

ANIMAL HOSTEL; A FUTURISTIC MODEL TO INDIAN DAIRY FARMING

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The dairy industry in India has been witnessing rapid growth and rank Ist in milk production. The country milk supply comes from millions of small producers who are dispersed throughout rural areas. (Birthal *et al.*, 2011). All these farmers has maintained the average heard of one or two milch animals cows or buffaloes. Average milk production of buffaloes are less as compared to international standard and major problems of dairy farming in India are Small and fragmented land holding use of chemical fertilizers that are used form thousands of years without replenishing soil destroy crops . (Anonymous. 2012) Marketing in rural areas Inadequate storage facilities .Scarcity of capital and malpractices done by middlemen.(Chand *et al.*,2011) .Concerted efforts should be therefore needed directed towards dairy farms contributing major proportion of our country milk production and to provide all necessary inputs especially to the landless and marginal farmers .Adopt to newer technologies in the form of breeding, housing, feeding, rearing and health care to ensure substantial growth in milk output. Hence new animals production system ie; ANIMAL HOSTELS was evolved. It is a cooperative based lived stock management system. In order to alleviate drudgery of women and limitations of space available in cattle house and also to make better use of wastes government of Gujarat has decided to set hostel in Akodara .Animal Hostel project is unique model of integration and is a revolutionary step in Cooperative Cattle management and conservation of natural resources. Mahatma Gandhi 'Father of Nation' believed that India's soul recites in its villages and envisaged the concept of Gram swaraj for the village. Shri Narendra Modi realised the vision of Mahatma Gandhi and under his visionary leadership the state of Gujarat has taken an unrest initiative to attain Sampurna Gram Swaraj for the villages. (Anonymous. 2012). Therefore a path breaking initiative in India has begun at Akodara village of Sabarkantha District in Gujarat Akodara village is located between 23.31

N latitude and 73.00 E longitude, is situated 7 km away from Himatnagar, District HQ of Sabarkantha District.

This is a well-developed dairy union with good rapport and opinion among local people. Out of the 215 families, 205 families are animal owners and they are keenly enthusiastic about the project. After taking into account the cattle strength, the animal hostel with a capacity of 900 animals has been constructed in the village. The facilities in the hostel include in house fodder production in the nearby gaucher land, fodder storage, electricity generation through bio gas plants vermin compost production, milk collection room, veterinary service centre and a water storage tank. The unit of animal hostel which was visited has 36 sheds having capacity of 24 cattle each. The unit has a capacity of 528 cattle along with equipments like fodder storage facilities and automatic watering system. Unit cost for one shed is Rs.7.25 Lac. One shed can be shared by more than one family. Beneficiaries have to pay Rs.5000 per animal. All beneficiaries have to keep their allotted area neat and clean. There is underground water drainage system and supply of water is with enough pressure to keep the premises clean. The recipients have to collect cow dung and dump it in to gobar gas plant unit. Dumped dung is weighed and recorded for each beneficiary who are then paid Rs. 4/kg. Slurry of this gobar gas unit is being used for the vermin compost unit. There are two vermin compost units having capacity of 250 tonne/unit/year. The produce of these vermin compost units are used as an organic fertilizer to increase agriculture production and improved soil quality, which generates an additional income of Rs. 5 lac/year. These units are maintained by women of 7 self-help groups of the village.

It is a Comprehensive– Collaborative–Cooperative Model: It is a Comprehensive model which includes integration of animal husbandry, pasture development, renewable energy and ecofriendly technology, organic farming and Biometrics based animal identification, It is a good

collaborative model with participation by various departments/agencies of Government of Gujarat, Panchayat Raj institutions and Milk Co-operative Societies i.e Department of Animal Husbandry, District Rural Development Agency, Gujarat Land Development Corporation, Sabarkantha District Milk Co-operative union. What is unique to this project is that the village level institutions i.e. Village Milk Cooperative Society, and Akodara Gram Panchayat are the key stake holders in development of the Animal Hostel. This project also provides a good example of cooperation in terms of participation of all stakeholders in provision of technical & financial inputs.

The Animal Hostel Project is a good example of an “Eco-technology” model for its uniqueness in people’s participation, creation of alternate sources of energy, integration of animal husbandry & crop husbandry practices, reduction in use of non-renewable energy sources, promotion of organic farming, employment generation, reduction in carbon footprint and other activities, These activities put together ensure that the hostel is a sustainable model towards achieving the objectives of the project. Pro-Poor/Pro-Woman: Another unique feature of the Animal Hostel is that the project is women centric and works for the poor families of the village. Animal hostel project will reduce drudgery of women in regular animal care activities and provide alternate options for their involvement in other livelihood development activities. Extra facilities and benefits have been given to BPL families of the village without any differentiation in care of animals in the hostel at lower participatory cost. This Pro-Poor and Pro-Women model will help in achieving the development of the village which is equitable and aims at economic and social justice. Returns from the project: The Animal Hostel Project gives multiple returns such as direct economic returns, improvement in social conditions and better environment management. Though this is a new venture and the data is too recent to allow for a comparative analysis, certain inferences can be drawn. It is a well-established fact that good animal husbandry practices act as a catalyst for a hike in milk production which ultimately will result in higher income for the rural poor. It is seen that the animal hostel has got good returns from sale of fodder which it produced under pasture development programme and vermin compost

produced in the complex .During the year 2011-12 the members collected 407227 kg cow-dung from the animals in the hostel. Farmers were paid Rs 4/Kg for the cowdung as cards have been given to each farmer-member and entries are made against the cowdung deposited. The cowdung is then used by the members of the SHG who produced 10571 Kg Vermicompost this year. This vermin-compost was supplied to members at the rate of Rs 4/- per kg as against the present market price of Rs 5/- to Rs 7/- and members could sell or use the same. It is seen that most members have used the compost to augment their land’s soil fertility and have resulted in higher yields in their agricultural produce.

Social Returns: Earlier women were involved in drudgery in care of animals kept at their own homes. On an average, they consumed 6 hours per day per female in animal care. After the animal hostel project started the common facilities for animal care were taken up and now women do not devote more than 2 hours for animal care. A total of around 200 women are involved in animal care activities thus, there is a saving of 800 person days per month, the opportunity cost of which is about ‘ 1,00,000 per month @ ‘125 per person per day, The women would have opportunities to use these mah hours for more productive or leisure activities. **Financial Return:** In addition to social returns and income from cow-dung and vermincompost it is seen that there is a rise in the total income for the farmer s/members of the animal hostel project. Whereas , before the project began, the income of the farmers was Rs 99.99 lakhs, after the animals were put in the hostel the farmers total income rose to 1.29 crore in the first year and 1.68 crore in the present year.

Green House Gases Displacement: Cattle are one of the highest contributors of methane (greenhouse gas) in to the atmosphere contributing to global warming. The animal hostel project has contributed towards reduction of greenhouse gases due to prevention of about 3.2 tons of methane emission into the atmosphere because of use of dung and urine in its gobar gas plant. 0 5000000 10000000 15000000 20000000 2009-10 2010-11 2011-12 Since the methane produced in the gobar gas plant is used for the purpose of generation of 225 units of electricity per day, it in turn prevents emission of 105 tons of greenhouse gases which otherwise would have entered into atmosphere

The animal hostel project has contributed towards reduction of greenhouse gases due to prevention of about 3.2 tons of methane emission into the atmosphere because of use of dung and urine in its gobar gas plant. Being provided employment at the animal hostel, women in the village do not have to devote more than two hours daily for animal care. Moreover, volunteers of the Sakhi Mandal prepare vermin-compost fertiliser out of animal dung collected from the cattle. Kurnool: Incredible but true! Is another hostel for cattle developed in Kurnool by the State government. The Government has entrusted the task of building the hostel to the self-help group at Kalluru mandal groups of five members in each and work is distributed among them. The village on the Hyderabad-Bangalore highway and is apart from 23 km from the city. Therefore development of these animal hostels can overcome all the constraints of Indian dairy farming and provide self-employment and self-reliance to the women folk.

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