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RESEARCH ARTICLE

CONTRIBUTION OF TRIBAL FARMWOMEN IN AGRICULTURAL OPERATIONS

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ABSTRACT

The Integrated Tribal Development Project, Dahod (ITDP Dahod) is one of the ITDP areas of Gujarat state which came in to existence on 17th June 1976 with the objectives to narrow the gap between the level of development of tribal and other areas of the State and to increase the income from agriculture and thereby improve the quality of life of the tribal farmers. The tribal farmwoman shares with her husband the arduous burden of farm work in addition to her major responsibility as home maker, by helping in all other agricultural operations. Keeping this fact in mind, the present study was carried out to find out the extent of contribution of tribal farmwomen in agricultural operations. The result of the study revealed that most frequent activity performed by the tribal farmwomen was hand weeding among all twenty agricultural operations. With reference to overall extent of contribution of the tribal farmwomen in agricultural operations, majority of the tribal farmwomen were found in medium contribution group.

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INTRODUCTION

The tribal population of the country constitute 7.54 per cent of the total population. Gujarat is the fourth among the states with a sizable tribal population of 14.92 per cent. The Integrated Tribal Development Project, Dahod (ITDP Dahod) is one of the ITDP areas of Gujarat state which came in to existence on 17th June 1976 as a consequence of a planning process and the evolution of a new strategy and approach of integrated development of tribal areas and population in the country with the objectives to narrow the gap between the level of development of tribal and other areas of the State and to increase the income from agriculture and thereby improve the quality of life of the tribal farmers. The tribal farmwoman shares with her husband the arduous burden of farm work in addition to her major responsibility as home maker, by helping in all other agricultural operations viz., hand weeding, sowing/planting, cleaning and storage of grain, harvesting, preparation of farmyard manure, supervision of fields, nursery raising, preparation of seed bed, fertilizer application, drying of grains, winnowing, scaring of birds, uprooting of seedlings,

transplanting, gap filling, marketing of farm produces, thinning, threshing, spraying of chemicals and ploughing in the areas of ITDP Dahod. Thus, tribal farmwomen play an important role in agricultural development and could play an even more important role through the transfer of improved technology, needs more reorganisation. Keeping this fact in mind, the present study was carried out to find out the extent of contribution of tribal farmwomen in agricultural operations.

MATERIALS AND METHODS

The present study was undertaken in Integrated Tribal Development Project areas of Dahod district of Gujarat in 2006. Out of seven talukas of the district, five talukas namely (1) Dahod (2) Zalod (3) Limkheda (4) Garbada and (5) Dhanpur were selected purposively for this study. Out of total villages of each selected taluka, two villages were randomly selected comprising total ten villages from five selected talukas of ITDP Dahod. From each village, 20 respondents were selected randomly, thus, total sample of 200 respondents were selected for the present study.

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Method of Data Collection

The interview schedule was prepared keeping in view the objectives of the study. The interview schedule was translated in to Gujarati language and pre-tested in the field on a separate 20 non-sampled respondents. On the basis of pre-testing, necessary modifications were made in the final draft and used as the instrument for data collection.

Contribution of tribal farmwomen in agricultural operations

A list of different activities in which tribal farmwomen possibly participate in agricultural operations was prepared by reviewing past studies and literature. Addition, alteration, substitution and deduction of items related to agricultural operations were done after discussion with extension experts, field workers, officers of farmers training centres and technical officers of ITDP Dahod. Final list of items was used for present study.

Measurement of extent of contribution

Extent of contribution of tribal farmwomen in agricultural operations was measured in terms of their participation in various agricultural operations with the help of 4 point rating scale: "most frequently", "frequently", "least frequently" and "not at all" with the score value of 3, 2, 1 and 0, respectively. The weightage mean score was calculated to assign the rank to all the activities.

Measurement of overall extent of contribution

Overall extent of contribution of each tribal farmwoman was recorded in hours spent daily in various agricultural. With a view to categorize the overall extent of contribution of the tribal farmwomen into low, medium and high overall extent of contribution, mean and standard deviation were calculated.

RESULTS AND DISCUSSION

Contribution of tribal farmwomen in different agricultural operations

To know the extent of contribution of tribal farmwomen in terms of their participation in different agricultural operations as listed out in Table 1, the tribal farmwomen were distributed according to four categories of frequency of participation i.e. most frequently, frequently, least frequently and not at all. The data regarding the same are presented in Table 1. The data presented in Table 1 reveals the following : Among twenty agricultural activities, regarding ploughing, most (99.00 per cent) of respondents not participated at all. As regards to preparation of farmyard manure 79.00 per cent of the respondents participated most frequently whereas 11.00 per cent and 10.00 per cent participated frequently and least frequently respectively. As regards to preparation of seed bed 77.00 per cent of the respondents participated most frequently whereas 9.50 per cent and 11.00 per cent participated frequently and least frequently respectively.

Table 1. Distribution of respondents according to their extent of contribution in different agricultural operations n = 200

Sr. No.	Activities	Contribution				Mean scores	Rank
		Most frequently	Frequ-ently	Least frequ-ently	Not at all		
1	Ploughing	0(0.00)	0(0.00)	2(1.00)	198(99.00)	0.01	XX
2	Preparation of farm yard manure	158(79.00)	22(11.00)	20(10.00)	0(0.00)	2.69	V
3	Preparation of seedbed	154(77.00)	19(9.50)	22(11.00)	05(2.50)	2.61	VIII
4	Nursery raising	155(77.50)	20(10.00)	21(10.50)	04(2.00)	2.63	VII
5	Uprooting of seedlings	139(69.50)	14(7.00)	32(16.00)	15(7.50)	2.38	XIII
6	Sowing / planting	163(81.50)	25(12.50)	12(6.00)	0(0.00)	2.75	II
7	Transplanting	131(65.50)	13(6.50)	39(19.50)	17(8.50)	2.29	XIV
8	Hand weeding	167(83.50)	26(13.00)	07(3.50)	0(0.00)	2.80	I
9	Fertilizer application	153(76.50)	18(9.00)	23(11.50)	06(3.00)	2.59	IX
10	Thinning	125(62.50)	10(5.00)	40(20.00)	25(12.50)	2.17	XVII
11	Gap filling	129(64.50)	12(6.00)	41(20.50)	18(9.00)	2.26	XV
12	Scaring of birds	148(74.00)	15(7.50)	24(12.00)	13(6.50)	2.49	XII
13	Spraying of chemicals	7(3.50)	5(2.50)	73(36.50)	115(57.50)	0.52	XIX
14	Supervision of fields	157(78.50)	21(10.50)	19(9.50)	03(1.50)	2.66	VI
15	Harvesting	159(79.50)	23(11.50)	18(9.00)	0(0.00)	2.70	IV
16	Threshing	121(60.50)	9(4.50)	43(21.50)	27(13.50)	2.12	XVIII
17	Winnowing	149(74.50)	16(8.00)	25(12.50)	10(5.00)	2.52	XI
18	Drying of grains	151(75.50)	17(8.50)	24(12.00)	08(4.00)	2.55	X
19	Cleaning and storage of grains	161(80.50)	24(12.00)	15(7.50)	0(0.00)	2.73	III
20	Marketing of farm produces	127(63.50)	11(5.50)	41(20.50)	21(10.50)	2.22	XVI

(Figures in parenthesis indicate parentages)

Table 2. Distribution of respondents according to their overall extent of contribution in different agricultural operations n = 200

Sr. No.	Categories	Frequency	Per cent
1	Low contribution (< 7.78 hrs.)	04	2.00
2	Medium contribution (7.78 to 8.66 hrs.)	173	86.50
3	High contribution (> 8.66 hrs.)	23	11.50
Total		200	100.00

Mean = 8.22

Regarding nursery raising 77.50 per cent of the respondents participated most frequently whereas 10.00 per cent and 10.50 per cent participated frequently and least frequently respectively. While 2.00 per cent of the respondents had not participated. Regarding uprooting of seedlings, 69.50 per cent of the respondents participated most frequently whereas 7.00 per cent and 16.00 per cent participated frequently and least frequently respectively. While 7.50 per cent of the respondents had not participated. As regards to sowing/planting 81.50 per cent of the respondents participated most frequently whereas 12.50 per cent and 6.00 per cent participated frequently and least frequently respectively. While not a single respondent who had not participated.

As regards to transplanting, 65.50 per cent of the respondents participated most frequently whereas 6.50 per cent and 19.50 per cent participated frequently and least frequently respectively. While 8.50 per cent of the respondents who had not participated at all. As regards to hand weeding, 83.50 per cent of the respondents participated most frequently whereas 13.00 per cent and 3.50 per cent participated frequently and least frequently respectively. While not a single respondent who had not participated at all. As regards to application of fertilizers, 76.50 per cent of the respondents participated most frequently whereas 9.00 per cent and 11.50 per cent participated frequently and least frequently respectively. While 3.00 per cent of the respondents had not participated at all.

As regards to thinning operations, majority of the respondents (62.50 per cent) had participated most frequently followed by 5.00 and 20.00 had participated frequently and least frequently. While only 12.50 per cent had not participated at all. As regards to gap filling, 64.50 per cent of the respondents participated most frequently whereas 6.00 per cent and 20.50 per cent participated frequently and least frequently respectively. While only 9.00 per cent had not participated at all. Regarding scaring of bird, 74.00 per cent of the respondents participated most frequently whereas 7.50 per cent and 12.00 per cent participated frequently and least frequently respectively. While 6.50 per cent of the respondents had not participated at all. As regards to spraying of chemicals, only 3.50 per cent of the respondents participated most frequently whereas 2.50 per cent and 36.50 per cent participated frequently and least frequently respectively. While 57.50 per cent of the respondents had not participated at all.

As regards to supervision of the fields, majority of the respondents (78.50 per cent) participated most frequently whereas 10.50 per cent and 9.50 per cent participated frequently and least frequently respectively. While only three respondents (1.50 per cent) had not participated at all. As regards to harvesting, majority (79.50 per cent) of the respondents participated most frequently. Whereas 11.50 per cent and 9.00 per cent participated frequently and least frequently respectively. While not a single respondent had not participated at all. As regards to threshing operations, more than half (60.50 per cent) of the respondents participated most frequently. Whereas 4.50 per cent and 21.50 per cent participated frequently and least frequently respectively. While 13.50 per cent of the respondents had not participated at all.

As regards to winnowing operations, nearly three fourth (74.50 per cent) of the respondents participated most frequently. Whereas 8.00 per cent and 12.50 per cent

participated frequently and least frequently respectively. While 5.00 per cent of the respondents had not participated at all. Regarding drying of grains, 75.50 per cent of the respondents participated most frequently whereas 8.50 per cent and 12.00 per cent participated frequently and least frequently respectively. While 4.00 per cent of the respondents had participated not at all. As regards to cleaning and storage of grains, 80.50 per cent of the respondents participated most frequently whereas 12.00 per cent and 7.50 per cent participated frequently and least frequently respectively. While not a single respondent who had not participated at all. As regards to marketing of farm produce slightly more than three fifth (63.50 per cent) of the respondents had participated most frequently. Whereas 5.50 per cent and 20.50 per cent participated frequently and least frequently respectively. While only 10.50 per cent of the respondents participated not at all.

Among all the twenty agricultural activities, hand weeding got highest mean score of 2.80 and obtained first rank followed by sowing/planting (2.75), cleaning and storage of grain (2.73), harvesting (2.70), preparation of farmyard manure (2.69), supervision of fields (2.66), nursery raising (2.63), preparation of seed bed (2.61), fertilizer application (2.59) and drying of grains (2.55) secured second, third, fourth, fifth, sixth, seventh, eighth, ninth and tenth ranks respectively. Other ten activities in order of priority viz., winnowing (2.52), scaring of birds (2.49), uprooting of seedlings (2.38), transplanting (2.29), gap filling (2.26), marketing of farm produces (2.22), thinning (2.17), threshing (2.12), spraying of chemicals (0.52) and ploughing (0.01) were ranked eleventh, twelve, thirteenth, fourteenth, fifteenth, sixteenth, seventeenth, eighteenth, nineteenth and twentieth, respectively. The findings are in line with those reported by Depali and Rao (1981), Chaudhari and Gnorkar (1992), George and Ingle (1995), Patel *et al.* (1995), Diwan (2000) and Hossian and Mishra (2002).

Overall extent of contribution of tribal farmwomen in different agricultural operations

To know the overall extent of contribution of tribal farmwomen in different agricultural operations, the respondents were classified into three categories i.e. low contribution group, medium contribution group and high contribution group. The data regarding the same are presented in Table 2. The data presented in Table 25 reveals that majority (86.50 per cent) of the respondents were in medium contribution group, followed by 11.50 per cent and 2.00 per cent in high and low contribution group, respectively. This finding is in line with the findings of Kulkarni and Murali (1991), Singh *et al.* (1994), Shah (1997) and Diwan (2000).

Conclusion

It is concluded from the study that among all the twenty agricultural activities, hand weeding got highest mean score of 2.80 and obtained first rank, followed by sowing/planting (2.75), cleaning and storage of grain (2.73), harvesting (2.70), preparation of farmyard manure (2.69), supervision of fields (2.66), nursery raising (2.63), preparation of seed bed (2.61), fertilizer application (2.59) and drying of grains (2.55) secured second, third, fourth, fifth, sixth, seventh, eighth, ninth and tenth ranks, respectively. Other ten activities in order of priority viz., winnowing (2.52), scaring of birds (2.49), uprooting of seedlings (2.38), transplanting (2.29), gap filling

(2.26), marketing of farm produces (2.22), thinning (2.17), threshing (2.12), spraying of chemicals (0.52) and ploughing (0.01) were ranked eleventh, twelve, thirteenth, fourteenth, fifteenth, sixteenth, seventeenth, eighteenth, nineteenth and twentieth, respectively. It is also observed from the study that majority of the respondents (86.50 per cent) were found in medium contribution group, followed by 11.50 per cent and 2.00 per cent in high and low contribution group, respectively.

REFERENCES

- Chaudhari, M. D. and Ganorkar, P. L. 1992. Involving farmwomen in agricultural activities. *Kurukshetra*, 7 : 25.
- Depali, M. and Sethu Rao, M. K. 1981. A study on the knowledge and participation of rural women in agricultural operations with respect to paddy crop and their value orientation in Dharwad District of Karnataka. *Current Research*, 10 (1) : 13-14.
- Diwan, Y. B. 2000. Study on role performance of tribal farmwomen in adoption of maize production technology in Dahod district of Gujarat State. M.Sc. (Agri.) thesis (Unpub.), GAU, Anand.
- George, E. M. and Ingle, P. O. 1995. Involvement of women in rubber plantation activities. *Maha. J. Ext. Edu.*, 14 : 77-78.
- Hossian, M. M. and Mishra, S. N. 2002. Studies on involvement of women in agriculture and allied activities in Kalahandi district of Orissa. *Manage Extension Research Review*, 3 (1): 88-96.
- Kulkarni, M. S. and Murali, D. M. 1991. Time spending pattern of the rural home makers. *Maha. J. Ext. Edu.*, 10 (2): 145.
- Patel, A. J. 1995. Transfer of agricultural technology among tribal farmers of I.T.D.P. Chhotaudepur, Dist. Vadodara. Ph. D. thesis (Unpub.), G.A.U., Anand.
- Shah, U. B. 1997. Study on knowledge and role performance of tribal farmwomen in mixed farming in Vadodara district of Gujarat state, M. Sc. (Agri.) thesis (Unpub.), GAU, Anand.
- Singh, M., Verma, N. C. and Sitalakshmi, S. 1994. Extent of participation of Women in Agricultural, Allied and Household Activities. *Maha. J. Ext. Edu.*, 13 : 71-74.
