

# **Cattle Housing for Higher Production, Hygiene and Environmental Friendliness: Two Approaches from Gujarat and Punjab**



***A hostel for Cattle in Akodara, Gujarat***

## **Background & Objectives**

Providing comfortable living sheds to cattle can be profitable as well as environment friendly. RKVY interventions in several states- notably in Gujarat, Haryana and Punjab- have led to hygienic living quarters for cattle providing them ‘creature comforts’, and thereby increasing yields to make the owners of the cattle laughing all the way to the bank. Farmers of village Akodara [Dist Sabarkantha] in north Gujarat demonstrated their path breaking initiative by establishing an animal hostel for their milch cattle.

Akodara is a typical village of Gujarat with a population of 1085 (total families 215; cattle owner families 205; cattle population 1166 and milch cattle 400). Average daily milk collection was 574 liters from Buffalos and 583 liters from Cows. In Akodara too, like any other village of the state, milch cattle are taken care of predominantly by women within their own premises. This results in problem of cleanliness and hygiene both for humans and

animals and practically bonds women to the upkeep of their animals in the house.

In order to alleviate drudgery of women involved in animal care and address the problem of limitation of space available for cattle in-house and lack of hygiene and also to make better use of animal wastes like urine and dung and improve sanitation of village, and for production of gobar gas and vermi-compost for organic farming etc., the Government of Gujarat decided to set up an animal hostel in Akodara during 2008-09.

Punjab, with larger size of operations, adopted a different approach, but with the same objective. Punjab went for a scientifically designed and maintained cattle shed at the farmer's place itself.



***Scientifically designed cattle shed in Punjab***

## **Intervention**

Animal hostel in Akodara was set up at a total cost of Rs. 584.62 lacs with the capacity of 900 animals. It was funded primarily from RKVY to the extent of Rs. 434.62 lacs with contribution by Department of Animal Husbandry from their budget of Rs. 1 lac, by DRDA of Rs. 50 lacs, GEDA of Rs. 49 lacs and people's own contribution of Rs. 50 lacs.

Animal Hostel has capacity of accommodating 900-1000 cattle in 36 Cattle sheds. The facility also has an elevated water storage

tank of 1,00,000 liters, an underground sump of 80,000 liters and three biogas plants of 255 cubic meters' capacity. To provide fodder to animals, fodder cultivation plots measuring 50 ha have been included in the project for fodder production of 3000 tones/year. The facility will also produce 1000 tons/year vermi-compost. A system of biometric based animal identification was introduced to streamline the operations.



***An Animal Shed in Akodara Hostel***

The animal hostel is being managed by Akodara milk Cooperative Society. Animal owners arrange green and dry fodder and also contribute Rs 500 per animal per month to the hostel. The concentrates are, however, arranged by the society. Similarly, regular check up of animals' health and artificial insemination is arranged by the Society. Recurring expenses of hostel are met through the income of gobar gas, vermi-compost, and Gaucher development. Income from milk is distributed to the owners of milch cattle on actual basis.

Scientifically designed cattle sheds in Punjab at individual farmer's place were promoted with a financial incentive of Rs.1.50 lac per shed constructed as per approved design with assistance from RKVY. Only those beneficiaries with less than 10 acres of land and maintaining a minimum of 10 milch animals were eligible under the Programme. The scheme is very popular and very useful. It came into operation in the year 2008-09. 1143 sheds have been constructed in the state by middle of 2011-12 with the incentive provided under RKVY. Subsidy to the tune of

Rs. 1700 Lac has been provided to 1143 beneficiaries @ 25% of the cost of the shed subject to a maximum limit of Rs. 1.50 Lac.

## Outcome

Establishment of this animal hostel in Akodara has been a resounding success on all parameters. In the first year itself, 90 farmers started keeping 600 of their milch cattle in the hostel. As better supervision and environment was available to cattle in the hostel, quality and quantity of milk production improved. In just one year, milk production increased by 15-20 %. This has also improved the surroundings and hygiene of the Akodara village and households of dairy farmers. Additionally, production of gobar gas and conversion of gobar into compost has reduced deforestation.



It is also expected that the quality of agricultural land will also improve due to non use of chemical fertilizers which is the main cause of soil degradation. To top it all, human health and animal health have improved and also employment generation in the village received a boost. Overall cleanliness in the village has also greatly improved. Being a pro women and pro poor project, it will help in achieving improvement of Human Development indices.

In the true sense, the Animal Hostel in Akodara is a unique concept of integration and participation of People-Public-Participation. A wonderful collaborative model with participation

of cattle owners of village, Akodara for keeping their milch cattle in the hostel, Govt. of Gujarat for playing a lead role in bringing up the hostel, Sabarkantha district Milk Co-operative Union, Village Milk Co-operative Society, Akodara Gram Panchayat and Govt. of India, Rashtriya Krishi Vikas Yojana for grant in aid.

Sh. Ganpatibhai Prajapati (animal owner) expressed his sentiments:

“Due to lack of space, I could not maintain more number of milch cattle. Now, I have purchased more animals, and kept them in the hostel and consequently I am earning more from them.”

Cattle Housing scheme has changed the dairy scene in Punjab as well. Dairy farmers, due to the incentive available under the scheme, have started investing on animal housing which was hitherto ignored. They have now understood the importance of this component. The modern cattle shed save the milch animals from extreme hot weather. There is a discernible difference in the temperature inside and outside the shed, and the productivity of milch animals has increased.

Harjit Singh proclaims he is fortunate that he undertook to build a modern cattle shed with the financial incentive under Rashtriya Krishi Vikas Yojana. He got the information about the new design of the shed and the incentive available through the block level camps organized by the department.



**Prize winning cow along with Sh. Harjit Singh, owner of the Dairy Farm**

Ever since his milch animals have been shifted to the modern cattle shed, the functioning and profitability of his farm changed for the better. He confirms that the new shed provides adequate natural lighting, cross ventilation and protection from heat stress. He adds that the temperature in the shed during summer remains about 5-6 degree centigrade's lower than the temperature outside the shed. The design of the shed provides modern manger and a facility for water shortage. He feels that his new shed has helped him getting the optimum output from his animals. According to him, productivity of milch animals has increased by 2-3 liters per day. The production loss due to health problems of milch animals has diminished sharply. He started his HANS Dairy farm at Ghumandgarh, Dist. Fatehgarh Sahib in 2007 with 20 cows. He now is running a commercial dairy farm with 50 high yielding cows producing 3500 liters of milk daily. During Feb. 2011 in the PDFA International Dairy Show one of his cows won the first prize in Milk competition by yielding 54 liters Milk in a day. His success has been a source of inspiration for others.