Governments as well as Port Trusts and 100% to the UT's 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 the 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 (CSS) in association with maritime State Governments, 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 Centrally

Sponsored Scheme. Besides, Central assistance is provided to the tune of 50% of the cost of dredging / desilting to various implementing agencies under the CSS at 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 strengthen the post harvest infrastructure and minimize 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, Govt. Undertakings, Corporations in a location specific manner. The funding pattern under the

component is (i) 100% grant (limited to Rs.1.00 crore) to Govt. 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 NE Region/Hilly /Tribal areas and 25% grant (limited to Rs.0.25 crore) in general areas.

5.5.2.6 Progress of scheme during 2003-04 and 2004-05

A sum of Rs. 7.95 crore was released during 2003-04 and Rs. 31.88 crore has been released till 31st January 2005 to the implementing agencies for the development of marine fisheries, infrastructure and post harvest operation.

5.6 Welfare Programmes for Fishermen

5.6.1 This scheme has the 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

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 village 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

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. The 50% of the annual premium is subsidized as grants in aid by the Centre and remaining 50% by State Governments. In case of Union Territory 100% premium is borne by the 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

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 fisher 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 to the fisher in four/three equal installments at the rate of Rs.300/- per month to marine/inland fisher. In case of UT's, entire matching share is borne by the Central Government.

5.6.2 Progress of scheme during 2003-04 and 2004-05

5.6.2.1 A sum of Rs 18.84 crore was released to State / UT's / FISHCOFED during 2003-04 to cover about 4.14 lakh fishers under Saving-cum-Relief component, construction of 10172 houses and to cover 10.54 lakh fishermen under Group Accident Insurance component.

5.6.2.2 During 2004-05, a sum of Rs 19.68 crore has been released till 31st January 2005 to cover about 2.28 lakh fishers under Saving-cum-Relief component, to construct more than 11000 houses for fishers and cover 10.92 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, the Scheme also provides assistance for setting up/upgradation of training centres in States/Union Territories. From the year 1999-2000 the 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.

5.8 Progress of scheme during 2003-04 and 2004-05

5.8.1 During 2003-04, an amount of Rs 0.92 crore was released to various States/Organizations for training of 2690 fish farmers,

setting up/up gradation of 4 training centres, establishment of 1 awareness centre, preparation of 4 training/extension manuals, publication of 2 handbooks, production of 1 documentary film and organization of 9 Workshops and Seminars.

5.8.2 During 2004-05, an amount of Rs 0.81 crore has been released till 31st January 2005 to various States/Organizations for training of 2600 fish farmers, setting up/up gradation of 1 training centre, establishment of 2 awareness Centre, preparation of 5 training/extension manuals, publication of 2 handbooks, production of 1 documentary film and organization of 13 Workshops and Seminars.

5.9 Strengthening of Database and Information Networking for Fisheries Sector

5.9.1 The earlier on-going scheme on Development of Inland Fisheries Statistics has been revised and the modified 100% central assistance scheme on Strengthening of Database and Information Networking for Fisheries Sector has been initiated in December, 2003 with an outlay of Rs 24.50 crore for implementation during Tenth Plan. The new scheme consists of following seven components:

- ❑ Catch Assessment Survey of Inland Fisheries,
- ❑ Information Technology Networking,
- ❑ Development of Geographical Information System using satellite data,
- ❑ Census on important Attributes of Inland Fisheries,
- ❑ Census on important Attributes of Marine Fisheries,
- ❑ Catch Assessment Survey of Marine Fisheries, and
- ❑ Strengthening of Head Quarter at Centre.

5.9.1.1 Catch Assessment Surveys on Inland Fisheries

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. The reports of the surveys conducted should be prepared by CIFRI in co-ordination with states and submitted to DAHD, Headquarters on regular basis. Based on the surveys conducted by states, CIFRI will co-ordinate for working out the quarterly estimates of inland fish production from all States/ UTs and furnish to DAHD, headquarters for obtaining approval of Technical Committee constituted under the scheme. The software for data entry and compilation of catch data is to be developed by CIFRI.

CIFRI has already developed the methodology for the survey and organized various training programmes in different regions to train the State Govt officials.

5.9.1.2 Information Technology:

Under the component on Information Technology, a provision has been made for procurement of equipment by State Governments/ Union Territories/ CIFRI/ DAH&D Headquarters/ Fishery Survey of India, Mumbai. So far, funds have been released to 19 States for procurement of IT equipment.

5.9.1.3 Development of Geographical Information System

The component on development of GIS is entrusted to CIFRI. Satellite imageries from

IRS-ID will be obtained for post monsoon period from NRSA. They will be analyzed in the laboratory for assessment of shape and size of the water bodies. Area statistics of water area 0.5 ha. and above will be located, mapped and listed in the reports after making ground truthing of 10% of the locations in order to verify the results. Potential areas will be highlighted on the maps for future planning and development. A geo-referenced fishery database management system will be evolved and the information will be linked and networked for the users.

5.9.1.4 Census on Inland Fisheries

This component on conduct of census on Inland Fisheries has been entrusted to CIFRI. The CIFRI would design the schedule for collection of data and preparation of methodology, instruction and publicity material.

5.9.1.5 Census on Marine Fisheries

The conduct of census on marine fisheries has been entrusted to Central Marine Fisheries Research Institute (CMFRI) in ten States. In respect of A & N Islands and Lakshadweep the census would be conducted by using services of Fishery Survey of India, Mumbai. The preliminary work is in progress and data collection would take place in the year 2005-06.

5.9.1.6 Catch Assessment Survey on Marine Fisheries

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 studies from markets of Marine States/ UTs by

deputing field enumerators on contractual basis. FSI will also reconcile the data received from State Governments and data collected by CMFRI and have interface with CMFRI for scientific and technical guidance regarding catch assessment surveys to be carried out by FSI.

5.9.1.7 Strengthening of Headquarter at Centre:

A Technical Monitoring Committee has been constituted with representatives from various organizations like CSO, NSSO, CIFRI, CMFRI, IASRI, ISI, FSI and Director (Fisheries) of all the States/UTs for review and identification of data gaps and making recommendations for bringing improvements in the Scheme. The progress of the Scheme is reviewed by conducting workshops and seminars annually.

5.9.2 Progress of scheme during in 2003-04 and 2004-05

A sum of Rs.1.38 crore was released during 2003-04 and a sum of Rs.4.34 crore was released till 31st January 2005 during 2004-05, 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 by the Ministry of Agriculture, Government of India 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 namely 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 above main courses, various short term / ancillary courses are also being conducted at all these centres. The Institute has three fishery training vessels, which are utilized for imparting onboard practical training and for providing qualifying sea service for post-institutional training.

5.10.1.3 During 2003-04 and 2004-05 (till October 2004), 181 persons and 152 persons were trained respectively in these two main training courses. In addition, 833 and 623 candidates were trained in short-term training programmes for sponsored / departmental candidates in fishing technology, gear technology, etc. during 2002-03 and 2003-2004 (till October 2004) respectively.

5.10.1.4 Expenditure to the tune of Rs.1.27 crore and Rs. 0.61 crore was incurred during 2003-04 and 2004-05 (till 31st January 2005) 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 a fishing vessel, a well-equipped marine workshop and a slipway to slip vessels up to 250 tonnes, an ice-cum-freezing plant and a modern fish-processing unit. It also provides institutional training in various courses. Besides the Head Quarters at Kochi, the Project also has

a centre at Visakhapatnam. During 2003-04 / 2004-05 (till 28th February 2005) about 57.64 tonnes / 88.19 tonnes of fish was processed and 52.24 tonnes / 86.74 tonnes was marketed respectively. The ship repair hauled up 11 Ships / 4 Ships during 2003-04/ 2004-05 (till 28th February, 2005) with an aggregate capacity of 901 tonnes / 223 tonnes and serviced 35 / 6 inflatable life rafts. The Project has imparted training to a total of about 1134 / 731 trainees in various disciplines in 2003-04 / 2004-05 (till 28th February, 2005) respectively.

5.10.3 Fishery Survey of India (FSI)

5.10.3.1 The Fishery Survey of India (FSI) is responsible 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



Fish Products

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 survey fleet of the Institute undertakes bottom trawl survey, Midwater/columnar resources survey and long line survey for demersal, columnar and oceanic tunas and allied resources and also for oceanic sharks.

5.10.3.2 During the period 2003-04, the survey vessels were out at sea for 2055 days and conducted actual fishing for 1456 days expanding actual fishing effort of 4457 hours and 120494 hooks. For quick dissemination of information on fishery resources and strengthening of data collection, the Institute had conducted four Workshops at Goa, Kochi, Mumbai and Chennai respectively.

5.10.3.3 During the period 2004-05 (till 31st January, 2005), the survey vessels were out at sea for 1888 days and conducted actual fishing for 1405 days expanding actual fishing effort of 4788 hours and 95125 hooks.

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 and brackish water farms. The institute monitors the progress of construction

of ongoing fishery harbours sanctioned under centrally sponsored scheme by the Ministry of Agriculture and renders technical guidance to the maritime states/ UT's 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 new building located in HMT Complex at Jalahalli 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 2003-2004, the Institute conducted technical investigations for the development of fishery harbours at Badeli Jagala in Gujarat and Yanam in U.T. of Pondicherry and prepared the techno-economic feasibility reports for the development of fishing harbours at Bahabalpur in Orissa and Deogad in Maharashtra. The Institute has also prepared and submitted revised project reports on Dholei and Okha in Gujarat. The Institute Monitored the progress of construction of fishing harbours and fish landing centres in the States of Kerala, Tamil Nadu, Andhra Pradesh and West Bengal. The Institute has also conducted joint reconnaissance surveys of fishery harbours/ fish landing centre sites in Gujarat, Yanam in UT of Pondicherry and Tamil Nadu to assess their suitability to develop as fishery harbours and fish landing centres. The institute also submitted Master plan Reports on Tamil Nadu, Kerala and Gujarat for the development of fishery harbours and fish landing centres.

5.10.4.3 During 2004-2005 (till 31st October 2004), the Institute conducted engineering and economic investigations for the development of Stage II fishery harbours at Homavar in Karnataka and the preparation of techno-economic feasibility reports for the development of fishing harbours at Mahe in UT of Pondicherry, Biyyaputhippa-Anthervedipatem in Andhra Pradesh Bhadeli-Jagla and Umbergaon in Gujarat are under various stages of progress. The Institute finalized the TEFRR for the development of fishing harbour at Chandipur in Orissa and Vasco Bay in Goa. The Institute has also conducted joint reconnaissance surveys of Petughat site in West Bengal for development of minor fishing harbour. The institute monitored the progress of construction of on-going fishing harbour in the State of Orissa.

5.11 Tsunami Relief Package

5.11.1 The Tsunami on 26th December 2004 had devastating impact in the coastal States of Tamil Nadu, Kerala, Andhra Pradesh and Union Territories of Pondicherry and A&N Islands. Since the fishing community resides along the coastal belt due to occupational necessity, they faced the brunt of Tsunami to greater extent.

5.11.2 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. Over 42437 traditional crafts and 6584 engine fitted/

motorized and mechanized boats were lost or fully damaged. Further, 15607 traditional crafts and 3357 engine fitted/motorized and mechanized boats were partially damaged. The fishing net loss or fully damaged are over 2.25 lakh. It has been observed that fishing community possess livestock, mainly pigs and goats and poultry to generate additional income. During Tsunami, maximum loss to the livestock and poultry has taken place in A&N Islands. Out of 32,943 livestock lost in the tidal waves, 27377- mainly pigs and goats belong to A&N Islands.

5.11.3 The Government has announced special package for fishermen to provide 100% assistance for the replacement of traditional crafts and gear. In case of motorized and mechanized boats involving cost of Rs. 1.5 lakh per unit and above, subsidy as well as loan is being provided to bring the fishing community into the mainstream. In this direction, NABARD issued directions to all banks to extend loan to bring the affected people including fishermen into mainstream at 7% rate of interest per annum with moratorium period of one and a half years, repayment period of 7 years and 2% subsidy on interest on prompt repayment of loan without enforcing repayment of earlier loan and other conditions. In case of livestock and other losses, Central assistance has been extended as per Calamity Relief Fund (CRF)/ National Calamity Relief Fund (NCCF) norms to the affected States/UTs.

Chapter-6

TRADE MATTERS

6.1 Introduction

6.1.1 After the removal of quantitative restrictions on various livestock products, the Department amended the Livestock Importation Act, 1898 bringing all the livestock products under its purview for the procedure of imports. Accordingly, Notifications No.655(E) dated 7th July, 2001 for livestock products, No.769(E) dated 16th October, 2001 for fishery products and No.1175(E) dated 27th November, 2001 for GP stock had been issued making mandatory for the import of all livestock products against sanitary import permit. 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 the country.

6.2 Procedure for Imports

6.2.1 The Unit is also processing the 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 DGFT/DCI for issue of necessary import licence. 71 "No Objection Certificates" have been issued to DGFT till December, 2004.

6.2.2 The application forms for import of livestock products is available on the website 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 principles of OIE. The recommendations of 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 Risk Analysis Committee. 1268 Sanitary Import Permits have been issued to import various livestock products including fisheries products , till December, 2004.

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 this Department. The Department is not directly implementing any beneficiary oriented programmes, where separate allocations have to be made for this sector. However, wherever possible, efforts have been made for providing maximum coverage to SCs/STs. Under Central Minikit Distribution Programme, there is a provision of distribution of fodder seed minikits, and undertaking demonstration on 25% fields belonging to SCs/STs farmers. Under Foot and Mouth Disease Control Programme, there is a

provision of utilization of 20% of Central grant for vaccination of animals belonging to Scheduled Castes and Scheduled Tribes. Similarly under the scheme of Development of Freshwater Aquaculture there is a provision of providing enhanced subsidy assistance to 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 the 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 as one for empowerment of women. However, the Department as a matter of guideline has always emphasized for providing benefits to weaker sections of the society.

8.1.2 In the Animal Husbandry sector, it is felt that men and women work hand in hand with certain activities especially feeding the animals, milking of animals etc. mostly being performed by women, but side by side there are many functions like using the same animals for transportation, taking for grazing or ploughing which are the activities performed by men. Hence, role of both men and women are complementary in the field of animal husbandry and it is not possible to segregate the functions into specific grouping. Animal Husbandry in general is a programme through which a lot of employment takes place by increasing the earning capacity of women in various functions that they perform and these ultimately lead to the economic empowerment of women in various fields.

8.1.3 Women have been at the fore front of Dairy cooperative movement which was initially spear-headed through 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

- ❑ Women constitute 71% of the labour force in livestock farming. In dairying, 75 million women are engaged as against 15 million men. About 0.5 million women are employed in pre and post harvest operations in marine sector.
- ❑ 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.

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 2002, 114 women thrift cooperatives with a membership of 8742 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, hence emphasis, especially in training should be given to women. However, there is no segregation in the scheme for women as such.

8.1.5 Similarly, in the scheme for conservation of breeds, the conservation of sheep, goat and small ruminants are especially directed towards sectors in which women are being identified to take up such schemes.

8.2 Women in fishery sector

8.2.1 The contribution of women in the development of fisheries and the active role being played by them in the 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 the women as a means to support the family and not as full time or part time profession or business to derive the benefits from the fishing industry.

8.2.2 Fish marketing, fish processing and product development are the 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.

8.2.3 The existing developmental schemes in the fisheries sector are being modified. The women's SHG's/cooperatives/voluntary organizations will also be included as an implementing agency for the schemes wherever possible.

8.3 Schemes and programmes implemented by the Department have been beneficial to women as well, directly or indirectly, but no such data is 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 Government to create a database.



Chapter-9

INTERNATIONAL COOPERATION

9.1 Agreement with other countries

9.1.1 During the year 2004-05, an agreement on cooperation in the field of Animal Health & Dairy was signed by the Department of Animal Husbandry & Dairying with Government of Mongolia.

9.2 International Cooperation for foreign funded projects

9.2.1 The foreign agencies funding animal husbandry projects in India are mainly Denmark (DANIDA), Switzerland (SDC) and the French Governments.

9.2.2 The Denmark Government (DANIDA) assisted projects are as under:-

- i. Integrated Livestock Development Project in Bastar, Chhattisgarh
- ii. Integrated Livestock Development Project in Koraput, Orissa

9.2.3 The Switzerland Government assisted project (SDC) are as under:

- i. Cattle Breeding and Fodder Development in Andhra Pradesh
- ii. Animal Husbandry and Dairy Development in Sikkim.

9.2.4 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.

9.3 International Memberships

9.3.1 This Department is also 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- an organization under FAO.

9.3.2 India is 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.