

Executive Summery

PILOT STUDY IN ARID REGION OF RAJASTHAN : DISTRICT NAGOUR

**Sponsored by NRAA to Rajasthan Livestock Development Board,
Jaipur (RLDB) from 2010-11 to 2014-15**

India is primarily an agriculture based nation and accordingly is the state of Rajasthan. Agriculture and Animal husbandry are complimentary to each other. Animal husbandry contribute significant proportion to the state's overall economy. Geographically, the district of Nagaur lies in the Centre of Rajasthan and in the west of the Aravali mountain range.

Scarce rains, draught and the mediocre technical agricultural knowledge are turning the agricultural production and the occupation risky. Animal husbandry along with agriculture is the core occupation of the residents. Animal husbandry is their main occupation due to uncertain rainfall and water scarcity.

Animal husbandry could be an alternative source of income for the poor and at par farmers in the case of uncertain rainfall and scarce water condition. The project, therefore, focuses on creating animal husbandry as the base for earning the livelihood of the poor and marginal farmers. Project also aims to convert the low productivity indigenous animals into high productive ones and hence to improve overall socio-economic status of the residents.

The pilot project was conducted in the district of Nagaur. It comprises 6 villages of Jayal and Merta block each forming two cluster centers. Each cluster centre is having 3 villages, thus forming a total four clusters.

Objectives

- Develop appropriate livestock production systems in a cluster approach.
- Enhance productivity of livestock through better feeding systems and efficient input delivery.

- Develop appropriate water conservation measures for increased water use efficiency.
- Improvement of common grazing areas/community lands with innovative approaches.
- To provide value addition and suitable market linkages for livestock products to ensure remunerative prices.

Work plan

- The project was essentially implemented on a community approach.
- A total four clusters of 3 villages was undertaken. 1000 families from each cluster was targeted and 5000 animal population of Cow, Buffalo, Sheep & Goat was focused in each cluster.
- A focused survey was conducted for generating base line data.
- Focus was made on productivity enhancement (milk) through improved breeding, feeding and health coverage approaches.
- Having efficient input delivery system especially for Artificial Insemination (AI), health coverage and concentrate feed supply is critical for improvement of livestock production systems.
- Four(4 Nos) Bulk Milk Cooler (BMC) were installed for backward linkage to the milk producers of all four clusters.

Breed improvement programme

Cow/Buffalo: Artificial Insemination

- Low productive/Non-descript animals were inseminated by semen of highly pedigree indigenous and exotic bulls.
- All essential equipment's to perform AI, were made available to the appointed livestock assistants / veterinary doctors at the cluster levels and the services were made available at the farmers doorstep.

- Following AI, pregnancy diagnosis and record of the calf born was monitored and the complete record was maintained at the cluster centre level.



- To prevent reproduction by scrub animals and to utilize the motive of AI effectively in breed improvement, castration of such animals was performed.
- Equipment's for such purpose, castrators were made available at the cluster.

Cow/Buffalo: Infertility Camps

- Infertility camps were organized at the village level to combat infertility and to increase the reproductive efficiencies of the animals.
- In all 4 clusters 42263 general treatment, 1890 surgical treatment, 9299 Infertility camps, 68447 vaccination, 34380 medicine distribution, 7583 A.I, 7289 pregnancy diagnosis 2739 castration of animals were performed to 29988 beneficiaries from 2010 to 2015.



Sheep and Goats : Ram/Buck Distribution

- Rams of high wool producing and fast growing varieties for better mutton production were distributed.



- High milk and meat producing breed of bucks were distributed for the purpose of breed improvement in low yielding animals. For this purpose **Sirohi** breed was selected.
- Selection of Bucks/Rams was done by subject specialists keeping in consideration the choices and preferences of the local farmers.
- Thereafter, vaccination and regular health check-ups of the distributed animals was insured for effective breed propagation.



- In the project a total of 126 farmers were benefited by distribution of 135 Rams of **Kheri** breed. A total no of 159 Bucks of **Sirohi** breed were distributed in 12 villages of 4 cluster regions. All the rams and bucks were insured for three years. The Bucks distribution brought the genetic improvement in the progeny produced.

- Breeding of the local goats with the Sirohi breed resulted in a improved progeny whose females are having high milk production and males with good body weight which maximized meat production.
- By selling the kids of Sirohi at the age 6 months, farmers earned approx 4500-5000/- per kid in corporation to local breed of Rs 3000-3500/-. Hence the annual income of formers increased by 11%, 18.20%, & 24.09% during the year 2012-13, 2013-14 & 2014-15 respectively.
- Sheep rearing was on a decline since the breed of deployed sheep's were of low body weight and the wool produced by them fetched lower price. After distribution of Kheri/Baradi breed Rams to the farmers resulted in breed improvement and overcame this shortcoming and breed specific requirements/demand emerged amongst the farmers.
- Farmers earned Rs 4000-4500/- per animal of Kheri breed sale in comparison to Marwani breed of 2500-3000/- at the age of 6 months. The overall economic gain was increased from 1.62% , 2.73% & 5.05% during the year 2012-13, 2013-14 and 2014-15 respectively.
- Project created enormous interest in the Animal Husbandry activities and the active involvement of farmers brought enhanced result.

Value addition of milk and other livestock products

- Installation of four Bulk Milk Cooler (BMC) increased the 'keeping quality' of milk procured in all four clusters. In Lambo Jatan cluster milk procurement increased from 135 lit to 475 lit for 100 members where as in kadwasan in dhani from 90 lit to 475 lit for 116 producers. It was observed that milk procurement increased from 465 lit to 1405 lit in Ratanga clusters and Tarano cluster achieved 108.0 lit milk by 14 members at 1st day of installation of BMC.

- Moreover, timely preservation of produced milk and achievement of competitive prices for the produced milk was highly appreciated by the milk producers of all four clusters collectively.



(Complete report can be access on this website under publication section)