

Role performance of tribal farmwomen in domestic and agricultural activities in Gujarat state

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ABSTRACT

Like other rural women, tribal farmwomen also play an important role in agriculture. Farmwomen play vital role within home as housewives in managing the domestic affairs and they work as co-partners in the farming profession. Scientific achievements and modernization are yet to make an impact on them. Keeping this fact in view the present investigation on role of tribal farmwomen in agriculture in Navsari district was undertaken. Based on the study it was observed that farmwomen's participation in pre-sowing and sowing operations revealed that the highest respondents engaged with sowing followed by stubble collection, clode crushing , manuring and seedbed preparation. Incase of interculturing operations the participation of the farmwomen was observed to be the highest in weeding followed by gap filling, application of fertilizer, bird scaring, irrigation, bunding and hoeing with hand.

KEY WORDS : Role performance, Tribal Farm women, Agricultural activities

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INTRODUCTION

Even cultural anthropological literature suggests that agriculture is invention of women. Farming in India is mainly a family occupation. Most of the family members are acutely engaged in farming. At present when the farm technology is changing at faster speed a farmer has to adopt this in order to become a competitive and efficient farmer. The change in farming has increased manifold. The farming capabilities for taking timely and judicious decisions by the farm families have a direct bearing on the agricultural development in country. It is well known fact that decision is the heart of management. Much of success of farm families depends upon how well the family members develop skills in decision making. There has been little realization about the contribution of women in the economic activities of a country. This was a position in most of counties till recently and India is no exception.

Farmwomen play vital role within home as housewives in managing the domestic affairs and they work as co-partners in the farming profession. No operation in field is beyond them. They are best in sowing, transplanting, weeding, manuring, harvesting, winnowing, threshing, storing, marketing and rearing livestock etc. Besides they are the manager to the household activities.

They take important decision in home and outside the home. Scientific achievements and modernization are yet to make an impact on them.

Agriculture is a predominant sector, which provides employment in rural areas. The female population constitutes nearly half of the total population. It is a well recognised fact that more than 60 % of agricultural operations have been traditionally handled by women. The contribution of women to the farm sector has largely been ignored and inadequately understood in the Indian context.

Though women play different roles in their home activities as wives, as mothers and as homemakers, they also play a pivotal role in agriculture and livestock management. They still continued to share number of farm operations with men from early ages of invention of agriculture to the present day of modern agriculture.

Looking the significant role of tribal women in agriculture and allied activities, the study on rural woman's role in farm management was undertaken keeping in view of the increasing importance of involvement of rural women in agricultural production programmes. Studies in this field so far have exhibited a little concern on rural woman's role in Gujarat state. Hence this study was conducted in Navsari disctrict of Gujarat with the

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objectives of ascertaining the role expectations and role performance of rural women in farm management.

METHODOLOGY

The present investigation was carried out in the Navsari district of the Gujarat state, which is one of the tribal districts of the state. In selecting the district, the main consideration was the agriculture as the main occupation of people living in such villages. From the Navsari district, six villages namely, Adada, Aat, Chhapra, Hansapor, Matwad and Mogar were randomly selected for the study. From total selected 6 tribal dominated villages, 120 respondents were selected. Further, from the same list of tribal farm families, the tribal women who were decision makers and within the age group of 20-55 years were screened out. Finally by using random sampling technique, 20 respondents from each village were selected, thus a random sample of 120 respondents was selected for the study. The structured interview schedule keeping in view the objectives of the study was prepared in English. An interview schedule was used for the final data collection. Data were collected by arranging personal interview from the total selected 120 tribal farmwomen. As the study was concerned to find out the role performance of farmwomen in agriculture, ex-post-facto research design was used for this study. The statistical tools such as frequency, per cent and correlation coefficient were used to interpret the data.

OBSERVATIONS AND DISCUSSION

The findings of the present study as well as relevant discussion have been summarized under following heads:

Participation of tribal farmwomen in agriculture:

Participation of tribal farmwomen in pre-sowing and sowing operations:

The perusal of the data in Table 1 reveals that the highest participation of tribal farmwomen was observed in sowing / transplanting followed by stubble collection, clode crushing, manuring and seedbed preparation / nursery.

Table 1 : The role of tribal farmwomen in pre-sowing and sowing operation (n = 120)

Sr. No.	Pre-sowing and sowing operation	Mean value
1.	Sowing / transplanting	2.63
2.	Stubble collection	2.51
3.	Clode crushing	2.40
4.	Manuring	2.02
5.	Seedbed preparation / nursery	1.32

Participation of the tribal farmwomen in interculturing operation:

Frequency of participation by farmwomen in various interculturing operations was measured with the help of 4 point rating scale viz., most frequently, frequently, least frequent and no participation with scale value of 4, 3, 2 and 1, respectively. The same was reported by Vijay Avinashilingam *et al.* (2010).

The data presented in Table 2 reveal that the highest participation of the tribal farmwomen was observed in weeding, followed by gap filling, application of fertilizer, bird scaring, irrigation, bunding and hoeing with hand. Similar results were reported by Chauhan (2009).

Table 2 : Distribution of tribal farmwomen according to their participation in interculturing operation (n = 120)

Sr. No.	Interculturing operation	Mean value
1.	Weeding	3.16
2.	Gap filling	2.22
3.	Application of fertilizer	2.14
4.	Bird scaring	1.69
5.	Irrigation	1.24
6.	Bunding	1.09
7.	Hoeing with hand	1.07

Participation of tribal farmwomen in harvesting and post-harvesting operation:

Data collected from the respondents regarding frequency of participation in harvesting and post harvesting operations are given in Table 3.

Table 3 : Participation of tribal farmwomen according to their participation in harvesting and post-harvesting operations (n = 120)

Sr. No.	Harvesting and post-harvesting operations	Mean value
1.	Nipping / picking and threshing	3.22
2.	Harvesting	2.93
3.	Winnowing	2.34
4.	Storage	2.12
5.	Making threshing yard	1.93
6.	Bagging / packing	1.54
7.	Marketing of agricultural produce	1.29

Perusal of the data presented in Table 3 indicates that the highest participation of the tribal farmwomen was observed in nipping / picking and threshing followed by harvesting, winnowing, storage, making threshing yard, bagging / packing and marketing of agricultural produce. The roles of tribal farmwomen in all the operations were observed up to the importance level. Fremont (2001) and

Mrinali *et al.* (2004) reported the same scenario.

Participation of the tribal farmwomen in animal husbandry practices:

To understand real picture about tribal family, data were collected and results are presented in Table 4.

Table 4 : Participation of the tribal farmwomen in animal husbandry practices (n = 120)

Sr. No.	Animal husbandry operations	Mean value	Rank
1.	Cutting and bringing of fodder	3.62	I
2.	Compost making	3.61	II
3.	Watering and feeding to animals	3.40	III
4.	Milking	3.22	IV
5.	Clearing of cattle shed	3.01	V
6.	Selling of milk and its products	2.23	VI
7.	Bathing of animals	2.04	VII
8.	Preparation of milk products	1.64	VIII
9.	Grazing	1.63	IX
10.	Taking animal for bull service	1.57	X
11.	Taking animal for veterinary service	1.48	XI

The highest mean score of participation of tribal farmwomen was obtained in case of cutting and bringing of fodder. The next was compost making followed by watering and feeding to animals, milking, cleaning of cattle shed, selling of milk and its product, bathing of animals, preparation of milk products, grazing of animals, taking animal for bull and veterinary services. It can be concluded that the role of tribal farmwomen in most of the animal husbandry related operations were seen important. The possible reason for higher participation of women in animal husbandry would be that most of the tribal farmwomen were possessing more than 2 animals. Agriculture and animal husbandry are the two sides of the same coin. The economy of the farming communities is based on agriculture as well as on animal husbandry. Thus, to increase family income tribal farmwomen might have taken keen interest in most of the animal husbandry related operations. Other reason to have higher participation of tribal farmwomen in most of the animal keeping activities might be that animal husbandry related work has been giving predominantly to the female members of the family in rural areas by the male members from the beginning. Animal husbandry management was completely dominated by women's self decision (Khanduri *et al.*, 2004).

Decision making in home management:

It can be concluded that the tribal farmwomen were

independently taking decision for decoration of house and selection and preparation of food, while husband dominated decisions were matters of house repairing, borrowing money for house management, repayment of loan, manner of saving and purchase of household articles. Joint decision made by tribal farmwomen and any members of their family were children's marriage, selling and purchasing of ornaments, construction of new house and manner of saving (Table 5).

Decision making in the farm management:

Data collected from the respondents regarding their involvement in the process of decision-making about farm management are given in Table 6.

It is evident from the data of Table 6 that in majority of the decisions regarding farm management were husband dominated such as when to irrigate the fields (87.50 per cent), quantity and type of fertilizers to be used in the farm (85.00 per cent), introduction of new crop variety (82.50 per cent), buying farm machinery / equipment (80.00 per cent), using plant protection measures (76.67 per cent), borrowing money for farm operation (70.00 per cent), installing oil engine, electric motor and pumps (66.67 per cent), selection of seed (65.00 per cent) deciding area to be sown under each crop (62.50 per cent) and son on. The joint decision made by tribal farmwomen and other members of family were hiring farm laborers (66.67 per cent), buying and selling of land (71.67 per cent) and selling of surplus farm produce (58.33 per cent). It can be concluded that the most of the farm decisions were made by husband of tribal farmwomen followed few decisions made jointly by the tribal farmwomen after discussion with any of their family members. It can be further concluded that tribal farmwomen had a recessive role in decision-making process regarding farm management.

Decision making for animal husbandry:

The results of Table 7 indicate that the selection of fodder and feed was dominantly decided by farmwomen (81.67 per cent) followed by sale of milk and its product (52.50 per cent). The decisions regarding sale and purchase of animal (65.00 per cent), selection of animal breed (60.00 per cent) and keeping size of herd (40.00 per cent) were taken jointly by family members. The same was reported by Chauhan (2008).

The relationship between selected independent variables and crop and animal husbandry:

It is clear from Table 8 that out of nine independent variables, only three variable *viz.*, occupation, type of family

Table 5 : Tribal farmwomen involvement in the process of decision making for home management (n = 120)

Home management	Only self		Husband		Along with family (Joint decision)		Not related	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Construction of new house	00	00	30	25.00	85	70.83	05	4.17
Decoration of house	95	79.17	05	4.17	20	16.67	00	--
Children's education	02	1.67	70	58.33	40	33.33	08	6.67
Children's occupation	02	1.67	55	45.83	48	40.00	15	12.50
Children's marriage	03	2.50	10	8.33	98	81.67	09	7.50
House repair	05	4.17	95	79.17	20	16.67	--	--
Purchasing of household articles	08	6.67	62	51.67	50	41.67	--	--
Selling and purchasing of ornaments	06	5.00	23	19.17	91	75.83	--	--
Selection and preparation of food	85	70.83	05	4.17	30	25.00	--	--
Borrowing money for home management	07	5.83	93	77.50	20	16.67	--	--
Repayment of loan	04	3.33	80	66.67	12	10.00	24	20.00
Manner of saving	02	1.67	75	62.50	43	35.83	--	--

Table 6 : Tribal farmwomen involvement in the process of decision making for farm management (n = 120)

Farm management	Only self		Husband		Alongwith family (Joint decision)		Not related	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Deciding area to be sown under different crops	05	4.17	75	62.50	40	33.33	--	--
Introduction of a new crop variety	04	3.33	99	82.50	17	14.17	--	--
Selection of seed	03	2.50	78	65.00	39	32.50	--	--
When to irrigate fields	01	0.83	105	87.50	06	5.00	08	6.67
Quantity and type of fertilizers used on the farm	--	--	102	85.00	12	10.00	06	5.00
Using plant protection measures	01	0.83	92	76.67	05	4.17	22	18.33
Hiring farm labours	--	--	25	20.83	80	66.67	15	12.50
Buying farm machinery / equipment	02	1.67	96	80.00	22	18.33	--	--
Installing oil engine and electric motor	--	--	80	66.67	40	33.33	--	--
Buying and selling of land	--	--	34	28.33	86	71.67	--	--
Borrowing money for farm operations	--	--	84	70.00	36	30.00	--	--
Selling of surplus farm produce	03	2.50	47	39.17	70	58.33	--	--

Table 7 : Tribal farmwomen involvement in the process of decision making for animals husbandry (n = 120)

Animal husbandry	Only self		Husband		Along with family (Joint decision)		Not related	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Selection of animal breed	07	5.83	29	24.17	72	60.00	12	10.00
Selection of fodder and feed	98	81.67	04	3.33	06	5.00	12	10.00
Sale and purchase of animals	13	10.83	15	12.50	78	65.00	14	11.67
Sale and milk and its products	63	52.50	08	6.67	18	15.00	31	25.83
Keeping size of herd	42	35.00	15	12.50	48	40.00	15	12.50

and age at marriage were found negative where as six variables like-age, education, herd size, land holding, family size and number of children were observed positive and significant correlation with their participation in crop husbandry practices. Everact (1994) reported the same results.

Independent variables of the respondents and their participation in animal husbandry:

Data presented in Table 9 indicate that out of nine

independent variables, only type of the family was found significant with their participation in animal husbandry. Remaining all of the independent variables had negative and significant relationship with their participation in animal husbandry. Bisht *et al.* (2000) reported the results on this line.

Implication of the study:

Some important implications emerging from the

Table 8 : Relationship between independent variable of the respondents and their participation in crop husbandry (n = 120)

Sr. No.	Independent variables	Correlation coefficient (r' value)	
Personal variables			
1.	Age	0.8430	**
2.	Education	0.7409	**
Economical variables			
1.	Occupation	- 0.5553	*
2.	Herd size	0.7854	**
3.	Land holding	0.7774	**
Social variables			
1.	Family size	0.8074	**
2.	Type of family	- 0.6284	**
3.	Number of children	0.4918	*
4.	Age of marriage	- 0.8709	*

* and ** indicate significance of values at P=0.05 and 0.01, respectively

Table 9 : Relationship between independent variable of the respondents and their participation in animal husbandry (n = 120)

Sr. No.	Independent variables	Correlation coefficient (r' value)	
Personal variables			
1	Age	- 0.8888*	
2	Education	- 0.8411*	
Economical variables			
1.	Occupation	- 0.3014*	
2.	Herd size	- 0.9464*	
3.	Land holding	- 0.8881*	
Social variables			
1.	Family size	- 0.9322*	
2.	Type of family	+ 0.8646*	
3.	Number of children	- 0.8036*	
4.	Age of marriage	- 0.8709*	

* indicates significance of value at P=0.05

findings of the study are presented below.

– It was seen that many agricultural, animal husbandry related and house hold activities were performed by the tribal women, but when questions comes to take decisions regarding all these matter, their roles were seen skimpy. As tribal farmwomen are the key units of the family of the tribals’ community and they have skill in talking good decisions regarding all economic activities of the family, their participation in decision talking process needs to be encouraged by those people who are involved in the development of tribals.

– Special measures need to be taken to increase the enrolments of girls in schools and to impart non-formal education for the dropouts, so that they would be able to keep accounts and made wage distribution to labours.

– There is need to strengthen informal tribal education programme as means to the develop farm and home by providing modern agricultural technologies. The tribal farmwomen should be given training for another productive work outside the home especially for marginal and small size of holding. The family planning programme should be made more popular in this area.

– The opportunities for productive employment should be enhanced by establishing agro-based industries, which might be organized in form of co-operatives. The tribal farmwomen should be allowed to take active part in decision-making process. These decisions will be more rational and practical oriented.

Recommendations :

– The roles performed by the rural women in home, crop and livestock administration and the factors affecting to them are of paramount importance to the planners, decision makers, researchers, educationist, governments, NGOs, farming communities and extension workers occupied in the process of rural development.

– Prime importance in decision making regarding home, crop and live stock management should be given to tribal farm women for betterment of rural tribes in general and farming occupation as a whole.

– More milk co-operatives should be started in tribal areas and the management should be handed over to tribal farm women for superior development of dairy industries and farming occupation as in one piece.

– The government should establish a community internet centre (CICs) at village level to satisfy the knowledge hunger of tribes and decorate them to fight in open global market.

– More emphasis should be given to create an able tribal women resource for sustainable agricultural growth.

– Tribal women should be the target groups for next phase of green revolution on sustainable base.

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