

# **Genetic Up-gradation of Cattle and Female Calf Rearing Project**

## **Introduction**

The Orissa Livestock Sector policy explicitly seeks to make livestock rearing a means of social and economic development of the rural population, enabling steady growth of rural household income, increasing rural employment opportunities and improving quality of life, cutting across caste, class and gender.

Thousands of poor farm households in Orissa depend on different forms of Livestock to varying degrees for their subsistence. Livestock is the major source of supplementary income for the rural households in Orissa Livestock production is an integral part of the rural livelihood systems. The development of the livestock sector is the critical pathway to alleviation of rural poverty.

Therefore, there is need to provide an enabling environment in which livestock rearers are able to take advantage of the opportunities. Livestock production has the potential to demonstrate appreciable growth by giving right kind of support.

In order to increase the present per-capita consumption of milk of 104 gms per day against the National average of 246 gms per day, it requires effective genetic up-gradation programme in a more aggressive manner in order to increase the CB population in the State. It is projected to perform 17 Lakhs AI per annum by 2011-12. There will be focused and specialized attention on the successful implementation of genetic up-gradation programme, which is currently implemented through NPCBB Programme.

One of the factors that affect genetic up-gradation is that farmers often neglect crossbred calves because of the cost involved in rearing them to heifers. Therefore, it is required to support the farmers in rearing of female cross bred calves born out of Artificial Insemination.

This scheme seeks to assist the dairy farmers to rear cross bred heifer calves. The main aim of the scheme is to provide proper nutrition to enable the calves to mature earlier and produce more milk. The cross bred heifer calves are selected from the age group of 4-10 months. The feed is supplied from the 4<sup>th</sup> month up to 28<sup>th</sup> months or calving whichever is earlier. Under the scheme farmers will be assisted so as to enable them to provide nutrition to their female calves. The calves booked under the scheme will be insured and routine deworming will also be done.

## **Rationale of the Project**

In long term perspective plan of the ARD Sector, focused effort will be made to popularize cross breeding programme by adopting measures like production of quality semen, strengthening and expansion of AI network, provision of breeding

services at the doorstep of the farmers, sexual health control measures, creating awareness among the farmers and other stake holders through trainings, shows, rallies and seminars, refresher trainings for the professionals etc.

The long term perspective plan seeks to establish dairy farming as a viable economic activity with the goal to increase milk production from 1.5 million MT to 3 million MT in the next five years and 4.8 million MT by 2020. Additionally, 20 lakhs crossbred female cows will be produced in 10 years. Activities such as mineral mapping, ration balancing, integration of Information Technology and ear tagging of cattle will be taken under State Plan. All the Districts have emphasized about the necessity of protecting and nourishing cross-bred heifer calves for better growth and health. It is observed that sizeable number of CB female calves die before they attain cow-hood due to malnutrition.

Therefore it is thought that the potentiality of the crossbred females being produced from AI in the state can be maintained till its maturity through a sustainable intervention like provisions of concentrated feed to the young's on subsidy. The Calf Rearing Scheme will supplement the ongoing cross breeding programme to enhance the survival rate of AI calves which will result with additional milk yield of 1 million liter per annum. It will help a larger section of economically backward farmers in the optimum management of their newborn calves. In return the major objectives like higher production, higher productivity level and better reproductive health status of the stocks can be achieved.

The present proposal under Stream-I is for taking up dairy development in an integrated manner. The farmers will derive direct benefit through the scheme for rearing of their crossbred female calves and to convert them to a productive asset.

## **Objectives**

The proposal primarily aims at creating asset in the form of cross bred female cows at the farmer's level and enabling them to practice proper care and management of Cross bred female calves born out of artificial insemination.

The specific objectives would be

- To enable the economically weaker section of the farming society to protect and nourish cross-bred heifer calves for better growth and health.
- To contribute towards the nourishment of the calf so as to yield increased milk production after attaining cow-hood.
- To help augmenting the availability of good quality dairy animals.
- To manage the cross bred female CB calves with adequate health care, deworming.
- To sustain the improved germplasm created through genetic up-gradation/ Cross breeding.
- To reduce the delayed maturity in CB Exotic heifers through supplementation of balanced feed.

## **Features**

All residents of Orissa fulfilling the eligibility criteria can be beneficiaries of the Scheme. Female CB calves of the following categories will be selected for the scheme.

- Progeny born out of Frozen semen artificial insemination done in desi/graded/non-descript animals
- AI calves available with the MPCS members and farmers in the milk route/Intensive Dairy Zone.
- Progeny born from the elite cow owners covered under field performance recording programme(FPRP)