



## Research Article

# SCIENTIFIC ORIENTATION OF TRIBAL FARM WOMEN AND ITS RELATIONSHIP WITH THEIR CONTRIBUTION IN AGRICULTURE AND ANIMAL HUSBANDRY

\*<sup>1</sup>Dr. Mahesh R. Patel, <sup>2</sup>Dr. Arun Patel, <sup>3</sup>Shri Jaydip D. Desai and <sup>4</sup>Shri Vijay B. Patel

<sup>1</sup>Assoc. Ext. Educationist, EEI, AAU, Anand, Gujarat, India

<sup>2</sup>Director, EEI, AAU, Anand, Gujarat, India

<sup>3</sup>Senior Research Assistant, DoEE, AAU, Anand, Gujarat, India

<sup>4</sup>Assist. Research Scientist (Ext.), RRS, AAU, Anand, Gujarat, India

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### ABSTRACT

Agricultural production plays a significant role in the Indian economy. In India, women and agriculture seem synonymous terms. One can not think of agriculture without women. There is hardly any activity in agriculture except ploughing, where women are not involved. 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 and animal husbandry activities. Keeping this fact in mind, the present study was carried out to find out scientific orientation of tribal farm women and its relationship with their contribution in agriculture and animal husbandry. The result of the study revealed that nearly three fourth (74.50 per cent) of the tribal farmwomen had medium level of scientific orientation, followed by 14.00 per cent high and 11.50 per cent low level of scientific orientation. It is also observed that there is a positive and highly significant relationship between the scientific orientation and overall extent of contribution in agricultural operations whereas there is non-significant relationship between the scientific orientation and overall extent of contribution of tribal farmwomen in animal husbandry activities.

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## INTRODUCTION

Agriculture is the largest industry in India contributing to the source of livelihood for over 70 per cent of population. Agricultural production plays a significant role in the Indian economy. In India, women and agriculture seem synonymous terms. One can not think of agriculture without women. There is hardly any activity in agriculture except ploughing, where women are not involved. In some of the activities, she is relatively more efficient than man. Dahod is one of the Integrated Tribal Development Project (ITDP) areas of Gujarat State, where various administrative measures have been adopted through large number of tribal development and welfare programmes under Tribal Area Sub Plan (TASP). Since, independence huge fund have been diverted by the Central and State Government through different agencies with a view to uplift their living standard and bringing them into the main stream of nation. Even after lapses of more than 50 years of independence the progress of tribal farmwoman is not yet up to the level of expectation in the field of agriculture and animal husbandry as she is continued to be in a state of neglect. A victim of man made system, she is hardly considered equal to man in wage and social status.

\*Corresponding author: Dr. Mahesh R. Patel  
Assoc. Ext. Educationist, EEI, AAU, Anand, Gujarat, India

Keeping in view the above said facts and information about the tribal farmwoman's situation and her multiple roles in agriculture and animal husbandry a study on "Scientific orientation of tribal farm women and its relationship with their contribution in agriculture and animal husbandry" was undertaken.

## MATERIALS AND METHODS

The present study was undertaken in Integrated Tribal Development Project areas of Dahod district of Gujarat. 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.

### 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.

### Scientific orientation

It is characterized by a belief in science and scientific approach to solve the problems in farming. The scale developed by Supe (1969) was adopted for this study to measure the degree to which the respondents are oriented to use scientific methods in farming and decision making. The scale consisted of six statements out of which all the statements were positive except one. The responses of the respondents were obtained against each statement in terms of their agreement or disagreement on a five point continuum ranging from strongly agrees, agree, undecided, disagree and strongly disagree. The positive statements were scored 5, 4, 3, 2 and 1 for strongly agree, agree, undecided, disagree and strongly disagree, whereas, the scoring system was reversed in case of negative statement. The respondents were grouped in to three categories viz., low (below mean - SD), medium (between mean  $\pm$  SD) and high (above mean + SD).

### Coefficient of correlation (r)

Coefficient of correlation was computed to find out the relationship between the independent variable and the dependent variable by employing following formula.

$$r = \frac{\sum XY - \frac{\sum X \sum Y}{n}}{\sqrt{\left[ \sum X^2 - \frac{(\sum X)^2}{n} \right] \left[ \sum Y^2 - \frac{(\sum Y)^2}{n} \right]}}$$

Where,

r = Coefficient of correlation

X = independent variable

Y = dependent variable

n = number of observations

## RESULTS AND DISCUSSION

### Scientific orientation

Scientific orientation is characterised by a belief in science and scientific approaches to solve problems of families and it leads the farmers to adopt improved/local agricultural technologies. The data regarding scientific orientation of the respondents are presented in Table 1. The results in Table 1 indicated that nearly three fourth (74.50 per cent) of the tribal farmwomen had medium level of scientific orientation, followed by 14.00 per cent high and 11.50 per cent low level of scientific orientation. It could be thus inferred that majority of the respondents had medium to high level of scientific orientation. The probable reason for above situation might be due to the fact that more than half of the tribal farmwomen had migration habit. Because of this habit they might have better exposure with scientific oriented persons of other community. This can be seen in Table 16, where it is explained that migrated person were found to be engaged in agriculture-labour work and non-agriculture labour work. During their such type of engagements, they might have understood the importance of science and technology.

**Table 1. Distribution of respondents according to their level of scientific orientation**

| n = 200 |                               |        |          |
|---------|-------------------------------|--------|----------|
| Sr. No. | Scientific orientation        | Number | Per cent |
| 1       | Low (< 15.10 score)           | 23     | 11.50    |
| 2       | Medium (15.10 to 21.98 score) | 149    | 74.50    |
| 3       | High (> 21.98 score)          | 28     | 14.00    |
| Total   |                               | 200    | 100.00   |

Mean = 18.54 S.D. = 3.44

This led them towards medium to high level of scientific orientation. The finding is in concurrence with finding reported by Gamit (1993), Patel (1998) and partially confirms the finding of Siddhartha (2001).

### Relationship between scientific orientation and overall extent of contribution of tribal farmwomen in agricultural operations

The calculated correlation co-efficient value of  $r = 0.49449$  was significant at 0.01 level. It can be concluded that, there is a positive and highly significant relationship between the scientific orientation and overall extent of contribution in agricultural operations. It indicates that extent of contribution increases significantly with increase in scientific orientation of tribal farmwomen. This might be due to the fact that scientific orientation of tribal farmwomen were likely to have more inclination to use scientific method in agricultural operations and they had favourable perception towards innovation and change. Tribal farmwomen with high level of scientific orientation might have led them towards more participation in agricultural operations. This finding is in concurrence with findings reported by Supe and Singh (1974) and Patel (1998).

### Relationship between scientific orientation and overall extent of contribution of tribal farmwomen in animal husbandry activities

The calculated correlation co-efficient value ( $r = -0.08498$ ) was non-significant at 0.05 level. It can be concluded that, there is non-significant relationship between the scientific orientation and overall extent of contribution of tribal farmwomen in animal husbandry activities. This might be due to the fact that almost all the farmwomen are adopting similar type of practices in animal husbandry. This finding is in concurrence with findings reported by Padhi (1993).

### Conclusion

It is concluded from the study that nearly three fourth (74.50 per cent) of the tribal farmwomen had medium level of scientific orientation, followed by 14.00 per cent high and 11.50 per cent low level of scientific orientation. It is also observed that there is a positive and highly significant relationship between the scientific orientation and overall extent of contribution in agricultural operations whereas there is non-significant relationship between the scientific orientation and overall extent of contribution of tribal farmwomen in animal husbandry activities.

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