# Role of Rural Women in Agriculture

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**ABSTRACT**

**The present study was carried out in Daskroi taluka of Ahmedabad district of Gujarat State in 1989, to explore the participation of rural women in household tasks, agricultural operations and animal husbandry activities. The results revealed that cooking had got highest mean score (2.83) among six household tasks, hand weeding had got highest mean score of 2.66 and obtained first rank among all the twelve agril. activities and milking had obtained highest mean score of 2.72 and secured first rank among all nine animal husbandry activities. The results also stated that there is significant relationship between personal and socio-economic characteristics (viz.) education, caste, type of family, size of family, number of other working family members, social participation, socio-economic status, annual family income, size of land holding and herd size and overall extent of contribution in agricultural operations of the rural women.**

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## INTRODUCTION

Farming is a family enterprise in India. Involvement of women in agricultural production throughout the year contribute substentially towards the labour force required on farm. Women are the pivot around whom the family, the society and the whole huminity move. The importance of rural women can be appreciated by the fact that 80 per cent of the rural female engaged in agriculture among female workers in rural India (Srivastava, 1982). The welfare of rural women in India is essentially, the welfare of the farm families, which are the economic units of the community. Agricultural labour and farm cultivation are the main areas of the economic activities for rural women. It is well recognised fact that more than 60 per cent of agricultural operations have been traditionally handled by women (Mankekar, 1989).

Several studies have indicated that women's participation is more in the cultivation of rice, sorghum and berseem, while men take more active part in raising pegeonpea, chick-pea, culsterbean and sugarcane. Women are more efficient than men by 16.00 per cent in transplanting rice and sowing wheat fields, by 24.00 per cent in harvesting pearlmillet and by 37.00 per cent in picking cotton. Their efficiency in harvesting and processing of tea, coffee and plantation of horticultural crops have never been in doubt (Grover and Kapoor, 1988).

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Being illiterate and ignorant, she is ver-exploited. A victim of man made system, he is hardly considered equal to man in wage nd social status. Her life is listless routine of abour. In hut drudgery of cooking meals on a moky chullah and rearing children ygienically, carrying fuel, fodder and water ver long distances, is her ageless esponsibilities.

Considering the multidimentional role of ural women in agriculture, the present study vas undertaken to explore the participation of ural women in household tasks, agricultural perations and animal husbandry activities.

### Objectives

1. To study the personal and socio-economic characteristic of rural women.
2. To determine the extent of participation of rural women in household tasks, agricultural operations and animal husbandry activities.
3. To ascertain the relationship between certain personal socio-economic characteristics of rural women and their overall extent of contribution in agricultural operations.

## MATERIALS AND METHODS

This study carried out in Daskroi taluka of Ahmedabad district of Gujarat State in 1989. Two stage random sampling design was used to select a sample for the study. Thus, 100 respondents were randomly selected from 10 randomly selected villages of the said taluka.

*TABLE 1*

**Distribution of the rural women according to their personal and socio-economic characteristics.**

**(N=100)**

| *Sr. No.* | *Characters* | *Group* | *Number of respondent* | *Per cent* |
|---|---|---|---|---|
| *1* | *2* | *3* | *4* | *5* |
| **A. Personal** | | | | |
| 1. | Age | Young age (upto 30 years) | 29 | 29.00 |
| | | Middle age (31 to 50 years) | 69 | 69.00 |
| | | Old age (above 50 years) | 2 | 2.00 |
| 2. | Education | Illiterate | 59 | 59.00 |
| | | Can read only | 6 | 6.00 |
| | | Can read and write | 10 | 10.00 |
| | | Primary | 19 | 19.00 |
| | | Secondary | 5 | 5.00 |
| | | Higher secondary | 1 | 1.00 |
| 3. | Marital status | Married | 85 | 85.00 |
| | | Unmarried | 0 | 0.00 |
| | | Widow | 14 | 14.00 |
| | | Divorced and separated | 1 | 1.00 |

| 1. | 2. | 3. | 4. | 5. |
|---|---|---|---|---|
| **B. Social** | | | | |
| 1. | Caste | Lower (Harijan, Thakor etc.) | 61 | 61.00 |
| | | Intermediate (Patel, Rajputh) | 37 | 37.00 |
| | | Higher (Brahmin, Baniya etc.) | 2 | 2.00 |
| 2. | Family type | Nuclear | 51 | 51.00 |
| | | Joint | 49 | 49.00 |
| 3. | Family size | Upto 5 members | 51 | 51.00 |
| | | More than 5 members | 49 | 49.00 |
| 4. | Number of other working family members | No member | 4 | 4.00 |
| | | One to two members | 51 | 51.00 |
| | | Two to five members | 25 | 25.00 |
| | | More than five members | 22 | 20.00 |
| 5. | Social participation | No membership | 92 | 92.00 |
| | | Member in one organisation | 8 | 8.00 |
| | | Holding position | 2 | 2.00 |
| 6. | Socio-economic status | Low (below 16.96 scores) | 15 | 15.00 |
| | | Medium (below 16.96 to 37.24 scores) | 74 | 74.00 |
| | | High (above 37.24 scores) | 11 | 11.00 |
| **C. Economic** | | | | |
| 1. | Annual family income | Low (upto Rs. 10,000/-) | 41 | 41.00 |
| | | Medium (Rs. 10,000/- to Rs. 20,000/-) | 27 | 27.00 |
| | | High (above Rs. 20,000/-) | 32 | 32.00 |
| 2. | Occupation | Household affairs only | 0 | 0.00 |
| | | Household and labour work in farming | 0 | 0.00 |
| | | Household affairs and animal husbandry | 1 | 1.00 |
| | | Household affairs, labour work in farming and animal husbandry | 17 | 17.00 |
| | | Household affairs and farming | 5 | 5.00 |
| | | Household affairs, farming & animal husbandry | 77 | 77.00 |
| 3. | Land holding | Landless (0.00 ha.) | 18 | 18.00 |
| | | Small size (upto 2.00 ha.) | 49 | 49.00 |
| | | Medium size (2.10 to 5.00 ha) | 24 | 24.00 |
| | | Large size (above 5.0 ha) | 9 | 9.00 |
| 4. | Herd size | No animal | 8 | 8.00 |
| | | One to two animals | 68 | 68.00 |
| | | Three to five animals | 16 | 16.00 |
| | | Above five animals | 8 | 8.00 |

Frequency of participation in various activities by the rural women measured with the help of 3 points rating scale 'Most frequently' 'Frequently' and 'Least frequently'with the score value of 3, 2 and 1 respectively. To lay down the most frequent participation, the mean socre for each item was calculated on the basis of which ranks were assigned to them.

## RESULTS AND DISCUSSION

### Personal and socio-economic characteristics of the rural women

Generally it is believed that the personal and socio economic characteristics play an important role in participation of rural women in different activities viz., household, agricultural and animal husbandry. Data presented in Table1 show that majority (69.00 per cent) of the rural women belonged to middle age group followed by the young age group (29.00 per cent). Majority (59.00 per cent) of the rural women were illiterate followed by primary education (19.00 per cent). Majority (85.00 per cent) of the rural women were married followed by widow (14.00 per cent). Slightly more than half of (51.00 per cent) the rural women belonged to nuclear type and small size of family with one to two number of other working family members. Majority of the rural women belonged to medium socio-economic status group (74.00 per cent) having no membership in the formal organisation (92.00 per cent). Slightly more than one third (41.00 per cent) of the rural women had low annual family income i.e. upto Rs. 10,000/- followed by (32.00 per cent) high annual family income i.e. above Rs. 20,000/-. Majority (77.00 per cent) of the rural women consulted with household, followed by household affairs, labour work in farming and animal husbandry (17.00 per cent). Nearly half of the rural women (49.00 per cent) possessed small size of land holding, followed by 24.00 per cent of the rural women with medium size of land holding. Majority of the rural women (68.00 per cent) had one to two milch animals, followed by 16.00 per cent of the rural women who had three to five milch animals.

### Participation of rural women in household activities

*TABLE 2*

**Distribution of the rural women according to their frequency of participation in different household activities. (N = 100)**

| Sr. No. | Activity | Frequency of participation | | | Mean score | Rank |
|---|---|---|---|---|---|---|
| | | Most frequently | Frequently | Least frequently | | |
| 1. | Cooking | 88 | 9 | 1 | 2.83 | I |
| 2. | Fetching water | 1 | 14 | 75 | 1.06 | V |
| 3. | Fetching firewood | 1 | 9 | 38 | 0.59 | VI |
| 4. | Washing clothes | 76 | 14 | 3 | 2.59 | II |
| 5. | Children's care | 21 | 42 | 35 | 1.82 | III |
| 6. | Food grain preservation | 2 | 24 | 68 | 1.22 | IV |

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It can be seen from the Table 2 that among six household activities, cooking had got highest mean score (2.83) and secured first rank followed by washing clothes (2.59), children's care (1.82), food grain presevation (1.22), fetching water (1.06) and fetching firewood (0.59) which had obtained second, third, fourth, fifth and sixth rank respectively.

**Participation of rural women in agricultural activities**

*TABLE 3*

**Distribution of the rural women according to their frequency of participation in different agricultural activities.**

| *Sr. No.* | *Activity* | *Frequency of participation* | | | *Mean score* | *Rank* |
|---|---|---|---|---|---|---|
| | | *Most frequently* | *Frequently* | *Least frequently* | | |
| 1. | Ploughing | 0 | 0 | 0 | 0.00 | XII |
| 2. | Manuring (organic) | 25 | 5 | 22 | 1.07 | VIII |
| 3. | Nursery raising/ uprooting of seedlings | 48 | 14 | 19 | 1.91 | VI |
| 4. | Sowing/planting | 48 | 20 | 19 | 2.03 | IV |
| 5. | Transplanting | 54 | 18 | 19 | 2.17 | II |
| 6. | Hand weeding | 84 | 3 | 8 | 2.66 | I |
| 7. | Fertilizer appli. | 1 | 2 | 4 | 0.12 | X |
| 8. | Irrigation | 0 | 0 | 5 | 0.05 | XI |
| 9. | Harvesting/winnowing threshing | 49 | 22 | 18 | 2.11 | III |
| 10. | Supervision of fields | 57 | 11 | 8 | 2.01 | V |
| 11. | Storage of grains | 22 | 35 | 19 | 1.55 | VII |
| 12. | Marketing of farm produces | 7 | 20 | 18 | 0.79 | IX |

Data presented in table 3 reveal that among all the twelve agricultural activities, hand weeding got highest mean score of 2.66 and obtained first rank followed by transplanting (2.17), harvesting/winnowing/threshing (2.11), sowing/planting (2.03), supervision of fileds (2.01) and nursery raising/uprooting of seedlings (1.91) secured second, third fourth and fifth and sixth ranks respectively. Other six activities in order of priority viz., storage of grains (1.55), manuring (organic) (1.07), marketing of farm produces (0.79), fertilizer application (0.11), irrigation (0.05) and ploughing (0.0) were ranked seventh eighth, nineth, tenth, eleventh and twelveth respectively.

## Participation of rural women in animal husbandry activities

*TABLE 4*

**Distribution of the rural women according to their frequency of participation in different animal husbandry activities.**

| Sr. No. | Activity | Frequency of participation | | | Mean score | Rank |
|---|---|---|---|---|---|---|
| | | Most frequently | Frequently | Least frequently | | |
| 1. | Collection and cutting of fodder | 6 | 47 | 20 | 1.32 | IV |
| 2. | Feeding the animals | 3 | 53 | 37 | 1.52 | III |
| 3. | Grazing the animals | 1 | 0 | 35 | 0.38 | VIII |
| 4. | Providing the water to animals/ bringing the animals to water source | 1 | 24 | 66 | 1.17 | V |
| 5. | Cleaning the cattleshed and animals | 10 | 77 | 3 | 1.87 | II |
| 6. | To take care of animals | 1 | 9 | 81 | 1.02 | VI |
| 7. | Milking | 82 | 13 | 0 | 2.72 | I |
| 8. | Marketing of milk and milk products | 1 | 7 | 25 | 0.42 | VII |
| 9. | Making curd, whey, ghee, cheese etc. | 2 | 11 | 3 | 0.29 | IX |

It can be seen from Table 4 that among all the nine animal husbandry activities, milking had obtained highest mean score of 2.72 and secured first rank followed by cleaning the cattle shed and animals (1.87), feeding the animals (1.52), and collection and cutting of fodder (1.32) were ranked second, third and fourth respectively. Rest five activities in order of priority were providing water to animals/bringing the animals to water source (1.17), care of animals (1.02), marketing of milk produces (0.42), grazing the animals (0.38) and making curd, whey, ghee and cheese etc. (0.29) were ranked firth, sixth, seventh, eighth and nineth respectively.

### Overall extent of contribution in agricultural operations

To know the overall extent of contribution of the rural women in agricultural operations, contribution of each rural women was recorded

in hours spend daily, weekly or seasonally. The weekly and seasonally hours of contribution were converted in the daily hours contribution. Finally the total hours per day spent on the basis of daily, weekly and seasonally hours were summedup to calculate the mean hours ($\bar{X}$). With a view to categorise the overall extent of contribution of the rural women in to low, medium and high extent of contribution, mean and standard deviation were calculated. To form the extent of contribution group, the maximum and minimum hours limits were formulated with help of following formula :

$$Xi = Mean \pm Standard\ deviation.$$

As per the calculation majority of the rural women (67.00 per cent) were in medium contributing (3.38 to 7.36 hours) group followed by 17.00 per cent and 16.00 per cent in high (> 7.36 hrs.) and low contribution group (< 3.38 hrs.) respectively.

**Relationship between certain personal socio-economic characteristics of the rural women and their overall extent of contribution in agricultural operations**

To study the relationship between personal and socio-economic characteristic and the overall extent of contribution in agricultural operations are of great importance. The different personal and socio-economic characteristics studied were age, education, marital status, family type and size, caste, number of other working family members,

*TABLE 5*

**Zero order correlation coefficient between the extent of overall contribution in agricultural operations and some of the personal and socio-economic characteristics of the rural women.**

(N = 100)

| *Sr. No.* | *Independent variables* | *r' value with overall extent of contibution in agril. operations* |
|---|---|---|
| **A.** | **Personal characteristic** | |
| 1. | Age | — 0.13 NS |
| **B.** | **Social Characteristics** | |
| 1. | Number of other working family members | — 0.54** |
| 2. | Socio-economic status | — 0.97** |
| **C.** | **Economic characteristics** | |
| 1. | Annual family income | — 0.61** |
| 2. | Size of land holding | — 0.76** |
| 3. | Herd size | — 0.46** |

**Highly significant at 0.01 level of significance and 98 d.f.
N.S.= Non significant.

social participation, socio-economic status, annual family income, occupation, land holding and herd size etc. These different factors influence the behaviour pattern of rural women, the data were analysed by two tests viz., correlation co-efficient test for quantitative characters and chi-square ($X^2$) test for qualitative characters in order to ascertain the existance or non-existance of relationship between some of the personal and socio-economic characteristics and overall extent of contribution of rural women in agricultural operations (Table 5 & 6).

*TABLE 6*

**Association between the extent of overall contribution in agricultural operations and some other personal and socio-economic characteristics of the rural women.**

(N = 100)

| *Sr. No.* | *Characteristics* | *$x^2$ value with overall extent of contribution in agricultural operations* |
|---|---|---|
| **A.** | **Personal** | |
| | 1. Education | 30.22** |
| **B.** | **Social** | |
| | 1. Caste | 14.19** |
| | 2. Family type | 12.56** |
| | 3. Family size | 14.09** |
| | 4. Social participation | 8.87* |

** Highly significant at 0.01 level

*Significant at 0.05 level.

It is evident from data presented in table 5 & 6 that among different personal and socio-economic characteristics of the rural women, age was found nonsignificant at 0.05 level of significance indicating that there was no relationship of age with overall extent of contribution in agricultural operations. But education, caste, type of family, size of family, number of other working family members, social participation, socio-economic status, annual family income, size of land holding and herd size were found significant at 0.01 level of significance indicating highly significant relationship of said variables with overall extent of contribution in agricultural operations.

## Implications

CLear-cut fact can be seen from the present study that rural women play an

important role in agricultural development. The planner and the extension worker should have to take in account the back born role of rural women and accordingly they should design various schemes in the village to enable rural women to derive benefit from them. They should also concentrate their efforts on rural women and make them aware of the latest recommended technologies.

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