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Effect of Natural Cow Farming (Deoni breed) on the Socio-Economic Status of Scheduled Caste Farmers in North-Eastern Dry Zone of Karnataka, India

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Abstract. The impact of Natural cow farming was studied by implementing this project by University of Agricultural Sciences, Raichur in Hyderabad-Karnataka region (India) during 2010-12. Under this project, 536 cows with 15 bulls (Devani breed) were distributed free of cost to the beneficiaries and were provided need based trainings related to animal husbandry and crop-husbandry for socio-economic development leading to sustainable livelihood. This project has resulted into tremendous economic gain. The numbers of calves born were 520, out of which 223 were males and 297 were females. The net value of these calves was estimated to be Rs. 55.64 millions, while the cost of the project was Rs. 121.73 million, registering an economic gain of 45.64% in the first year and is expected that the gain would be much higher in the subsequent years

Key words: Natural cow farming, Deoni breed socio-economic status, Dry zone

1. Introduction

Natural cow farming project was taken up by University of Agricultural Sciences, Raichur in Hyderabad-Karnataka region during 2010-12 as a part of Government of Karnataka initiative under Special Component Plan to uplift farming community belonging to weaker sections. They are poorly educated with minimum land holding, falling below poverty line (BPL) and unaware of the technical knowledge on agriculture and animal husbandry.

These scheduled caste farmers are normally having a maximum of 1 to 2 ha cultivable land with poor soil fertility status. The rainfall distribution pattern in the region of study is also not even and directly affects the cropping system which leads to their poor economic level. Such situation has forced the migration of the farmers for their livelihood from rural areas to urban cities. Realising this problem, the Government of Karnataka (India) started this project to empower weaker sections economically by facilitating to generate regular income and also to make them sustainable to lead dignified life in the society. With this background the project was implemented with the modalities viz., (a) Cow should be allowed to grow naturally, grazing natural grass and allowed to move freely without any external cost on concentrate which would cost to their pockets. (b) There should not be any drawing (milking) of milk for the purpose of human consumption or making money but all the milk has to be fed only to calves for maintaining good and vigorous growth. (c) Income to the farmer is by way of selling male calves and female calves are invariably retained with the farmers for increasing cow population. (d) Organic manure obtained should be used for nutrient cycling within the closed system

2. Methodology

The project was initiated in two taluks (Chincholi & Chittapur) in Gulbarga district of Karnataka state (southern India) totally covering 36 villages. About 236 (Chincholi taluk) and 300 (Chittapur taluk) farmers belonging to Scheduled Caste category who were already having at least one pair of bullocks and engaged in active farming were selected. A base line survey was conducted in the villages of Chincholi and Chittapur

Taluks of Gulbarga District to know the population of animals, breed, availably of feed and fodder. Subsequently villages were selected from different locations which represent the entire geographical area of the talukas and also the availability of fodder during summer. The beneficiaries were selected transparently by dipping method in the presence of eligible group of farmers belonging to Scheduled Caste category and only 15 farmers were selected from each village, thus covering 540 scheduled caste farmers. Each selected farmer was given a Deoni breed cow. This was done by Animal purchase committee constituted by University of Agricultural Sciences, Raichur to purchase the animals under this project.

The training programmes were organized to educate the beneficiaries as well as other farmers of the selected villages by a team of experts in the concerned field. Totally 36 training programmes were conducted and 3575 beneficiaries participated. These selected beneficiaries along with the interested farmers of the villages were subjected for method demonstrations and trainings on various aspects viz., Feeding the cow milk fully to the calves only, Timely vaccination / management of important diseases, Production aspects of important forage & sledge crops, Preservation & storage of fodder, practices to increase the palatability of the fodder and to increase the milk production, Azolla cultivation, silage preparation in the backyard and their benefits as a feed to the cows and calves, Use of "Jeevamruth" as an organic source of nutrients to the crop plants, Significance of biofertilizers in sustainable and economic crop production and Cow farming as a sole element in organic farming

Table 1: Details of the distribution of the cows, bulls, calves born and approximate cost of the calves as on 31-03-2012 (Chincholi taluk)

Sl. No.	Village Name	No. of Cows distributed	No. of bulls distributed	No. of male calves born	No. of female calves born	Total No. of calves born	Approx.cost of calves in Rs.
	Chincholi taluk						
1	Halchera	15	1	5	10	15	265000
2	Sunthan & Thanda	15	1	5	10	15	265000
3	Sheri Thanda	15	1	4	9	13	226000
4	Ratkal	14	1	4	7	11	198000
5	Chimmonchod	15	1	4	10	14	240000
6	Ranapur Thanda	13	1	5	8	13	237000
7	Kondampalli & Hoovinahalli	15	1	7	7	14	147000
8	Yelmamadi Thanda	15	0	9	6	15	165000
9	Benkempalli Fatthu Nayak Thanda	15	0	5	10	15	145000
10	Hodeberanahalli	15	0	9	5	14	157000
11	Shivaram Nayak Thanda	15	0	4	11	15	140000
12	Degalamadi & Ainolli	15	0	5	9	14	137000
13	Anawar & Motakpalli	14	0	7	7	14	147000
14	Kudahalli & Koravi	15	0	9	6	15	165000
15	Pasthapur & Thanda	15	0	7	8	15	155000
16	Rusthumpur	15	0	4	11	15	140000
	Total	**236**	**7**	**93**	**134**	**227**	**29,29,000**

3. Results and Discussion

Under this project, 536 cows with 15 bulls (Devani breed) were distributed free of cost to the beneficiaries and were provided need based trainings, mainly covering the nutritional requirements, cow and calves' health, management of diseases and their remedies and on various aspects of crop-husbandry for socio-economic development leading to sustainable livelihood.

As a result of these trainings and frequent visits by the technical staff of the university to the beneficiaries has improved their knowledge level and realised the benefits of the local breeds. These cows were resistant to diseases and hardy enough to work in vertisols of the region. In addition to this, cow urine and dung enhanced soil productivity and increased crop yield. This project was also helpful for the farmers to adopt organic farming.

This project has resulted into tremendous economic gain. The numbers of calves born were 520 out of which 223 were males and 297 were females. The net value of these calves was estimated to be Rs. 55.64 millions, while the cost of the project was Rs. 121.73 million, registering an economic gain of 45.64% in the first year and is expected that the gain would be much higher in the subsequent years.

Overall this project has motivated the farmers of this region, where natural cow farming became an allied agricultural activity keeping the beneficiaries engaged throughout the year and has resulted in considerable decrease in migration of the farmers to cities in search of livelihood. So this project has reduced the problem of seasonal unemployment, improved livelihood security and empowered the farmers by both socially and economically.

4. Acknowledgements

Directorate of research, department of agronomy, UAS, Raichur, Karnataka state Department of agriculture and animal sciences

5. References

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Table 3: Details of the Training programmes organised under special component plan in Chincholi and Chittapur taluk

	Chincholi taluk		**Chittapur taluk**		
Sl. No	**Name of the village**	**No. of Participants**	**Sl. No.**	**Name of the village**	**No. of Participants**
1	Halchera	110	1	Aranakal	69
2	Sunthan & Thanda	56	2	Kandagool & Hulagera	84
3	Sheri Thanda	120	3	Gundagurthi & Thanda	49
4	Ratkal	65	4	Chincholi (H) Thanda	112
5	Chimmonchod	85	5	Laxman Nayak Thanda	135
6	Ranapur Thanda	180	6	Malaghan Thanda	95
7	Kondampalli & Hoovinahalli	61	7	Vacchha	102
8	Yelmamadi Thanda	130	8	Bagodhi	96
9	Benkempalli Fatthu Nayak Thanda	220	9	Dandothi	75
10	Hodeberanahalli	75	10	Kamarawadi	51
11	Shivaram Nayak Thanda	190	11	Ramanagar & Moli Thanda	125
12	Degalamadi & Ainolli	45	12	Bhojunayak Thanda	150
13	Anawar & Motakpalli	69	13	Kollur & Kollur Thanda	150
14	Kudahalli & Koravi	72	14	Nalwar	65
15	Pasthapur & Thanda	170	15	Thari (A & B) Thanda	180
16	Rusthumpur	53	16	Malagatthi	55
			17	Hadanur tanda	68
			18	Rampur halli	75
			19	Karada halli	80
			20	yagapur	58
	Total	**1701**		**Total**	**1874**
				Grand Total	**3575**

Table 2: Details of the distribution of the cows, bulls, calves born and approximate cost of the calves as on 31-03-2012 (Chittapur taluk)

Sl. No.	Village Name	No. of Cows distributed	No. of bulls distributed	No. of male calves born	No. of female calves born	Total No. of calves born	Approx.cost of calves in Rs.
CHITTAPUR TALUK							
1	Aranakal	15	1	3	12	15	243000
2	Kandagool & Hulagera	15	1	5	10	15	265000
3	Gundagurthi & Thanda	15	1	5	10	15	265000
4	Chincholi (H) Thanda	15	1	4	11	15	254000
5	Laxman Nayak Thanda	15	1	6	9	15	276000
6	Malaghan Thanda	15	0	6	9	15	150000
7	Vacchha	15	1	8	6	14	152000
8	Bagodhi	15	1	8	7	15	160000
9	Dandothi	15	1	8	7	15	160000
10	Kamarawadi	15	0	8	7	15	69000
11	Ramanagar & Moli Thanda	15	0	7	8	15	66000
12	Bhojunayak Thanda	15	0	7	7	14	63000
13	Kollur & Kollur Thanda	15	0	7	7	14	63000
14	Nalwar	15	0	5	9	14	57000
15	Thari (A & B) Thanda	15	0	9	6	15	72000
16	Malagatthi	15	0	7	7	14	63000
17	Hadanoor Thanda	15	0	5	9	14	51000
18	Rampur Halli	15	0	8	7	15	69000
19	Karadahalli	15	0	6	9	15	63000
20	Yagapur	15	0	8	6	14	66000
	Total	**300**	**8**	**223**	**297**	**520**	**55,56,000**