

CHAPTER - 8

ANIMAL HUSBANDRY, DAIRY AND FISHERIES

8.1 The Animal husbandry sector in Rajasthan is harboring a fabulous livestock wealth having very significant role in providing subsidiary to major sources of income to the large numbers of small farmers, marginal farmers, BPL families and agricultural labourers. Milk enterprise generates income on regular basis as against the crop enterprise, which is mostly seasonal and is more prone to droughts. Cattle are mainly looked after by the women folk. The provision of assured market for the milk leads to their increased participation and the availability of cash income encourages them to take up to social development programmes.

8.2 The state is endowed with seven breeds with finest drought hardy milch breeds (Rathi, Gir and Tharparkar), dual purpose breeds (Kankrej and Hariyana) and the famous draught breeds of Nagauri and Malvi.

8.3 Livestock production in general and cattle and buffaloes in particular is highly women oriented as it is labour intensive. Over 95% of households chore related to the care and management of milch animals in livestock owning households are dealt by women.

8.4 Live stock sector in Rajasthan is extremely livelihood intensive, closely interwoven into the social economic fabric of the rural society, making investments in development of this Sector the critical pathway for rural prosperity.

8.5 Objectives and strategy during 2011-12 are:

- To utilize livestock sector as a tool for economic & social development and gender equity.
- Increase animal protein availability to fulfill the nutritional requirements of the human population of the state.
- Improvement of out reach services to increase livestock health & production. Shift from veterinary health care to animal husbandry practices and breed improvement.
- Active participation of the local breeders and prompt community participation with Public Private Partnership.
- Enabling the small producer to participate in the process of Globalisation, to gainfully participate in the process of growth and modernisation of the livestock sector.

8.6 Major Achievements during the eleventh five year plan are:

- State Government has taken many decisions and initiatives for the development of the sector. These include recruitment of 304 Veterinary Officers, First time release of Sheep and Goat Breeding Policies, Buffalo insurance to protect farmers from contingency losses,

Introduction of Breeding and Health cards for record keeping of Breeding, Production and Health of Milch animals.

- 14 multi utility vehicles were made available for supply of inputs for Breed improvement program and supervision work. Policy decision was taken to rear Jamunapari Bucks at Breeding farm Kumher (Bharatpur) and distribute Jamunapari Bucks after maturity for breed improvement in the tract.
- Under Rashtriya Krishi Vikas Yojana (RKVY), 100 Out-Door Sheds in Veterinary Hospitals were built and Rajasthan State Livestock Training and Management Institute (RSMLTI), Jaipur has been strengthened. Fertility camps and trainings were organized under RKVY to combat infertility problem in Cattle and Buffalo, to improve productivity and reduce losses to the farmers. A special project for maintenance of Cold Chain during transportation and storage of vaccines is to be started through RKVY funds.
- A Scheme to organise treatment camps at every Panchayat to provide veterinary health and husbandry services to distant places from where it is difficult to bring animals for treatment in Hospitals due to long distance specially during sickness launched in the year 2009-10 is in progress. The scheme is called **Pashu Chikitsalaya Pashupalak Ke Dwar**.
- As per the budget Announcement 2009-10, Livestock policy for the Rajasthan state has been released and Veterinary University has been established.
- As per the cabinet decision (113/2009), Rajeev Gandhi Agriculture and Animal husbandry Mission has been established for the benefit of farmers and livestock Breeders.
- As per the budget Announcement 2010-11, 100 new sub centers are being established. 285 sub centers will be upgraded in to Veterinary Dispensaries and 100 sub centers will be up graded in to Veterinary Hospitals. 500 new live stock service centers will be established with the help of unemployed Veterinary Graduates and Para Vets. 325 Livestock Assistant and 200 Veterinary Officers will be appointed. 75 Veterinary Hospitals have been up graded in to First Grade Veterinary Hospitals covering all the remaining Tehsil Head Quarters.
- To cope up the demand of fodder, Fodder Action Plan for the state has been prepared.

8.7 Following activities will be under taken for the development of the sector:

Establishment of Veterinary Polyclinics:

8.8 At present 14 polyclinics are in the state. At a polyclinic, specialized veterinary care is being provided under one roof. These Polyclinics are

equipped with diagnostic aids like x-ray, clinical laboratory and there is a facility to treat complex animal disease & infertility problems by subject matter specialists. In the Eleventh Plan, an amount of ₹ 300.00 lac has been proposed. Likely expenditure during 2010-11 is ₹ 41.27 lac and amount proposed for 2011-12 is ₹ 50.00 lac.

Veterinary Hospital and Dispensary:

8.9 The existing facilities of animal health care are inadequate. There is one veterinary center for every 14299 animals where as the recommendation of National Commission on Agriculture (NCA) is to have one Veterinary Center for every 5000 animals. Thus the state is lagging far behind the NCA recommendation. Therefore it is necessary to increase and strengthen the existing veterinary health care facilities during 11th plan period to take care of precious livestock.

8.10 In the Eleventh Plan, an amount of ₹ 8419.00 lac has been proposed. Likely expenditure during 2010-11 is ₹ 1568.68 lac and amount proposed for 2011-12 is ₹ 1610.19 lac.

Veterinary Council:

8.11 State Veterinary Council has been constituted under the provisions of Indian Veterinary Council Act. It regulates the veterinary practices in the state and skill and knowledge up-gradation of veterinarians. It is a Centrally Sponsored Scheme on 50:50 basis. In the Eleventh Plan, an amount of ₹ 150.00 lac has been proposed. Likely expenditure during 2010-11 is ₹ 15.0 lac and amount proposed for 2011-12 is ₹ 20.00 lacs for state matching share.

Goshala Development:

8.12 For the development and monitoring of the Goshalas in the state grant is provided to the Rajasthan Go Seva Ayog. In the Eleventh Plan, an amount of ₹ 150.00 lac has been proposed. Likely expenditure during 2010-11 is ₹ 18.00 lac and amount proposed for 2011-12 is ₹ 25.00 lac.

Institutional Arrangement of Supplies:

8.13 Rajasthan Livestock Development Board (RLDB) has been constituted in the 9th Five Year Plan for regular input supply to the departmental institutions and for improvement of livestock. RLDB is getting funds from Government of India for the various livestock development programmes under National Project for Cattle and Buffalo Breeding (NPCBB). Grant is being provided to RLDB to meet out establishment expenses. In the Eleventh Plan, an amount of ₹ 200.00 lac has been proposed. Likely expenditure during 2010-11 is ₹ 45.00 lac and amount proposed for 2011-12 is ₹ 60.00 lac.

Sample survey for estimation of major livestock products:

8.14 A CSS (50%) scheme is in progress for the estimation of Wool, Milk, Meat and Egg production in the state. In the Eleventh Plan, an amount of

₹ 300.00 lac has been proposed. Likely expenditure during 2010-11 is ₹ 86.47 lac and amount proposed for 2011-12 is ₹ 95.00 lac to meet out the 50% share for salary of staff working to promote this scheme.

Special Component Sub Plan:

8.15 Under this head departmental schemes like calf rallies, buck distribution and purchase of medicines are undertaken. In the Eleventh Plan, an amount of ₹ 3000.00 lac has been proposed. Likely expenditure during 2010-11 is ₹ 105.00 lac and amount proposed for 2011-12 is ₹ 498.15 lac.

Tribal Sub Plan:

8.16 Under this head departmental schemes like calf rallies, buck distribution, backyard poultry development and trainings are undertaken. In the Eleventh Plan, an amount of ₹ 2205.00 lac has been proposed. Likely expenditure during 2010-11 is ₹ 96.45 lac and amount proposed for 2011-12 is ₹ 364.62 lac.

Construction Works:

8.17 In the Eleventh Plan, an amount of ₹ 250.00 lac has been proposed. Likely expenditure during 2010-11 is ₹ 40.00 lac and amount proposed for 2011-12 is ₹ 50.00 lac for the repair and renovation works of the buildings of the departmental offices and veterinary institutions.

Assistance to States for Control of Animal Diseases:

8.18 Under this Centrally Sponsored Scheme (75:25), it is intended to fill up the critical gaps in terms of strengthening the laboratories and creating a disease management system, and to equip the personnel by providing them training on various aspects of disease diagnosis, control and management. Under the scheme, the Biological Product Laboratory in the state as well as Regional Disease Diagnostic Laboratories are under the process of modernization/ strengthening.

8.19 In the year 2008-09, the Biological Product Laboratory has been conferred ISO 2001 certification and tissue culture lab will be fully established very soon. Strengthening cold chain facilities through out state will also be taken up. In the Eleventh Plan, an amount of ₹ 900.00 lac has been proposed. Likely expenditure during 2010-11 is ₹ 70.00 lac and amount proposed for 2011-12 is ₹ 100.00 lac.

**RAJASTHAN UNIVERSITY OF VETERINARY AND ANIMAL SCIENCES,
BIKANER**

8.20 The university has been established w.e.f. 13th May, 2010. Previously the Veterinary Institutions were working with both the Agricultural Universities at Bikaner and Udaipur.

8.21 **Education:** As the State of Rajasthan is the first in the country to have **PPP mode in veterinary education**, the studies of Veterinary and

Animal Sciences took leap forward with affiliation of four more private veterinary colleges in the state during this year. This has resulted into **drastic improvement in the intake capacity** in the course of Bachelor of Veterinary & Animal Sciences from 272 to 510. After 5 years from the year under report, the State would be able to out-turn more than 500 veterinary doctors as strong human resource available to take care of the very important sector of Animal Husbandry. The total capacity of all the **4-tiers of education programme** run by this university i.e. Diploma in Animal Husbandry, BVSc & AH, MVSc/MSc and Ph.D., the intake capacity is around 3000 students. In other words, the State would be able to produce a strong human resource of around **3000 youth qualified in professional education.**

8.22 **Trainings to the field functionaries** were undertaken during this year particularly to the Vets and Para-Vets of the State Department of Animal Husbandry for animal disease diagnosis and control. This has resulted into capacity building of state machinery to diagnosis and control animal diseases of the State as these Vets and Para-Vets are from various districts of the state. This has resulted into a drastic decline in mortality and morbidity of animals on account of animal diseases giving a direct relief to the farmers in terms of providing or lowering from economic losses.

8.23 **New Research Areas:** The faculty stepped into a latest field of animal biotechnology by initiating research in two important areas i.e. **Embryo Transfer Technology and DNA Finger Printing** of cattle breeds. Simultaneously, the university is also offering the PG programme in Animal Biotechnology. This newly acquired strength shall upgrade the research capability of the university in most modern field of animal biotechnology.

8.24 University has also initiated research of a very high stage like preventing global warming and climate change through **reduction of methenogenesis** from ruminant animals. Important aspect of this research is that reduction in methanogenesis is being tried by utilizing certain toxic ingredients present in desert plants like tannins, bioflavenoides, phenols etc. The success of this research may help substantially in improving animal nutrition of the Rajasthan State as well as shall provide the value of such desert plants which are usually not the part of animals' fodder.

8.25 **Improving clinical services:** The Veterinary Clinical Departments of two colleges of this university are handling around 50 thousand clinical cases annually. This is giving direct benefit to almost the same number of animal farmers in terms of making them available state of art treatment as well as surgical facilities. The newer techniques so far used in human beings viz. animal plastic surgery, blood transfusion, laminitis

in horses and repair of medible fractures in camels etc. are being utilized for alleviating disease conditions of animals.

Major initiatives/ innovations during 2010-11:

8.26 Establishing Separate Veterinary University: The State Government took major initiative in education, research and extension in the field of Veterinary and Animal Science by **establishing a separate Rajasthan University of Veterinary and Animal Sciences w.e.f. 13th May, 2010** in the current financial year. By establishing this university the State has entered into elite group of 8 states which have so far established separate veterinary universities. The university has territorial jurisdiction of the whole state. It aims at making provision of improving education towards development of quality human resource in different branches of study in veterinary and animal sciences as well as furthering the advancement of learning and conducting of research and extension education. Establishment of separate university shall enable to promoting partnership and linkages with national and international educational institutions.

8.27 Functional units throughout the State: With the establishment of university, the following units have come under this university w.e.f. 13th May, 2010:

1. College of Veterinary and Animal Sciences (a constituent college of the Swami Keshwanand Rajasthan Agriculture University, Bikaner) and units or farms under it.
2. College of Veterinary and Animal Sciences (a constituent college of the Maharana Pratap University of Agriculture and Technology, Navania, Vallabhnagar, Udaipur) and units or farms under it.
3. Livestock Research Station (a constituent college of the Maharana Pratap University of Agriculture and Technology, Udaipur) and units or farms under it.
4. Directorate of Research (Veterinary and Animal Sciences), (a constituent Unit of the Swami Keshwanand Rajasthan Agriculture University, Bikaner) along Livestock Research Station at Beechwal (Bikaner), Nohar (Hanumangarh), Chandan (Jaisalmer), Research Center for Livestock Health and Production, Jaipur.
5. Unit of Estate office of the Swami Keshwanand Rajasthan Agriculture University located at College of Veterinary and Animal Sciences, Bikaner.
6. Seven Private Veterinary Colleges.
7. Forty nine institutes providing Diploma in Animal Husbandry.

8.28 Strengthening Education Programmes: One major challenge before the new university was to continue teaching and research without interruptions. The university conducted all the examinations in time and

announced their results. Similarly, the admission processes has also been conducted efficiently. The College of Veterinary and Animal Sciences, Navania, Vallabhanagar (Udaipur) has also been provided funds during the State Plan. This is the college which has entered into its 4th year of establishment during current financial year. The college has been got inspected, but on account of extreme shortage of staff, the Veterinary Council of India has consequently stopped admission to this college. The proposals for getting the faculty positions sanctioned as per the norms of VCI have already been moved to the Administrative Department. The university is providing hostel facilities to both the boys and girls. The girls have been accommodated in few of the vacant staff quarters. However, there is a dire need to get additional faculty positions sanctioned and a separate girls' hostel.

8.29 Strengthening Research and Development Programmes: The annual plan 2010 has been implemented effectively by the new university. There was on-going ICAR research schemes (4 in number) for which budgetary provisions were provided in the State Plan of this university. All these schemes have been revigoured and it has been tried to improve their functionality. Similarly, during the current annual plan, funds have been provided for the new Veterinary University.

8.30 Likely level to be reached at the end of 2010-11:

- **Functional and working Infrastructure of the University:** By the end of this financial year, the university aims at establishing its Administrative Office in the existing Bijey Bhawan Palace building, where appropriate area has already been ear-marked and has been put in refurbishment.
- Complete admission processes for all 4 tiers, i.e., Diploma, Graduates, Post-graduates and Ph.D.
- Constitutions of all Authorities of the University
- Linkages with ICAR for strengthening and developing education through its grant.
- Comptroller of Examination and Dean PGS to be functional independently for carrying out UG and PG related works.
- Launching website of the University
- Initiating new project submission process for strengthening Research and Development
- **Ultra High Speed Internet Connectivity:** University has already applied for a lease-line for better internet connectivity to the students and faculty as well as to facilitate administration as a part of e-governance.
- **Toll-free Telephone Help line:** Similarly, the university has also established a Toll-Free Help Line for the use of farmers, students, Vets

and Para-vets. In order to provide detail information to public, university has also launched its own website. During the current financial, the university affiliated one more private veterinary college at Dungarpur. Similarly, two institutions for providing Diploma in Animal Husbandry have been started at its Jaipur and Vallabh Nagar campuses taking the total number of such institutions to 49 in the State.

- Allotment of land for Jodhpur college

Steps taken to encourage PPP in infrastructure and social sector:

8.31 The university has already taken lead in adopting PPP mode in the sector of Veterinary and Animal Sciences education. Currently, the university has **7 private veterinary colleges** providing BVSc & AH degree and **42 private Institutes** providing Diploma in Animal Husbandry. In this way, the university has encouraged 49 private institutions to establish infrastructure for providing veterinary education. Steps have also been taken to **link some of the NGOs** working in social sectors to undertake development and extension programme in certain identified field. Important linkages with different NGOs as well as Donkey Century, India for undertaking donkey welfare programme. The university has also initiated discussions with the **University of Maryland, USA** to enter into MOU with respect to students and faculty exchange as well as research collaboration programme. The university experts are also participating in various programme of Government in social sector particularly in RKVY, RLDB, Watershed Development and conservation in animal genetic resources. University experts are members/ partners/ consortium partners in these bodies and their programmes.

8.32 An outlay of ₹ 1775.80 lac has been proposed for the Rajasthan University of Veterinary and Animal Sciences, Bikaner for pay and allowances of existing employees in the year 2011-12.

FISHERIES

8.33 The Annual Plan 2011-12 is being formulated with the objective of increasing fish production of the State from 28000 to 30000 M.T. and seed production from 380 Million fry to 400 Million fry by increasing fish productive area, motivating private partnership, improvement & diversification of aquaculture activities. During 2009-10 key physical progress of the plan i.e. Fish Production and Seed Production were 26910 M.T. and 349 Million fry respectively. In the Annual Plan period 2010-11 physical targets of 28000 M.T. fish production and 380 million fry will be achieved.

8.34 For the annual plan year 2011-12 an amount of ₹ 49.20 lac is proposed. Scheme wise detail is as under:-

Development of Inland Fisheries and aquaculture

8.35 Under Centrally sponsored scheme Development of Inland Fisheries and Aquaculture, 15 Fish Farmers Development Agencies (FFDA) are functioning in the state. The objects of these agencies are:-

- Increase of Fish Production through intensive fish culture, particularly in rural area for utilization of small water bodies.
- Generation of opportunities for rural employment.
- Additional source of revenue for local bodies.

8.36 During the annual plan 2011-12, additional water area of about 300 ha. is to be brought under aquaculture. An amount of ₹ 4.20 lac is proposed for these activities as per following details:

(₹ in lac)

S. No.	Item	Amount	Remarks
1	Grant-in-aid to FFDA for subsidy.	3.00	25% CSS matching
2	Subsidy for Nets & Boats.	1.20	25% CSS matching
	Total	4.20	

Fisheries Training and Extension

8.37 For updating the knowledge of advance aquaculture techniques & creating awareness regarding adoption of advance practices of aquaculture among fish farmer's, a provision of ₹ 3.50 lac is proposed for the year 2011-12, out of which ₹ 0.50 lac as a matching share is proposed for training to farmer's, printing of manual and organization of state/ national level workshop and ₹ 3.00 lac for operating awareness center.

(₹ in lac)

S. No.	Particulars	Amount	Remarks
1	Operational cost of Awareness Center	3.00	State Plan
2	Training to progressive farmers	0.50	CSS matching 20%
	Total	3.50	

National Schemes of welfare of Fishermen:

8.38 Under central sponsored scheme (50:50) "National scheme of Welfare for Fishermen" an amount of ₹ 26.50 lac is proposed as state share, for the year 2011-12 for following activities.

Development of Model Fishermen Village:

8.39 For development of model fishermen village in Tribal sub plan area of the state a provision of ₹ 10.00 lac is proposed as state share during

the year 2011-12, for construction of Fishermen houses, Hand pumps and Community hall.

Saving cum Relief:

8.40 Under this scheme financial assistance is provided to fishermen during lean fishing season. 2500 Fishermen will be covered and benefited under saving cum relief scheme for which they will be given equal assistance of ₹ 600 each by State Government and Government of India on saving of ₹ 600 by fishermen during close season (June to August) in three equal installments. An amount of ₹ 15.00 lac is proposed as matching share for the 2011-12 for this purpose.

Group Accident Insurance for Active Fishermen:

8.41 Active fishermen who are engaged with fisheries activities are proposed to be insured through this scheme. For this purpose a premium of ₹ 30/- per Fishermen has to be paid to FISHCOPPED, New Delhi. The 50% of the premium is paid by Government of India directly to FISHCOPPED, and 50% has to be contributed by state government. A provision of ₹ 1.50 lac has been proposed for the year 2011-12. About 10000 Fishermen will be benefited under this scheme.

Fish Market:

8.42 State level fish market costing about 250 lac with all essential facilities like parking space, loading unloading facilities, cold storage, hygienic stalls, waste management system, proper drainage, communication and information facilities etc. has been sanctioned by National Fisheries Development Board (NFDB) with 90% assistance. ₹ 10.00 lac has been provided as a state share in the year 2010-11. A provision of ₹ 15.00 lac (10%) is kept as a state matching share for completion of this project in the year 2011-12.

RAJASTHAN COOPERATIVE DAIRY FEDERATION:

8.43 Rajasthan Cooperative Dairy Federation (RCDF) was established in the year 1977 under Rajasthan Co-operative Societies Act, 1965 with affiliated 16 district milk unions. Since then RCDF has made sincere efforts to reach the village milk producers of 33 districts of Rajasthan in order to ensure substantial contribution to rural economy and betterment of village level milk producers.

8.44 Over the years RCDF has established a sprawling net work of more than twelve thousand primary village level Co-operative Societies linked with 21 Milk Unions at District Level which are affiliated to RCDF, being their Apex body. The governance of village level milk societies and milk unions is ensured by elected Board of Milk Producers under a democratic system. RCDF too is being governed by an elected Board.

8.45 The major objectives of RCDF in the state are as follows:-

- Creation of effective infrastructure for procurement, processing and marketing of milk & milk products,
- Social and Economic development of milk producers by transferring cash flow from Urban to Rural areas,
- Implementing various schemes for social securities of the producers,
- Women participation at Village Level Milk Co-operative Society,
- Milk production and enhancement of bovine live stock,
- Animal Health Care and Vaccination,
- Breed improvement,
- Balanced Cattle Feeds, Mineral Mixtures and UMB for milk producers at village level,
- Hybrid seed processing and distribution for green fodder
- Provide quality milk and milk products to the consumers.

8.46 RCDF has procured 14.30 lac litre per day (LLPD) milk till November, 10 and has setup a target of procuring 25 LLPD milk during the year 2011-12. In the Northern India the affiliated milk unions of RCDF are paying highest procurement price of milk.

8.47 Rajasthan is the largest State of the country with difficult geographical conditions and the major area is covered by desert which poses further challenges in income generation for the farmers. The industrial development in the state has limited possibilities because of low availability of basic facilities like water and electricity. The dairy development appears to be a silver lining as the experience shows that milk produce offers a viable alternate income source on year round basis for the farmers during trying times.

8.48 The State is third highest in milk production in the country. In 2009-10, the state cooperatives have procured only 17% of the marketable surplus available from the milk production of 261.64 lac kgs per day. There are immense possibilities for procuring more milk.

8.49 The milk procurement is costlier due to large distances of villages and dhanies & desert areas.

8.50 In the state, the women have an important role in milk business. RCDF has proposed to organize only women Dairy Cooperative Society (DCS) in future.