

Impact Assessment Study of the Dairy Farmers in Bihar, Uttar Pradesh and Maharashtra

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Abstract

Livestock production is an important source of income for the rural poor in India. About 70 per cent of the livestock production is in the hands of small and marginal farmers and landless laborers who own less than 30 per cent of the land area. Livestock rearing is particularly engaged with milk production and lends itself to small scale enterprises more effectively than other agricultural enterprises. Animal husbandry sector has a huge potential for providing gainful employment to rural women in their own households as 70 per cent of the workforce in dairying consists of women.

Introduction

BAIF Development Research Foundation (BAIF) works for poor farmers and economically marginalized communities in association with State-level Organizations functioning in different states of India. The organization uses the frozen semen technology, backed by a semen production facility at Urulikanchan and manages Cattle Development Centers in 14 states on non-profit basis. BAIF offers door-to-door breeding services to farmers by employing and training local youth as Artificial Insemination Technicians (AIT). The Godhan a dairy development project of BAIF was in operation for more than six years commencing from June 2010 to May 2016 in the three states i.e. Bihar, Uttar Pradesh and Maharashtra. After the completion of project, BAIF arranged to conduct an Impact Assessment Study over the farmers benefited under Godhan project in the three states. The present investigation was designed to study the role and participation of rural women in dairy farming also it has tried to present information on socio-economic status of members of Dairy Interest Groups (DIGs). DIGs were small informal groups that were established at village level for the program beneficiaries and each comprised of 10 to 15 farmers. In each village there could be one or more groups as per the available number of farmers serviced by the Cattle Development Centre (CDC).

Materials and Method**Data collection**

The study was conducted at different locations in Chhapra, Vaishali, Samastipur & Siwan districts of Bihar. Nashik, Beed & Jalgaon district of Maharashtra while Etah, Unnao, Badaun, Kannauj, Muazaffar Nagar, Rampur & Bareilly districts of Uttar Pradesh. Total 2311 DIG groups were formed in three states during project period. The total membership was in the order of 25845 of which 60.0 % (15416) were women and remaining 40.0 % (10429) were men DIG are known as Dairy Interest Group the Groups formed either with both men and women as members (Mixed Group) or containing only women members (Women Groups).formed. For present study out of 2311 DIGs 1500 DIGs groups were selected for interview out of which 67.0 % (1547) were mixed groups containing both men and women while remaining 33.0 % (764) were women groups. The data regarding age, education, social category, land holding status, saving account, owing of livestock and Aspiration for joining DIG records were documented for further analysis. The statistical tools were used such as rank, mean, knowledge level etc. For conducted face to face interviews with DIG members for which BAIF has provided the list of DIGs.

Results and Discussion**Face to face interviews with DIG members**

In all, 1500 DIG members were covered across the three sample states. Maximum number of DIG members were interviewed in Uttar Pradesh (846) followed by Maharashtra (450) and Bihar (204). With regard to the type of groups, around 66 % of the DIGs covered were women groups while remaining 34 % were mixed groups having both men and women as members.

Gender

The results on the gender of the farmers involved in dairy farming activities were analyzed and it was observed that majority of the dairy farmers, were women (61.8%) followed by men (38.2%). Similar findings were recorded in communes and municipalities with minor numerical variations. This finding is in agreement with Prakash et al., [1] Hai et al., [2] and Anika et al., [3] who found that rural women played an important and substantial role in dairy farming.

Age group

It was revealed that majority of respondents of DIG members belonged to middle age group followed by old age group and young age group. The average age of DIG members was 41 years in the sample. Maximum (34.5%) DIG members were in the age group of 31-40 years, followed by 41-50 years of age group (33.7%). The possible reasons for this could be, the middle and young aged respondents are more eager, interested and enthusiastic to earn additional income from dairy management there by improve the livelihood status. This finding is in line with the findings of Rathod et al., [4] who reported that higher proportion of farmers were middle age. The same trend was observed in communes and municipalities with minor numerical variations. This finding is in consonance with the observations of Natchimuthu [5], Rao et al., [6] and Tamizhkumaran and Rao [7] who noted that majority of the dairy farmers were in the middle age group (that is from 43 to 47 years) in Puducherry.

Educational status

Only 36% of DIG members had acquired some formal education, of which more than half were those who had cleared their 5th & 8th grade. Graduate & above were only 5.4% in the total sample. The present finding is in agreement with the findings of Vivek et al., [8] who revealed that 45.31 per cent of cattle owners were illiterate and 54.69 per cent were literate in Western Rajasthan. These finding were not similar with Natchimuthu [5] who found that about 60 per cent of the dairy farmers in Puducherry had undergone schooling. The finding is in line with the finding of Devaki who noticed that large number of the respondents was illiterate.

Social category

Overall, 49.6% DIG members belonged to Other Backward Class (OBC) category, 25.7% members to Scheduled Caste, 12.9% to Scheduled Tribe and 11.8% to General Category. Maximum (83.3%) OBC was in Bihar while the General category was highest in Maharashtra (20.2%).

Land holding status

76.9% DIG members were having their own land. The average size of land owned by DIG members was about 2 ha in Maharashtra and Uttar Pradesh and slightly less in Bihar (1.62 ha). Majority (76.9 %) of the respondents of the rural area possessed landholdings. The reason for possession of land in size might be the regular fragmentation of land occurring between the children when the families get separated. The similar findings were reported by Prasad. Rawal and Vikas analyzed that the comparison of caste, education and land holding of MS farmers with NMS farmers points to a larger proportion of households belonging to the backward caste, being less educated and

holding lower size of land 42 are not able to participate in dairying. The results were not similar to the findings of Vinothini [9] who found that majority (60 per cent) of the dairy farmers were landless and average land holding was 0.86 acre in Puducherry.

Saving bank account

More than 85% DIG members had savings bank accounts. Maharashtra had maximum (92.7%) DIG members having savings bank accounts.

Owning of livestock

In the sample states, 77% DIG members owned dairy animals. Maximum number of DIG members who owned dairy animals were in Uttar Pradesh (86.6%), followed by Maharashtra (70%) and Bihar (50.5%). It was reported that animals had to be sold to meet family expenses like illness, marriage etc. It was also stated that in few cases some animals had died. Majority (55 per cent) of the respondents had small herd size, followed by medium (34.5 per cent) and large (10.5 per cent) with minor numerical variations

Herd size

The average number of dairy animals owned by DIG members was 1.81 in the study sample. The results were almost similar to the findings of Ramkumar et al., [10], Tamizhkumaran and Rao [7] and Vivek et al., [8] who found that dairy farmers had small herd size of cattle. The results were contradicting with the results of Senthil kumar who found that medium herd size was more in Chennai.

Aspiration for joining DIG

Nearly 60% joined because it was suggested to them by centre in-charge, friends and relatives. Around 51% stated that they joined to get better access to government schemes or incentives. More than 44% joined as they were interested in gaining better knowledge on livestock management. 16.2% members joined group to learn more about market linkages.

Learning after joining DIGs

The members learnt the following activities after joining the DIGs: Providing vaccination periodically (45.0%) Providing concentrate/green fodder/mineral mixture for better yield (43.9%). Maintaining cleanliness of cattle and giving regular bath (38.9%). Maintaining cleanliness of cattle shed/ (37.9%). Accessing veterinary services (35.9%). Identifying heat of animal (32.8%). Benefits of AI (27.9%). Washing hands, udder and utensils before milking (30.0%)

Noticing animal heat

Mostly it is the men-folk (75.7%) who notice animal heat. Likewise when it comes to making calls to the Centre In charge for AI and other services, again it is the male members of the households who do it in 82.7% cases. The findings are in conformity with the findings of Kokate and Tyagi reported that majority of the respondents (76%) could identify a cow in heat by observing the symptoms like bellowing, mounting on other animals and frequent urination. It also reveals that only 13 per cent respondents knew about heat cycle in cow (21 days) and majority of the respondents reported one to two months of heat cycle in cow.

Knowledge sharing and advocacy

About 49% DIG members had shared their learning with other women/farmers. Maximum number of DIG members who shared their learning with other women/ farmers was in Maharashtra (55.8%), followed by Bihar (49.5%) and Uttar Pradesh (44.6%). On an average, a member has shared his/her learning with 3-4 women/farmers.

Empowerment of women through DIG activities

The DIG activities had a vital role to play in empowering women in diary activities and it has also impacted women in other spheres of life, especially improved nutrition and better education of children. Previously, women were expected to restrict their sphere of interest to the home and the family but after implementation of Godhan project by BAIF, women have started taking cattle management seriously and have started thinking of animal husbandry as an important source of livelihood. They have started attending meeting/group trainings, visiting CDCs and independently taking care of cattle. Women have also opened bank accounts, learnt bank transactions and have become more vocal. Over one-third of the DIG members learnt scientific animal management practices after their association with the Godhan programme. Murshed-E-Jahan and Pemsil in their study on Bangladeshi small farmers concluded that building the capacity of farmers through training was more valuable than the provision of financial support in terms of raising production and income. A study by Tripp and Hiroshimil confirmed the importance of training in enhancing farmers skills in farming works. The extent of adoption of improved dairy husbandry practices in Ethiopia revealed that the overall extent of adoption of dairy husbandry practices in the study area was found to be 50.44%. Imparting suitable training in improved dairy farming practices can enhance the rate of adoption of technologies in the resource poor families. The findings were in agreement with Sivashankar and Khedgi in Sandur taluk of Bellary district in Karnataka state, covering 100 SHG members to obtain impact of training programme on knowledge level and improvement in their economic status which indicated that training had a definite impact on the knowledge level of the respondents. Noor and Dola concluded that training had positive impact to the farmer's perception and performance. The results were in agreement with Biswas who reported on the effect of training on advanced dairy farming practices and indicated that there was a significant difference in knowledge of respondents on deworming, artificial insemination and vaccination as a result of training.

Recommending BAIFs services to other women/farmers

Around 43% DIG members recommended BAIF services to other women/farmers in the sample states. It was reported that on an average, each DIG member has recommended BAIF services to 3 to 4 farmers.

Conclusion

It may be concluded that Godhan a dairy development project implemented by BAIF in three states viz Bihar, Uttar Pradesh and Maharashtra has got best impact in dairy farmers. Due to it rural women were actively involved in various routine and non-routine activities of animal husbandry. Interestingly, it appears that there are well defined roles for both men and women.

References

1. Prakash KR, Nikam TR, Sariput L, Vajreshwari, Amit H. Participation of rural women in dairy farming in Karnataka. *Indian Research Journal of Extension Education*. 2011; 11: 56- 61.
2. Hai A, Akand AH, Shanaz S, Bulbul KH. Contribution of farm women towards dairy enterprise in Ganderbal district of Kashmir valley. *Journal of Dairying, Foods & Home sciences*. 2011; 30: 140 -146.
3. Anika M, Gautam, Kamaldeep. Relative contribution of rural women to animal husbandry activities in Haryana. *Asian Journal of Animal Sciences*. 2015; 10: 43-48.
4. Rathod PK, Nikam TR, Landge S, Vajreshwari S, Hately A. Participation of rural women in dairy farming in Karnataka. *Indian Research Journal of Extension Education*. 2011; 11: 31-36.
5. Natchimuthu K. Socio economic and technological impact of animal husbandry programmes in Pondicherry. Ph.D.Thesis, NDRI, Karnal, 2002.
6. Rao SVN, Ramkumar S, Waldie K. Dairy farming by landless women in southern states of India. In proceedings and presentations of the international workshop held at Bhubaneswar, India. 2002; 73-86.
7. Tamizhkumaran J, Rao SVN. Why cultivation of azolla as cattle feed not sustainable? *Indian Journal of Dairy Sciences*. 2012; 65: 348-353.
8. Vivek M, Vijay Jay SS, Mohan LY, Sanjay K, Saroj C. Study about socio-economic status and calf rearing management practices adopted by cattle keepers of Western Rajasthan. *Indian Journal of Agriculture Research*. 2015; 49: 189-192.
9. Vinothini M. A study on sustainability of dairy farming among the members of women dairy cooperative societies in Puducherry. 2010.
10. Ramkumar S, Chris Garforth, Rao SVN, Kevin Waldie. Landless livestock farming problems and prospects, In Proceedings of workshop held at RAGACOVAS, Puducherry. 2001; 31 -35.