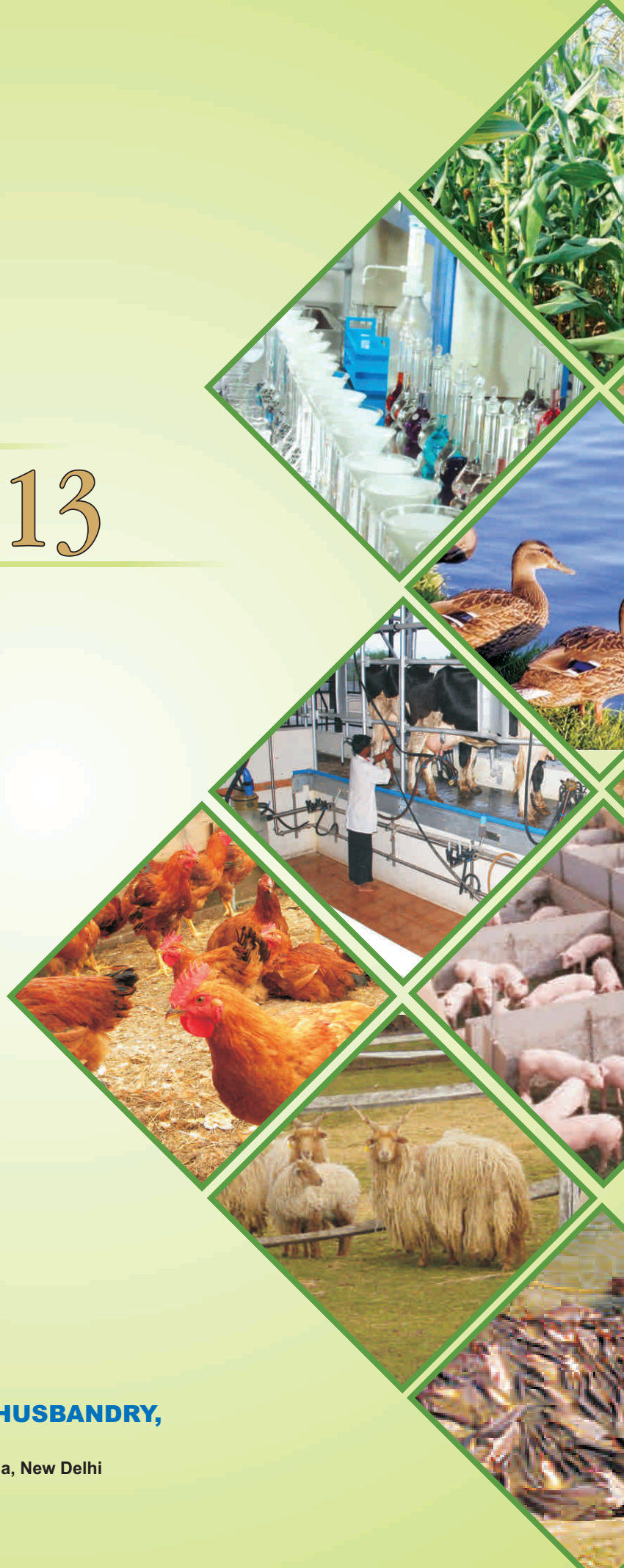


Annual Report

2012-13



**DEPARTMENT OF ANIMAL HUSBANDRY,
DAIRYING & FISHERIES**

Ministry of Agriculture, Government of India, New Delhi

सत्यमेव जयते

ANNUAL REPORT

2012-13



सत्यमेव जयते

DEPARTMENT OF ANIMAL HUSBANDRY, DAIRYING & FISHERIES

MINISTRY OF AGRICULTURE

GOVERNMENT OF INDIA

NEW DELHI

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Chapter 1

**OVERVIEW
OF
ACHIEVEMENT**



CHAPTER 1

OVERVIEW OF ACHIEVEMENT

1.1 Animal husbandry, dairying and fisheries activities play an important role in national economy and in socio-economic development of the country. These activities have contributed to the food basket, nutrition security, household income of the farmers and play a significant role in generating gainful employment in the rural areas, particularly among the landless, small and marginal farmers and women, besides providing cheap and nutritious food. Livestock are the best insurance for farmers against vagaries of nature like drought and other natural calamities.

1.2 According to NSS 66th Round Survey (July 2009 – June 2010), total number of workers in farming of animals is 20.5 million as per usual status (principal status plus subsidiaries status irrespective their principal activity status). Farmers of marginal, small and semi-medium operational holdings (area less than 4 ha) own about 87.7% of the livestock. Hence development of livestock sector would be more inclusive. India is endowed with the largest livestock population in the world. It accounts for about 57.3 per cent of the world's buffalo population and 14.7 per cent of the cattle population. There are about 71.6 million sheep, 140.5 million goats and about 11.1 million pigs in the country. India has vast resource of livestock and poultry, which play a vital role in improving the socio-economic conditions of rural masses. The State-wise breakup of different species of livestock is given at **Annexure-I**.

1.3 Livestock Production:

1.3.1 Livestock production and agriculture are intrinsically linked, each being dependent on the other, and both crucial for overall food security. According to estimates of the Central Statistics Office (CSO), the value of output from livestock sector at current prices was about ₹4,59,051 crore during 2011-12 which is about 24.8% of the value of output from total agricultural and allied sector at current price and 25.6% at constant prices (2004-05). The value of output of milk is ₹3,05,484 crore in 2011-12, which is higher than the value of output of paddy and wheat. The value of output from meat group as per the estimates of CSO at current prices in 2011-12 was ₹83,641 crore. The value of output from eggs and wool group is ₹17,803 crore and ₹318 crore respectively for 2011-12.

1.3.2 **Milk Production:** India, the largest producer of milk in the world, is set to produce over 133 million tonne milk during 2012-13. Several measures have been initiated by the Government to increase the productivity of milch animals, which has resulted in increasing the milk production significantly from the level of 102.6 million tonnes at the end of the Tenth Plan (2006-07) to 127.9 million tonnes at the end of the Eleventh Plan (2011-12). The Annual growth rate for production of milk is about 5% in 2011-12 compared to 2010-11.

1.3.3 **Egg Production:** Poultry development in the country has shown steady progress



over the years. Currently egg production is around 66.45 billion in 2011-12 which is about 5% over the previous year production of about 63.02 billion eggs. The poultry meat production is estimated to be about 2.47 million tonnes. The current per capita availability of eggs is around 55 eggs per year. Exports of poultry products are currently at around ₹457.82 crore in 2011-12 as per the report of Agricultural and Processed Food Products Export Development Authority (APEDA).

1.3.4 Wool Production: Wool production declined marginally at the end of Eleventh Five Year Plan (2011-12) to 44.7 million kg. from 45.1 million kg. in the Tenth Five Year Plan (2006-07). The Annual growth rate for production of wool is about 4% in 2011-12 compared to previous year.

1.3.5 Meat Production: The meat production has registered a healthy growth from 2.3 million tonnes at the end of Tenth Five Year Plan (2006-07) to 5.5 million tonnes at the end of the Eleventh Five Year Plan (2011-12). The Annual growth rate for meat production in 2011-12 was about 13%. The production of major livestock products since 1950-51 to 2011-12 is given at **Annexure-II**.

1.4 Fisheries Production:

1.4.1 The Country has vast potential for fisheries in view of our long coastline of about 8,000 kms apart from the inland water resources. As per the estimates of CSO, the value of output from fisheries sector at current price was about ₹76,699 crore during 2011-12 which is about 4.15% of the value of agricultural and allied sector output at current price.

1.4.2 India is the second largest producer of fish and the second largest producer of fresh water fish in the world. Fish production has increased from 41.57 lakh tonnes (24.47 lakh tonnes for marine and 17.10 lakh tonnes for inland fisheries) in 1991-92 to 86.66 lakh tonnes (33.71 lakh tonnes for marine and 52.95 lakh tonnes for inland fisheries) in 2011-12. While the inland fisheries production has registered a robust growth during this period, the growth in marine fisheries has been slower. The State-wise details of fish production, marine fisheries resources and inland water resources are given at **Annexure-III, IV & V** and the year-wise production of fish seeds is given in **Annexure-VI**.

1.5 Export of livestock and fisheries products:

The Livestock sector also contributes to export in spite of the fact limited number of livestock enterprises function in the country on commercial basis. Total export earnings from livestock, poultry and related products were ₹ 33,417 crore during 2011-12 as compared to ₹ 25,409 crore during previous year i.e. 2010-11 with a growth of about 31.5%. Total export earnings from fisheries products have also shown steady increase and reached to ₹16,597.23 crore during 2011-12 compared to ₹12,901.47 crore during 2010-11 with a growth of about 28.65%.

1.6 Government's initiative and assistance to States:

As Agriculture, including Animal Husbandry, Dairying and Fisheries is a State subject, the emphasis of the Department has been

on supplementing efforts of the State Governments in the development of these sectors. The Department has been providing assistance to the State Governments for the control of animal diseases, scientific management and upgradation of genetic resources, increasing availability of nutritious feed and fodder, sustainable development of processing and marketing facilities and enhancement of production and profitability of livestock and fisheries enterprises.

1.7 Eleventh Five Year Plan

1.7.1 The approach for the 11th Plan for

the livestock sector is aimed at achieving an overall growth between 6 to 7 percent per annum for the sector as a whole, with milk group achieving a growth of 5% per annum and meat and poultry achieving a growth of 10% per annum. The growth of output from the livestock sector during Eleventh Plan was about 4.8 % per annum and from fisheries was about 3.6% per annum.

1.7.2 As against the outlay of ₹ 8,174 crore has been provided to this department for the 11th Plan, year-wise financial achievements are given below:

Table 1.1: Year-wise BE, RE and Actual Exp. During 11th Plan

(₹ in crore)

Year	Approved BE	Revised Estimate (RE)	Actual Exp.	% of Utilization w.r.t. RE	% of Utilization w.r.t. BE
1	2	3	4	5	6
11th Plan (2007-12)	8174.00				
2007-08	910.00	810.00	784.09	96.80	86.16
2008-09	1000.00	940.00	865.27	92.05	86.53
2009-10	1100.00	930.00	873.38	93.91	79.40
2010-11	1300.00	1257.00	1104.68	87.88	84.98
2011-12	1600.00	1356.52	1243.11	91.64	77.70
Total	5910.00	5293.52	4870.53	92.01	82.41

1.7.3 In addition to the approved outlay of the Department of Animal Husbandry, Dairying and Fisheries, an amount of about ₹ 5,403.88 crore was allocated for animal husbandry, dairying and fisheries sector under Rashtriya Krishi Vikas Yojana and National Mission for Protein Supplements during 11th Plan.

1.7.4 During the Eleventh Plan, the Department had initiated several new programmes/schemes like Establishment of Veterinary Hospitals and Dispensaries, National Control Programme on Brucellosis, National Control Programme of Peste des Petits Ruminants (PPR) and expansion of Foot & Mouth Disease Control Programme

Allocation of ₹14,179 crore for the Department for 12th Plan



from 54 to 221 districts for strengthening the efforts for animal disease control. To meet the shortage of fodder, several new components were incorporated in the Feed and Fodder scheme. Further, Dairy Entrepreneurship Development Scheme was initiated in the 11th Plan with the objective of increasing investment in dairy sector for increasing milk production in the country while creating self-employment opportunities.

1.8 Twelfth Five Year Plan

1.8.1 The Department has received in-principle approval of an allocation of ₹14,179.00 crore from the Planning Commission (including ₹1,584.00 crore as External Aid) for 12th Plan. This includes an amount of ₹7,628 crore for Animal Husbandry, ₹4,976.00 crore for Dairy Development and ₹2,483.00 crore for the Fisheries sector, ₹35.00 crore for Secretariat and Economic Services and ₹51.00 crore for Special Package for Development of Kuttanad Eco-System and Mitigation of Agrarian Distress in Idukki district in Kerala.

1.8.2 In order to achieve the potential for development of the livestock and fisheries sector, the Department has proposed major restructuring of the schemes for 12th Plan. One of the major initiatives is to announce launching of the scheme of National Livestock Mission (NLM) in the Union Budget 2013-14. The scheme would subsume all the schemes related to animal husbandry except schemes relating to disease control and development of bovines with the main objective of achieving sustainable development of the sector by providing greater flexibility to states in formulating and implementing

the schemes as per the local needs for benefit of the farmers. 12th Plan provision for NLM is proposed to be ₹2800 crore out of which, ₹600 crore kept under Central Sector Component and rest ₹2200 crore under Centrally Sponsored Component. One of the major components of NLM will be the sub-mission on feed and fodder to increase availability of quality feed and fodder for the livestock, which is necessary for improving productivity.

1.8.3 Taking into account the importance of effective control of animal diseases, which adversely affect productivity of the livestock, the Department has proposed to expand the ongoing Livestock Health and Disease Control (LH & DC) scheme including the National Control Programme for major diseases like FMD, PPR and Brucellosis. The FMD Control Programme is now implemented in 221 districts and during 12th Plan, all the districts will be covered in a phased manner. The 12th Plan provision for LH & DC scheme would be ₹3114 crore out of which, ₹1744 crore and ₹500 crore are allocated for Foot & Mouth Disease Control Programme (FMD-CP) and Assistance to States for Control of Animal Diseases. Also a new component namely "National Control Programme for CSF" is proposed to be launched in the 12th Plan.

1.8.4 In order to expand the artificial insemination programme to cover about 35% of breedable bovine population by end of 12th Plan to improve productivity of milk by genetic improvement, the existing scheme relating to development of bovines and dairy development are proposed to be merged to a new scheme of National Programme for Bovine Breeding and Dairy

(NPBBD) which will be implemented along with the National Dairy Plan (Phase-I) (NDP-I) launched during 2011-12 as a World Bank assisted scheme. Efforts for conservation of quality indigenous breeds will be strengthened further in the 12th Plan under NPBBD and NDP-I.

1.8.5 In fisheries sector, a major initiative has been taken by Government of India by launching National Fisheries Development Board (NFDB) since September, 2006, as a special purpose vehicle to achieve sustainable development of fisheries sector through integration of wide array of activities. NFDB would be strengthened by integrating all schemes relating to fisheries development under it and enhancing investment for the sector.

1.9 Annual Plan 2011-12 & 2012-13

1.9.1 The Department was allocated ₹1,600 crore for the Annual Plan 2011-12, which was revised to ₹1,356.12 crore at the RE stage. The final expenditure for 2011-12 was ₹1,243.11 crore. For the year 2012-13, the Department has been allocated ₹1,910 crore which has been reduced to ₹1,800 crore in RE. By the end of December, 2012, the Department has incurred an expenditure of ₹1,121.62 crore.

1.9.2 The scheme-wise BE, RE and Expenditure for 2011-12 and 2012-13 is given at **Annexure-VII**.

Chapter 2
ORGANIZATION



CHAPTER 2

ORGANIZATION

2.1 Structure

2.1.1 The Department of Animal Husbandry, Dairying & Fisheries is one of the Departments under the Ministry of Agriculture. It came into existence on February 1, 1991 by merger of 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 & Cooperation and a part of the Ministry of Food Processing Industries was later transferred to this Department on October 10, 1997.

2.1.2 The Department is under the overall charge of Shri Sharad Pawar, Hon'ble Minister of Agriculture. He is assisted by Dr. Charan Das Mahant, Minister of State for Agriculture and Food Processing Industries. The administrative head of the Department is the Secretary (Animal Husbandry, Dairying & Fisheries).

2.1.3 Secretary of the Department is assisted by Animal Husbandry Commissioner, four Joint Secretaries and one Adviser (Statistics), in discharging the responsibilities assigned to this Department. The organization chart of the Department and work allocation among various Divisions is given at **Annexure-VIII**.

2.2 Functions

2.2.1 The Department is responsible for matters relating to livestock production, preservation, protection & improvement of

stocks, dairy development, matters relating to the Delhi Milk Scheme and the National Dairy Development Board. It also looks after all matters pertaining fisheries, which includes inland and marine sectors and matters related to the National Fisheries Development Board.

2.2.2 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) Promoting infrastructure for handling, processing and marketing of milk and milk products; (c) Preservation and protection of livestock through provision of health care; (d) Strengthening of central livestock farms (Cattle, Sheep and Poultry) for development of superior germplasm for distribution to States; and (e) Expansion of aquaculture in fresh and brackish water, development of marine fisheries infrastructure & post harvest operations and welfare of fisherfolk, etc.

2.2.3 The list of the subjects allocated to the Department is given at **Annexure-IX**.

2.3 Subordinate Offices

2.3.1 The Department looks after the administration of the following field / subordinate Offices spread all over the country (Table 2.1).



Table 2.1

Sl. No	Subordinate Offices	Number
(i)	Central Cattle Development Organizations	12
(ii)	Central Poultry Development Organizations	5
(iii)	Central Sheep Breeding Farm	1
(iv)	Central Fodder Development Organizations	8
(v)	National Institute of Animal Health, Baghpat,	1
(vi)	Animal Quarantine Certification Centres	6
(vii)	Delhi Milk Scheme	1
(viii)	Central Institute of Coastal Engineering for Fishery, Bangalore.	1
(ix)	Central Institute of Fisheries, Nautical and Engineering Training, Kochi.	1
(x)	National Institute of Fisheries Post Harvest, Technology and Training, Kochi.	1
(xi)	Fishery Survey of India, Mumbai.	1
	Total	38

2.3.2 A list of the aforesaid subordinate offices is given at **Annexure-X**.

2.4 National Dairy Development Board (NDDB)

2.4.1 National Dairy Development Board, located at Anand, Gujarat, set up in 1965 and declared as a statutory body corporate in 1987 under the NDDB Act, is a premier institution to accelerate the pace of dairy development on cooperative lines in the country. Dr. (Ms.) Amrita Patel is the Chairperson of the Board since 26th November 1998.

2.5 National Fisheries Development Board (NFDB)

2.5.1 National Fisheries Development Board (NFDB) was set up in September 2006 with its headquarter at Hyderabad to realize the untapped potential of fisheries sector, fish culture, processing & marketing of fish,

application of modern tools of research & development for optimizing production and productivity in fisheries.

2.6 Coastal Aquaculture Authority

2.6.1 The Coastal Aquaculture Authority (CAA) was established under the Coastal Aquaculture Authority Act, 2005 vide Gazette Notification dated 22nd December, 2005. The main objective of the Authority is to regulate coastal aquaculture activities in coastal areas in order to ensure sustainable development without causing damage to the coastal environment. The selection of the Chairman of the Authority is in progress.

2.7 Veterinary Council of India

2.7.1 Veterinary Council of India is a statutory body constituted under the provision of Indian Veterinary Council Act,



1984. In accordance with the provisions under section 3(3) (g) of the Indian Veterinary Council Act, 1984, Government of India conducted the triennial election to VCI in November, 2010 and the Veterinary Council was re-constituted in March, 2011 with Dr. Lt. Gen. Narayan Mohanty as the President. At present, 25 States and all UTs have adopted the Indian Veterinary Council Act, 1984. Veterinary Council is responsible for regulating veterinary practices as well as for maintaining uniform standard of veterinary education through Minimum Standard of Veterinary Education Regulations in all veterinary institutes across the country.

2.8 Grievances Cell

2.8.1 A Grievances Cell has been set up in the Department to look into grievances of the public. The cell is headed by a Director level officer.

2.9 Liaison Officer for SC/ST

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

2.10 Vigilance Unit

2.10.1 Vigilance Unit processes vigilance cases pertaining to the Department and its subordinate offices. The Chief Vigilance Officer monitors the vigilance cases on a regular basis. The Department along with its field units observed Vigilance Awareness Week from 29th October 2012 – 3rd November 2012. Secretary (ADF) administered the oath on vigilance to the officers and staff in the headquarters at New Delhi.

2.11 Progressive use of Hindi

1.11.1 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 the 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.

2.11.2 An Official Language Implementation Committee is functioning in the Department under the Chairmanship of Joint Secretary (APF). In accordance with the prescribed rules, four meetings of the Committee were held during the year. The progress in use of Hindi in the Department was reviewed in these meetings. Suggestions were given to promote the use of Hindi in official work. As a result of these suggestions, the percentage of correspondence in Hindi has increased considerably.

2.11.3 Circular letters were also issued from time to time from the Secretary, Department of Animal Husbandry, Dairying & Fisheries and Joint Secretary concerned to all Officers/Sections emphasising need for proper implementation of the Official Language Policy of the Government.

2.11.4 All letters received in Hindi were replied in Hindi. Similarly letters originated from the Department to States located in region "A" and "B" were also sent in Hindi. Provisions of Section 3(3) of the Official Language Act, 1963 were also fully complied with.



2.11.5 Hindi Fortnight was observed in the Department from 3rd to 14th September, 2012 during which various competitions such as Hindi essay writing, Hindi noting drafting, Hindi Rajbhasha Gyan and debate were organized. A large number of officials participated in these competitions and cash awards were given to successful candidates in a function presided over by the Joint Secretary.

2.12 Animal Production and Health Information

2.12.1 The website of the Department (<http://dadf.gov.in>) was maintained and updated regularly, particularly on the status of Avian Influenza. The website has been enriched by publishing information under the Right to Information Act. The Department has developed a web-based system for 'Livestock Statistics'.

2.13 Implementation of Right to Information (RTI) Act 2005

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

and autonomous organizations of the Department.

2.14 Reservation for Scheduled Castes (SCs), Scheduled Tribes (STs), Other Backward Castes (OBCs) and others:

2.14.1 Department of Animal Husbandry, Dairying & Fisheries (DAHD&F) continued its endeavour for strict implementation of the orders issued by the Government of India from time to time, regarding reservation in services for SCs, STs, OBCs, minorities, ex-servicemen and physically disabled persons.

2.15 Prevention of Harassment of Women Employees

2.15.1 A complaints committee for prevention of sexual harassment of women at their work place was reconstituted by the Department. The committee is chaired by a senior lady officer of the Department. The committee is represented by 5 members, which comprises of 4 women members, (one of these belongs to an NGO) and one male member of the Department. Three meetings of the Committee were held during the year. No complaint alleging harassment was received from any women employees in the Department during this period.

Chapter 3



ANIMAL HUSBANDRY



CHAPTER 3

ANIMAL HUSBANDRY

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

3.2 Central Cattle Development Organizations

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

3.2.2 Central Cattle Breeding Farms (CCBFs)

3.2.2.1 There are seven Central Cattle Breeding Farms (CCBFs) located at Alamadhi (Tamil Nadu), Andeshnagar (U.P), Chiplima & Sunabeda (Orissa),

Dhamrod (Gujarat), Hessarghatta (Karnataka) and Suratgarh (Rajasthan) which are engaged in scientific breeding programmes of cattle and buffaloes and production of high pedigreed bulls for National Project for Cattle and Buffalo Breeding beside providing training to the farmers and breeders. These farms 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, Surti and Murrah buffalo. These Farms produced 407 bull calves and trained 3,643 farmers in dairy farm management during the year 2011-12. During the year 2012-13 (till 31st December, 2012), these farms have produced 300 high pedigreed bulls/ bull calves for using in artificial insemination/ natural services in the Country and trained 1,957 farmers.





3.2.3 Central Frozen Semen Production and Training Institute, Hessarghatta (CFSP& TI)

3.2.3.1 This is a premier institute located at Hessarghatta, Karnataka producing frozen semen of indigenous, exotic crossbred cattle and Murrah buffalo bull for use in Artificial Insemination (AI). The institute also provides training in frozen semen technology to technical officers of the State Governments and acts as a centre for testing of indigenously manufactured frozen semen and AI equipments. The institute produced 13.17 lakh doses of frozen semen and provided training to 296 persons in the field of Frozen Semen Technology & Andrology during the year 2011-12. During the year 2012-13 (till 31st December 2012), 9.80 lakh doses of frozen semen were produced and 203 persons were imparted training.

3.2.4 Central Herd Registration Scheme (CHRS)

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

3.2.4.2 Objectives of the Scheme

1. Identification and location of superior germplasm.
2. Using this data for producing superior germplasm.
3. Preservation of indigenous germplasm.
4. Milk recording of cattle and buffaloes for improving dairy farming.

3.2.4.3 Four CHRS Units have been established under this scheme at Rohtak, Ahmedabad, Ajmer and Ongole. A total of 92 Milk Recording Centres located in the States of Gujarat, Maharashtra, Rajasthan, Haryana, Delhi, Uttar Pradesh and Andhra Pradesh are functioning for recording the milk yield of indigenous breeds of Gir, Kankrej, Haryana and Ongole of Cattle and Murrah, Jaffrabadi, Surti and Mehsana breeds of buffalo for confirmation of their phenotypic breed characteristics and milk production level. These are identified in their breeding tracts and publicity is made for marketing of registered cows, buffaloes and calves. Primary registration of 14,703 cows and buffaloes was done during the year 2011-12. The primary registration of 13,024 cows and buffaloes was done during the year 2012-13 till December 2012.

3.3 National Project for Cattle & Buffalo Breeding

3.3.1 Genetic improvement in bovines 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 each of five



years, with plan allocation of ₹375 crore for Phase-I (10th Plan) and ₹554 crore (11th Plan). The NPCBB envisages genetic upgradation on priority basis with a focus on development and conservation of important indigenous breeds. Under the project 100% grants-in-aid is given to State Implementing Agencies.

3.3.2 Approval of the Planning Commission has been obtained for continuation of NPCBB for first two years during the 12th Plan in order to complete spill over activities of the project. A new scheme namely National Project on Bovine Breeding and Dairy will be initiated under 12th Plan.

3.3.3 The mandate of the scheme is to:

- a) arrange delivery of vastly improved artificial insemination service at the farmers' doorstep;
- b) bring 80% breedable females among cattle and buffalo under organized breeding through artificial insemination or natural service by bulls with high genetic merit;
- c) undertake breed improvement programme for indigenous cattle and buffaloes so as to improve the

genetic makeup as well as their availability.

3.3.4 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. promotion of private mobile Artificial insemination (AI) service for doorstep delivery of AI;
- c. conversion of existing stationery government AI centres into mobiles centres;
- d. strengthening semen stations as per Minimum Standard Protocol through induction of quality breeding bulls, upgrading & modernizing semen processing facilities, creating quality control facilities, and creating physical infrastructure facilities at semen stations;
- e. Bull production for semen stations and natural service through progeny testing programme and pedigree selection;
- f. quality control and certification of bulls and services at sperm





- stations, semen banks and training institutions; 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

3.3.5 Progress of the Scheme

3.3.5.1 At present 28 States and one Union Territory (UT) are participating under the project. Financial assistance to the tune of ₹ 875.73 crore has been released to these States upto 2011-12. During current financial year budget estimate (BE) of ₹ 180.39 crore has been made available under the scheme and so far an expenditure of ₹ 79.52 crore has been made.

3.3.5.2 The notable achievements under NPCBB since inception are:

- i) Semen production increased from 22 to 67 million doses and number of AI increased from 21.80 to 54 million (about 22 million animals under AI coverage). Overall conception rate increased from 20% to 35%;
- ii) 36385 Government stationary AI centres have been converted into mobile AI centres;
- iii) 21753 private AI centres have been established or under establishment and 11,615 Govt. Stationery AI centres are also operating;
- iv) 24691 breeding bulls with high genetic merit have been inducted or under induction;

- v) 50,472 existing AI workers have been trained in all the aspects of frozen semen technology (including funds released for training of existing AI workers during current year);
- vi) 18269 professionals have been trained at reputed training centres outside the State and within the State;
- vii) 49 frozen semen bull station have been strengthened as per Minimum Standard Protocol (MSP) for semen production;
- viii) in order to improve quality of semen production in the country Minimum Standard Protocol for semen production has been formulated and implemented at all semen stations in the country;
- ix) Central Monitoring Unit (CMU) has been constituted for evaluation of semen stations each in two years and implementation of Minimum Standard Protocol (MSP) for semen production in the country;
- x) 20 semen stations are graded as 'A', 17 as 'B' and 3 as 'C' during 2010-11 against 11 as 'A', 16 as 'B' and 7 as 'C' during 2007-08. A and B graded semen station has increased to 37 against 27 in earlier evaluation;
- xi) 39 semen stations in the country have acquired ISO certification against 3 semen stations during 2004;
- xii) Number of animals in milk has increased from 62 million during 2000 to 79.89 million during 2011 i.e. about 18 million improved



milch animals has been added to milch herd of the country;

- xiii) Crossbred cattle population has increased from 20 million (1997) to 33 million (2007) and
- xiv) Minimum Standard Protocol for progeny testing and standard operating procedures for AI (artificial insemination) technicians have been formulated and circulated among all the States.

3.3.6. Constitution of State Implementing Agencies (SIAs)

3.3.6 Since inception of the project in October, 2000, 27 SIAs have been constituted under the project in 28 States. These agencies have professional approach in implementing the project. In case of small States, which are unable to constitute viable SIAs, funds have been released to the State Governments for implementation of the project.

3.3.7 Liquid Nitrogen (LN) Transport and distribution system:

3.3.7.1 Before initiation of NPCBB, small stand alone plants were used by the State

Departments of Animal Husbandry and most of the plants were facing frequent breakdowns. The unit cost of production was very high ranging from ₹30 to ₹35 per litre. Concept of procurement of liquid nitrogen from private sources was introduced for the first time in the country under NPCBB. The unit cost of liquid nitrogen procured from private sources is in the range of ₹6 to ₹10 per litre. Under the scheme, LN storage, transport and distribution system has been strengthened and streamlined through establishment of semen banks and silos at strategic locations and providing vehicles for distribution of LN up to AI centres.

3.3.8 Evaluation of semen stations:

3.3.8.1 In order to attain qualitative and quantitative improvement in semen production, Central Monitoring Unit (CMU) was constituted on 20.5.2004 by the Department for evaluation and grading of semen stations once in two years. The CMU has since undertaken evaluation on four occasions. Improvement in grading of semen stations after constitution of CMU is presented in table 3.1.

Table 3.1: Improvement in grading of semen stations

Grades	Evaluation report for the year			
	2004-05	2005-06	2007-08	2010-11
A	2	7	12	20
B	12	10	15	17
C	12	5	7	3
Not graded/non evaluated	33	32	15	7
Total	59	54	49	47

S e m e n Production in the country has increased from 22 million straws (1999-2000) to 67 million straws (2011-2012) and the number of inseminations has increased from 20 million to 54 million. As per the impact analysis report submitted by NABARD, overall consumption rate has increased from 20 % to 35 %.



Table 3.2: Performance of AI Centres

Agency	No of AIC	AI (Million)	No of AI (per year per centre)
Government	48,000	36.80	528
Private AI workers	21,753		
Cooperative	17,530	13.20	753
NGO	6,000	4.00	667
Total	93,283	54.00	602

Table 3.3: Performance of semen stations

Agency	Semen Stations	No. of Bulls	Semen Production (Million)	Bulls per Station	Doses Produced per Station (lakh)
Government	37	2,005	33	54	8.54
NDDDB, Dairy Cooperatives, NGO and Private	11	1,292	34	117	30.90
Total	48	3,297	67	69	13.95

3.3.9 Development of Minimum Standard Protocol (MSP) for Semen Production

3.3.9.1 In order to produce frozen semen of uniform quality, a Minimum Standard Protocol (MSP) for semen production was developed in consultation with experts from BAIF, NDDDB, NDRI (Karnal) and CFSPTI and the same was made effective from 20th May, 2004.

3.3.10 ISO Certification of semen stations

3.3.10.1 39 Semen stations are ISO certified. 7 Semen station located at Mattupatty, Dhoni, Kulathupuzha (Kerala), Haringhata (West Bengal), Salboni, Beldanga (West Bengal) and Bhadbhada

(Madhya Pradesh) are also HACCP certified semen stations.

3.3.11 Training and capacity building

3.3.11.1 The most important reasons for low conception rate before inception of NPCBB was lack of access to good training facilities and ill-trained government AI workers. Under NPCBB, 50,472 existing AI workers and 18269 professionals have been trained. This has led to improvement in quality of breeding services.

3.3.12 Development and conservation of recognized indigenous breeds:

3.3.12.1 Indigenous breeds are specially known for qualities of heat tolerance,



resistance to diseases and ability to thrive under extreme nutritional stress. Considering the importance of recognized indigenous breeds in the National economy, Government has undertaken the following steps for their development and conservation:

3.3.12.2 National Project for Cattle and Buffalo Breeding has focus on development and conservation of indigenous breeds. The cattle and buffalo genetic resources of India are represented by 34 indigenous breeds of cattle including Rathi, Gir, Kankrej, Tharparkar, Sahiwal, Deoni, Hallikar, Khillar Haryana etc. and 11 breeds of buffaloes including Murrah, Jaffarabadi, Mehsani, Surti etc. Indigenous animals are sturdy, endowed with quality of heat tolerance, resistance to diseases and have ability to thrive under extreme nutritional stress. Global warming is likely to increase incidences of animal diseases particularly viral and protozoan diseases in crossbred animals. Therefore, there is a need to take programmes for development and conservation of indigenous breeds.

3.3.12.3 Funds have been released to the participating States for procurement of quality bulls for natural service, initiating bull production programmes, strengthening of bull mother farms and establishment of ONBS farms for important indigenous breeds (Bhadawari, Sahiwal, Gir, Deoni, Kankrej, Haryana, Kenkatha, Hallikar, Khillar, etc.) for their further development. During Phase-I of the project an amount of ₹58 crore has been released exclusively for development and conservation of indigenous breeds. An amount of ₹477.30 crore has been kept exclusively for development of indigenous

breeds under Phase-II of NPCBB. Out of this, an expenditure of ₹272 crore has been made under the scheme till 31st December 2012. In addition to this, strengthening of field AI network, semen stations, establishment of private AI workers and organization of fertility camps etc have also lead to development of indigenous breeds.

3.3.13 Expected Project benefits

- Increased and improved coverage of breedable females. About 80% of the total adult females among cattle and buffaloes will be brought under organized breeding activity (AI or natural service).
- The project will induct and provide self-employment to about 32,000 private AI practitioners.
- Large scale replacement (20 million) of low producing nondescript cattle and buffaloes by improved animals
- About 80,000 pedigreed bulls for natural service are proposed to be inducted in the areas out of the reach of AI.
- Increased rural self-employment opportunities and increased farm income. The benefits of the project will flow directly to the poor among the rural household.
- A modern AI network and delivery of AI services at farmers' doorstep.
- Establishment of Central Monitoring Cell for certification of semen, semen stations and AI bulls.
- Conservation and development of several indigenous cattle and buffalo breeds.



3.4 Feed and Fodder Development

3.4.1 India, with only 2.29% of the land area of the world, is maintaining about 10.71% of the world’s livestock population. The area under fodder cultivation is estimated to be about 4% of the gross cropped area which has remained static for the last four decades. The grazing lands are also gradually diminishing because of other competing pressures on land. The shortage of fodder for livestock is primarily owing to the large population of livestock, and the limitations to increase the area under fodder cultivation due to the priority required to be given to food grains and other cash crops.



3.4.2 As per a study conducted by NABCONS in 2007, the availability, requirement and shortage of feed and fodder is as under:

Table 3.4: Demand and Availability of Feed and Fodder

(Dry matter in million tonnes)

S. No.	Type of fodder	Demand	Availability	Gap
1.	Dry Fodder	416	253	163 (40%)
2.	Green Fodder	222	143	79 (36%)
3.	Concentrate	53	23	30 (57%)

Source: NABCONS-2007

3.4.3 Though the availability of feed and fodder has improved in the last decade, still a lot is required to be done to bridge the gap between the demand and availability of fodder in the country, particularly during the lean periods and crisis situations, particularly drought. The Department has identified the following priority areas with respect to ensuring availability of feed and fodder:

- a) Optimum utilization of land resources
- b) Improving fodder production by promoting high yielding fodder varieties
- c) Adopting suitable crop combinations to ensure higher returns
- d) Improvement of grasslands/wastelands, and other community lands
- e) Promoting fodder species in forest areas
- f) Conservation and Utilization of Crop Residues / Bye-products
- g) Development of Fodder Banks
- h) Strengthening of Extension activities
- i) Convergence of fodder schemes with MGNREGA
- j) Reduce post harvest losses

3.4.4 Suitable advisories have been issued by the Department to State Governments to work on above priorities.

3.4.5 To assist the State Governments in their efforts to overcome the shortage of feed and fodder and to improve the nutritive value of livestock feed, this department is implementing following two schemes:



- 1) Central Fodder Development Organization, and
- 2) Centrally Sponsored Fodder and Feed Development Scheme

3.5 Fodder and Feed Development Scheme

3.5.1 This is a Centrally Sponsored Scheme under which central assistance is provided to states to supplement their efforts in feed and fodder development. This scheme originally had nine different components, viz., establishment of fodder block making units, grassland development including grass reserves, fodder seed procurement and distribution, strengthening of feed testing laboratories, introduction of hand driven and power driven chaff cutters, establishment of silage making units, demonstration of azolla cultivation and production units, establishment of by-pass protein production units and establishment of area specific mineral mixture / feed pelleting / feed manufacturing unit. For the year 2012-13, a new component of 'establishment of fodder banks' was also added to the scheme in view of the drought situation in the country.



3.5.2 The allocation under the scheme for 2012-13 (RE) has been increased to ₹ 74.70 crore taking into account the additional requirement on account of drought in some states. During 2012-13, till 28.02.2013, an amount of ₹ 68.40 crore has been released to States.

3.6 Central Fodder Development Organization

3.6.1 Under this scheme, seven Regional Stations for Forage Production & Demonstration located in different agro-climatic zones of the country and one Central Fodder Seed Production Farm, Hessarghatta, Bangalore are being operated. Besides these, Central Minikit Testing Programme on Fodder Crops is being funded under this scheme. The component wise detail is as under:

(a) Regional Stations for Forage Production & Demonstration and Central Fodder Seed Production Farm, Hessarghatta

3.6.2 For production and propagation of foundation and 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), Gandhinagar (Gujarat), Hissar (Haryana), Suratgarh (Rajasthan), Sahema (Jammu & Kashmir), Alamadhi (Tamil Nadu), Kalyani (West Bengal) and one Central Fodder Seed Production Farm at Hessarghatta. These stations are catering to the requirement of fodder seeds of the farmers of different agro-climatic regions. These stations also carry out extension activities through field demonstrations and farmers' fairs / field



days. These stations have produced 423.02 tonnes of fodder seeds, conducted 9022 demonstrations, organized 117 training programmes and 110 farmers' fairs/field days, during this financial year upto Dec., 2012.

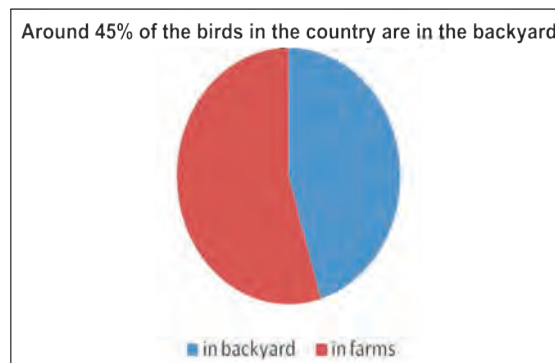
(b) Central Minikit Testing Programme on Fodder Crops

3.6.3 Minikit demonstrations on fodder crops aim at creating farmers awareness through field demonstrations about recent 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 produced at Regional Stations and Central Farm, Hessarghatta, Milk Federations or other Govt. fodder seed producing agencies are distributed under this scheme. Kits are allotted to state Animal Husbandry Directorate and Milk Federation for onward distribution

to the farmers at free of cost. During the year 2012-13, total number of 1.14 lakhs minikits of various fodder seeds of legume and non legume varieties have been allotted.

3.7 Development of Poultry

3.7.1 Poultry Development has been a household activity in India. However, scientific poultry production in India gained momentum during the last four decades due to concerted efforts of the Government of India through policies, institution and focused research and the initiatives taken by the private sector.



3.7.2 The poultry sector has emerged from entirely unorganized farming practice to commercial production system with State-of-the-art technological interventions. Poultry sector, besides providing direct or indirect employment to people, is also a potent tool for subsidiary income generation for many landless and marginal farmers. It also provides nutritional security especially to the rural poor.

3.8 Central Poultry Development Organizations

3.8.1 The CPDOs located at four regions viz. Chandigarh, Bhubaneswar, Mumbai and



Hessarghatta have been playing a pivotal role in the implementation of the policies of the Government with respect to poultry. The mandate of these organizations has specially been reoriented to focus on improved indigenous birds, which lay on an average 180-200 eggs per annum and have vastly improved Feed Conversion ratio in terms of feed consumption and weight gain. In these CPDOs, training is also imparted to the farmers to upgrade their technical skills. Besides, CPDO,



Vanaraja

Hessarghatta is also imparting trainers' training to in-service personnel from within the country as well as overseas. Diversification with species other than chicken like ducks, turkey, guinea fowl and Japanese quail is also undertaken. The Central Poultry Performance Testing Center (CPPTC), located at Gurgaon is entrusted with responsibility of testing the



Chhabro

performance of layer and broiler varieties. This Centre gives valuable information relating to different genetic stock available in the country.

3.8.2 During current year so far, around 0.82 lakh & 4.12 lakh numbers of parent chicks and commercial chicks have been supplied by the CPDOs respectively. Around 1900 numbers of farmers and trainers have been trained respectively and around 2500 numbers of feed samples have been analyzed.

3.9. Poultry Venture Capital Fund

3.9.1 The main objective of the scheme is to encourage entrepreneurship skills of individuals in various poultry activities. The scheme is now being implemented from 2011-12 on capital subsidy mode. Under the scheme the components like hybrid layer and broiler poultry units, technology up-gradation with revision of unit costs of some components, extension of component of breeding farms for low technology input birds to individuals are included besides the existing components like establishing poultry breeding farms with low input technology birds, feed go-down, feed mill, feed analytical



Punjab Broilers (Female Lines)



laboratories, 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 etc.

3.9.2 Around 189 units were covered under PVCF in 2011-12 and in 2012-13, 506 units have been covered as per available information till December, 2012.

3.10 Poultry Development

3.10.1 The scheme has three components namely, 'Assistance to State Poultry Farms, 'Rural Backyard Poultry Development' and 'Poultry Estates'.

(a) Assistance to State Poultry Farms

3.10.2 It aims at strengthening existing State poultry farms so as to enable them to provide inputs, mainly in terms of providing improved stocks suitable for rural backyard rearing. In 2012-13, seven farms have been assisted so far (partly) taking the total tally of assisted farms since inception to 233 (till Dec 2012).

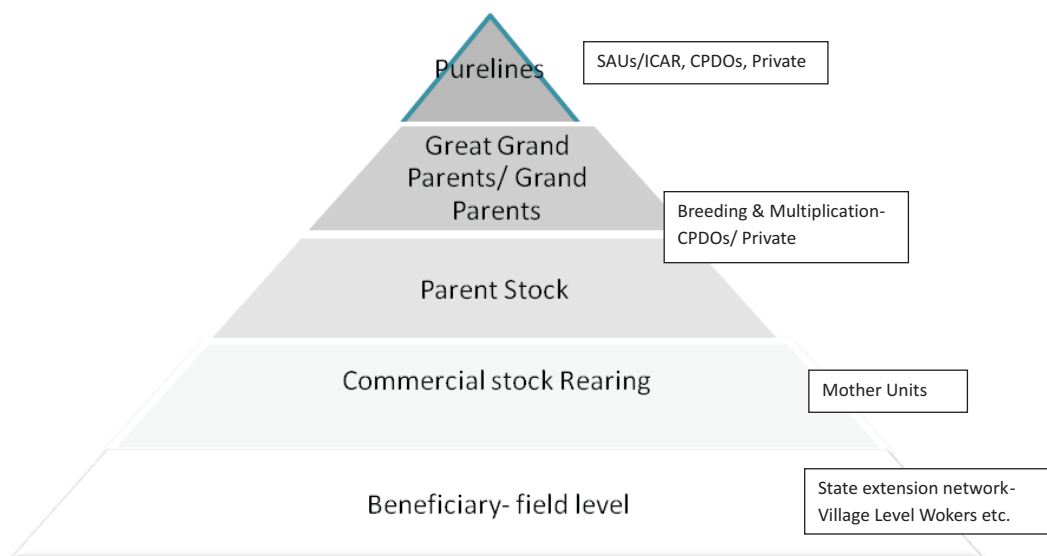
(b) Rural Backyard Poultry Development

3.10.3 This component is expected to cover beneficiaries from Below Poverty Line to mainly enable them to gain supplementary income and nutritional support. During 2012-13 (till Dec 2012) around ₹21 crore has been released covering for assistance to nearly 95,000 BPL beneficiaries.



Aseel

3.10.4 The flow of germplasm of low-input technology birds suitable for backyard poultry can be best illustrated in a simplified manner as follows:





(c) Poultry Estates

3.10.5 Entrepreneurship skills are to be improved through exploratory pilot component of 'Poultry Estates' wherein two estates are proposed for establishment at this stage. It is meant primarily for educated, unemployed youth and small farmers with some margin money for making a profitable venture out of various poultry related activities in a scientific and bio-secure cluster approach. Two poultry estates have been selected on pilot basis, in Sikkim for broiler farming and in Odisha for layer farming. In the first stage operations will commence after infrastructure and input services are set-up, beneficiaries are selected and trained. Provisions for publicity and escorting services are accordingly made.



Plymoutyh Rock (Black)

3.11 Conservation of Threatened Breeds of Livestock

3.11.1 The Centrally Sponsored Scheme initiated during the Tenth Plan covers all livestock species except cattle and buffalo and aims at conserving and protecting threatened breeds of livestock whose population is about of 10,000 and shows a declining trend. Poultry breeds with a population below 1,000 are considered as threatened.

3.11.2 XI Plan allocation for this scheme has been enhanced from ₹ 16 crore to ₹ 45 crore with threshold number for the threatened breed of livestock remaining the same. Major modifications made in the revised scheme are as under:

- i. Strengthening of policy and institutional framework and linkages with research agencies are provided for, besides setting up nucleus breeding units.
- ii. Variable project period allowed for small and large animals.
- iii. The States are required to prepare an inventory of livestock breeds and varieties.

3.11.3 During the financial year 2011-12, against allocation of ₹250.00 lakh, a total of ₹203.75 lakh had been released for conservation of Bonpala sheep (₹28.00 lakh) to Government of Sikkim, Government of West Bengal for conservation of Haringhata Black Fowl (₹35.00 lakh) and for conservation of Black Bengal goat (₹9.25 lakh), Government of Jammu and Kashmir for conservation of Yak (₹35.00 lakh), Government of Gujarat for conservation of Kachchhi camel (₹40.00 lakh), Government of Himachal Pradesh for conservation of Chegu goat (₹20.00 lakh) and ₹36.50 lakh to Tamil Nadu Veterinary and Animal Sciences University (TANUVAS) for conservation of Nilgiri sheep.

3.11.4 Allocation under the scheme during the financial year 2012-13 is ₹100 lakh against which ₹78.25 lakh has been released up to December, 2012. Assistance provided during the current year for



conservation of Muzzafarnagari sheep (₹ 40.00 lakh) to Government of Uttar Pradesh, Government of Maharashtra for conservation of Berari Goat (₹ 20.00 lakh) and ₹ 18.25 lakh to Tamil Nadu Veterinary and Animal Sciences University (TANUVAS) for conservation of Nilgiri sheep.

3.12 Central Sheep Breeding Farm, Hissar (Haryana)

3.12.1 The farm was established during the Fourth Five Year Plan with the objectives of producing acclimatized exotic rams for distribution to various State Sheep farms and training of personnel in mechanical sheep shearing. In course of time and in accordance with recommendation of experts, the breeding programme of the farm was changed to produce crossbred rams (Nali X Rambouillet and Sonadi X Corriedale) as well as Beetal goats.

3.12.2 During 2011-12, the farm supplied 950 rams and 85 bucks. A total of 1216 farmers were trained in mechanical sheep shearing / sheep management.

3.12.3 During 2012-13, up to December 2012, the farm supplied 500 rams and 94

bucks. A total of 112 farmers were trained in mechanical sheep shearing and 220 farmers were trained in sheep management.

3.13 Integrated Development of Small Ruminants and Rabbits

3.13.1 Under this scheme "Integrated Development of Small Ruminants & Rabbits" there is a provision for establishment of individual sheep / goat farms through NABARD. The scheme is aimed for women beneficiaries, poor and marginal farmers.

3.13.2 The scheme is being implemented through NABARD for individual beneficiaries for setting up of commercial / private units with sheep/goat.

3.13.3 During the financial year 2011-12, against allocation of ₹1200.00 lakh, a total of ₹665.19 lakh had been released towards strengthening of Government sheep / goat breeding farms to the State of Arunachal Pradesh, Andhra Pradesh, Gujarat, Jammu & Kashmir, Karnataka, Maharashtra, Madhya Pradesh, Nagaland, Sikkim, Tamilnadu, Tripura, Uttarakhand and Jharkhand. ₹400.00 lakh were





released to NABARD, against which 1066 beneficiaries were assisted for establishment of sheep & goat rearing units in various States during the year.

3.13.4 During 2012-13, 1722 beneficiaries were assisted for establishment of sheep / goat unit in Himachal Pradesh (108), Andhra Pradesh (712), Karnataka (58), Kerala (4), Madhya Pradesh (6), Maharashtra (70), Punjab (1), Arunachal Pradesh (3), Assam (490), Nagaland (3), Uttaranchal (109), Rajasthan (137), Uttar Pradesh (1), and J&K (20). Till December, 2012, an amount of ₹1006.27 lakh has been released to NABARD and for strengthening of state farms in the states of Arunachal Pradesh, Nagaland, Maharashtra and Madhya Pradesh.

3.14 Salvaging and rearing of male buffalo calves

3.14.1 The scheme intends to rear male buffalo calves for meat production and to develop linkages with export oriented slaughterhouses in Andhra Pradesh, Bihar, Chhattisgarh, Jharkhand, Kerala, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Uttar Pradesh, Punjab and West Bengal.

3.14.2 The scheme is being implementing by NABARD and is expected to generate substantial quantity of meat, hides and by-products and also provide direct part employment and indirect employment to people in feed, fodder, meat leather and various input services. The scheme envisages for organization of farmer training and publicity through NABARD. During the current financial year, the

Scheme has been retained with a token amount of ₹1.00 lakh.

3.15 Establishment /Modernization of Rural Slaughter Houses

3.15.1 The slaughterhouses are aimed to be established/ modernized in rural areas and smaller towns to produce wholesome and hygienic meat for supplying to the cities/towns. This way, the loss in the meat sector due to transportation of live animals, shrinkage of meat and environmental pollution in the cities will be prevented. The employment opportunities for further use of fresh hides and skins in the tanneries in vicinity of the slaughterhouses will boost production of quality leather. This scheme is being implemented in three states: Uttar Pradesh, Andhra Pradesh and Meghalaya, initially on pilot basis. The main objectives of the scheme are:

- (a) Introduce a new system of slaughter of livestock,
- (b) Establish slaughterhouses, which can be operated by private entrepreneurs in rural and semi urban areas with population of less than 50,000,
- (c) Encourage value addition to products in rural areas so that livestock owners get better income with proper utilization of by-products,
- (d) Ensure hygiene in meat production from slaughterhouses to consumers table by establishing network of cold chains and distribution on commercial basis.



3.15.2 The scheme is being implemented by NABARD and is expected to generate substantial quantity of meat, hides and byproducts and also provide direct and indirect employment to people in feed, fodder, meat leather and various input services. The scheme envisages organization of farmer training and publicity through NABARD. During the current financial year, the Scheme has been retained with a token provision of ₹1.00 lakh.

3.16 Utilization of Fallen Animals

3.16.1 The meat importing countries insist for creating facilities for proper disposal of slaughter waste and fallen animals as a sanitary measure. The Central Leather Research Institute (CLRI), Chennai has reported annual mortality of 24 million large animals and 17 million small ruminants. The estimated colossal loss is ₹985 crore per annum due to non-recovery/partial recovery of hides/skins and other by-products from the fallen animals. This scheme proposes to establish carcass utilization centres in animals density matrix areas and is expected to provide employment to poorest of the poor. The main objectives of this scheme are:

- (a) To prevent environmental pollution and spread of livestock diseases
- (b) Provide opportunity of employment to rural poor engaged in carcass collection, flaying and by-product processing
- (c) Produce better quality hides and skins through timely recovery, better handling and transport

- (d) Prevent bird-hit hazards to civil and defence aircrafts.

3.16.2 The scheme is being implementing by NABARD and is expected to generate substantial quantity of meat, hides and by-products and also provide direct and indirect employment to people in feed, fodder, meat leather and various input services. The scheme envisages for organization of farmer training and publicity through NABARD. During the current financial year, the Scheme has been retained with a token provision of ₹1.00 lakh.

3.17 Pig Development

3.17.1 This scheme is aimed to assist farmers/ landless labourers/cooperatives and Tribal particularly in North-Eastern States by rearing pigs under stall fed condition for quality pork production and organized pork marketing in rural and semi-urban areas. The main objectives of the scheme are:

- a) Encourage commercial rearing of pigs by adopting scientific methods and creation of infrastructure,
- b) Production and supply of improved germ plasm,
- c) Organizing stakeholders to popularize scientific practices,
- d) Create supply chain for the meat industry,
- E) Encourage the value addition for better income.

3.17.2 The scheme is being implementing by NABARD and is expected to generate



substantial quantity of meat, hides and by-products and also provide direct part time employment and indirect employment to people in feed, fodder, meat leather and various input services.

3.17.3 During the financial year 2011-12, against allocation of ₹500.00 lakh, a total of ₹704.00 lakh had been released to NABARD against which 1635 beneficiaries were assisted for establishment of pig rearing & breeding unit in various States during the year.

3.17.4 The budget allocation for the financial year 2012-13 is ₹10.00 crore, which has been released till 31st December, 2012. A total of 1716 beneficiaries have been assisted under the scheme till November, 2012. The scheme envisages for organization of farmer training and publicity through NABARD.

3.18 Livestock Health

3.18.1 With the improvement in the quality of livestock through cross-breeding programmes, the susceptibility of these livestock to various diseases including exotic diseases has increased. In order to reduce morbidity and mortality, efforts are being made by the State/Union Territory Governments to provide better health care through Polyclinics/Veterinary Hospitals/Dispensaries/First-Aid Centers including Mobile Veterinary Dispensaries. The State-wise details of Veterinary Institutions are given at **Annexure – XI**. 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 are also

functioning. 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 27 veterinary vaccine production units including 20 in public sector.

3.18.2 While efforts are made to ensure better livestock health in the country, efforts are also made to prevent ingress of diseases from outside the country, and to maintain standards of veterinary drugs and formulations. At present, the Drugs Controller General of India regulates the quality of veterinary drugs and biologicals in consultation with this Department. The following schemes are being implemented in respect of Livestock Health and control of animal diseases.

3.19 Directorate of Animal Health

(a) Animal Quarantine and Certification Service

3.19.1 The objective of this service is to prevent ingress of livestock diseases into India by regulating the import of livestock and livestock related products, and providing export certification of International Standards for livestock and livestock products which are exported from India. There are six quarantine stations in the country out of which four located at New Delhi, Chennai, Mumbai and Kolkata are operating smoothly from their own premises, which also include a small laboratory. Two other new Animal Quarantine Stations at Hyderabad and Bangalore are currently operating from the airport offices where, the import of Grand Parent (GP) stock of poultry, pets,



laboratory animals and livestock products has already commenced. The required land for establishment of Quarantine Stations at Hyderabad and Bangalore has already been acquired. The boundary wall at the acquired land in respect of both Stations i.e. Hyderabad and Bangalore has also been erected. The construction work at the allotted land for construction of Quarantine Stations at Hyderabad and Bangalore is underway. The scheme helped to prevent the entry of exotic diseases like Mad-cow disease (BSE), African swine fever and contagious equine metritis. Details of the activities of the Animal Quarantine and Certification Service Stations are given at **Annexure-XII**.

(b) National Veterinary Biological Products Quality Control Centre, Baghpat

3.19.2 The National Institute of Animal Health has now been established at Baghpat, Uttar Pradesh to undertake the testing of vaccines and biologicals for their quality.

The Institute has started functioning and is carrying out the following activities.

- The virology laboratory has been made functional with facilities for testing of quality assurance of FMD vaccine by way of testing of serum samples by LPB-ELISA and sterility of vaccines.
- Facilities for starting animal experiments for quality control of FMD vaccines are put in place and the animal house facilities have been registered with Committee

for the Community for the purpose of control and supervision of experiment in animals (CPCSEA).

- The bacteriology laboratory was made functional to carry out sterility test of bacterial vaccines.
- The Poultry vaccine testing laboratory established with standardization of tests for Newcastle disease vaccine (Live), Infectious Bursal Disease (IBD).
- The Pathology laboratory including Clinical pathology has also been made functional.

(c) Central/Regional Disease Diagnostic Laboratories

3.19.3 In order to provide referral services over and above the 250 existing disease diagnostic laboratories in the States, one Central and five Regional Disease Diagnostic Laboratories have been set up by strengthening the existing facilities. The Centre for Animal Disease Research and Diagnosis (CADRAD) of Indian Veterinary Research Institute, Izatnagar is functioning as Central Laboratory. The Disease Investigation Laboratory, Pune, Institute of Animal Health and Veterinary Biologicals, Kolkata, Institute of Animal Health & Biologicals, Bangalore, Animal Health Institute, Jalandhar and Institute of Veterinary Biologicals, Khanapara, Guwahati are functioning as referral laboratories for Western, Eastern, Southern, Northern and North-Eastern region, respectively. The laboratories at NRDDL (Jalandhar), SRDDL (Bangalore), ERDDL (Kolkata) and CDDL (Izatnagar) have been strengthened with



pre-fabricated BSL-III laboratories while a mobile BSL-III laboratory has been provided to NERDDL, Guwahati. These RDDs have been of great help to the country for surveillance and diagnosis of various livestock and poultry diseases including Avian Influenza.

3.20 Livestock Health & Disease Control

3.20.1 In order to effectively tackle the issue of livestock health, the Department is supplementing the activities of the state Governments by way of providing assistance through Centrally Sponsored Scheme 'Livestock Health & Disease Control' having following major components:

- (a) Assistance to States for Control of Animal Diseases (ASCAD)
- (b) Professional Efficiency Development (PED)
- (c) National Project on Rinderpest Eradication (NPRE)
- (d) Foot and Mouth Disease Control Programme (FMD-CP)
- (e) National Animal Disease Reporting System (NADRS)
- (f) National Control Programme on Peste des Petits Ruminants (NCPPPR)
- (g) National Control Programme on Brucellosis (NCPB)
- (h) Establishment and Strengthening of existing Veterinary Hospitals and Dispensaries (ESVHD).

The details of the components are as under:

(a) Assistance to States for Control of Animal Diseases

3.20.2 Under this component, assistance is provided to State/Union Territory Governments for control of economically important diseases of livestock and poultry by way of immunization, strengthening of existing State Veterinary Biological Production Units, strengthening of existing Disease Diagnostic Laboratories and in-service training to Veterinarians and Para-veterinarians. Under this programme, during 2011-12 about 349.70 million vaccinations were carried out against the target of 180 million. During 2012-13, about 93.00 million vaccinations have been carried out till November, 2012 against the target of 190 million. Besides this, the programme envisages collection of information on the incidence of various livestock and poultry diseases from States and Union Territories and compiling the same for the whole country. The information compiled at the headquarters are notified to World Animal Health Organization (OIE) on every six monthly basis. Incidence of diseases of Livestock and Poultry in India during the year 2011 is at **Annexure-XIII**.

(b) Professional Efficiency Development

3.20.3 The objective is to regulate veterinary practices and to maintain the 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. The Act has been extended to all the

As a result of implementation of National Disease Control Programmes, there has been drastic reduction in most of the economically important diseases. For example, the outbreak of Foot and Mouth Disease (FMD) in 2005 was 2,270 which came down to 701 in 2011. Similarly, outbreaks of Hemorrhagic Septicemia (HS) reduced from 775 to 315, PPR 1071 to 197 and Sheep & Goat Pox from 529 to 197.



Foot and Mouth Disease Control Programme (FMD-CP) is being implemented in 221 districts since August, 2010 for covering about 110 million cattle and buffalo population for vaccination at six monthly intervals so as to cover all the districts in the States/ UTs of Andhra Pradesh, Karnataka, Kerala, Tamil Nadu, Maharashtra, Goa, Gujarat, Punjab, Haryana, Andaman & Nicobar Islands, Dadra & Nagar Haveli, Daman & Diu, Delhi, Lakshadweep, Puducherry and 16 districts in Uttar Pradesh.

During 2011-12, about 115.9 million vaccinations were carried out under the programme in comparison to 69 million in 2010-11.

states and Union Territories except Jammu and Kashmir.

3.20.4 Veterinary Council of India has also been mandated with training on latest technical knowledge by way of Continuing Veterinary Education (CVE).

(c) National Project on Rinderpest Eradication

3.20.5 The main objective of the scheme is to strengthen the veterinary services to maintain required vigil to sustain the country's freedom from Rinderpest & Contagious Bovine Pleuro-pneumonia (CBPP) infection secured in May 2006 and May 2007 respectively.

3.20.6 Physical surveillance through village, stock route & institutional searches to detect any re-occurrence of Rinderpest and Contagious Bovine Pleuro-pneumonia (CBPP) is being undertaken throughout the country to maintain India's freedom status from these diseases. This physical surveillance is done with the help of the staff of Animal Husbandry Department of the States & Union Territories to maintain the freedom status.

(d) Foot & Mouth Disease Control Programme

3.20.7 To prevent economic losses due to Foot and Mouth Disease and to develop herd immunity in cloven-footed animals, a location specific programme called 'Foot and Mouth Disease Control Programme (FMD-CP)' is being implemented in 221 specified districts with 100% central funding as cost of vaccine, maintenance of cold chain and other logistic support to undertake vaccination. The State Governments

are providing other infrastructure and manpower.

3.20.8 During 2011-12, about 115.9 million vaccinations were carried out in the districts covered under FMD-CP and about 96,047 (pre and post vaccination) serum samples have been collected. During 2012-13, as against target of 110 million vaccinations, about 93.2 million vaccinations have been carried out up to December, 2012.

(e) Establishment and Strengthening of Existing Veterinary Hospitals and Dispensaries

3.20.9 There are about 10094 veterinary hospitals/ polyclinics and 21269 veterinary dispensaries in the country. In order to help the states to set up infrastructure for new veterinary hospitals and dispensaries and to strengthen/equip the existing ones, the department is providing funds on 75:25 (Centre: State) sharing basis except NE States, where the grants are provided on 90:10 basis.

3.20.10 During 2011-12 against the BE of ₹90.00 crore, a sum of ₹98.8136 crore has been released to States/UT's for construction of new veterinary Hospitals/ Dispensaries and strengthening of existing ones. Since inception of the scheme, 2514 Veterinary Hospitals and 2701 Veterinary Dispensaries (710 new constructions and 1,429 renovations) have been supported for construction/ strengthening under the scheme 2011-12. A sum of ₹91.00 crore has been provided as BE for the year 2012-13 against which a sum of ₹ 31.86 crore has been released to States/UTs till 31st December, 2012 under the scheme.



(f) National Control Programme on Brucellosis

3.20.11 Brucellosis, an economically important zoonotic disease has become endemic in most parts of the country. It causes abortions and infertility in animals. Prevention of abortions will add new calves to the animal population leading to enhanced milk production. This new component has started in 2010 and 100% central assistance is provided to States/UTs for mass vaccination of all female calves between 6-8 months in the areas where incidence of the disease is high.

3.20.12 During 2011-12 against BE of ₹15.00 crore, a sum of ₹11.88 crore was released to the States to undertake various activities under this component. A sum of ₹11.00 crore has been provided as BE for the year 2012-13 against which a sum of ₹5.47 crore has been released to States/UTs for till 31st December, 2012 under this component.

(g) National Control Programme of Peste des Petits Ruminants

3.20.13 The Peste des Petits Ruminants (PPR) is a viral disease characterized by high fever, inflammation of the gastro-intestinal tract leading to necrosis and ulceration of the mucous membrane and diarrhea. The PPR infection causes huge losses in the rural economy, both in terms of morbidity and mortality in sheep and goats. The PPR Control Programme involving intensive vaccination of susceptible animals has been started in 2010 on 100% Central assistance basis. The programme involves vaccinating all susceptible goats & sheep and three

subsequent generations. The first phase covers the States of Kerala, Tamil Nadu, Karnataka, Andhra Pradesh, Maharashtra, Goa and UTs of Lakshadweep, Daman & Diu, Dadra & Nagar Haveli, Andaman & Nicobar Islands and Puducherry. The second phase will be taken up in the 12th Plan, by the end of which the disease is expected to be fully controlled.

3.20.14 During 2011-12 against BE of ₹12.50 crore, a sum of ₹3.30 crore has been released under this component. About 340 lakh vaccinations have been carried out during 2011-12. A sum of ₹10.00 crore has been provided as BE for the year 2012-13 against which a sum of ₹3.60 crore has been released to States/UTs till 31st December, 2012 under this component.

(h) National Animal Disease Reporting System

3.20.15 At present, animal disease is primarily recorded by the veterinary doctor working in a Government hospital/dispensary on the basis of detection and clinical diagnosis of diseases. This information is passed on to Taluka/Block level and then to the District and the State veterinary authorities. Disease information is also generated from the disease diagnostic laboratories at the District, State or at the regional level on the basis of laboratory diagnosis. Finally, information from State level is transmitted to the Central Government, i.e., the Department of Animal Husbandry, Dairying & Fisheries (DADF) in New Delhi. The DADF notifies the World Organization for Animal Health (OIE) and other international



The control and containment measures of Avian Influenza were carried out effectively and the disease was stopped at the source in last 10 occurrences since 8th September, 2011. The disease was also brought under control within 15 days of their occurrence through a robust action plan for prevention, control and containment of the disease.

organizations, as appropriate. The system of data reporting and compilation is manual, which sometimes involve delay in reporting and initiating necessary action for effective control.

3.20.16 In order to streamline the system it was decided to have a web based IT system for reporting the diseases from the field level. Accordingly, the National Animal Disease Reporting System (NADRS) was conceived as IT based system under the Centrally Sponsored Scheme "Livestock Health & Disease Control", which is being executed through National Informatics Centre (NIC). The main objective of NADRS is to record and monitor livestock disease situation in the country with a view to initiate preventive and curative action in a timely and speedy manner. The NADRS involves a computerized network, linking each Block, District and the State/UT Headquarters in the country to the Central Project Monitoring Unit in the DADF at New Delhi. NADRS is a web based System which will report the occurrence of animal diseases data from the Block level Veterinary Units.

3.20.17 In the year 2012-13 approved

outlay for NADRS is ₹10.00 crores. NIC had conducted two rounds of training of trainers, one each on basic computer programmes and application software for the veterinary professionals associated with NADRS in various States/ UTs, so that they are able to utilize the software for transmitting disease data. Besides, three rounds of training of trainers have also been conducted by NIC Headquarters. Efforts are on to make the system functional at the earliest.

3.21 Avian Influenza: Preparedness, Control and Containment

3.21.1 The present wave of Avian Influenza (commonly known as 'Bird Flu') in poultry commenced in 1997 in Hong Kong. It has infected numerous species of birds in Asia, Europe, America and Africa since 2003. A total of 62 countries reported Avian Influenza in domestic poultry/wild life during the period 2003-2009, of which, 50 countries have reported this disease in domestic poultry. During the year 2012, Avian Influenza has been reported in 21 countries.

Table 3.5: Outbreaks of Avian Influenza upto December, 2012

Episode	Period	State Affected	Number of Epicen-ters	No. of birds culled (in lakhs)	Compensation paid (in INRs lakhs)
1st	Feb – Apr, 2006	Maharashtra	28	9.4	270.00
	Feb, 2006	Gujarat	1	0.92	32.00
2nd	Mar ,2006	Madhya Pradesh	1	0.09	3.00
3rd	July, 2007	Manipur	1	3.39	94.00
4th	Jan – May, 2008	West Bengal (1st episode)	68	42.62	1229.00



Episode	Period	State Affected	Number of Epicen-ters	No. of birds culled (in lakhs)	Compensation paid (in INRs lakhs)
5th	Apr, 2008	Tripura	3	1.93	71.00
6th	Nov – Dec, 2008	Assam	18	5.09	170.00
7th	Dec, 2008 – May, 2009	West Bengal (2nd episode)	11	2.01	36.00
8th	Jan, 2009	Sikkim	1	0.04	3.00
9th	Jan, 2010	West Bengal (3rd episode)	12	1.56	68.80
10th	Feb –Mar, 2011	Tripura	2	0.21	2.40
11th	8th September, 2011	Assam	1	0.15	6.52
12th	19th September, 2011	West Bengal	2	0.49	19.29
13th	11th January, 2012	Odisha	1	0.32	24.71
14th	13th January, 2012	Meghalaya	1	0.07	7.89
15th	17th January, 2012	Odisha	1	0.11	5.87
16th	28th January, 2012	Tripura	1	0.06	1.20
17th	4th February, 2012	Odisha	1	0.38	2.86
18th	15th March, 2012	Tripura	1	0.05	0.09
19th	28th April, 2012	Tripura	1	0.02	0.72
20th	25th October 2012	Karnataka	1	0.33	Nil
Total			157	69.24	2048.35

3.21.2 The following measures have been taken up by the Government of India for control and containment of current Avian Influenza outbreak as well as to prevent its ingress into the country.

(i) The Action Plan on “Preparedness,

Control and Containment of Avian Influenza” has been revised in 2012 and was circulated to the State/UT Governments for implementation.

(ii) Culling of entire poultry population in the affected zone of 0-1 Km.



- (iii) Continuous strengthening of preparedness to tackle any future eventuality in terms of upgradation of laboratories, training of manpower, stockpiling of materials for control and containment etc.
- (iv) Training veterinary personnel in preparedness, control and containment is continuing. About 90% veterinary workforce in the country has been trained to handle control and containment operations. Besides, 44395 number of community workers have been trained on reporting of Avian Influenza expeditiously.
- (v) To strengthen the diagnosis of Avian Influenza, four pre-fabricated Bio-Safety Level 3 (BSL 3) laboratories have been established at Jalandhar, Kolkata, Bangalore & Bareilly. The laboratories at Jalandhar, Kolkata and Bangalore are already functional. The laboratory at Bareilly will be functional in one month. 23 State Disease Diagnostic Laboratories are being upgraded to BSL 2 level, out of which seventeen laboratories are
- (vi) Reserve of essential material for control operations have been developed and are being expanded further.
- (vii) Sensitization of general public on Avian Influenza through Information, Education and Communication (IEC) campaigns.
- (viii) Transparent approach towards reporting not only outbreaks but also information of unusual sickness/mortality in poultry and results of laboratory diagnosis.
- (ix) All the state governments have been alerted to be vigilant about the outbreak of the disease, if any.
- (x) Imports of poultry and poultry products have been banned completely from HPAI positive countries.
- (xi) Border check posts with neighboring countries have been alerted.
- (xii) Advisories are issued to the states for further guidance of poultry farmers from time to time on various aspects of disease control, surveillance and importance of biosecurity.
- (xiii) Department is also implementing FAO project on "Immediate technical Assistance to strengthen emergency preparedness for Highly Pathogenic Avian Influenza (HPAI) in India" with aim to build capacity to improve surveillance and epidemiology of Avian Influenza in both Domestic and wild birds.





3.22 Animal Husbandry Statistics

3.22.1 The production of major livestock products (MLP), namely, milk, eggs, meat & wool are estimated on the basis of annual sample surveys conducted under the Central Sector Scheme "Integrated Sample Survey (ISS)". All the States and Union Territories are implementing the Scheme. Under the Scheme, Central Assistance to the tune of 50% and 100% of the expenditure on salary for the entitled posts is provided to the States and the UTs respectively. 100% Central Assistance is also provided for (i) TA/DA to the Enumerator and Supervisor for the conduct of the survey at a prescribed rate (ii) studies and development of methodologies in livestock sector (iii) Information Technology (IT) solutions and (iv) refresher training on ISS methodology.

3.22.2 The annual surveys are conducted from March to February. The "Technical Committee of Direction for Improvement of Animal Husbandry Statistics (TCD)" guides the Department in the conduct of the scheme. Directors of Animal Husbandry/ Sheep Husbandry of all the States/UTs, Directors of Directorate of Economics & Statistics (DE&S) of 4 selected States, representatives of CSO & NSSO, Ministry of Statistics & Programme Implementation, representative of Directorate of Economics & Statistics (DE&S), Ministry of Agriculture, representative from Ministry of Rural Development and representatives from other independent agencies such as National Dairy Development Board (NDDDB), Anand, DMI, IASRI and Indian Statistical Institute are the members of the Committee. Director General,

Central Statistics Office, M/o Statistics & Programme Implementation is the Chairman of the Committee. States/UTs compile season-wise as well as annual estimates of MLP. Season-wise and annual estimates of MLP are discussed in the meeting of the TCD. Once the estimates are finalized in the meeting the annual estimates are uploaded at the Website of the Department. These estimates are also published in the annual publication "Basic Animal Husbandry Statistics" of the Department. The latest issue of the publication is for the year 2012.

3.22.3 Refresher training Course in ISS methodologies is regularly conducted.

3.22.4 A Committee had been constituted under the Chairmanship of Animal Husbandry Commissioner of the Department to review the methodology of data collection under 'Integrated Sample Survey' in January, 2009. The revised methodology and schedules for data collection under ISS have been implemented from the Summer Season of 2012-13 i.e. from March, 2012.

3.23 Livestock Census

3.23.1 The first Livestock census was conducted during 1919-20 and since then it is being conducted quinquennially by all States/UTs in India. It is the only source, which gives disaggregated information on various species of farm animals and poultry birds. The Department has launched 19th Livestock Census on 15th September, 2012 in the country through Animal Husbandry Departments of the States/UTs with 15/10/2012 as the date



of reference. The enumeration work of 19th Livestock Census is scheduled to be completed by 15th October, 2012 in all States/UTs except Jammu & Kashmir and Sikkim where in enumeration work will be completed in the month of October and November, 2012 respectively. In 19th Livestock Census breed survey has been planned as a 15% sample survey with complete enumeration of selected villages.

3.23.2 The enumeration work is almost completed in all States/ UTs. The finalization of data entry software is in progress and data entry centers have set up in 35 States/UTs.

3.23.3 The Census is conducted as a 100% Centre Sector Scheme. Central assistance is given to States in respect of the principal components of the Census i.e. printing of schedules and training manual, training, publicity, enumeration, supervision, contingencies and support for tabulation of results of the Census.

3.23.4 A Technical Committee under the chairmanship of Animal Husbandry Commissioner of this Department has been constituted for

- i. Reviewing the present system of conducting the breed wise Livestock survey, identified various problem/ constraint and suggest suitable measures to overcome the same so as to ensure the smooth and timely conduct of the breed wise Census.
- ii. To finalize the coverage, schedule of enquiry, instructions manual,

methodology, training for breed wise survey.

3.23.5 As per direction of Technical Committee a Sub Committee of specialized group on breeds' survey has been constituted under the Chairmanship of Adviser (Statistics) for drafting schedules of enquiry for breed survey, Instruction Manual and methodology etc. and the same have been finalised by the Sub-Committee.

3.23.5 As per recommendations of National Statistical commission, it is explored to conduct Livestock Census on 20% sample basis. Suggestions in this regards is also sought from IASRI for change methodology from Census to Sample Survey for Livestock Census.

3.24 Livestock Insurance

3.24.1 For promotion of the livestock sector, it is important that along with providing more effective measures for disease control and improvement of genetic quality of animals, a mechanism of assured protection to the farmers and cattle rearers is required against eventual losses of such animals. The scheme covers 300 selected districts from 10.12.2009.

3.24.2 This CSS has twin objectives: providing protection mechanism to the farmers & cattle rearers against any eventual loss of their animals due to death; and to demonstrate the benefit of the insurance of livestock. The scheme benefits the farmers and cattle rearers having indigenous/ crossbred milch cattle and buffaloes. Benefit of subsidy is to be restricted to two animals per beneficiary per household. The funds



under the scheme are being utilized for payment of premium subsidy, honorarium to the Veterinary Practitioner and publicity campaign for creation of awareness. 50% of the premium of insurance is paid by the beneficiary and the rest is paid by the Government of India.

3.24.3 The list of districts covered under this under this scheme is at **Annexure-XIV**. An amount of ₹36.85 Crore has been released to States and 8.03 lakh animals



have been insured during 2012-13 up to December, 2012.

Chapter 4



DAIRY DEVELOPMENT



CHAPTER 4

DAIRY DEVELOPMENT

4.1 The Indian Dairy sector has acquired substantial growth momentum from 9th Plan onwards as a result of which we now rank first among the world's milk producing nations, achieving an annual output of about 127.9 million tonnes of milk during 2011-12 compared to 121.8 million tonnes in 2010-11. This represents sustained growth in the availability of milk and milk products for our growing population. Dairying has become an important secondary source of income for millions of rural families and has assumed the most important role in providing employment and income generating opportunities particularly for marginal and women farmers. The per capita availability of the milk has reached a level of 290 grams per day during the year 2011-12, which is more than the world average of 284 grams per day. Most of the milk in the Country is produced by small, marginal farmers and landless labourers. About 14.78 million farmers have been brought under the ambit of 1, 48,965 village level dairy corporative societies up to March 2012.

4.2 The efforts of the Department in the dairy sector are concentrated on promotion of dairy activities including non-operation flood areas with emphasis on building up cooperative infrastructure, rehabilitation of sick dairy cooperatives and creation of infrastructure in the States for production of quality milk and milk products. The National Dairy Development Board (NDDB) continues its activities for overall development of Dairy Sector in Operation Flood areas. The brief details of dairy development schemes

implemented by this Department indicating physical & financial progress made upto 31.12.2012 are as under.

4.3 Intensive Dairy Development Programme (IDDP)

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

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

4.3.2 The scheme was modified and renamed as 'Intensive Dairy Development Programme (IDDP) in March, 2005'. The scheme is presently being implemented in hilly & backward areas and also in the districts, which have received less than ₹50.00 lakh for dairy development activities under Operation Flood programme. The projects



are implemented by the State Cooperative Milk Federations/ District Cooperative Milk Unions in view of their expertise and professionalism and the funds under the revised scheme are released directly to the implementing agencies. There is no discrimination of gender and class under the scheme.

4.3.3 Since inception of the scheme, 111 projects have been approved. Out of these, 58 projects are under implementation and 53 projects have been completed. 256 districts have been covered in 27 States and a UT with a total cost of ₹675.26 crore upto 31.01.2013, including four projects for 'Special Livestock Sector and Fisheries Package for the Suicide Prone Districts in the States of Andhra Pradesh, Maharashtra, Karnataka and Kerala'. These projects have benefited about 23.70 lakh farmers in 32,206 villages in various States procuring over 30.58 lakh litres of milk per day and marketing milk of about 23.30 lakh litres per day. Milk chilling capacity of 24.64 lakh litres per day and milk processing capacity of 32.08 lakh litres per day has been created under this scheme.

4.4 Strengthening Infrastructure for Quality & Clean Milk Production

4.4.1 To improve the quality of milk & milk products in the Domestic market and to increase the export of milk products in the International market, the department has started a Centrally Sponsored scheme namely Strengthening Infrastructure for Quality & Clean Milk Production during the year 2003-04 with the following objectives.

(i) To create infrastructure for production, testing and marketing

of quality milk & milk products at the farmers level up to the point of consumption,

(ii) To create mass awareness by providing training to the milk producers and facilities for clean milk production.

(iii) To improve the quality of raw milk produced by installation of Bulk Milk Coolers at village level milk collection centers for immediate chilling of raw milk.

4.4.2 Based on the recommendations of the evaluation study the department has modified the scheme during 2011-12 by incorporating additional components, increasing the financial limits under the existing components and revising the pattern of assistance. Pre-project benchmark survey has been made compulsory for submission of new proposal. The scheme is being implemented through the District Level Coop Milk Unions/State Level Coop Milk Federation

4.4.3 The Pattern of funding is 75% Grants-in-aid for all components to profit making Milk Unions (accumulated profit above ₹ 1.00 crore as on 31st March of previous financial year) and 100% Grants-in-aid for all other Milk Unions.

4.4.4 Since inception, the Department has approved 167 projects spread over 22 States and one UT at a total cost of ₹309.03 crore with a Central share of ₹254.43 crore till 31.12.2012, out of it 90 projects have been completed and remaining 77 projects are at various stages of implementation. An amount of ₹204.01 crore has been released upto the year 2012-13 (till 31st December, 2012) for implementation of approved projects. About 6.82 lakh farmer



members have been trained, installed 2,166 Bulk Milk Coolers (BMCs) with a total milk chilling capacity of 43.82 lakh litres and strengthened 1,452 existing laboratories.

4.5 Assistance to Cooperatives

4.5.1 This scheme was started during the year 1999-2000, with the objective to rehabilitate the sick dairy cooperative Milk Unions at the district level and Milk Federations at the State level. The scheme is being implemented on 50:50 sharing basis between Govt. of India and the concerned State Government through NDDDB. The rehabilitation plan is prepared by National Dairy Development Board



(NDDDB) in consultation with the concerned State Milk Federation/District Milk Union. Each rehabilitation plan is prepared in such a manner that the net worth of the sick cooperative will become positive within a period of seven years from the date of its approval.

4.5.2 Since inception, the Department has approved 42 rehabilitation projects for the sick Milk Unions at a total cost of ₹310.91 crore with the central share of ₹155.64 crore upto 31st December, 2012 in the States of Madhya Pradesh, Chhattisgarh, Haryana, Karnataka, Uttar Pradesh, Kerala, Maharashtra, Assam, Nagaland, Punjab, West Bengal and Tamil Nadu. A total sum of ₹120.64 crore as central share has been released to the sick cooperative Milk Unions upto 31st December, 2012. Out of 42 Milk Unions covered under the scheme, only 16 Milk Unions have turned around and earned profit as on 31.03.2012.

4.6 Dairy Entrepreneurship Development Scheme

4.6.1 This department has launched a modified scheme namely Dairy Entrepreneurship Development Scheme (DEDS) on 1.9.2010 in place of Dairy Venture Capital Fund (DVCF), for promoting Private investment in the dairy sector. The scheme aims at increasing investment in dairy sector for increasing milk production in the country apart from helping in poverty reduction through self employment opportunities. It is being implemented through NABARD and provides financial assistance to the bankable projects through Commercial, Cooperative, Urban and Rural Banks with



a back ended capital subsidy of 25% of the project cost for General category and 33.33% of the project cost for SC & ST beneficiaries as Central assistance subject to norms of the scheme. The eligible beneficiaries are farmers, individual entrepreneurs, group of unorganized and organized sector. Group of organized sector includes self-help groups, dairy cooperative societies; district level Milk Unions, State Milk Federation, etc.

4.6.2 Since inception, NABARD has disbursed an amount of ₹251.20 crore to the beneficiaries for sanctioning 62046 dairy units upto 31st December, 2012. Further, GOI has released an amount of ₹140 crore to NABARD during the current financial year 2012-13 for the implementation of the scheme, out of which NABARD has released back ended capital subsidy of ₹127.13 crore for establishment of 32749 dairy units upto 31.12.2012.

4.7 National Dairy Plan

4.7.1 In order to meet the rapidly growing demand for milk with a focus to improve milch animal productivity and increase

milk production, the Government has also approved National Dairy Plan Phase-I (NDP-I) in February, 2012 with a total investment of about ₹2242 crore to be implemented from 2011-12 to 2016-17. NDP-I will help to meet the projected national demand of 150 million tonnes of milk by 2016-17 from domestic production through productivity enhancement, strengthening and expanding village level infrastructure for milk procurement and provide producers with greater access to markets. The strategy involves increasing the genetic potential of bovines, producing required number of quality bulls, producing superior quality frozen semen and adopting adequate bio-security measures. The scheme will be implemented by NDDB through end implementing agencies (EIAs) comprising of State Livestock Boards, State Cooperative Dairy Federations, District Cooperative Milk Producer Unions, Producer Companies, Trusts (NGO's, Section 25 companies), subsidiaries of statutory bodies, ICAR institutes and Veterinary/Dairy Institutes/Universities etc. NDP-I would focus on 14 major milk producing States - Uttar Pradesh, Punjab, Haryana, Gujarat, Rajasthan, Madhya Pradesh, Bihar, West Bengal, Maharashtra, Karnataka, Tamil Nadu, Andhra Pradesh, Orissa and Kerala which account for over 90% of the country's milk production. Coverage of NDP- phase- I will however be across the country in terms of benefits accruing from the scheme. The objective of the National Dairy Plan, Phase I are:

- a) To help increase productivity of milch animals and thereby increase milk production to meet the rapidly growing demand for milk.



- b) To help provide rural milk producers with greater access to the organized milk-processing sector.

4.7.2 The key components of NDP I are i) Breeding: ii) Scientific nutrition

programme for milch animals: iii) Village based milk procurement systems: iv) Project Management and Learning. The activities wise and year-wise detailed breakup of budgetary support to be provided by Gol (including IDA) for 6 years is given below:

Table 4.1 Budgetary Support of NDP, Phase I

(₹in crore)

	Component	IDA * Credit	GOI share	Total Outlay
A	Productivity enhancement	1027	114	1141
B	Village based milk procurement system for weighting, testing quality of milk received and making payment to milk producers	439	49	488
C	Project Management and Learning	118	13	131
	Total	1584	176	1760

*IDA- International Development Association (Subsidiary of World Bank)

4.7.3 The outlay of the scheme is ₹2242 crore comprising ₹1584 as IDA, World Bank assistance ₹176 crore as Gol share, ₹282 crore as share of End Implementing Agencies (EIAs) that will implement the project in participating States and about ₹200 crore by NDDDB and its subsidiaries for providing technical and implementation support to the project. The scheme envisages achieving a target of 150 million tonnes of milk production annually by 2016-17.

4.7.4 NDP-Phase I has launched by this Department in March 2012. A total sum of ₹79.00 crore has been released to NDDDB upto 31.12.2012, for implementation of the Scheme. As on 31.12.2012, 49 sub projects from 8 States has been approved by the Project Steering Committee with an aggregate outlay of ₹329.89 crore of which ₹307.19 crore is grant assistance from NDP-I and ₹22.70 crore is the contribution from EIA.

4.7.5 The Department has implemented following schemes for development of dairy sector during 11th Plan and started a new scheme National Dairy Plan Phase I at fag end of the year 2011-12.

- Intensive Dairy Development Programme
- Strengthening Infrastructure for Quality & Clean Milk Production
- Assistance to Cooperative.
- Dairy Entrepreneurship Development Scheme
- National Dairy Plan-Phase I (2011-12 to 2016-17)

4.7.5 A total sum of ₹571.82 crores was released against the allocation of ₹582 crores during 11th Plan and ₹284.15 crore has been released upto 31.12.2012 against the budget provision of ₹390 crore provided during the year 2012-13 for implementation of the dairy development schemes. The



Schemes at Sl.No.5 (a, b & c) and National Project for Cattle & Buffalo Breeding are proposed to be merged into one scheme as National Programme for Bovine Breeding and Dairy with allocation of ₹1800 crore during 12th Plan.

4.8 Deficit Monsoon and its Impact on Dairying

4.8.1 The impact of deficit monsoon on livestock sector will be manifested in many forms, such as scarcity of crop residues and other feed ingredients because of reduced crop production and increasing crop failure; decline in reproductive efficiency; increase incidences of animal diseases particularly viral and protozoan in animals in milk and decline in milk production. Reproductive efficiency among breedable bovines decline substantially due to deficiency of green fodder and quality concentrates. The decline in milk production and reproductive efficiency will be highest in crossbred cattle followed by buffaloes.

4.9 Post Operation Flood and Consolidation of Cooperative Movement by NDDB

4.9.1 The National Dairy Development Board (NDDB) with headquarters at Anand in Gujarat (India) is a statutory body corporate. NDDB promotes plans and organises programmes for the development of dairy and other agriculture based and allied industries along cooperative lines and also provides assistance in the implementation of such programmes. NDDB was set up in 1965. In 1987, NDDB was declared an institution of national importance and a statutory body by an Act of Parliament.

4.9.2 Strengthening the cooperatives

4.9.2.1 During 2011-12, NDDB continued to provide technical and financial support to dairy cooperatives in the areas of strengthening cooperative business, productivity enhancement, quality assurance, building dairy infrastructure and for creation of a national information network. Up to 31st October 2012, plans of about 100 dairy cooperatives, with a total outlay of ₹2,745 crore had been approved by NDDB under the Perspective Plan. Of this, NDDB's financial assistance was to the tune of ₹2,205 crore.

4.9.3 Animal Breeding

4.9.3.1 During the year, NDDB facilitated the finalization of Standard Operating Procedures (SOPs), Minimum Standards (MS) and evaluation procedure for Progeny Testing (PT) programmes, Pedigree Selection (PS) programmes, Frozen Semen Stations and AI Training institutions.

4.9.3.2 Under NDP-I, six Progeny Testing (PT) projects have been approved namely: PT projects for production of High Genetic Merit bulls of Holstein Friesian cattle by Karnataka Milk Federation; Crossbred Holstein Friesian cattle by Sabarmati Ashram Gaushala; Crossbred Jersey cattle by Tamil Nadu Cooperative Milk Producers Federation; Murrah buffalo by Sabarmati Ashram Gaushala; Mehsana buffalo by Mehsana Milk Union, and Mehsana buffalo by Banaskantha Milk Union. PT projects for Murrah buffalo by Punjab Livestock Development Board & Animal Breeding Centre, Salon and for Crossbred Jersey cattle by Andhra Livestock Development Agency are under preparation.



4.9.3.3 In order to conserve and develop Indigenous breeds of cattle and buffaloes under NDP-I, Pedigree Selection (PS) projects for Gir and Kankrej cattle and Jaffarabadi buffalo have been approved.

4.9.3.4 During the year, NDDDB continued its efforts to promote doorstep AI under Rathi Breed Development Project with URMUL Trust in Bikaner and Sri Ganganagar districts of Rajasthan. Plans are afoot to include this project under NDP I.

4.9.3.5 To meet the ever growing demand of quality frozen semen for providing quality AI services, NDDDB under NDP-I has already approved strengthening of three A graded semen stations namely; Sabarmati Ashram Gaushala Bidaj Animal Breeding Centre, Salon and DLF, Ooty. Another five A graded/ B graded semen stations viz. Nandini Sperm Station of KMF at Hessarghatta, Mehsana Milk Union's semen station at Jagudan, Nabha Semen stations of PLDB, FSBS of PBGSBS at Haringhatta (West Bengal) and FSBS of APLDA at Banavasi (Andhra Pradesh) are being considered for strengthening during the year.

4.9.3.6 NDDDB - managed semen stations – Sabarmati Ashram Gaushala, Bidaj and Animal Breeding Centre, Salon – together



produced about 160 lakh doses of frozen semen (provisional) during the year. The eight dairy cooperative semen production stations in the country added another 155 lakh frozen semen doses (provisional).

4.9.4 Animal Nutrition & Feed Technology

4.9.4.1 As a result of continued technical support provided to Cooperative Cattle Feed Plants (CFPs), feed and feed supplements were produced in accordance with laid down specifications. Many CFPs produced feeds for high yielding animals and calf starter for young calves. NDDDB continued to promote the use of bypass protein supplement/feed. During the year, two bypass protein plants were set up, one at Katarva in Gujarat of 200 MT per day capacity and another one of 50 MT per day capacity in Kerala.

4.9.4.2 The mineral mapping programme was completed for Sabarkantha district of Gujarat. Samples of feed, fodder and hair were collected from different villages of the district and analyzed for various macro and micro-minerals. Calcium, phosphorus, sulphur, copper, zinc, manganese and cobalt were found to be deficient in the ration of dairy animals. Based on the results of the mineral mapping programme, an area-specific mineral mixture formulation was developed and now a mineral mixture plant of 12 MT per day capacity is being set up for production of area specific mineral mixture. During the year, five more mineral mixture plants in the states of Andhra Pradesh, Karnataka, Gujarat and Bihar were set up for production of area specific mineral mixtures.



4.9.4.3 Dairy cooperatives were assisted to produce about 5500 MT of certified/truthfully labeled fodder seeds of maize, sorghum, berseem, Lucerne, oats, cowpea, pearl millet and cluster bean for enhanced green fodder production. To achieve this, about 8.80 MT of breeder seeds of improved varieties were arranged by NDDDB from the Indian Council of Agricultural Research. High yielding fodder varieties of sugar beet as a nutritious fodder were demonstrated to farmers and trainees.

4.9.5 Animal Health

4.9.5.1 NDDDB's Research and Development laboratory at Hyderabad continued research on the development of diagnostics and vaccines for animal diseases. A new, innovative, practical and cost effective technique, loop mediated isothermal amplification (FT-LAMP) for the rapid detection of foot and mouth disease (FMD) virus serotypes was standardized which can now be exploited as a pen-side test. Use of FTA cards was found very practical and safe for transport of FMD suspected samples from the place of outbreak to the laboratory for diagnosis by molecular methods. Use of FTA card did not compromise the diagnostic efficiency.

4.9.5.2 The diagnostic ELISA for bovine brucellosis, developed by the laboratory was further evaluated in the field for improving its specificity. An inter-laboratory evaluation programme is in progress to assess the diagnostic efficacy of the test in comparison with internationally available commercial test kits. Results of the immune-capture-ELISA developed for early diagnosis of bovine tuberculosis (TB) by

gamma interferon assay using recombinant antigens of *Mycobacterium* spp. were highly encouraging. At present, field evaluation of this assay is in progress by testing specimens from known positive and negative herds. Application of fusion protein of ESAT-6 and CFP-10 of *Mycobacterium* spp. was found very useful in confirming the diagnosis of bovine tuberculosis by ELISpot.

4.9.5.3 The laboratory continued research on developing improved vaccines. Virus like particles (VLPs) of FMD virus and canine parvovirus has been developed and their efficacy is being evaluated by animal studies. Substantial progress has been made in the development of BHV-1 gE deleted marker vaccine against infectious bovine rhinotracheitis. In limited studies, brucella glycol-conjugate vaccine has shown to limit the shedding of organism in infected animals. Safety and efficacy studies for porcine cysticercosis and recombinant enterotoxaemia vaccines are in progress.

4.9.6 Quality Assurance

4.9.6.1 NDDDB assists dairy cooperatives and producer institutions in the production of safe and quality milk and milk products through adoption of technology driven, economically viable and environment-friendly approaches covering entire chain from primary production to marketing. The Dairy Board's initiatives also focus on implementation of food safety and quality management systems by the dairy plants and undertaking programmes for capacity building and skill up-gradation of their manpower in quality improvement and compliance with emerging regulatory environment.



4.9.6.2 The Dairy Board continued to provide the Government of India technical assistance in matters related to Codex Alimentarius Commission and domestic food regulations relevant to the dairy sector.

4.9.7 Milk Procurement and Marketing

4.9.7.1 During April - November 2012, the average milk procurement by dairy cooperatives was around 306 lakh litres per day (provisional) as compared to more than 262 lakh litres per day during the same period last year, registering an increase of 16.6 per cent. The cooperatives marketed an average of about 237 lakh litres of milk per day (provisional) as against around 230 lakh litres per day, registering a rise of about 2.8 per cent over the corresponding period last year.

4.9.8 New Generation Cooperatives (NGC) initiatives

4.9.8.1 Producer companies were incorporated in Rajasthan and Gujarat where NGC initiatives were being undertaken. PAAYAS Milk Producer Company was formed in Rajasthan and Maahi Producer Company in Gujarat. NDDDB Dairy Services facilitated the Producer Companies in framing the Articles and Memorandum of Association and in raising share capital from the members. These two Producer Companies together would have about 100,000 producers as members and handled over a million kg of milk per day during the flush in the year gone by.

4.9.8.2 NGC initiatives continued in other states and Producer Companies would be incorporated at an appropriate time.

4.10 Milk Situation in the Country

4.10.1 Price trend

4.10.1.1 The yearly inflation rate of milk (base year 2004-05 =100) as on November 2012 was 6.18 % as against 10.90% in the previous year. Most State Milk Federations and Metro Dairies have increased the procurement and selling price of milk over the last one year and the average increase is about ₹2.07 per litre and ₹2.29 per litre respectively. The increase in price is attributed to the increase in input cost of milk production.

4.10.2 Steps taken to increase availability of milk in the country:

4.10.2.1 The measures taken in relation to milk during last two years are as under:-

- i. National Dairy Development Board was allowed to import 50,000 MT of Skimmed Milk Powder (SMP) and Whole milk powder and 15,000 MT of Butter, Butter oil and anhydrous milk fat at 0% concessional duty under Tariff Rate Quota for the year 2011-12 for reconstitution of milk by State Milk Federations and Metro Dairies vide notification dated 14.01.2011 & 04.08.2011.
- ii. Export of milk powders (including skimmed milk powder, whole milk powder, dairy whitener and infant milk food), Casein and Casein products was prohibited vide Notification No 23(RE-2010)/2009-2014, dated 18.02.2011 issued by D/O Commerce..



- iii. Subsequently, taking into account the milk situation, the export of Casein and Casein products was moved from "Prohibited" to "Restricted" category and export of casein is now permitted under license. The DGFT notified this decision through its Notification No. 112 (RE-2010)/2009-2014 dated 01.05.2012
- iv. A high powered Inter-Ministerial Committee set up under the Chairmanship of Secretary, Department of Commerce with Secretary, Department of Animal Husbandry, Dairying & Fisheries and Secretary, Department of Consumer Affairs as members to decide quantum of export of casein and casein products beyond 31.05.2012.
- v. The Ministry of Commerce and Industries allowed free export of skimmed milk powder (SMP) and export incentive of 5% under VKGUY vide notifications dated 08.06.2012.
- vi. The Ministry of Commerce and Industries allowed free export of all items under Tariff item HS code 0402 including Whole milk powder (WMP), Dairy whitener and infant milk food vide notifications dated 22.11.2012.
- vii. Taking into account the increase in cost of feed ingredients, import duty on de-oiled soya extract, oil cake/ oil cake meals of groundnut, sunflower, canola and mustard have been fully exempted vide notification of D/O

Revenue dated 21.08.2012. Also import duty on maize bran has been fully exempted vide notification of D/O Revenue dated 17.09.2012.

- viii. This Department vide letter No. 25-4(13)/2010-AHD(Coord.), dated 20.12.2012 has approved a new component to assist State Milk Federations with excess stocks of SMP for its reprocessing (@ upto ₹20/kg) to extend shelf life of stocks nearing expiry date under National Mission for protein supplements (NMPS) for the year 2012-13.

4.11 Delhi Milk Scheme (DMS)

4.11.1 Delhi Milk Scheme (DMS) was set up in 1959 with the primary objective of supplying wholesome milk to the Citizens of Delhi at reasonable prices as well as for providing remunerative prices to milk producers. 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 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. The Department has developed a web site <http://dms.gov.in> for use by related users.

4.12 I.S.O. 22000 - 2005 - Certification

4.12.1 DMS has been awarded ISO 14001-2004 Certification valid up to 30.03.2013 by M/s IRQS, Mumbai.

4.13 Procurement of Milk

4.13.1 DMS has been procuring raw/fresh milk from the State Dairy Federations of the



neighbouring States of Punjab, Haryana, U.P., Rajasthan and Bihar and from the Co-operative Societies/Producers Companies & other companies.

4.13.2 The total quantity of milk procured by Delhi Milk Scheme since 2009-10 is indicated below: -

Table 4.2: Milk Procured by DMS

(In lakh Kgs)

Year	Total Qty. of milk procured	Average/ per day
2009-10	945.94	2.59
2010-11	792.05	2.17
2011-12	870.13	2.38
2012-13 (up to Dec. 2012)	830.74	2.93

4.13.3 Contracts for procurement of milk with various agencies i.e. State Dairy Federations, Cooperative Societies/ Producer Companies & Pvt. Limited Companies have been finalized upto 31.03.2013.

4.14 Production and Distribution of Milk

4.14.1 Delhi Milk Scheme is processing and

supplying milk (Toned, Double Toned and Full Cream). DMS is also manufacturing & marketing Yoghurt, Ghee, Butter, Paneer, Chhachh and Flavoured Milk for supply to the citizens of Delhi:

4.14.2 DMS has a network of over 1,101 outlets (including All Day Milk Stalls). The DMS also supplies milk to about 174 institutions such as Hospitals, Government Canteens, Hostels and Defence Units etc.

4.14.3 The milk booths are allotted to and manned by Ex-servicemen, retired Government/Semi-Government servants, physically handicapped persons, widows, unemployed persons.

4.15 Performance/Capacity Utilization

4.15.1 The sale of DMS and custom packing of Mother Dairy by DMS taken together has reached 3.10 lakh litres per day. The Cost of production of milk in DMS since 2009-2010 is given in Table 4.3.

Table 4.3: Performance of DMS

Year	Capacity utilization (%)	Milk Sale (lakh litres)	Variable cost (₹ per litre)	Fixed cost (₹ per litre)	Total cost (₹ per litre)
2009-10	73.1	1,332.77	19.86	3.05	22.91
2010-11	65.2	1,183.49	21.75	3.24	24.99
2011-12	62.0	1123.62	27.08	3.40	30.48
2012-13 (Upto Dec., 12)	62.0	843.80	25.52	3.60	29.12



4.16 Financial Outlay

4.16.1 Expenditure on all head of accounts including the expenditure on inputs like raw milk, SMP, Butter, Butter Oil etc. and capital items is made from consolidated fund of Government of India through annual budget allocation of Ministry of Agriculture,

Department of Animal Husbandry & Dairying. Sale proceeds of milk and milk products are credited to the revenue account of the Government.

4.16.2 The funds provided/proposed and expenditure for the year 2011-12 (R.E.) and B.E. 2012-13 are given at table 4.4:

Table 4.4: Expenditure of DMS

(₹ in Crore)

Head/Scheme	2011-12			2012-13	
	B.E	R.E	Exp.	BE	Exp. (upto Dec., 12)
1	2	3	4	5	6
I. NON-PLAN	350.00	370.00	311.94	370.00	257.93
II. PLAN	1.00	1.00	1.00	2.00	0.29

4.16.3 Though the deficit came down from ₹ 24.15 crore in 2009-10 to ₹ 8.99 crore in 2010-11, it increased to ₹ 28.26 crore in 2011-12 due to lesser procurement of raw milk and higher purchase price paid for skimmed milk powder, raw milk etc. Further, during the current financial year 2012-13 (Upto Dec., 2012), DMS generated surplus amounting to ₹ 1.05 crore against deficit for last many years.

4.16.3 Reduction in the staff strength of DMS

4.16.3.1 In pursuance of the instructions issued by Ministry of Finance to down size the Government machinery and to reduce the administrative expenses, the DMS has decided to reduce its working strength by not making fresh recruitment. The total staff strength of DMS has come down from 921 as on 1.12.2011 to 827 as on 1.12.2012.

4.16.4 Upgradation and modernization of DMS plant

4.16.4.1 The DMS plant which was installed at the time of its commissioning has become old and inefficient. The installed capacity of the plant was for processing 5.00 lakh litres of milk per day. Presently, the DMS is processing about 3.50 lakh litres of milk per day.

4.16.4.2 As the plant is old, it may not be possible to process the milk at the level of its installed capacity without up-gradation/automation. During the year 2012-13, two numbers of PHE Ammonia Condenser along with cooling towers and two numbers of high speed Ammonia Compressors have been installed.

4.16.4.3 (a) With optimum utilization of available resources and installed capacitor banks in Central Dairy, DMS could achieve a power factor



greater than 0.98, resulting in savings in electrical consumption.

(b) With optimum utilization of water and its recycling, the consumption of water has been brought down substantially in Central Dairy thus affecting savings in the water consumption.

4.16.4.4 The present capacity utilization of DMS is about 62 %. Efforts are being made to utilize its capacity by increasing the sale of milk and milk products leading to reduction in losses.

4.16.5 Supply of DMS milk & milk products in J.J. Clusters Delhi through booths installed at new sites allotted by Delhi Government to DMS

4.16.5.1 To increase sale of DMS milk, a meeting was held on 04.05.2012 under the Chairmanship of Hon'ble Chief Minister of Delhi in Delhi Secretariat who agreed to provide all assistance to DMS for establishing new booths in the NCT of Delhi. After series of meeting between officials of DMS and Delhi Govt., Delhi Urban Shelter Improvement Board (DUSIB), Government of NCT Delhi has agreed, in principle, to allow the DMS to establish its milk booths in the J.J. Clusters as the same are existing on DUSIB land. DMS is in the process of taking possession of sites allocated by DUSIB and after taking possession of new sites action will be taken to shift old fabricated structures on these sites and sales of milk & milk products

shall start in J.J. Clusters from established booths.

4.16.6 Imparting Computer training to DMS employees

4.16.6.1 DMS employees have been imparted Computer training w.e.f. 05.09.2012 in batches of 20 persons for 20 working days by engaging an outside training agency.

4.16.7 Use of underground water by DMS

4.16.7.1 To overcome shortage of water supplied by Delhi Jal Board (DJB) during summer months, DMS has taken up the issue with DJB for according approval for installing 4 numbers of bore-wells with submersible pumps of 20 KLPH capacity each.

4.17 Corporatization of DMS

4.17.1 The activities of DMS are purely commercial in nature and therefore, in order to run it as a commercial entity and make it financially viable, the Union Cabinet has given 'in principle' approval to this Department's proposal to corporatize DMS to make it autonomous. Draft Cabinet Note on Corporatization based on the final report of the IDBI Capital Market Services was circulated by the Department for seeking comments of the concerned Department. The proposal is being finalized for placing before the Union Cabinet for approval.

Chapter 5



FISHERIES



CHAPTER 5

FISHERIES

5.1 Introduction

5.1.1 Fisheries sector contributes significantly to the national economy while providing livelihood to approximately 14.49 million people in 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 source of foreign exchange earner. The main challenges facing fisheries development in the country include development of sustainable technologies for fin and shell fish culture, Fish Seed Certification, yield optimization, infrastructure for harvest and post-harvest operations, landing and berthing facilities for fishing vessels and uniform registration of fishing vessels.

5.1.2 India is the second largest producer of fish in the world contributing to about 5.43% of global fish production. India is also a major producer of fish through aquaculture and ranks second in the world after China. The total fish production during 2011-12 is at 8.67 million tonnes with a contribution of 5.30 million tonnes from inland sector and 3.37 million tonnes from marine sector respectively. Fishery being one of the promising sectors of agriculture and allied activities in India, a growth target rate of 6 per cent was fixed so as to achieve the overall growth rate of 4.1 per cent for Agriculture during the 11th Five year Plan. During 2010-11, the volume of fish and fishery products

exported from India was 8,13,091 tonnes worth ₹12,901.47 crores and during 2011-12 for the first time export earnings have crossed USD 3.5 billion. Export aggregated to 8,62,021 tonnes in volume valued at ₹16,597.23 crores. As per the estimates of Central Statistical Organization (CSO), the value of GDP from fisheries sector at current price during 2011-12 was ₹76699 crores which is about 4.15 per cent of the total GDP of Agriculture and allied sectors.

5.2 Thrust areas

5.2.1 Fisheries is a State subject and as such the primary responsibility for its development rests with the State Governments. The major thrust in fisheries development has been on optimizing production and productivity, augmenting export of marine products, generating employment and improving welfare of fishermen and their socio-economic status.

5.3 On-going Schemes

- (i) Development of Inland Fisheries and Aquaculture
- (ii) Development of Marine Fisheries, Infrastructure and Post Harvest Operations
- (iii) National Scheme of Welfare of Fishermen
- (iv) Strengthening of Database and Geographical Information System of the Fisheries Sector

India is the second largest producer of fish in the world. The fish production during 2011-12 is 8.67 million tonnes.



- (v) Assistance to Fisheries Institutes
- (vi) National Fisheries Development Board
- (vii) Issuance of Biometric Identity cards to Coastal Fishermen.

About 8.55 lakh hectare water area brought under scientific fresh water and brackish water fish farming, 14.10 lakh fish farmers/fishermen benefited in improved practices and benefited till December 2012 under 'Development of Freshwater Aquaculture'.

5.4 Development of Inland Fisheries and Aquaculture

5.4.1 This Centrally Sponsored Scheme is being implemented through the State Governments/UT Administrations. The scheme covers all inland fishery resources available in the country in the form of freshwater, brackishwater, coldwater, waterlogged areas, saline/alkaline soils for aquaculture and capture fishery resources (reservoir/rivers etc.). The scheme has been implemented with seven components namely, Development of Freshwater Aquaculture, Development of Brackishwater Aquaculture, Development of Coldwater Fisheries and Aquaculture in the Hilly Regions, Development of Water-logged Areas into Aquaculture Estate, Utilization of Inland Saline/Alkaline Soils for Aquaculture and Inland Capture Fisheries (Reservoirs/Rivers etc.) and Innovative Projects for implementation in the 12th Five Year Plan. The two components namely, Development of Freshwater Aquaculture and Development of Brackishwater Aquaculture are being



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implemented by a network of 429 Fish Farmers Development Agencies (FFDAs) in the respective States and Union Territories. A brief write up on two important components are given below:

5.4.2 Development of Freshwater Aquaculture

5.4.2.1 The main objectives of the scheme are to popularize modern fish farming, creating employment opportunities and diversifying aquaculture practices and providing assistance to fish farmers engaged in aquaculture.

5.4.2.2 In order to boost inland fish production, assistance in the form of subsidy is given to the fish farmers for construction of new ponds, reclamation/ renovation of ponds and tanks, first year inputs (fish seed, fertilizers, manures, etc.), integrated fish farming, running water fish culture, establishment of fish seed hatcheries and fish feed mills, etc. Assistance is also given to progressive fish farmers for purchase of aerators to further enhance the productivity of fish. Subsidy for the above-mentioned activities is given at higher rates to fish farmers who belong to Scheduled Tribes/ Scheduled Castes. 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. For UTs, Central Government provides cent percent funding assistance.



5.4.2.3 During 2011-12, an additional area of 27,406 hectare was brought under fish culture and fishers were trained in improved practices. Due to introduction of improved technology of fish farming and the efforts of FFDA's, the national average productivity of ponds and tanks covered under the programme has reached a figure of 3,000 kg/ha/annum. Till 31.12.2012, an additional area of about 23,000 hectare is covered under fish culture and has

benefitted about 28,000 fishers. Since inception of the scheme till 2012-13, about 8.55 lakh hectare has been brought under fish culture and the scheme has benefitted about 14.10 lakh beneficiaries.

5.4.3 Development of Brackishwater Aquaculture

5.4.3.1 With a view to provide technical, financial and extension support to shrimp

Cage Culture – The success story of Jharkhand

The state of Jharkhand is one of the premier states of India to have successfully introduced cage culture. Boosted by the success of its four cages installed in Hatia reservoir near Ranchi, which were undertaken on an experimental basis, the State decided to undertake cage culture in a big way under the Government of India's National Mission for Protein Supplements (NMPS) scheme. The State government decided to adopt GI pipe for its cages in Chandil and Tenughat reservoirs. The average dimension of a cage is 6m x 4m x 4m and the size of a 4 cage battery is 12m x 8m x 4m.



Cost of construction for one cage is ₹0.75 lakh or ₹3 lakh for one battery of 4 cages. Cost of input per cage is ₹2 lakh. Floating pelleted feed is used in all the cages. The expected fish production from one cage in 8 months is 5000 kgs. Given the cost of fish @ ₹80 per kg in the State, the expected profit is ₹2 lakh per cage.

Although the state grows *Pungasius* and common carp in these cages, the success rate for *Pungasius* is very high compared to common carps. The State has floated 46 cages and 2 cage houses in its Chandil reservoir and 30 cages and 2 cage houses in its Tenughat reservoir located near Bokaro.

Initially the state faced some setbacks due to high density stocking that led to poor survival rate of the fingerlings but after little experimentation the State could arrive at the optimum fingerlings required to achieve high survival rate in cages. The growth of fishes in cages has now been achieved at optimum levels in these reservoirs. Fingerlings weighing more than 90 gm or near to it have reached a size of 1.56 kg in 6 months. On the other hand fingerlings weighing nearly 2-5 gm have attained a size of 460- 740 gm in 160 days.

This system of intensive culture has attracted the local fishermen and other youths. Following this 100 batteries (400 cages) have been sanctioned for members of fisheries cooperative societies/ societies in RKVY scheme and 48 cages in NMPS scheme during the current financial year 2012-13 for different reservoirs of the state.



farmers in the small scale sector, 39 Brackishwater Fish Farmers Development Agencies (BFDAs) have been sanctioned in all the coastal States and the UT of Andaman & Nicobar Islands. During 2011-12, additional area of about 1502 ha was brought under shrimp culture and about 2000 fishers were benefitted in improved practices.

5.4.3.2 Since inception of the scheme till 31.12.2012, about 43,476 ha water area has been brought under shrimp culture and the number of beneficiaries covered under the programme is about 35,759 fish farmers while the productivity has reached about 1,500 kg/ha/annum.

5.4.4 Progress of the scheme during 2011-12 and 2012-13.

5.4.4.1 A sum of ₹ 29.85 crore was released during the financial year 2011-12. During 2012-13 (till 31st December, 2012) an amount of ₹25.05 crore has been released to the various states and UTs for achieving the target of covering 25,000 ha water area under fish culture.

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 has been extending financial assistance for development of marine sector through 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 improving the socio-economic conditions of traditional fishermen.

5.5.1.2 Based on Zero Based Budgeting (ZBB) exercise, the ongoing schemes were brought under a comprehensive scheme since 10th Five Year Plan onwards, titled 'Centrally Sponsored Scheme on Development of Marine Fisheries, Infrastructure and Post Harvest Operations' with necessary modifications. The scheme for 11th Five Year Plan has three major components viz. (i) Development of Marine Fisheries, (ii) Development of Infrastructure and Post Harvest Operations and (iii) Provisions to take up of Innovative Activities.

5.5.2 Component-wise details of the scheme

5.5.2.1 Development of Marine Fisheries

5.5.2.1.1 Motorization of Traditional Craft: Motorization of Traditional Craft, a production oriented scheme was introduced during 7th Plan with the objective of (i) technological upgradation of traditional fishing sector, (ii) to help the fishermen to reduce their physical strain and (iii) to extend the range of their fishing operation primarily to increase the quantum of fish catch, income and thereby to uplift their socio-economic status. About 60,000 traditional craft have been motorized since inception of the scheme. The scheme had been continued during the 11th Five Year Plan and first financial year of 12th plan



with modification that the subsidy benefit will be extended both for Out Board Motor (OBM) and In Board Motor (IBM) of 8-10 HP. Under this component, 50 % of the unit cost is provided as subsidy subject to a maximum of ₹30,000/-per OBM/IBM, which is shared equally between the Centre and State Governments. In the case of UTs, the Central Government meets the entire subsidy. An amount of ₹584.20 lakh and ₹310.02 lakh were released to various States/UTs during 2011-12 and 2012-13 (till 31st December, 2012) respectively.

5.5.2.1.2 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. This component is intended to improve the sea safety to reduce loss of human life and property at sea. Under this component, subsidy is provided to the tune of 75 % of unit cost of a kit consisting of GPS, communication equipment, echo-sounder and search & rescue beacon. The unit cost of these equipments together works out to about ₹1.50 lakh and 75 % of which is provided as subsidy. The component is implemented through State Fisheries Federations/Corporations and Panchayati Raj Institutions. An amount of ₹206.13 lakh released during the year 2011-12.

5.5.2.1.3 Fishermen Development Rebate on HSD Oil: The scheme for reimbursement of Central Excise Duty on

HSD oil used by fishing vessels below 20 meter length was introduced from 1990-91 onwards with a view to help the small mechanized vessels 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. Central rebate equivalent to 50 % of the Sales Tax relief granted by the States/UTs on HSD oil used for fishing purpose with central subsidy limited to ₹3/litre of HSD oil with a ceiling of 500 litre per boat per month during active fishing months is provided. Subsidy is provided to the vessels of size less than 20 meters, registered before 10th Five Year Plan, which are owned by fishers of Below Poverty Line (BPL) category.

5.5.2.1.4 Introduction of Intermediate Craft of Improved Design:

Out of the estimated 4.41 million tonnes of potential marine fisheries resources, about 3.37 million tonnes potential has been exploited. The remaining potential exists mainly in the deep sea, which is beyond the fishing capacity of the small-scale fishing boats. Adequate number of appropriately designed boats would be required to judiciously exploit the fisheries potential of the country's EEZ. Accordingly, this component was included in the macro scheme to acquire an appropriate design and to provide the financial incentives to fishermen groups to take up new generation craft. This component on multi-day intermediate class of resource specific fishing vessels in the length range of about 18 meters is implemented with a unit cost of ₹60.00 lakh on which a subsidy equivalent to 10 % of the unit



cost, restricted to ₹6.00 lakh is provided. This component is implemented through States/UTs. An amount of ₹188.17 lakh during 2011-12 and ₹328.72 lakh during 2012-13 (till 31st December, 2012), was released under this component.

5.5.2.1.5 Establishment of operation of Vessel Monitoring System: Vessel Monitoring System (VMS) has been recognized as one of the important management tools for Monitoring, Control and Surveillance (MCS) of movement of fishing vessels in the EEZ. This component had been continued during the 11th Plan and first year of 12th Plan to establish and operate VMS to regulate operation of fishing vessels in EEZ. Entire cost of such system is borne by the Government of India.

5.5.2.1.6 Promoting fuel efficient and environment friendly fishing practices: This is a new component introduced during the 11th Plan. Fishermen by and large use traditional fuels like kerosene, diesel and petrol for operating their engines. These fuels not only pollute the air but also slowly deteriorate the marine environment. Further, the spiraling price of these conventional fuels is making the fishing venture increasingly uneconomical. Shortage of kerosene through PDS has already put burden on fishermen in certain States. In order to overcome this, the LPG kit for use on OBMs is a recent development through sustained R&D efforts. The results obtained from a pilot study indicates positive factors such as reduced wear and tear to the engines, lower cost of operation and a substantial reduction in emissions. The use of LPG kit in OBMs is being encouraged to undertake environment friendly fishing.

Under this component, Central financial assistance to the tune of 30 % cost of LPG kit with a ceiling of ₹10,000/- to each unit is provided to the beneficiaries. This component is implemented through State Fisheries Federations/Corporations and Panchayati Raj Institutions.

5.5.2.1.7 Management of Marine Fisheries: Over capacity and over fishing are the two identified major factors contributing to resource depletion in marine capture fisheries. Many parts of the world's oceans have their major commercial stock either totally depleted or are heading towards the point of depletion. Unsustainable fishing practices, damage to marine habitat and illegal, unregulated and unreported fishing are other major challenges, which need to be addressed. Maximization of fish production and exports through various developmental strategies has occupied the centre-stage of our fisheries planning since independence. Since the exploitation of fisheries resources in the territorial waters have either reached the optimum level or exceeded in certain instances, focus has to be shifted to scientific management of our marine fisheries with development of appropriate tools and techniques in harmony with international guidelines in the matter. This new component aims at initiating science-based management of marine fisheries. The activities undertaken under this component include (i) conducting awareness programmes, (ii) implementing Code of Conduct for Responsible Fisheries (CCRF), (iii) capacity evaluation, (iv) undertaking community outreach programmes on sustainable



fisheries and (v) production of Audio visuals on over fishing/over capacity. The Government of India provides 100 % financial assistance to undertake these activities. This component is implemented through States/UTs, PRIs, Central Fishery Institutes, NGOs and Fishermen Organizations/Societies.

5.5.2.2 Development of Infrastructure and Post Harvest Operations

5.5.2.2.1 Establishment of Fishing Harbours & Fish Landing Centers

5.5.2.2.1.1 Development of infrastructure facilities for the fishery sector is one of the important factors that contribute to augment marine fish production and its exports. 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 had been initiated in 1964. The facilities created under the scheme are fishing harbours and fish landing centres which include breakwaters, wharf, jetty, dredging, reclamation, quay, auction hall, slipway, workshop, net mending shed and other ancillary facilities.

5.5.2.2.1.2 Since Tenth Five Year Plan, the scheme has been merged with the CSS on Development of Marine Fisheries, Infrastructure and Post Harvest Operations as a component on 'Establishment of Fishing Harbours and Fish Landing Centres'. The Central financial assistance under this component is provided to various

implementing agencies consisting of (i) 75% to Coastal States, Port Trust, Fishermen Cooperative Societies / Organizations/Associations and 100% to UTs for (a) construction of minor fishing harbours and fish landing centres; and (b) upgradation/expansion/repair/renovation of existing minor fishing harbours and fish landing centres, (ii) 100 % assistance to Coastal States, Port Trust, Fishermen Cooperative Societies/Organizations / Associations for construction of major fishing harbours, including expansion/modernization of existing major fishing harbours and (iii) 50 % assistance to Private Entrepreneurs for construction of major/minor fishing harbours and fish landing centres on Build, Operate & Transfer (BOT) basis.

5.5.2.2.1.3 During the financial years 2011-12 and 2012-13 (till 31st December, 2012), Central financial assistance of about ₹5,990.33 lakh and ₹4,473.25 lakh respectively were provided to various beneficiary States/UTs for development of fishing harbours and fish landing centres under this scheme .

5.5.2.2.2 Strengthening of Post-Harvest Infrastructure

5.5.2.2.2.1 The Central Sector Scheme implemented till the end of 8th Five Year Plan was reintroduced as a component under the CSS on Development of Marine Fisheries, Infrastructure and Post Harvest Operations from 10th Five Year Plan onwards with a view to create necessary facilities to provide remunerative prices to the fish farmers for their produce and make available fresh fish at reasonable prices to the consumers.

A total of 7 major fishing harbours, 74 minor fishing harbours and 197 fish landing centers have been taken up for implementation in various coastal States/Uts till 31.12.2012. Besides, one major fishing harbour, 13 minor fishing harbours and 11 fish landing centers have been taken up for repair and renovation/modernization.



5.5.2.2.2 The component under the ongoing plan period consists of four sub-components namely (i) Developing fish preservation and storage infrastructure, (ii) Developing retail fish marketing infrastructure, (iii) Assistance for fish transport infrastructure and (iv) Development of Central Fish Markets in metros and big cities. This programme is implemented through Government Undertakings, Corporations, Federations, Marketing boards, Cooperative Societies, Self Help Groups, NGOs, Self Help Groups of Women, SHGs of SC/ST, Private Companies owned by fishermen, SCs/STs.

5.5.2.2.2.3 During the financial year 2011-12, a total of 25 post harvest projects at a total cost of ₹2651.80 lakhs were approved. During 2012-13 (till 31st December, 2012) a total of 20 post harvest projects at a total cost of ₹1,585.53 lakh were approved under this component.

5.5.2.2.3 Assistance for Maintenance of Dredging of Fishing Harbours and Fish Landing Centres.

5.5.2.2.3.1 In order to cater to the needs of safe landing and berthing facilities for various categories of fishing vessels plying along the coast of the country, fishing harbour and fish landing centre facilities have been developed under the centrally sponsored scheme in association with maritime States, Union Territories and Port Trusts. Every fishing harbour/fish landing centre is subjected to siltation due to natural phenomenon. Periodical maintenance and dredging is inevitable to keep the harbour/landing centre basin fit for safe navigation.

5.5.2.2.3.2 Realizing the siltation problem faced by existing fishing harbours and fish landing centres, a Trailing Suction Hopper Dredger 'TSD Sindhuraj' has been procured under the Japanese Grants-in-aid programme with an aid of Japanese Yen 1,248.00 million. The dredger TSD Sindhuraj is the most ideal for dredging in shallow waters. The ability of the dredgers with 2 to 2.50 meters draft and 200 cubic meters hopper capacity can remove siltation of about 2 lakh cubic meters annually.

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

5.5.2.2.3.4 Under this component, one major fishing harbour and 10 minor fishing harbours at a total cost of ₹2,471 lakhs with central liability of ₹1,235.70 lakh were taken up for dredging during the financial year 2011-12.

5.5.2.3 Provision for Taking up Innovative Activities.

5.5.2.3.1 This is a new component introduced under the CSS during the



11th Five Year Plan period. Under this component, financial assistance is provided for taking innovative activities in marine fisheries/infrastructure, human resource development, strengthening of fisheries management, monitoring, evaluation and R & D studies in fisheries.

5.5.3 Progress of the CSS during 2011-12 and 2012-13

5.5.3.1 A sum of ₹7,592.91 lakh was released during 2011-12 and ₹6,067 lakh was released during 2012-13 (till 31st December, 2012) to various implementing agencies under the scheme Development of Marine Fisheries, Infrastructure and Post Harvest Operations.

5.5.4 Development of Deep Sea Fishing

5.5.4.1 On the basis of the guidelines issued by the Department during November, 2002 permitting Indian Flag Vessels in the Indian Exclusive Economic Zone, Indian companies are issued Letters of Permission (LOPs) for import & operation of resource specific vessels. So far, 91 deep sea fishing vessels belonging to 27 Indian Companies/Firms are holding valid LOPs and are authorized to fish in the Exclusive Economic Zone (EEZ) of India beyond territorial waters.

5.5.4.2 Revalidation of Marine fishery Resources from Indian EEZ: The potential yield of the Indian Exclusive Economic Zone (EEZ) has been revalidated as 4.41 million tonnes by the Working Group of Experts constituted by this Department of this, the pelagic resources account for 2.13 million tonnes, the demersal resources account

for 2.07 million tonnes and the oceanic resources would be 0.22 million tonnes. The current estimate of potential yield is higher by about 0.5 million tonnes, as compared to its' previous estimate, which was evaluated at 3.92 million tonnes by the Working Group of Experts in 2000.

5.6 National Scheme for Welfare of Fishermen

5.6.1 This scheme has the following four components: -

- (a) Development of Model Fishermen Villages;
- (b) Group Accident Insurance for Active Fishermen;
- (c) Saving-cum-Relief and
- (d) Training and Extension

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 villages would be provided with tube wells at the rate of one tube well for every 20 houses. For recreation and common working place, a fishermen village with at least 75 houses is eligible to avail financial assistance for construction of a community hall. Unit costs under the scheme is ₹50,000/- for a house, ₹30,000/- for the tube-well (₹35,000 for North Eastern Region) and ₹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 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 ₹1,00,000/- for one year against accidental death or permanent total disability and ₹50,000/- for permanent partial disability. The upper limit for insurance premium is ₹30/- per head. 50 % of the annual premium is subsidized as grants in aid by the Centre and remaining 50 % by State Governments. In case of a Union Territory, 100 % premium is borne by Government of India. A single policy is taken in respect of all those States/Union Territories that are participating through FISHCOPFED.

5.6.1.3 Saving-cum-Relief: 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 the earnings during non-lean months. A contribution of ₹600/- in 9 months of fishing period is being made by fisherman and ₹1,200/- are being contributed by the Centre and the State on 50:50 basis. The total sum of ₹1,800/- is distributed to fisherman @ ₹600/- per month for three months of lean period.

5.6.1.4 Training and Extension: 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 to upgrade their skills. To enhance training facilities, the Scheme has provision to extend assistance for setting

up/up gradation 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. The Central Government and the NFDB also provides funds to FISHCOPFED for undertaking training of the stakeholders in the fisheries sector.

5.6.2 Progress of scheme during 2011-12 and 2012-13:

5.6.2.1 A sum of ₹44.06 crore was released to States/UTs/FISHCOPFED during 2011-12 to cover about 4.39 lakh fishers under Saving - cum - Relief component, for construction of 3,041 houses, to cover 39.04 lakh fishermen under Group Accident Insurance component and for training 3,400 fish farmers.

5.6.2.2 During 2012-13 (till 31st December, 2012), a sum of ₹31.32 crore has been released to States/ UTs/ FISHCOPFED to cover about 2.69 lakh fishers under Saving-cum-Relief component, to construct 3,235 houses for fishers, to cover 35.74 lakh fishers under Group Accident Insurance and establishment of one training-cum-awareness centre.

5.7 Strengthening of Database and Geographical Information System for Fisheries Sector

5.7.1 The Central Sector Scheme 'Strengthening of Database and Geographical Information System for Fisheries Sector', with an outlay of ₹48.68



crore is being implemented with 100 % Central assistance during Eleventh Five Year Plan. The Scheme consists of following components:

- (a) Sample survey for estimation of inland fishery resources and their potential and fish production.
- (b) Census on marine fisheries
- (c) Catch assessment survey for inland and marine fisheries
- (d) Development of GIS
- (e) Assessment of fish production potential in coastal areas
- (f) Evaluation Studies/professional services
- (g) Registration of fishing vessels
- (h) Development of database of fisheries cooperative of India
- (i) Mapping of smaller water bodies and development of GIS based fishery management system
- (j) Strengthening of Statistical Unit at Headquarters

5.7.1.1 Sample Survey for Estimation of Inland Fishery Resources and their Potential and Fish Production: Sample survey to prepare benchmark estimates of inland fish production along with potential of inland fish production and productivity, was conducted in the initial years of 11th Five Year Plan. It is now proposed to conduct pilot study for production potential of 22 districts of three States, namely, Haryana, Karnataka and Assam.

5.7.1.2 Census on Marine Fisheries: The Census on Marine Fisheries was conducted

in 2010 entrusting Central Marine Fisheries Research Institute (CMFRI), for mainland, and Fishery Survey of India (FSI) for Andaman & Nicobar Islands and Lakshadweep.

5.7.1.3 Catch Assessment Surveys for Inland & Marine Fisheries: Catch Assessment Survey of Inland and Marine Fisheries are conducted on regular basis and the States are furnishing quarterly estimates of fish production based on data collected through sample surveys. The methodology of sample surveys was developed by Central Inland Fisheries Research Institute (CIFRI) for inland and CMFRI for marine fisheries.

5.7.1.4 Development of Geographical Information System of the Fisheries Sector: For the development of Geographical Information System (GIS), inland waterbodies of area 0.5 ha. and above were mapped during 10th Five Year Plan using satellite images of LISS III in all the States and LISS IV in five States. During 11th Five Year Plan, LISS IV images are being used for all the States and coverage of water body, greater than 0.5 hectare, will be taken.

5.7.1.5 Assessment of Fish Production Potential in Coastal Areas: It is essential that data on different species harvested from brackishwater aquaculture farms is included in overall production data to arrive at correct production data. In this direction, a proper methodology will be evolved for collecting this information through farmers/collection centres/processing plants and task of survey for potential estimation is being done by CIFRI/State Governments.



5.7.1.6 Evaluation Studies/Professional Services: To get evaluation studies conducted from time to time to assess progress of the scheme or a particular component of the Scheme, this component has been provided.

5.7.1.7 Registration of Fishing Vessels: Issue of registration of fishing vessels along with other coastal security issues have been greatly emphasized after terrorist attack in Mumbai on 26.11.2008 and to have a uniform system for registration of all types of fishing vessels, irrespective of their size and tonnage in lieu of different registration regimes adopted by coastal States/UTs is desirable.

5.7.1.8 This component is implemented in nine coastal States and four UTs besides establishing requisite infrastructure facilities for creation of centralized database in Department of Animal Husbandry, Dairy and Fisheries, New Delhi. Under this component, 100 % central financial assistance is provided to all Coastal State Governments, UTs and National Informatics Centre (NIC) for development of required software and creation of necessary infrastructural facilities. Besides, entire cost for development of centralized database in New Delhi and its management, maintenance and operation will be met under the Scheme.

5.7.1.9 Development of Database of Fisheries Cooperative of India: It is necessary to study socio-economic status of fishers especially income, literacy, technical knowledge etc. FISHCOPFED will conduct survey and record the facilities available with primary level cooperative

societies in 30 States and 4 UTs of India. FISHCOPFED will also appoint Field Surveyors/Investigators for this purpose. FISHCOPFED is running four Regional Offices in Andhra Pradesh, Assam, Chhattisgarh and Orissa. An amount of ₹100 lakh is provided for this project.

5.7.1.10 Mapping of Smaller Waterbodies and Development of GIS Based Fishery Management System: This component will be implemented in State of West Bengal on pilot basis, and relates to idea of mapping of all water bodies for an area of 5 cottah (0.08 acre) or more along with related activities associated with such water bodies on scale of 1: 4000 by application of Remote Sensing Technologies, conceived in year 2007. The project proposal includes mapping of water bodies and development of GIS based fisheries management system.

5.7.1.11 Strengthening of Statistical Unit at Headquarters: Due to shortage of staff and infrastructure at Headquarters, it is not possible to compile statistics for this Scheme and hence, it is proposed to engage contractual Data Entry Operator and purchase essential infrastructural items like PC with software packages, photocopier, scanner and other consumable goods for which an amount of ₹10 lakh is proposed.

5.7.2 Progress of the scheme during 2011-12 and 2012-13

5.7.2.1 A sum of ₹4.32 crore was released for the year 2011-12 and a sum of ₹2.93 crore has been released during



2012-13 (till 31st December 2012) under the scheme.

5.8 Assistance to Fisheries Institutes

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

5.8.1.1 Central Institute of Fisheries, Nautical & Engineering Training (CIFNET) was established in 1963 by the Ministry of Agriculture, Government of India at Cochin. Further two units of the institute were set up at Chennai and Visakhapatnam. The primary objective of the institute is to make available sufficient number of trained operatives for fishing vessels and technicians for shore establishments.

5.8.1.2 The institute conducts various courses including (i) Bachelor of Fishery Science (Nautical Science)' approved and affiliated by Cochin University of Science & Technology recognized by UGC; (ii) Two Trade courses, Vessel Navigator & Marine Fitter of duration of two years, approved by the Ministry of Labour, affiliated to National Council for Vocational Training (NCVT) and (iii) short term training programmes for the benefit of students from professional colleges, sister organizations, fisheries departments of the State Govt. etc.

5.8.1.3 During 2012-13 (till 31st December 2012), 77 persons and 164 persons were trained respectively in these two main training courses B.F.Sc (Nautical Science) and VNC / MFC. In addition, 7 persons were trained in Shore Mechanics Course and 359 persons were trained in various short term

programmes for sponsored/Departmental candidates in fishing technology, gear technology, marine engineering etc. In addition to the above main courses, various short term/Ancillary courses are also being conducted at all the three Centers. The Institute has three fishery training vessels and all the vessels are being utilized for imparting onboard practical training for Institutional trainees and for providing qualifying sea service for Post-institutional trainees of the Institute

5.8.1.4 Expenditure to the tune of ₹13.69 crore was incurred during 2012-13 till 31.12.2012.

5.8.2 National Institute of Fisheries Post Harvest, Technology & Training (NIFPHATT), Cochin.

5.8.2.1 The Integrated Fisheries Project was renamed by the Government of India in 2008 as National Institute of Fisheries Post Harvest Technology & Training.

5.8.2.2 During 2011-12, the Institute has processed 167.65 tonnes of fish and made 115.76 tonnes of different fishery products from it. NIFPHATT test marketed and popularized 126.41 tonnes of fish and fish products through stalls, mobile units, contractor sales etc realized ₹ 99.19 lakh. The Institute has imparted training to a total of 495 trainees in various disciplines with 7,438 trainee days and fetched a revenue of ₹3.69 lakhs from it. The total revenue fetched from all the sources was ₹184.26 lakhs. During the year 2012-13 (till 31st December 2012), the Institute has processed 109.25 tonnes of raw material and developed 74.09 tonnes of different



fishery products. It sold 82.21 tonnes of fish and fish products through stalls, mobile units, contractor sales etc valued at ₹80.84 lakh. The Institute has imparted training to a total of 460 trainees with 7,688 trainee days in various discipline, and fetched total revenue of ₹4.08 lakh. The Institute has fetched total revenue of ₹98.54 lakh from all sources.

5.8.2.3 Expenditure to the tune of ₹164.37 lakh under Plan has been incurred during the year 2012-13 till 31.12.2012.

5.8.3 Fishery Survey of India (FSI)

5.8.3.1 The Fishery Survey of India (FSI) is responsible for survey and assessment of marine fishery resources of the Indian EEZ with its headquarter at Mumbai. The FSI has six operational bases at 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 12 ocean ongoing survey vessels are deployed for fisheries resources survey and monitoring. Besides resources surveys, the FSI monitors the fishery resources for the purpose of regulation and management, makes an assessment of suitability of different types of craft and gear for deep-sea and oceanic fishing, imparting in-vessel training to CIFNET/Polytechnic trainees, disseminates 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, mid-water/columnar resources survey and long line survey for demersal, columnar and oceanic tunas and allied resources as well as for oceanic sharks.

5.8.3.2 While accomplishing these tasks, the Institute has also taken care of conducting regional workshops, open-houses, exhibitions etc for the benefit of the fishermen, the fishing industry and the end-users as part of the extension activities in all the maritime states for the development of the marine fisheries of the respective regions. About 996 fishermen were benefited by their active participation in the workshops and open-houses. The Institute has also been acting as an interface between the Ministry of Agriculture and the State fisheries in collecting and compiling the marine fish landing statistics. In collaboration with the National Fisheries Development Board (NFDB), Hyderabad, Fishery Survey of India organized a training programme for onboard training to train fishermen on the latest technologies in tuna long lining onboard FSI survey vessels for the benefit of fishermen. So far 131 fishermen from different maritime states were trained on the latest technologies of tuna longlining.

5.8.3.3 During the period 2011-12 and 2012-13 (till 31st December, 2012), the survey vessels collectively had 926 fishing days and 565 fishing days respectively, expending a total fishing effort of 2,440 hours and 1,418 hours and operated 1,78,009 hooks and 1,34,960 hooks respectively.

5.8.3.4 Expenditure to the tune of ₹30.18 crore and ₹20.73 crore were incurred during 2011-12 and 2012-13 till 31.12.2012 respectively.

5.8.3.5 In addition to accomplishing these tasks, the Institute conducted regional workshop, open-houses, exhibitions, etc.



for the fishermen, the fishing industry and the end-users as part of the extension activities in all the Maritime States for the development of the marine fisheries in the respective regions. The Institute has also been acting as an interface between the Ministry of Agriculture and the State Fisheries in collecting and compiling the marine fish landing statistics. Survey vessels are also utilized for imparting onboard training programme for tuna long lining to fishers sponsored by Maritime State and UTs. FSI successfully conducted the National Marine Fisheries Census-2010 in respect of Andaman & Nicobar and Lakshadweep.

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

5.8.4.1 The Central Institute of Coastal Engineering for Fishery (CICEF), was established in January 1968, under technical and manpower assistance from the Food and Agriculture Organization (FAO) of the United Nations Development Programme (UNDP). The main objectives of establishing this Institute were to identify potential fishery harbour sites existing all along the coastline of the Country for the development of fishery harbours, to undertake engineering and economic investigations for the selected fishery harbour sites and prepare techno-economic feasibility reports (TEFR) for the development of Fishing Harbours and Fish landing Centres, Brackish water shrimp farms and hatchery projects.

5.8.4.2 This Institute, till the end of 31st December 2012 has carried out

engineering and economic investigations for the development of fishery harbours and fish landing centres at 84 sites and prepared TEFRs for 84 sites. This Institute has also reconnoitered about 66,200 ha. of brackishwater area and engineering investigations were carried out over 15,600 ha. in all the maritime States and Union Territories for the development of brackishwater shrimp culture projects.

5.8.4.3 During the year 2012-13, the Institute conducted engineering and economic investigations for development of FH at Versova fishery harbour site in Maharashtra. The Institute prepared and issued revised TEFR of proposed fishery harbour at Poompuhar in Tamil Nadu. Prepared and submitted report on the field visits of proposed FLC sites at Uppalanka and Biyyaputhippa in Andhra Pradesh. Prepared and issued technical appraisal reports on modernization/renovation of fishery harbours. fish landing centres under NFDB financial assistance for 1) Beypore fishery harbour in Kerala 2) Thoothukodi fishery harbour and 3) Colachel fishery harbour in Tamil Nadu.

5.8.4.4 Against budget expenditure of ₹375.00 lakhs for the year 2012-13 under Non-Plan, the cumulative expenditure incurred (till 31st December, 2012) is ₹171.50 lakhs and there is no allocation of funds under Plan for the Institute during the current financial year.

5.9 National Fisheries Development Board (NFDB)

5.9.1 National Fisheries Development Board (NFDB) was set up in September,



2006 with its headquarter at Hyderabad to realize the untapped potential of fisheries sector in inland and marine fish capture, culture, processing & marketing of fish, and overall growth of fisheries sector with the application of modern tools of research & development including biotechnology for optimizing production and productivity from fisheries.

5.9.2 The activities of the Board is focused towards increasing the fish production of the country to a level of 10.3 million tonnes, to double the exports from ₹7,000 crore to ₹14,000 crore and provide employment 3.5 million persons by extending assistance to various agencies for implementation of activities under inland, brackish water and marine sectors. It will propagate a platform for public-private partnership for fisheries.



Modern Shrimp Hatchery

5.9.3 Objectives of the National Fisheries Development Board are:

- (i) To bring major activities relating to fisheries and aquaculture for

focused attention and professional management;

- (ii) To coordinate activities pertaining to fisheries undertaken by different Ministries/Departments in the Central Government and also coordinate with the State/Union Territory Governments;
- (iii) To improve production, processing, storage, transport and marketing of the products and culture fisheries;
- (iv) To achieve sustainable management and conservation of natural aquatic resources including the fish stocks;
- (v) To apply modern tools of research and development including biotechnology for optimizing production and productivity from fisheries;
- (vi) To provide modern infrastructure mechanisms for fisheries and ensure their effective management and optimum utilization;
- (vii) To generate substantial employment;
- (viii) To train and empower women in the fisheries sector;

5.9.4 Achievements of the National Fisheries Development Board:

5.9.4.1 Intensive Aquaculture in ponds and tanks: An amount of ₹509.25 lakh has been released till December, 2012 during 2012-13 to 8 States to construct/ renovate new ponds in 167.32 ha., 11 hatcheries, 29.43 ha of fish seed rearing units; training



and demonstration to 12089 beneficiaries in intensive aquaculture practices.

5.9.4.2 Coldwater fisheries: An amount of ₹151.25 lakh was released to established 300 running water culture units, 3 trout hatcheries and 120 trout raceways in Himachal Pradesh, Sikkim and Tamil Nadu.

5.9.4.3 Reservoir Fisheries Development: An amount of ₹756.08 lakh was released to 16 States towards seed stocking in 153 reservoirs covering an area of 3.5 lakh ha. and training & demonstration to 1370 members in reservoir fisheries management.

5.9.4.4 Coastal Aquaculture: An amount of ₹383.72 lakh was released towards expansion of existing AQF of RCA, conversion of a shrimp farm to brackish water fin fish culture ponds and taking up 4 technology upgradation projects viz; Zero water exchange shrimp culture with Bioremediation and Integral disease management, Marketing and value chain improvement strategies of white leg shrimp (*L.vannamei*) farming in India, Appraisal of evolving *L. vannamei* culture system and associated production risks for development of BMPs in Kerala and Tamil Nadu.

5.9.4.5 Mariculture: An amount of ₹53.15 lakh was released towards establishing a marine ornamental fish hatchery in Lakshwadeep and integrated marine ornamental fish hatchery in Tamil Nadu.

5.9.4.6 Infrastructure for Post Harvest Processing: An amount of ₹115.29 lakh was released towards modernization of 2 fishing harbour in Kerala.

5.9.4.7 Domestic Marketing: An amount of ₹1778.53 lakh was released to 9 States for modernization of 11 whole sale fish markets ; setting up of 9 modern fish retail markets and setting up of 5 retail outlets, 4 mobile fish vending vehicles to fisherwomen cooperatives. About 5205 trainees were also imparted training on various aspects of fish handling, value addition and marketing.

5.9.4.8 Deep sea fishing and tuna processing: An amount of ₹22.80 lakh was released to Lakshadweep for the construction of one 65 footer multigear fishing boat and training 120 fishermen in tuna long lining.

5.9.4.9 Ornamental fisheries: An amount of ₹105.35 lakh was released for development of ornamental fisheries by establishing 127 integrated/ medium scale/ backyard ornamental fish units in 8 states in the country.

5.9.4.10 Human Resource Development Programme: NFDB spent an amount of ₹187.52 lakh towards training 18879 farmers/fishermen in various aspects of inland, domestic marketing, coastal and marine fisheries. In addition to that fishery professionals have been trained on scientific management practices, governance, marketing, harbor management, extension management, cooperatives management, brood stock improvement, cage culture, mud crab culture, shrimp farming, hygienic handling, processing and fish packaging at a cost of ₹21.96 lakh.

5.9.4.11 In the year 2012-13 (up to December 2012), ₹43.15 crore were



released to achieve the intended objectives.

5.10 Coastal Aquaculture Authority

5.10.1 The Coastal Aquaculture Authority (CAA) was established under the Coastal Aquaculture Authority Act, 2005 notified vide Gazette Notification dated 22nd December, 2005. The main objective of the Authority is to regulate coastal aquaculture activities in coastal areas in order to ensure sustainable development without causing damage to the coastal environment. The Authority is empowered to make regulations for the construction and operation of aquaculture farms in coastal areas, inspection of farms to ascertain their environmental impact, registration of aquaculture farms, fixing standards for inputs and effluents, removal or demolition of coastal aquaculture farms, which cause pollution etc.

5.10.2 Government of India, vide Notification dated 15th October, 2008, issued by the Department of Animal Husbandry, Dairying & Fisheries (DAHD & F), Ministry of Agriculture, under the Livestock Importation Act, 1898, (as amended by Livestock Importation Act, 2001), has authorized CAA to grant permission for importing broodstock of SPF *Litopenaeus vannamei* and to grant approvals for seed production in bio-secured hatcheries and farming in bio-secured farms.

5.10.3 Activities and Achievements of the Authority

5.10.3.1 One of the major tasks accomplished by the CAA was the

registration of shrimp farms on the recommendations of the State and District Level Committees constituted for this purpose. During the year, CAA has considered and approved 1856 applications recommended by the DLCs/ SLCs for registration and issued Registration Certificates. The total area of the 1856 farms registered with CAA during 2012 for farming constitutes 2776.12 ha. Altogether, 25, 862 Registration Certificates have been issued to coastal aqua farms since inception of CAA. The Authority also resolved many vital issues such as norms for registration of hatcheries, antibiotic residues in shrimp, closure of farms and hatcheries violating the Act, Rules and guidelines, Environment Impact Assessment, stocking density etc.

5.10.3.2 The Inspection Team constituted by CAA inspected 58 hatcheries during 2012, out of these, 45 hatcheries have been granted approval to import SPF *L. vannamei* broodstock as well as for production and sale of post larvae to the registered farms, who have been permitted to culture SPF *L. vannamei*. CAA has approved and issued LoPs to 105 shrimp hatcheries with seed production capacity of 7,611 million for the current year.

5.10.3.3 During the year, 403 farms with total area of 2681.31 ha (water spread area (WSA) of 1874.99 ha) have been inspected by the Inspection Team constituted by the CAA and based on compliance of the guidelines issued by Ministry of Agriculture, Government of India, 326 farms with total area of 2468.35 ha (water spread area of



1697.97 ha) have been permitted by the CAA to undertake SPF *L.vannamei* culture in the States of Andhra Pradesh, Tamil Nadu, Maharashtra, Gujarat, Orissa, Goa, Gujarat and Union Territories of Diu and Pondicherry. Altogether, 771 shrimp farms with total area of 7997.77 ha (water spread area of 5425.93 ha) have been permitted for SPF *L. vannamei* farming from 2009 to December, 2012.

5.10.3.4 Besides, CAA also conducted awareness programme to shrimp farmers (78 participated) of Nellore and Prakasam Districts of Andhra Pradesh. In the awareness programme, powers and functions of CAA as provided in the Rules, Regulations and Guidelines under the CAA Act 2005 were mainly highlighted. Issues of antibiotics, FAO's Code of Conduct for sustainable aquaculture, Good Management Practices (GMP's) and guidelines for regulating hatcheries and farms for introduction of SPF *L. vannamei* were also covered in the awareness programmes.

5.10.3.5 CAA had sponsored and co-ordinated the "Train-the-Trainers- Good Aquaculture Practices" course along with the Fisheries College & Research Institute, Thoothukudi, organized by Joint Institute for Food Safety and Applied Nutrition (JIFSAN), USDA, University of Maryland, USA at the Tamil Nadu Veterinary and Animal Sciences University (TANUVAS), Chennai during 17th to 21st January, 2012. Totally 38 candidates representing 23 organizations participated in the course. CAA also participated in exhibitions organized by Central Institute of Brackishwater Aquaculture (CIBA), Chennai

and Asian Fisheries Society Indian Branch (AFSIB), Mangalore.

5.11. Issuance of Biometric Identity cards to Marine Fishers:

5.11.1 In the backdrop of the terrorist attacks in Mumbai on 26th November, 2008, the Government of India felt it is necessary to issue Biometric Identity Cards to marine fishers involved in fishing and allied activities. Accordingly a "Central Sector Scheme (CSS) on Issuance of Biometric ID Cards to Marine Fishermen" at a total cost of ₹72 crore was launched on 11th December, 2009. The project on issuance of Biometric ID cards involves two major activities such as (a) data collection and authentication by the respective States/UTs and (b) digitization of data, capturing of biometric details of individual fisher, production and issuance of cards. Under this scheme, the Government of India provides 100% financial assistance to the Coastal States and UTs, besides meeting the entire cost of consultancy. The main objective of this project is to create a National Marine Fishers Database (NMFD), which could be accessed by all the authorized agencies both in the Central and coastal States/UTs. Other objectives of this project are to empower marine fishers through issuance of application oriented biometric ID card and to eliminate duplication of different cards issued by various coastal States and UTs.

5.11.2 A consortium of three Central Public Sector Undertakings (CPSUs) led by Bharat Electronics Limited (BEL),



Bangalore have been entrusted the tasks of data digitization, capturing of biometric details and other works relating to design, production and issuance of Biometric ID Cards to marine fishers. Other two members of consortium are the Electronics Corporation of India Limited (ECIL), Hyderabad and Indian Telephone Industries Limited (ITI), Bangalore. The project is presently under implementation and its activities such as collection and digitization of data, biometric enrollment verification, electronic personalization and production of cards are in full swing. Out of 18,12,011 marine fishers so identified,

data collection in respect of 16,47,927 fishers has been completed. The consortium of CPSUs has so far produced 10,93,164 cards and dispatched to the states for distribution to the fishers.

5.11.3 Under this project a sum of ₹33 crore has been released during 2009-2010 comprising ₹8 crore to the Coastal State Governments and UTs and the remaining ₹25 crore to the consortium of CPSUs. No fund was released during 2010-11 to 2012-13 (till 31st December, 2012), as there was no proposals received from States/UTs.

Chapter 6 to 9

TRADE MATTERS

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

**EMPOWERMENT OF
WOMEN**

**INTERNATIONAL
COOPERATION**



CHAPTER 6

TRADE MATTERS

6.1 Introduction

6.1.1 The Department amended the Livestock Importation Act, 1898 bringing all the livestock products under its purview for the purpose of regulating their import. Accordingly, Notifications No. 655(E) dated, 7th July, 2001 for livestock products, No. 1043(E) dated 16.10.2001 for fishery products and No. 1175(e) dated 27.11.2001 for Grand Parent stock of poultry had been issued making it mandatory to import livestock products against Sanitary Import Permit (SIP). On 28.03.2008 vide Notification No. 794 (E), the Department has further amended the Notification No. 655(E) dated, 7.07.2001 where by it has categorized the livestock products requiring Sanitary Import Permit (SIP), the products that may be cleared on the basis of No Objection from the Animal Quarantine and Certification Services and the products which require neither SIP nor No objection. The SIP is issued after conducting a risk analysis on the basis of disease situation of the exporting country vis-a-vis disease situation of this country.

6.2 Procedure for Imports

6.2.1 A Committee on Risk Analysis has been constituted under the Chairmanship of Joint Secretary (Trade) with representatives of all divisions as its members to consider the applications received for issuance of SIP to import various livestock products. The application form for the import of

livestock and fishery products is available on the website (www.dahd.nic.in) of the Department. The applications received are examined and a risk analysis is undertaken by the technical experts of the Department on the basis of scientific evidence and OIE regulations. The recommendations of the technical experts are considered by the Risk Analysis Committee either to reject the application or issuance of SIP. Aggrieved applicant can seek a review of the decision of the Risk Analysis Committee through filing a review / representation addressed to Joint Secretary (Trade).

6.2.2 The Department also processes the proposals for import / export / manufacturing / marketing of livestock products such as vaccines, drugs & biological received from various State Governments/firms/organizations. The views of the Department on these proposals are communicated to the Directorate General of Foreign Trade / Drugs Controller General of India for issuance of necessary import license in favour of concerned State Governments/firms/ Organizations after considering the same by a Committee on Trade & Investment Matters. The Committee on Trade & Investment Matters also meets under the Chairmanship of Joint Secretary (Trade) with all the Joint Secretaries as its members.

6.2.3 The meeting of the said committee is held at 10 to 15 days' intervals in every



month. 21 meetings of the Committee were held during the year 2012 and 217 nos. of No Objection Certificates were issued in favour of various firms/Organizations as well as to various State Governments (up to December,2012). The Unit issued 1678 Sanitary Import Permits during the year 2012 to various firms/organizations to enable them to import various livestock products, including Fisheries products.

6.2.4 The Department has put in place a system of submission of on-line applications for issuance of Sanitary Import Permit to various firms/ Organizations engaged in activities of import of livestock and livestock products. The procedure for applying on-line for SIPs is available on Department's website www.dahd.nic. in along with application form and other relevant information.



CHAPTER 7

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

7.1 The Department is implementing various Central Sector and Centrally Sponsored Schemes, mainly aimed at strengthening the infrastructure of the State Governments for the development of livestock, dairying & fisheries sectors. None of the schemes, except Welfare Programme for Fishermen, is directly beneficiary-oriented. A large population of the country belonging to the Scheduled Castes, Scheduled Tribes, other weaker sections of the society and women are engaged in activities in the livestock and fisheries sectors. As a corollary, the various schemes implemented by the Department benefit these sections of the society. However, the Department is not maintaining a record of people belonging to Scheduled Castes, Scheduled Tribes and women benefiting from these schemes. Keeping in view the nature of the schemes, the State Governments/Implementing

Agencies have also not been maintaining such a record.

7.2 As per the guidelines issued by the Planning Commission vide D.O. letter No.N-11016/12(1)/2009-PC dated 15.12.2010 to earmark 16.2% of funds under Scheduled Castes Special Plan (SCSP), the Department has earmarked ₹259.20 crore in 2011-12 under different schemes/programmes under SCSP component. Against this, ₹144.28 crore had already been incurred under different schemes in 2011-12. In the current financial year 2012-13, the department has earmarked ₹309.00 crore under different schemes/programmes under SCSP component.

7.3 The Department had been exempted for earmarking of funds under Tribal Sub Plan (TSP).



CHAPTER 8

EMPOWERMENT OF WOMEN

8.1 Women in Animal Husbandry & Dairying

8.1.1 The Department does not have any specific scheme designated for empowerment of women. However, the Department has always emphasized on providing benefits to women engaged in animal husbandry, dairying & fisheries.

8.1.2 In the Animal Husbandry sector, men and women work hand in hand with certain activities like feeding the animals, milking of animals etc. mostly performed by women. However, 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.

8.1.3 Women have been at the fore-front of dairy cooperative movement, which was initially carried under the Operation Flood Programme and later also under the Integrated Dairy Development Programme implemented by the Government.

8.1.4 In the poultry sector, the rural backyard poultry is an income supplementing scheme mostly implemented by women, priority in training should be given to women.

8.1.5 Similarly, in the scheme for conservation of breeds, the conservation of sheep, goat and small ruminants are oriented in such a way that women are being identified to take up such schemes.

8.1.6 Women are actively involved in allied fisheries activities like fish seed collection, fishing of juvenile fishes, collection of mussels, edible oysters, sea weeds, fish marketing, fish processing and product development etc. Training and micro finance are provided to encourage and organizing them into groups and capacity building which are the thrust areas for enhancing their involvement and participation in the fishery sector.

8.1.7 Schemes/Programmes implemented by the Department have been beneficial to women. All the States/Union Territories have been requested to maintain record in this regard.

8.1.8 A Gender Budget Cell is constituted in the Department with the objective of influencing and effecting a change in the Ministry's policies, programmes in a way that could tackle gender imbalances, promote gender equality and development of women. The Cell is headed by Joint Secretary (APF) with three members. With the approval of the Competent Authority, it has been decided that 10 to 15% of funds should be earmarked under the existing Centrally Sponsored/Central Sector schemes from 2013-14 onwards for Empowerment of Women. Based on the feedback received, the earmarking of funds for Empowerment of Women will be increased from 2014-15 onwards.



CHAPTER 9

INTERNATIONAL COOPERATION

9.1 International Memberships

9.1.1 The Department of Animal Husbandry, Dairying and Fisheries, is a regular member of the following International Organizations related to Animal Health and Fisheries and is paying annual membership contribution to these organizations:-

- 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 (BOPP-IGO) on Fisheries.
- e) International Dairy Federation (IDF), Belgium.

9.2 Deputation/Trainings/ Workshops abroad attended by Officers

9.2.1 During the year, 61 officers were deputed abroad for attending various meetings/seminars/conferences/trainings/workshops etc., to various foreign countries.

9.3 Memorandum of Understanding (MoU) signed during the year 2012

9.3.1 The Memorandum of Understanding (MoU) signed between the Ministry of Marine Affairs and Fisheries of the Republic of Indonesia and Ministry of Agriculture of the Republic of India on 23rd Nov., 2005 in New Delhi has been mutually extended upto 25.11.2015. Under the provisions of this MoU, first meeting of the Joint Technical Committee on Marine and Fisheries Cooperation between the Republic of India and the Republic of Indonesia was held on 6-7 December, 2012.

Chapter 10



SPECIAL LIVESTOCK SECTOR AND FISHERIES PACKAGE FOR THE SUICIDE PRONE IDUKKI AND KUTTANAD DISTRICTS IN THE STATE OF KERALA



CHAPTER 10

SPECIAL LIVESTOCK SECTOR AND FISHERIES PACKAGE FOR THE SUICIDE PRONE IDUKKI AND KUTTANAD DISTRICTS IN THE STATE OF KERALA

10.1 The Government of India had approved Rehabilitation Packages 'Mitigation of Agrarian Distress in Idukki District' in the State of Kerala on 20/11/2008. The packages namely, 'Mitigation of Agrarian Distress in Idukki District' and 'Development of Kuttanad Wetland Eco-system' were part of 'Special Livestock Sector and Fisheries Package for the Suicide-prone Districts in the States of Andhra Pradesh, Maharashtra, Karnataka and Kerala' which was already ended on 30th September 2011. The total outlay of 'Mitigation of Agrarian Distress

in Idukki District' is ₹91.15 crore and that of 'Development of Kuttanad Wetland Eco-system' is ₹9.50 crore. Funds under above two packages can be sanctioned by July, 2013 and November, 2013 respectively. An amount of ₹8.04 crore has been released for Kuttanad package and ₹37.26 crore has been released for Idukki package till 31st December, 2012.

10.2 Out of an amount of ₹45.30 crore released during 2008-09 to 2012-13 (till 31st December, 2012), ₹16.76 crore was released during 2012-13.

Chapter 11



RESULTS FRAMEWORK DOCUMENT (RFD)



CHAPTER 11

RESULTS FRAMEWORK DOCUMENT (RFD)

11.1 Ever since the introduction of the concept of RFD in the year 2009, to measure the performance of ministries/ departments of Government of India, the Animal Husbandry, Dairying & Fisheries (DAHD&F) has been preparing the RFDs every year and placing them on its website for greater transparency and public scrutiny. The achievements of the Department for the year 2011-12 are at **Annexure- XV**. The RFDs for the Department are available on the website of the Department.

11.2 The performance of the Department against the targets set to fulfill its objectives has been very impressive over the years as evidenced from the following composite scores awarded by High Powered Committee (HPC) headed by the Cabinet Secretary:

Year	Score
2010-11	92.91 %
2011-12	80.27 %

ANNEXURES

Annexure-I

TOTAL NUMBER OF LIVESTOCK AND POULTRY—2007 Livestock Census

(Figs. in Thousands)

States/UTs	Cattle	Buffaloes	Sheep	Goats	Pigs	Horses and ponies	Mules	Donkeys	Camel	Yaks	Mithun	Total Livestock	Total Poultry
Andhra Pradesh	11223	13272	25539	9626	439	26	0	50	0		0	60175	123981
Arunachal Pradesh	503	3	20	292	356	6	0	0	0	14	219	1413	1348
Assam	10041	500	354	4320	2000	11	0	0	0		0	17227	29060
Bihar	12559	6690	218	10167	632	51	0	24	0		0	30342	11420
Chhattisgarh	9491	1604	140	2768	413	1	0	0	0		0	14418	14246
Goa	71	37	0	11	58	0	0	0	0		0	177	505
Gujarat	7976	8774	2002	4640	22	14	0	50	38		0	23515	13352
Haryana	1552	5953	601	538	134	26	11	5	39		0	8859	28785
Himachal Pradesh	2269	762	901	1241	2	13	19	7	0	2	0	5217	810
Jammu & Kashmir	3443	1050	4127	2068	1	167	42	24	2	62	0	10987	6683
Jharkhand	8781	1506	483	6592	732	5	0	1	0			18100	11231
Karnataka	10503	4327	9558	6153	281	11	0	26	0			30859	42068
Kerala	1740	58	1	1729	59	0	0	0	0			3587	15686
Madhya Pradesh	21915	9129	390	9014	193	27	3	20	4			40696	7384
Maharashtra	16184	6073	2909	10391	327	38	0	32	0			35954	64756
Manipur	342	62	9	51	314	1	0	0	0		10	789	2403
Meghalaya	887	23	21	365	524	2	0	0	0		0	1823	3093
Mizoram	35	6	1	16	267	1	0	0	0		2	328	1239
Nagaland	470	35	4	178	698	1	0	0	0		33	1419	3156
Orissa	12310	1190	1818	7127	612	0	0	0	0		0	23057	20600
Punjab	1777	5062	208	290	26	33	6	5	2		0	7408	10685
Rajasthan	12120	11092	11190	21503	209	25	1	102	422		0	56663	4946
Sikkim	135	0	3	92	35	0	0	0	0	5	0	270	157
Tamilnadu	11189	2009	7991	9275	284	7	0	5	0		0	30759	128108
Tripura	954	14	4	633	264	0	0	0	0		0	1869	3701
Uttar Pradesh	18883	23812	1188	14793	1350	122	31	84	9		0	60272	8754
Uttaranchal	2235	1220	290	1335	20	15	24	1	0	0	0	5141	2602

(Figs. in Thousands)

States/UTs	Cattle	Buffaloes	Sheep	Goats	Pigs	Horses and ponies	Mules	Donkeys	Camel	Yaks	Mithun	Total Live-stock	Total Poultry
West Bengal	19188	764	1577	15069	815	6	0	0	0	0	0	37419	86210
A& Nicobar	49	10	0	67	48	0		0	0		0	174	979
Chandigarh	7	20	0	1	0	0	0	0	0		0	28	129
Dadra & Nagar Haveli	57	4	0	25	0	0		0	0		0	87	170
Daman & Diu	3	1	0	3	0	0		0	0		0	7	26
Delhi	92	278	6	21	20	1	0	0	0		0	418	2
Lakshadweep	7	0	0	76	0	0		0	0		0	82	167
Pondicherry	84	3	4	69	1	0		0	0		0	162	387
All India	199075	105343	71558	140537	11134	611	137	438	517	83	264	529698	648830

'0 negligible with respect to thousands \$ Provisional results, derived from village level totals

Source: 18th Livestock Census, Department of Animal Husbandry, Dairying & Fisheries, M/o Agriculture

Annexure-II

Production of Major Livestock Products – All India

Year	Milk (Million Tonnes)	Eggs (Million Nos.)	Wool (Million Kgs.)	Meat (Million Tonnes)
1950-51	17.0	1,832	27.5	-
1955-56	19.0	1,908	27.5	-
1960-61	20.0	2,881	28.7	-
1968-69	21.2	5,300	29.8	-
1973-74	23.2	7,755	30.1	-
1979-80	30.4	9,523	30.9	-
1980-81	31.6	10,060	32.0	-
1981-82	34.3	10,876	33.1	-
1982-83	35.8	11,454	34.5	-
1983-84	38.8	12,792	36.1	-
1984-85	41.5	14,252	38.0	-
1985-86	44.0	16,128	39.1	-
1986-87	46.1	17,310	40.0	-
1987-88	46.7	17,795	40.1	-
1988-89	48.4	18,980	40.8	-
1989-90	51.4	20,204	41.7	-
1990-91	53.9	21,101	41.2	-
1991-92	55.7	21,983	41.6	-
1992-93	58.0	22,929	38.8	-
1993-94	60.6	24,167	39.9	-
1994-95	63.0	25,975	40.6	-
1995-96	66.2	27,187	42.4	-
1996-97	69.1	27,496	44.4	-
1997-98	72.1	28,689	45.6	-
1998-99	75.4	29,476	46.9	1.9
1999-2000	78.3	30,447	47.9	1.9
2000-01	80.6	36,632	48.4	1.9
2001-02	84.4	38,729	49.5	1.9
2002-03	86.2	39,823	50.5	2.1
2003-04	88.1	40,403	48.5	2.1
2004-05	92.5	45,201	44.6	2.2
2005-06	97.1	46,235	44.9	2.3
2006-07	102.6	50,663	45.1	2.3
2007-08	107.9	53,583	43.9	4.0
2008-09	112.2	55,562	42.8	4.3
2009-10	116.4	60,267	43.1	4.6
2010-11	121.8	63,024	43.0	4.8
2011-12	127.9	66,449	44.73	5.5

- Not Available

Note: Meat Production from Commercial Poultry Farm is included from 2007-08.

Annexure-III

State-Wise Fish Production During The Period 2004-05 To 2011-12

(In '000 tonnes)

State/Union Territory	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
1. Andhra Pradesh	853.05	891.09	856.93	1,010.08	1,252.78	1305.86	1368.20	1603.17
2. Arunachal Pradesh	2.70	2.75	2.77	2.83	2.88	2.65	3.15	3.30
3. Assam	186.31	188.00	181.48	190.32	200.15	218.82	227.24	228.62
4. Bihar	267.51	279.53	267.04	319.10	300.65	297.40	299.910	344.470
5. Goa	990.44	104.95	102.39	33.43	86.21	85.37	93.27	89.96
6. Gujarat	635.21	733.82	747.33	721.91	765.90	771.50	774.90	783.72
7. Haryana	42.05	48.20	60.08	67.24	76.29	100.46	96.20	106.00
8. Himachal Pradesh	6.90	7.29	6.89	7.85	7.79	7.85	7.38	8.05
9. Jammu & Kashmir	19.10	19.15	19.20	17.33	19.27	19.30	19.70	19.85
10. Karnataka	251.23	297.57	292.46	297.69	361.85	420.06	526.58	546.44
11. Kerala	678.31	636.89	677.63	667.33	865.99	698.85	681.61	693.21
12. Madhya Pradesh	62.06	61.08	65.04	63.89	68.47	66.12	56.45	75.41
13. Maharashtra	548.02	580.55	595.94	556.45	523.10	550.36	595.25	578.79
14. Manipur	17.80	18.22	18.61	18.60	18.80	19.20	20.20	22.22
15. Meghalaya	5.64	4.12	5.49	4.00	3.96	4.33	4.56	4.77
16. Mizoram	3.68	3.75	3.76	3.76	2.89	3.25	2.90	2.93
17. Nagaland	4.90	5.50	5.80	5.80	6.18	6.36	6.59	6.84
18. Odisha	315.59	325.45	342.04	349.48	374.82	382.55	386.19	381.83
19. Punjab	77.70	85.64	86.70	78.73	86.21	122.86	97.04	97.62
20. Rajasthan	16.39	18.50	22.20	25.70	24.10	26.91	28.20	47.85
21. Sikkim	0.14	0.15	0.15	0.18	0.17	0.16	0.18	0.28
22. Tamil Nadu	459.43	463.03	542.28	559.36	534.17	582.93	614.81	611.49
23. Tripura	19.84	23.87	28.63	36.25	36.00	42.28	49.23	53.34
24. Uttar Pradesh	277.07	289.58	306.73	325.95	349.27	392.93	417.48	429.72
25. West Bengal	1,215.00	1,250.00	1,359.10	1,447.26	1484.00	1517.00	1443.26	1472.05
26. A & N Islands	32.68	12.09	28.68	28.68	32.49	33.17	33.92	35.26
27. Chandigarh	0.08	0.09	0.17	0.21	0.24	0.24	0.24	0.10
28. Dadra & Nagar Haveli	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
29. Daman & Diu	12.51	17.79	16.41	26.36	14.14	15.88	16.98	17.43
30. Delhi	1.41	0.70	0.61	0.61	0.72	0.71	0.82	0.74
31. Lakshadweep	11.96	11.96	11.75	11.04	12.59	12.37	12.37	12.37
32. Puducherry	36.75	21.45	39.66	39.01	40.30	41.95	41.95	42.40
33. Chhattisgarh	120.07	131.75	137.75	139.37	158.70	174.25	228.21	250.70
34. Uttarakhand	2.57	2.79	3.03	3.09	3.16	3.49	3.82	3.83
35. Jharkhand	22.00	34.27	34.27	67.89	75.80	70.50	71.89	91.68
Total	6,304.75	6,571.62	6,869.05	7,126.83	7,616.09	7997.98	8230.71	8666.45

Source: States/ Union Territories.

Annexure-IV

Marine Fisheries Resources of India

State/Union Territory	Approx. Length of Coast Line (Kms.)	Continental Shelf ('000 Sq. Kms.)	Number of Landing Centres	Number of Fishing Villages
Andhra Pradesh	974	33	353	555
Goa	104	10	33	39
Gujrat	1600	184	121	247
Karnataka	300	27	96	144
Kerala	590	40	187	222
Maharashtra	720	112	152	456
Odisha	480	26	73	813
Tamilnadu	1076	41	407	573
West Bengal	158	17	59	188
A & N	1912	35	16	134
Daman & Diu	27	-	5	11
Lakshadweep	132	4	10	10
Pondicherry	45	1	25	40
Total	8118	530	1537	3432

Source: Marine Fisheries Census, 2005.

Annexure-V

Inland Water Resources of India

Sl. No	State/Uts	Rivers & Canals (kms.)	Reservoirs (Lakh Ha)	Tanks & Ponds (Lakh Ha)	Flood plain Lakes & Derelict Waterbodies (Lakh Ha)	Brackish Water (Lakh Ha)	Total Water Bodies (Lakh Ha)
1	Andhra Pradesh	11514	2.34	5.17	-	0.60	8.11
2	Arunachal Pradesh	2000	-	2.76	0.42	-	3.18
3	Assam	4820	0.02	0.23	1.10	-	1.35
4	Bihar	3200	0.60	0.95	0.05	-	1.60
5	Goa	250	0.03	0.03	-	Neg.	0.06
6	Gujarat	3865	2.43	0.71	0.12	1.00	4.26
7	Haryana	5000	Neg.	0.10	0.10	-	0.20
8	Himachal Pradesh	3000	0.42	0.01	-	-	0.43
9	Jammu & Kashmir	27781	0.07	0.17	0.06	-	0.30
10	Karnataka	9000	4.40	2.90	-	0.10	7.40
11	Kerala	3092	0.30	0.30	2.43	2.40	5.43
12	Madhya Pradesh	17088	2.27	0.60	-	-	2.87
13	Maharashtra	16000	2.79	0.59	-	0.10	3.48
14	Manipur	3360	0.01	0.05	0.04	-	0.10
15	Meghalaya	5600	0.08	0.02	Neg	-	0.10
16	Mizoram	1395	-	0.02	-	-	0.02
17	Nagaland	1600	0.17	0.50	Neg	-	0.67
18	Orissa	4500	2.56	1.14	1.80	4.30	9.80
19	Punjab	15270	Neg	0.07	-	-	0.07
20	Rajasthan	5290	1.20	1.80	-	-	3.00
21	Sikkim	900	-	-	0.03	-	0.03
22	Tamil Nadu	7420	5.70	0.56	0.07	0.60	6.93
23	Tripura	1200	0.05	0.13	-	-	0.18
24	Uttar Pradesh	28500	1.38	1.61	1.33	-	4.32
25	West Bengal	2526	0.17	2.76	0.42	2.10	5.45
26	A and N Islands	115	0.01	0.03	-	1.20	1.24
27	Chandigarh	2	-	Neg	Neg	-	0.00
28	Dadra and Nagar Haveli	54	0.05	-	-	-	0.05
29	Daman and Diu	12	-	Neg.	-	Neg.	0.00
30	Delhi	150	0.04	-	-	-	0.04
31	Lakshadweep	-	-	-	-	-	0.00
32	Pondicherry	247	-	Neg	0.01	Neg.	0.01
33	Chhattisgarh	3573	0.84	0.63	-	-	1.47
34	Uttaranchal	2686	0.20	0.01	0.00	-	0.21
35	Jharkhand	4200	0.94	0.29	-	-	1.23
	Total	195210	29.07	24.14	7.98	12.40	73.59

Source: State Governments/ Union Territories.

Annexure-VI

Fish Seed Production

Year	Fish Seed (In Million Fry)
1973-74 (End of IV th Plan)	409
1978-79 (End of V th Plan)	912
1984-85(End of VI th Plan)	5,639
VII Plan	
1985-86	6,322
1986-87	7,601
1987-88	8,608
1988-89	9,325
1989-90	9,691
Annual Plans	
1990-91	10,332
1991-92	12,203
VIII Plan	
1992-93	12,499
1993-94	14,239
1994-95	14,544
1995-96	15,007
1996-97	15,853
IX Plan	
1997-98	15,904
1998-99	15,156
1999-2000	16,589
2000-01	15,608
2001-02	15,758
X Plan	
2002-03	16,333
2003-04	19,231
2004-05	20,790
2005-06	22,614
2006-07	31,688
XI Plan	
2007-08	24,143
2008-09	32,177
2009-10	29,313
2010-11	34,993
2011-12	36,566

Annexure-VII

Financial Allocation and Expenditure during 2011-12 & 2012-13 (up to 31.12.2012)

(₹ in crore)

S. No.	SCHEMES	BE 2011-12	RE 2011-12	Exp. 2011-12	BE 2012-13	RE 2012-13	Exp. 2012-13 up to 31st Dec. 12
1	2	3	4	5	6	7	8
I	Animal Husbandry						
A	Centrally Sponsored Scheme						
1	National Project for Cattle and Buffalo Breeding	150.00	161.62	151.91	180.89	117.66	79.52
2	Poultry Development	45.70	41.09	36.69	52.50	35.62	23.77
3	Establishment/ Modernization of Rural Slaughter Houses	3.00	0.50	0.00	0.01	0.00	0.00
4	Utilization of fallen Animals (NEW)	3.00	0.50	0.00	0.01	0.00	0.00
5	Conservation of Threatened Livestock Breeds	2.50	2.50	2.04	1.00	1.00	0.78
6	Centrally Sponsored Fodder & Feed Development Scheme	47.55	32.50	32.51	50.00	74.70	48.98
7	Livestock Insurance	40.00	38.09	38.09	50.00	50.00	33.35
8	Livestock Health and Disease Control	395.00	364.08	331.95	403.01	324.28	219.84
8.1	Assistance to States for Control of Animal Diseases	80.00	89.08	70.80	82.00	89.00	67.72
8.2	National Project on Rinderpest Eradication	4.00	4.10	3.50	4.01	4.20	2.86
8.3	Professional Efficiency Development	4.00	4.40	4.53	5.00	5.00	3.96
8.4	Foot & Mouth Disease Control Programme	178.00	108.15	105.96	190.00	160.00	104.67
8.5	Strengthening of Existing Hospitals/Dispensaries	90.00	79.60	98.71	91.00	46.87	31.25
8.6	National Control Programme of PPR	12.50	6.50	3.31	10.00	5.83	3.89

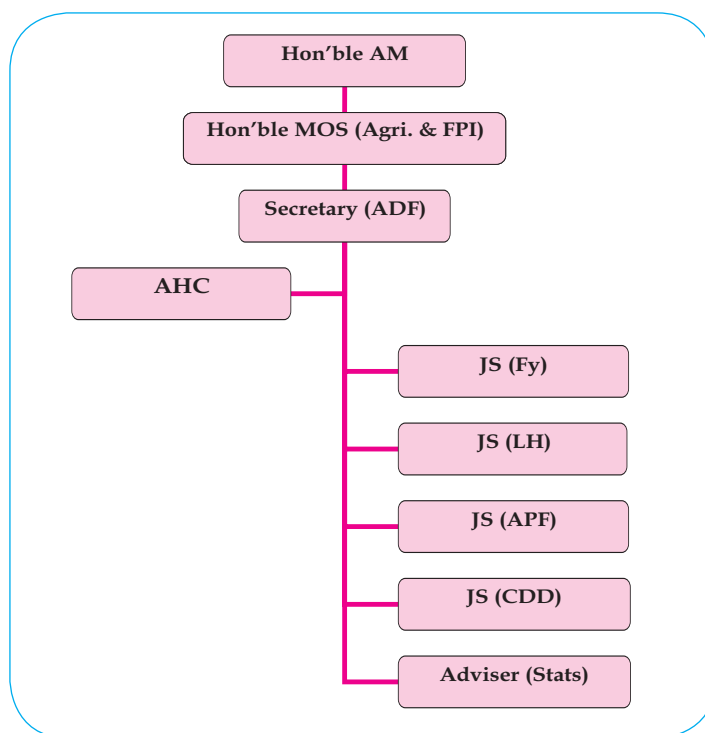
S. No.	SCHEMES	BE 2011-12	RE 2011-12	Exp. 2011-12	BE 2012-13	RE 2012-13	Exp. 2012-13 up to 31st Dec. 12
1	2	3	4	5	6	7	8
8.7	National Animal Disease Reporting System (NADRS) (NEW)	11.50	57.25	33.32	10.00	6.80	0.31
8.8	National Control Programme on Brucellosis	15.00	15.00	11.82	11.00	6.58	5.18
9	Livestock Extension and Delivery Services	0.01	0.01	0.00	0.01	0.00	0.00
10	Managing Livestock	0.00	0.00	0.00	1.00	0.00	0.00
	Total CSS (Animal Husbandry)	686.76	640.89	593.19	738.43	603.26	406.24
B	Central Sector Schemes						
1	Livestock Census	4.00	0.20	0.08	150.00	166.12	136.47
2	Integrated Sample Survey	9.50	13.06	12.71	13.50	12.65	8.15
3	Central Cattle Development Organizations	25.00	23.92	21.30	29.00	29.43	14.52
4	Central Sheep Breeding Farms	2.00	2.05	1.67	2.10	2.17	0.99
5	Central Fodder Development Organizations	43.50	43.50	37.44	25.55	17.95	11.66
6	Central Poultry Development Organizations	15.50	16.93	14.29	20.00	17.04	8.50
7	Directorate of Animal Health	17.10	19.76	15.34	23.50	17.91	6.76
8	Integrated Development of Small Ruminants and Rabbits	12.00	12.00	10.16	15.00	12.90	10.06
9	Piggery Development	5.00	8.00	7.04	10.00	10.00	10.00
10	Salvaging and Rearing of Male Buffalo Calves	3.00	0.10	0.00	0.01	0.00	0.00
11	Food Safety and Traceability	1.00	1.10	1.10	5.00	0.00	0.00
12	Poultry Venture Capital Fund (NEW)	50.00	17.00	8.56	30.00	20.00	6.00
13	Establishment of veterinary Drug Control Authority	0.00	0.00	0.00	0.01	0.00	0.00

S. No.	SCHEMES	BE 2011-12	RE 2011-12	Exp. 2011-12	BE 2012-13	RE 2012-13	Exp. 2012-13 up to 31st Dec. 12
1	2	3	4	5	6	7	8
14	Upgradation/ Strengthening of Infrastructure of Veterinary Colleges	0.00	0.00	0.00	1.00	0.00	0.00
	Total CS (Animal Husbandry)	187.60	157.62	129.69	324.67	306.17	213.11
	Total Animal Husbandry (CSS & CS)	874.36	798.51	722.88	1063.10	909.43	619.35
<i>II</i>	<i>Dairy Development</i>						
A	Centrally Sponsored Scheme						
1	Intensive Dairy Development Programme	30.00	51.00	50.70	55.00	55.42	45.84
2	Strengthening Infrastructure for Quality and Clean Milk Production	21.25	21.40	21.52	45.00	28.66	19.11
	Total CSS (Dairy Development)	51.25	72.40	72.22	100.00	84.08	64.95
B.	Central Sector Schemes						
1	National Dairy Plan	100.00	12.76	4.00	130.00	123.00	61.00
2	Assistance to Cooperatives	10.00	9.00	9.00	10.00	6.22	4.15
3	Delhi Milk Scheme	1.00	1.00	0.99	2.00	0.24	0.16
4	Dairy Entrepreneurship Development Scheme	88.00	110.00	110.00	150.00	330.00	140.00
	Total CS (Dairy Development)	199.00	132.76	123.99	292.00	359.46	205.31
	Total Dairy Development (CSS & CS)	250.25	205.16	196.21	392.00	543.54	270.26
<i>III</i>	<i>Fisheries</i>						
A.	Centrally Sponsored Scheme						
1	Development of Inland Fisheries & Aquaculture	24.00	30.75	29.85	40.00	32.65	23.81
2	Development of Marine Fisheries, Infrastructure & Post Harvest Operations	71.00	71.00	75.73	80.00	78.60	59.03
3	National Scheme of Welfare of Fishermen	39.00	45.16	44.56	50.00	40.89	31.08

S. No.	SCHEMES	BE 2011-12	RE 2011-12	Exp. 2011-12	BE 2012-13	RE 2012-13	Exp. 2012-13 up to 31st Dec. 12
1	2	3	4	5	6	7	8
	Total CSS (Fisheries)	134.00	146.91	150.14	170.00	152.14	113.92
B.	Central Sector Schemes						
1	Strengthening of Database & Geographical Information System of the Fisheries Sector	10.00	6.33	4.27	6.50	4.10	2.89
2	Assistance to Fisheries Institutes	46.00	48.39	43.19	54.20	49.09	28.12
2.1	Central Institute for Fisheries Nautical & Engineering Training	9.00	9.00	8.33	15.00	14.26	5.94
2.2	Central Institute for Coastal Engineering for Fisheries	0.00	0.00	0.00	0.00	0.00	0.00
2.3	National Institute for Fisheries Post Harvest Technology and Training (NIFPHATT)	2.00	1.90	1.76	2.20	2.40	1.52
2.4	Fishery Survey of India (FSI)	35.00	37.49	33.10	37.00	32.43	20.66
3.	National Fisheries Development Board	108.00	108.00	108.00	110.00	106.81	72.00
	Total CS (Fisheries)	164.00	162.72	155.46	170.70	160.00	103.01
	Total Fisheries (CSS & CS)	298.00	309.63	305.60	340.70	312.14	216.93
IV	Secretariat and Economic Services	6.50	6.50	4.63	7.00	6.42	4.29
V	Special Livestock Sector and Fisheries Package for the Suicide-prone Districts in the States of A.P, Maharashtra, Karnataka and Kerala.	98.69	30.00	13.79	35.00	28.43	10.76
VI	Externally Aided Projects (Preparedness, Control and Containment of Avian Influenza)	72.20	6.72	0.00	72.20	0.04	0.03
	Grand Total	1600.00	1356.52	1243.11	1910.00	1800.00	1121.62

Annexure-VIII

ORGANISATIONAL CHART AND WORK ALLOCATION AMONG DIVISIONS IN THE DEPARTMENT OF ANIMAL HUSBANDRY, DAIRYING & FISHERIES



WORK ALLOCATION

JOINT SECRETARY (Fy)

All matters related to policy, regulation and development of fisheries, Fisheries Institutes namely, FSI, CIFNET, NIFPHTT, CICEF and the matters related to NFDB & CAA.

JOINT SECRETARY (LH)

Livestock Health, Trade and Codex Alimentarius, National Institute of Animal Health, National Project on Rinderpest Eradication, Animal Quarantine & Certification Services, Plan Coordination, Matters relating to Uts without legislature.

JOINT SECRETARY (APF)

Administration, Cash and General Admn, International Cooperation, Vigilance, Poultry Development, Central Poultry Development Organizations, Piggery, Equine & Pack animals, Feed & Fodder, Slaughterhouses, Meat and Meat Products, Central Fodder Development Organizations, Goat, Sheep Development including Admn. Work relating to Central Sheep Breeding Farms, Official Language and Work Study Unit, Animal Husbandry Extension, Livestock Insurance Scheme.

JOINT SECRETARY (CDD)

National Dairy Plan, Dairy Development Schemes, NPCBB, Central Cattle Development Organization, Admin. IV and Estt. Matter of DMS and NDDB, General Coordination, Administrative Reforms, Public Grievances and all matters related to Dairy Division.

ADVISER (STATISTICS)

Livestock Census, Integrated Sample Survey and all matters related to Animal Husbandry Statistics.

List of Subjects allocated to the Department of Animal Husbandry, Dairying & Fisheries

PART - I

The following subjects falling within List I of the Seventh Schedule to the Constitution of India:-

1. Industries, the control of which by the Union is declared by Parliament by law to be expedient in public interest as far as these relate to Development of Livestock, fish and birds feed and dairy, poultry and fish products with the limitation that in regard to the development of industries, the functions of the Department of Animal Husbandry and Dairying (Pashupalan aur Dairy Vibhag) do not go further than the formulation of demand and fixation of targets.
2. Liaison and cooperation with international organizations in matters relating to livestock, poultry and fisheries development.
3. Livestock Census.
4. Livestock Statistics
5. Matters relating to loss of livestock due to natural calamities.
6. Regulation of Livestock importation, Animal Quarantine and Certification.
7. Fishing and fisheries (inland, marine and beyond territorial waters).
8. Fishery Survey of India, Mumbai.

PART - II

The following subjects falling within List III of the Seventh Schedule to the Constitution of India: -

9. Profession of Veterinary Practice.
10. Prevention of the extension from one State to another of infectious or contagious diseases or pests affecting animals, fish, birds.
11. Conversion of indigenous breeds, introduction and maintenance of Central Herd Books for indigenous breeds of livestock.
12. Pattern of making assistance to various State Undertakings, Dairy Development Schemes through State agencies/Co-operative Unions.

PART - III

For the Union Territories the subjects mentioned in Part I and II above, so far as they exist in regard to these territories and in addition to the following subjects which fall within List II of the Seventh Schedule to the Constitution of India :-

13. Preservation, protection and improvement of stocks and prevention of diseases of animals, fish and birds, Veterinary training and practice.
14. Courts of wards.
15. Insurance of livestock, fish and birds.

PART-IV

16. Matters relating to cattle utilization and slaughter.
17. Fodder Development.

Annexure-X

List of Attached/Subordinate Offices

I. Animal Husbandry Division

- 1) Central Cattle Breeding Farm, Dhamrod, District Surat, Gujarat.
- 2) Central Cattle Breeding Farm, Andesh Nagar, District Lakhimpur, (UP).
- 3) Central Cattle Breeding Farm, Similiguda, Sunabada (Koraput) Orissa.
- 4) Central Cattle Breeding Farm, Suratgarh (Rajasthan).
- 5) Central Cattle Breeding Farm, Chiplima, Basantpur, District Sambalpur, (Orissa).
- 6) Central Cattle Breeding Farm, Avadi, Alamadhi (Chennai).
- 7) Central Cattle Breeding Farm, Hessarghatta, Bangaluru North.
- 8) Central Frozen Semen Production and Training Institute, Hessarghatta, Bangaluru North.
- 9) Central Herd Registration Unit, Rohtak (Haryana).
- 10) Central Herd Registration Unit, Ajmer.
- 11) Central Herd Registration Unit, Ahmedabad.
- 12) Central Herd Registration Unit, Santhapat, Ongole, District Prakasam (A.P.)
- 13) Regional Station for Forage Production & Demonstration, Kalyani, District Nadia, (West Bengal).
- 14) Regional Station for Forage Production & Demonstration, Srinagar (J&K).
- 15) Regional Station for Forage Production & Demonstration, Suratgarh (Rajasthan).
- 16) Regional Station for Forage Production & Demonstration, Textile Mill Hissar (Haryana).
- 17) Regional Station for Forage Production & Demonstration, Gandhinagar, (Gujarat).
- 18) Regional Station for Forage Production & Demonstration, Avadi, Alamadhi, (Chennai).
- 19) Regional Station for Forage Production & Demonstration, Mamidipally, Via Keshavagiri, Hyderabad.
- 20) Central Fodder Seed Production Farm, Hessarghatta, Bangaluru North.
- 21) National Institute of Animal Health, Baghpat (Uttar Pradesh).
- 22) Animal Quarantine & Certification Service Station, Kapashera Village, New Delhi.
- 23) Animal Quarantine & Certification Service Station, Pallikarni Village, Chennai.
- 24) Animal Quarantine & Certification Service Station, Gopalpur, District 24 Parganas (West Bengal).
- 25) Animal Quarantine & Certification Service Station, Bombay.
- 26) Animal Quarantine & Certification Service Station, Hyderabad.
- 27) Animal Quarantine & Certification Service Station, Bangalore.

Contd.

- 28) Central Sheep Breeding Farm, Hissar (Haryana).
- 29) Central Poultry Development Organisation, Southern Region, Hessarghatta, Bangaluru North.
- 30) Central Poultry Development Organisation, Eastern Region, Bhubaneshwar (Orissa).
- 31) Central Poultry Development Organisation, Western Region, Aarey Milk Colony, Mumbai.
- 32) Central Poultry Development Organisation, Northern Region, Industrial Area, Chandigarh.
- 33) Central Poultry Performance Testing Centre, Gurgaon (Haryana).

II Dairy Development Division

- 34) Delhi Milk Scheme, West Patel Nagar, New Delhi.

III Fisheries Division

- 35) Central Institute of Coastal Engineering For Fishery, Bangalore
- 36) Central Institute of Fisheries Nautical and Engineering Training, Cochin.
- 37) National Institute of Fisheries Post Harvest, Technology & Training, Cochin.
- 38) Fishery Survey of India, Mumbai.

Annexure-XI

State-wise number of Veterinary Institutions

S. No.	States/UTs	Veterinary Hospitals/ Polyclinics	Veterinary Dispensaries	Vety. Aid Centre's, Stockmen Centre's and Mobile Dispensaries
1	Andhra Pradesh	303	2326	2610
2	Arunachal Pradesh	1	93	289
3	Assam	21	470	118
4	Bihar	39	783	1595
5	Chhattisgarh	241	775	26
6	Goa	5	21	51
7	Gujarat	23	622	587
8	Haryana	944	1814	0
9	Himachal Pradesh	368	1763	1012
10	Jammu & Kashmir	180	141	475
11	Jharkhand	27	424	433
12	Karnataka	371	1942	1798
13	Kerala	275	869	20
14	Madhya Pradesh	781	1680	65
15	Maharashtra	203	1738	2918
16	Manipur	55	109	34
17	Meghalaya	4	92	66
18	Mizoram	5	35	103
19	Nagaland	11	20	127
20	Orissa	58	482	3044
21	Punjab	1367	1487	45
22	Rajasthan	1933	285	1682
23	Sikkim	14	40	62
24	Tamil Nadu	167	2236	955
25	Tripura	15	59	426
26	Uttarakhand	308	12	744
27	Uttar Pradesh	2200	268	2575
28	West Bengal	110	610	3248
29	A & N Islands	10	12	60
30	Chandigarh	5	8	0
31	D. & N. Haveli	1	0	10
32	Daman & Diu	0	2	3
33	Delhi	46	28	0
34	Lakshadweep	3	6	1
35	Puducherry	0	17	73
	TOTAL	10094	21269	25255

'0' Not received/Not available (As on 1/04/2012)

Source : As per latest available data from State Department of Animal Husbandry.

Annexure-XII

IMPORT /EXPORT DETAILS OF LIVESTOCK & LIVESTOCK PRODUCTS AT AQCS, NEW DELHI. CHENNAI, MUMBAI, KOLKATA, HYDERABAD AND BANGLORE DURING THE YEAR 2012-2013 (UPTO DECEMBER, 2012)

Sl. No.	Livestock (nos)	IMPORT (During the year)	Export (During the year)
1	AQUATIC ANIMALS (PRAWN, SHIRMP, FISHES ETC.)	550266	96414
2	BIRDS (Parrot)	20	61
3	BUFFALOES	-	
4	CAT	337	250
5	DOG	1938	1123
6	G.P. CHICKS INCLUDING DUCKLINGS	77588	143966
7	HORSES	182	11
8	LAB. ANIMAL (GUINEA PIG, RAT, MICE, RABBIT, FROG ETC.)	69897	17
9	REPTILES/SQUIRREL (CROCODILE, TORTOISE, LIZARD, SNAKE ETC.)	25	
10	SHEEP/GOAT		
11	ZOO ANIMALS (TIGER, BEAR, ELEPHANT ETC.)	24	15
LIVESTOCK PRODUCTS (KGS.)			
1	ANIMAL BY PRODUCTS (FINISHED LEATHER, GLUE, OX GALL, BILE ACID, SUTURES, CASINGS ETC.)	119920365.1	3860246
2	ANIMAL FEED (POULTRY, MICE, HORSES ETC.)	3082457.165	1413599
3	AQUATIC BY PRODUCTS (CORAL, SHEELS, MUSCLE POWDER ETC.)	-	
4	BONE & BONE PRODUCTS (INCLUDING CRUSHED BONES, GRIST, BUTTONS, PEARLS, HANDICRAFT ITEMS ETC.)	-	6005331 (60995 Pcs.)
5	FEATHER (INCLUDING PROCESSED AND SHUTTLE COCK, BRUSHES ETC.)	4553	1177 & 223 Nos. Jackets made from down feather
6	FISH & FISH MEAT PRODUCTS (CHILLED, FROZEN, SMOKED ETC.)	12344645.14	752528

Contd.

Sl. No.	Livestock (nos)	IMPORT (During the year)	Export (During the year)
7	FISH FEED/OIL PASTE AND BY PRODUCTS (INCLUDING PRAWN FEED, SHRIMP FEED, ARTEMIA CYSTS, CORALS, AND SHELLS ETC.)	19716630.17	6980413
8	GELATIN/OSSEIN AND PRODUCTS		12265308
9	HATCHING EGGS		1616039
10	HOOVES, NAILS, CLAWS, BEAK & HORN PRODUCTS (DRIED MEAL, CORES, GRIST, BUTTONS, and HANDICRAFT ITEMS ETC.)	-	6041796 & 10 Pcs.
11	MEAT & MEAT PRODUCTS (POULTRY, PORK.)	510936.404	
12	MEAT & MEAT PRODUCTS (LAMB, GOAT ETC)	8609	
13	MEDICAMENTS AND DIAGNOSTICS (INCLUDING ALBUMIN, IN VIRTO USE BLOOD/ SERUM FRACTION ETC.)	-	74331
14	MISCELLANEOUS (SILK, HONEY, BISCUITS & SNAKS ETC.)	-	
15	MILK & MILK PRODUCTS (CHEESE, GHEE, WHEY POWDER, CASEIN, ICE CREAM, BUTTER, YOGURT, LACTOSE, BUTTER OIL ETC.)	65057756.5	932918
16	PET FOOD/DOG CHEWS	7519012.81	4784222
17	PIG BRISTLES	341790	
18	RAW FUR SKIN (INCLUDING PICKLED, LIMED, SALTED, HEADS, TAILS, PAWS)	12437343	
19	SEMEN/EMBRYO	1829.494 Kg. (377083 doses)	
20	SERUM	69845.85	2326
21	SPF EGGS (Nos.)	189614	2334
22	SWEETS/PROCESSED FOOD	-	14362421
23	VACCINE	-	
24	WOOL/HAIR	80729485	19236

Annexure-XIII

Species-Wise Incidence of Livestock Diseases in India During 2011 (January-December)

Sl. No.	Disease	Species	Outbreak	Attack	Death
1	Foot & Mouth Disease				
		Bovine	653	10959	207
		Buffalo	8	1358	11
		Ovine/ Caprine	31	485	0
		Swine	9	45	0
	Total	701	12847	218	
2	Haemorrhagic Septicaemia				
		Bovine	172	1807	466
		Ovine/Caprine	14	265	100
		Buffalo	129	846	246
	Total	315	2918	812	
3	Black Quarter				
		Bovine	412	2605	875
		Ovine/cap	4	25	1
		Buffalo	1	46	24
	Total	417	2676	900	
4	Anthrax				
		Bovine	33	165	165
		Ovine/Caprine	15	197	158
	Total	48	362	323	
5	Fascioliasis				
		Bovine	195	509195	31
		Ovine/Caprine	5	51	7
		Canine	2	10	0
		Swine	0	1	0
		Buffalo	32	1755	10
		Equine	0	4	0
	Total	234	511016	48	
6	Enterotoxaemia				
		Ovine/Caprine	67	866	242
		Bovine	4	250	0
	Total	71	1116	242	

Sl. No.	Disease	Species	Outbreak	Attack	Death
7	Sheep & Goat Pox	Ovine/Caprine	197	3861	698
8	Buffalo Pox	Buffalo	2	24	3
9	Cow Pox	Buffalo	1	1	0
10	Blue Tongue	Ovi/Cap	38	2212	136
11	C.C.P.P.	Ovi/ Cap	1	22	5
12	Amphistomiasis	Bovine	132	14996	29
13	Schistosomiasis	Bovine	2	2	0
14	Swine Fever	Swine	284	4018	1371
15	Salmonellosis	Avian	123	113451	4439
		Bovine	1	3002	207
		Total	124	116453	4646
16	Coccidiosis	Bovine	81	15194	739
		Ovi/ Cap	7	18	0
		Avian	635	168693	25262
		Swine	14	70	0
		Buffalo	0	3	0
		Canine	1	1	0
		Total	738	183979	26001
17	Ranikhet (New Castle) Disease	Avian	886	240438	24016
18	Fowl Pox	Avian	235	19122	1682
19	Fowl Cholera	Avian	143	7999	2276
20	Marks Disease	Avian	1	100	50

Sl. No.	Disease	Species	Outbreak	Attack	Death
21	I.B.D.				
		Avian	338	86381	24199
22	Duck Plague				
		Avian	87	2232	497
23	Chronic Respiratory Disease				
		Avian	291	133808	59642
24	Canine Distemper				
		Canine	100	1509	123
25	Rabies				
		Bovine	56	168	168
		Canine	23	163	163
		Buffaloe	9	75	75
		Ovi/Caprine	3	8	8
		Avian	1	3	3
		Total	92	417	417
26	Babesiosis				
		Bovine	120	3177	22
		Buffalo	6	282	3
		Equine	2	6	0
		Canine	3	13	0
		Total	131	3478	25
27	Mastitis				
		Bovine	186	9072	2
		Ovi/Caprine	1	17	0
	Total	187	9089	2	
28	Trypanismiasis				
		Bovine	84	1334	16
		Canine	1	1	0
		Equine	1	171	7
		Buffalo	91	1922	23
		Total	177	3428	46
29	Mange				
		Bovine	43	541	0
		Ovi/Cap	40	1739	0

Sl. No.	Disease	Species	Outbreak	Attack	Death
		Swine	14	321	0
		Canine	7	246	0
		Total	104	2847	0
30	Peste Des Petits Ruminant				
		Ovi/ Cap	197	6976	1707
31	Anaplasmosis				
		Bovine	27	90	9
32	Brucellosis				
		Bovine	1	1	0
		Buffalo	1	16	0
		Total	2	17	0
33	Coryza				
		Avian	8	37505	37
34	Avian Influenza				
		Avian	4	6299	4863
		Fau	1	1143	1143
		Total	5	7442	6006
35	Glanders				
		Equine	3	3	2

Annexure-XIV

List of 300 selected districts under the Scheme 'Livestock Insurance'

S. No.	Name of Districts		S. No.	Name of Districts		S. No.	Name of Districts	
1	Andhra Pradesh (22)			40	Rohtas		79	Hamirpur
	1	Adilabad *		41	Samastipur		80	Kangra
	2	Anantpur *		42	Vaishali		81	Mandi
	3	Chittoor	5	Chhatisgarh (5)			82	Shimla
	4	Cuddapah*		43	Dhamtari	9	Jammu & Kashmir (6)	
	5	East Godavari		44	Durg		83	Anantnag
	6	Guntur		45	Mahsamund		84	Baramulla
	7	Karimnagar		46	Raipur		85	Jammu
	8	Khammam *#		47	Rajnandgaon #		86	Kupwara
	9	Krishna	6	Gujarat (15)			87	Pulwama
	10	Kurnool *		48	Ahmedabad		88	Udhampur
	11	Mahboobnagar *		49	Banaskantha	10	Jharkhand (4)	
	12	Medak		50	Bhavnagar		89	Godda
	13	Nalgonda		51	Dang		90	Hazaribagh #
	14	Nellore *		52	Junagadh		91	Palamau #
	15	Nizamabad		53	Katchch		92	Ranchi
	16	Prakasam		54	Kheda	11	Karnataka (14)	
	17	Ranga Reddy		55	Mahesana		93	Bagalkote
	18	Srikakulam		56	Navasari		94	Bangalore Rural
	19	Vishakapatnam		57	Panchmahal		95	Bangalore Urban
	20	Vizianagaram		58	Rajkot		96	Belgaum *
	21	Warangal *		59	Sabarkantha		97	Bellary
	22	West Godavari		60	Surat		98	Dakshina kannad
2	Arunachal Pradesh (4)			61	Vadodara		99	Davangere
	23	East Siang		62	Valsad		100	Gulbarga
	24	Lohit	7	Haryana (15)			101	Hassan *
	25	Lower DibangValley		63	Bhiwani		102	Haveri
	26	West Siang		64	Faridabad		103	Kolar
3	Assam (6)			65	Fartehabad		104	Mandya
	27	Barpeta		66	Hisar		105	Mysore
	28	Jorhat		67	Jhajjar		106	Tumkur
	29	Kamrup		68	Jind	12	Kerala (11)	
	30	Morigaon		69	Kaithal		107	Alapuzzah
	31	Nagoan		70	Karnal		108	Eranakulam
	32	Sonitpur		71	Kurukshetra		109	Idduki
4	Bihar (10)			72	Mewat		110	Kannur
	33	Begusarai		73	Mohindergarh		111	Kollam
	34	Bhojpur		74	Panipat		112	Kottayam
	35	Chhapra		75	Rohtak			
	36	Gaya #		76	Sirsa			
	37	Muzaffarpur		77	Sonepat			
	38	Nalanda	8	Himachal Pradesh (5)				
	39	Patna		78	Chamba			

Contd.

S. No.	Name of Districts	S. No.	Name of Districts	S. No.	Name of Districts
	113 Kozhikode		151 Sangli		188 Bathinda
	114 Pallakad		152 Satara		189 Faridkot
	115 Thrissur		153 Solapur		190 Fatehgarh Sahib
	116 Trivandrum		154 Wardha		191 Ferozepur
	117 Wayanand		155 Yavatmal *		192 Gurdaspur
13	Madhya Pradesh (20)	15	Manipur (6)		193 Hoshiarpur
	118 Balaghat #		156 Bishnupur		194 Jalandhar
	119 Bhind		157 Imhpal East		195 Kapurthala
	120 Bidisha		158 Senapati		196 Ludhiana
	121 Chhatarpur		159 Thoubal		197 Mansa
	122 Chhindwara		160 Ukhrul		198 Moga
	123 Dewas		161 West Imhpal		199 Mohali
	124 Dhar	16	Meghalaya (4)		200 Mukatsar
	125 Guna		162 East Khasi Hills		201 Nawan Shehr
	126 Indore		163 Jaintia Hills		202 Patiala
	127 Morena		164 Ri Bhoi		203 Ropar
	128 Panna		165 West Garo Hills	21	Rajasthan (22)
	129 Raisen	17	Mizoram (4)		205 Ajmer
	130 Ratlam		166 Aizawl		206 Alwar
	131 Rewa		167 Champhai		207 Banswara
	132 Sagar		168 Kolasib		208 Barmer
	133 Satna		169 Saiha		209 Bharatpur
	134 Sehore	18	Nagaland (7)		210 Bhilwara
	135 Shajapur		170 Dimapur		211 Bikaner
	136 Shivpuri		171 Kohima		212 Chittorgarh
	137 Sidhi		172 Mokokchung		213 Churu
14	Maharashtra (18)		173 Peren		214 Dungarpur
	138 Ahmednagar		174 Phek		215 Jaipur
	139 Auranagabad		175 Wokha		216 Jaiselmer
	140 Beed	19	Orissa (9)		217 Jhalawar
	141 Bhandara		177 Cuttack		218 Jhunjhenu
	142 Gondia #		178 Jagatsinghpur		219 Jodhpur
	143 Jalgaon		179 Puri		220 Kota
	144 Jalna		180 Sambalpur #		221 Nagaur
	145 Kolhapur		181 Baragarh		222 Pratapgarh
	146 Lathur		182 Khurda		223 Sikkar
	147 Nagpur		183 Mayurbhanj		224 Sri Ganganagar
	148 Nanded		184 Keonjhar		225 Tonk
	149 Nashik		185 Kendrapara		226 Udaipur
	150 Pune	20	Punjab(19)	22	Sikkim (4)
			186 Amritsar		227 East Sikkim
			187 Barnala		228 North Sikkim
					229 South Sikkim

Contd.

S. No.	Name of Districts	S. No.	Name of Districts	S. No.	Name of Districts
	230 West Sikkim		254 Barabanki		281 Saharanpur
23	Tamilnadu (15)		255 Bareilly		282 Sitapur
	231 Coimbatore		256 Bijnor		283 Sonebhadra #
	232 Cuddalore		257 Budayun		284 Sultanpur
	233 Dharmapuri		258 Bulandshahar		285 varanasi
	234 Erode		259 Deoria		286 Unnao
	235 Krishnagiri		260 Etah	26	Uttarakhand (6)
	236 Namakkal		261 Faiziabad		287 Chamoli
	237 Salem		262 Farukhabad		288 Dehradun
	238 Thanjavur		263 Fatehpur		289 Haridwar
	239 Thirucharapalli		264 Firozabad		290 Nainital
	240 Thiruvannamalai		265 Ghaziabad		291 Pithoragarh
	241 Tirunelveli		266 Ghazipur		292 Udham Singh nagar
	242 Vellore		267 Gonda	27	West Bengal (6)
	243 Villupuram		268 Gorakhpur		293 24 Parganas(N)
	244 Dindigul		269 Hardoi		294 Hooghly
	245 Madurai		270 Jaunpur		295 Nadia
24	Tripura (2)		271 Kashiramnagar		296 Jalpaiguri
	246 West Tripura		272 Kheri		297 Dakshindinajpur
	247 South Tripura		273 Mahamaya Nagar		298 Murshidabad
25	Uttar Pradesh (39)		274 Mainpuri	28	Goa-2
	248 Auraiya		275 Mathura		299 North Goa
	249 Agra		276 Meerut		300 South Goa
	250 Aligarh		277 Moradabad		
	251 Allahabad		278 Muzaffarnagar		
	252 Azamgarh		279 Pratapgarh		
	253 Ballia		280 Raebareli		

* Suicide prone districts

Left Wing Extremist affected districts

Note : Figures in paranthesis indicate total number of districts covered under the scheme.

Annexure-XV

Performance Evaluation Report 2011-12

Objective	weight	Action	Success	Unit	Weight	Target/Criteria value					Achievement		Performance	
						Excellent	Very Good	Good	Fair	Poor	Raw score	Weighted score		
						100%	90%	80%	70%	60%				
1.Prevention and Control of animal diseases	14.00	Immunization against important diseases	Number of vaccinations done	No. in Million	10.00	285	260	235	215	200	372.00	100.00	10.0	
						500	450	400	350	300	2620	100.00	2.00	
						185000	160000	140000	100000	100000	194625	100.00	2.00	
2.Development of fodder & feed	14.00	Production of high yielding fodder Varieties	Fodder seed Production in Quintals	No	7.00	40000	36000	32000	28000	24000	26308.12	65.77	4.6	
						140	125	115	100	85	196	100.00	2.00	
						2100	1890	1680	1470	1260	887	0.00	0	
		conduct training programmes	Number of Programmes Conducted	No	2.00									
		Development of grassland & grass reserves	Area of grassland developed	Area in ha	5.00									

Objective	weight	Action	Success	Unit	Weight	Target/Criteria value					Achievement		Performance	
						Excellent	Very Good	Good	Fair	Poor	Raw score	Weighted score		
						100%	90%	80%	70%	60%				
3. Increase fish production & provide assistance to fishermen	18.00	Construction of new ponds and renovation of existing ponds	New ponds constructed	Area in ha	4.50	7800	7020	6240	5680	5460	6500	83.33	3.75	
						17500	15750	14000	12250	10500	14500	82.66	3.73	
		Welfare measures & input subsidy	Extension of insurance scheme	no	1.80	2800000	2520000	2240000	1960000	1680000	3904003	100.00	1.8	
						6000	5400	4800	4200	3600	3041	0.00	0	
						4000	3600	3200	2800	2400	3400	85.00	1.53	
4. Development of poultry	10.00	Development of marine fisheries	Number of crafts motorized	no	1.80	900	810	720	630	540	9060	100.00	1.8	
						70	63	56	49	42	338	100.00	1.8	
		Rural backyard poultry development	Number of persons to be assisted	no	5.00	75000	65000	60000	50000	45000	126366	100.00	5.00	
						1750	1500	1400	1200	1000	10601.3	100.00	5.00	
						5.00	4.00	3.00	2.00	1.00	7.00	100.00	4.00	
5. Development of small ruminants	4.00	Strengthening of State sheep/goat farms	No of farms to be assisted	Number	4.00	5.00	4.00	3.00	2.00	1.00	100.00	4.00		
						5.00	4.00	3.00	2.00	1.00	7.00	100.00	4.00	
6. Genetic upgradation of live stock	5.00	Breed improvement through production and distribution of quality semen straws	Number of artificial insemination performed	Number in million	2.50	50	47	44	41	38	54	100.00	2.5	
						400	360	329	280	240	282	70.41	1.76	
		Production & distribution of elite bull calves	Number of bull calves distributed for natural service	Number	2.50	400	360	329	280	240	282	70.41	1.76	

Objective	weight	Action	Success	Unit	Weight	Target/Criteria value					Achievement		Performance	
						Excellent	Very Good	Good	Fair	Poor	Raw score	Weighted score		
						100%	90%	80%	70%	60%				
7. Development & Conservation of Indigenous breeds	5.00	Development & conservation of bovine breeds	Number of animal brought under the recording programme	Number	2.50	57500	54000	52000	50000	48000	59000	100.00	2.5	
						4	3	2	1	0	4	100.00	1.25	
						500	400	300	200	100	750	100.00	1.25	
8. increase milk production and provide assistance to farmers	15.00	Establish chilling (bulk milk cooling) units	Total number of animals covered under the scheme	Number	1.25	800	720	640	560	480	1027.5	100.00	3.75	
						6375	5750	4750	4750	4500	27319	100.00	3.75	
						118	117.5	117	116	115	121.85	100.00	3.75	
Efficient functioning of the RFD system	3.00	Through self employment scheme by providing loans to entrepreneurs	Improvement/ expansion of Dairy units	no	3.75	3000	2800	2600	2400	2200	3126	100	3.75	
						03-07-2012	03-08-2011	03-09-2011	03-10-2011	03-11-2011	03-07-2011	100	2.00	
						05-01-2012	05-03-2012	05-04-2012	05-05-2012	05-06-2012	30/04/2012	100	1.00	

Objective	weight	Action	Success	Unit	Weight	Target/Criteria value					Achievement	Performance	
						Excellent	Very Good	Good	Fair	Poor		Raw score	Weighted score
						100%	90%	80%	70%	60%			
Improving internal efficiency / Responsiveness/ service /delivery of ministry / Department	10.00	Implementation of Sevottam	Resubmission of revised draft of citizens / clients charter	Date	2	16/01/2012	18/01/2012	20/01/2012	23/01/2012	25/01/2012	13/01/2012	100	2.0
			Independent audit of implementation of grievance Redress mechanism	%	2	100	90	80	70	60	33.2	0	0.0
			No. of items on which information is uploaded by February 10, 2012	no	2	16	15	14	13	12	8	0	0.0
Ensuring compliance to the financial accountability framework	2.00	Identify potential areas of corruption related to departmental activities and develop an action plan to mitigate them.	Finalise an action plan to mitigate potential areas of corruption.	Date	2	26/03/2012	27/03/2012	28/03/2012	29/03/2012	30/03/2012	30/04/2012	0	0.0
		Develop an action plan to implement ISO 9001 certification	Finalise an action plan to implement ISO 9001 certification	Date	2	16/04/2012	17/04/2012	18/04/2012	19/04/2012	20/04/2012	30/04/2012	0	0.0
		Timely submission of ATNS on Audit Paras of C&AG	Percentage of ATNS submitted within due date (4 months) from date of presentation of report to parliament by CAG during the year.	%	0.5	100	90	80	70	60	100	100	0.5

Objective	weight	Action	Success	Unit	Weight	Target/Criteria value					Achievement		Performance	
						Excellent	Very Good	Good	Fair	Poor	Raw score	Weighted score		
						100%	90%	80%	70%	60%				
		Timely submission of ATRs to the PAC Reports	Percentage of ATRs submitted within due date (6 months) from date of presentation of Report to Parliament by PAC during the year	%	0.5	100	90	80	70	60	100	100	0.5	
		Early disposal of pending ATRs on Audit Paras of C&AG Reports presented to Parliament before 31.3.2011	Percentage of outstanding ATRs disposed off during the year	%	0.5	100	90	80	70	60	100	100	0.5	
		Early disposal of pending ATRs on PAC Reports presented to Parliament before 31.3.2011	Percentage of outstanding ATRs disposed off during the year	%	0.5	100	90	80	70	60	100	100	0.5	
Total Composite													80.27	

ABBREVIATIONS USED

AI	Artificial Insemination
AIC	Artificial Insemination Centre
AMF	Anhydrous Milk Fat
APEDA	Agricultural and Processed Food Products Export Development Authority
APHCA	Animal Production and Health Commission for Asia and Pacific
ASCAD	Assistance to States for control of Animal Diseases
BE	Budget Estimate
BFDA	Brackishwater Fish Farmers Development Agency
BOT	Build Operate and Transfer
CAA	Coastal Aquaculture Authority
CADRAD	The Centre for Animal Disease Research and Diagnosis
CALF	Centre for Analysis and Learning in Livestock and Food
CBPP	Contagious Bovine Pleuro-pneumonia
CCBF	Central Cattle Breeding Farms
CCRF	Code of Conduct for Responsible Fisheries
CDDL	Central Disease Diagnostic Laboratory
CFSPTI	Central Frozen Semen Production and Training Institute
CHRS	Central Herd Registration Scheme
CICEF	Central Institute of Coastal Engineering for Fishery
CIFNET	Central Institute of Fisheries, Nautical and Engineering Training
CMU	Central Monitoring Unit
CPDO	Central Poultry Development Organization
CPIO	Central Public Information Officer
CSBF	Central Sheep Breeding Farm
CSO	Central Statistical Organization
CSS	Centrally Sponsored Scheme
CVE	Continuing Veterinary Education

DCI	Drugs Controller of India
DGFT	Directorate General of Foreign Trade
DMI	Directorate of Marketing and Inspection
DMS	Delhi Milk Scheme
DVCF	Dairy Venture Capital Fund
EEZ	Exclusive Economic Zone
ETT	Embryo Transfer Technology
FAO	Food and Agriculture Organization
FFDA	Fish Farmers Development Agency
FMD	Foot and Mouth Disease
FMD-CP	Foot & Mouth Disease Control Programme
FSI	Fishery Survey of India
FSU	First Stage Unit
GDP	Gross Domestic Product
GIS	Geographical Information System
GPS	Global Positioning System
HACCP	Hazard Analysis and Critical Control Point
IASRI	Indian Agricultural Statistics Research Institute
IBM	In Board Motor
IBR	Infectious Bovine Rhinotracheitis
IGFRI	Indian Grassland and Fodder Research Institute
INAPH	Information Network for Animal Productivity and Health
IOTC	Indian Ocean Tuna Commission
ISO	International Organization for Standardization
ISS	Integrated Sample Survey
IUU	Illegal, Unregulated and Unreported
JD	Johne's Disease
MCS	Monitoring, Control and Surveillance
MIS	Management Information System

MLP	Major Livestock Products
MMSRT	Mobile Satellite Service Reporting Terminals
MPEDA	Marine Products Export Development Authority
MSP	Minimum Standard Protocol
NABARD	National Bank for Agriculture and Rural Development
NCVT	National Council for Vocational Training
NDDDB	National Dairy Development Board
NDRI	National Dairy Research Institute
NFDB	National Fisheries Development Board
NGC	New Generation Cooperatives
NIC	National Informatics Centre
NIFPHATT	National Institute of Fisheries, Post Harvest Technology and Training
NIPHATT	National Institute of Post Harvest Technology and Training
NPCBB	National Project for Cattle and Buffalo Breeding
NPRE	National Project on Rinderpest Eradication
NSS	National Sample Survey
NSS	National Sample Survey Organization
OBM	Out Board Motor
OIE	Office International Des Epizooties
ONBS	Open Nucleus Breeding System
PED	Professional Efficiency Development
PRI	Panchayati Raj Institution
PTP	Progeny Testing Programmes
PVCF	Poultry Venture Capital Fund
QR	Quantitative Restriction
RDDL	Regional Disease Diagnostic Laboratory
RE	Revised Estimate
RFD	Result Framework Document
RTI	Right to Information

SHG	Self Help Group
SIA	State Implementing Agency
SIP	Sanitary Import Permit
SLBTC	State Livestock Breeding and Training Centre
SLCAnGR	State Level Committee on Animal Genetic Resources
SLSMC	State Level Sanctioning and Monitoring Committee
SMP	Skimmed Milk Powder
SOP	Standard Operating Procedure
SSCC	State Semen Collection Centre
SSU	Second stage unit
STD	Sexually Transmitted Diseases
TCD	Technical Committee of Direction for Improvement of Animal Husbandry Statistics
TCMPF	Tamil Nadu Co-operative Milk Producers Federations
TRQ	Tariff Rate Quota
TSU	Third stage unit
UBKV	Uttar Banga Krishi Viswa Vidyalaya
VCI	Veterinary Council of India
VKGUY	Vishesh Krishi and Gram Udyog Yojna
VMS	Vessel Monitoring System



सत्यमेव जयते

**DEPARTMENT OF ANIMAL HUSBANDRY,
DAIRYING & FISHERIES**

Ministry of Agriculture, Government of India, New Delhi