

SUPPLEMENTARY RESPONSIBILITIES OF FEMALE FARMERS – A STUDY OF RURAL AREA OF SIKKIM IN NORTH- EASTERN INDIA

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ABSTRACT

The present study has analyzed the existing information about female farmer's supplementary responsibilities along with farming in the rural area of Sikkim in North- Eastern India and suggested some points so that the stakeholder's efficiency can be attained in discharging these activities. In the region despite majority of the population is dependent on agriculture sector, still it is in the evolving shape and poses a variety of challenges. The contribution of women in this noble sector is although enormous yet invisible and does not get counted for much. Social science research in the state of Sikkim is inadequate despite several incentives provided by the state government. Nowadays, with voluminous amount of public expenditure on women empowerment schemes, we cannot ignore this issue thus making it unavoidable to empower them also with the intention to fully utilize their caliber in this field. Keeping this in mind, data was collected from 230 female farmers through interviews using a pre-designed schedule from 24 circles from all the four districts of Sikkim State. Based on their subjective judgments, female farmer's supplementary responsibilities along with farming have been measured and analyzed using the Statistical Package for the Social Science (SPSS). Some descriptive statistics, such as percentage as well as one sample t-test of inferential statistics is used to interpret the data. The findings of the study revealed that significantly more number of sample female farmers on an average looks after the nurturing and health of children at home. But because of illiteracy they are not able to look after the education of the children. As far as ritual ceremonies at home are concerned, the findings reveal that because of lack of credit accessibility, this activity is looked after by male members of the family. Data in the study area also disclose that significantly more number of sample female farmers on an average feel happy about looking after the responsibility at home as well as in agriculture. Results pertaining to these findings have been discussed in this paper.

Keywords: Female Farmers, Supplementary Responsibilities, Rural Area, Sikkim.

INTRODUCTION

Women play a distinctive role in shaping the rural economic activities and earning a livelihood. India is a agriculture dominated country and most of manual operations like sowing, weeding, transplanting, harvesting, threshing and winnowing and even marketing of agricultural produce are being done by women. Their contribution to the rural economy is enormous. But the role of women in economic and social development has not received due recognition so far in our society. But, efforts are being made by the Government to give due recognition to their participation by making various laws time to time in favour of women.

Contrary to the common perception about women in India, a large percentage of them work (Women of India, 2006). The National data collection agencies accept the fact that there is a serious under-estimation of women's contribution as workers. However, there are far fewer women in the paid workforce than there are men (Kalyaniand Kumar2001). In urban India Women have impressive number in the workforce and they are at par with their male counter parts in terms of wages, position at the work place (Singh and Hoge 2010). In rural India, agriculture and allied industrial sectors employ as much as 89.5% of the total female labour (Asia's women,2006). In overall farm production, women's average contribution is estimated at 55% to 66% of the total labour. According to a 1991 World Bank report, women accounted for 94% of total employment in dairy production in India. Women constitute 51% of the total employed in forest-based small-scale enterprises (Asia's women, 2006).

Actuality, the social, economic and cultural conditions of the area determine women's participation in home and farm activities. The nature and extent of women's involvement in agriculture, no doubt, varies greatly from region to region and within a region, their involvement varies among different farming systems, castes, classes and socio-economic status. But regardless of these variations, there is hardly any activity in agricultural production, except ploughing in which women are not actively involved (Swaminathan, 1985). In some of the farm activities like processing and storage, women predominate so strongly that men workers are numerically insignificant.

However, the Indian Himalayan region (IHR) displays a different picture in land use pattern and its dependency on agricultural land. The Himalayan people have traditionally practiced integrated agriculture, balancing cultivation, agro-forestry, animal husbandry and forestry. Mountain geography and inaccessibility have helped maintain agro-biodiversity; yet commercial agriculture is not as high-yielding and profitable as in the plains. Here forest is the major land use pattern, which covers over 52% of total reporting area followed by wastelands and agricultural land. However, the dependency on its limited arable land is marginally higher in the IHR as cultivators and agricultural labourers together comprise about 59% of total workforce in the region (Nandy and Samal, 2005).

Some historians believe that it was woman who first domesticated crop plants and thereby initiated the art and science of farming. While men went out hunting in search of food, women started gathering seeds from the native flora and began cultivating those of interest from the point of view of food, feed, fodder, fiber and fuel (Prasad and Singh 1992). Women have protected the health of the soil through organic recycling and promoted crop security through the maintenance of varietal diversity and genetic resistance. Therefore, without the total intellectual and physical participation of women, it will not be possible to popularize alternative systems of land management to shifting cultivation, arrest gene and soil erosion, and promote the care of the soil and the health of economic plants and farm animals.

FARMING STRATEGIES ADOPTED BY THE AGRICULTURE DEPARTMENT IN THE STATE

The state has a target of converting it into a fully organic state by 2015. In this regard, the Department has started a lot of measures to replace the chemical fertilizers by using bio fertilizers and organic manures. Effective Microorganism (EM) technology in production of compost and bokashi and bio-pesticide is being propagated among the farmers in technical collaboration with MAPLE ORTECH, Dehradun to give boost to organic farming in Sikkim. Integrated Pest Management (IPM) technology is being practiced to control the pests. Predators are produced in Sikkim State IPM Lab and are released in the farmers' field as and when required. The Government has set up a livelihood school also on organic farming at Tadong, Gangtok. This is first of its' type in the country. Participants will be given 3 monthstraining on organic farming processes. Trained youths will go to villages and assist farmers atvillage level. Popularization of HYV seeds, production of quality seeds, mixed cropping, pest management through Farmers Field Schools (FFS), recycling of farm waste for compost production, soil reclamation by liming, seed treatment campaign and integrated farmingthrough watershed approach are some of the strategies adopted by the Department in the state.

Mechanization has varied connotations. While in the developed world it tends to be synonymous to automation but in developing countries, like India especially in hilly areas, mechanization means any improved tool, implement, machinery or structure that assists in enhancement of workers' output, multiplies the human effort, supplements or substitutes human labour, avoids drudgery or stresses that adversely affect human mental activities leading to errors, imprecision and hazards and eventually loss of efficiency. It also means automation and controls that assure quality, hygiene. Agricultural mechanization in a limited sense relates to production agriculture.

Farming with machinery in Sikkim is almost nonexistent. However Power operated Thresher, Hand Winnower, Hand Maize Sheller, Iron Plough and other gender friendly machineries have been introduced on experimental basis. Sprinkler and drip irrigation has been taken up on demonstration basis. Agriculture in the state is mainly rain fed. Farm mechanization here in Sikkim is meant for increasing the production and productivity, comfort and safety, return and profitability to farmer.

DEMOGRAPHIC FEATURES

According to (Census 2011), Sikkim has a total population of 607 688 persons (which is 0.05 percent of total population of India) of which 321661are males and 286 027 are females. From the year 1991-01 to 2001-11, decadal population variation recorded was 33.07 to 12.36 percentages, while India's figure for the same is 17.64. In 2011 rural population consists of 480,981 people while urban population consists of 59,870 people. Sex ratio (females per 1000 males) also known as Gender Ratio, in the same decade has shown a little improvement i.e. from 875 to 889 but still lags behind India's, which is 940. Though population density per

sq. km. has increased in the same decade from 76 to 86 but is much less than national population density per sq. km. which is equal to 382. Literacy rate in 2001 was 68.81 which rose to 82.20 in 2011 which is above national average of 74.04 percent. This decade has seen an increase in male literacy rate from 76.04 to 87.30 as against all India's rate which is 82.14 and female literacy rate also shows increased figures i.e. from 60.41 to 76.43 as against all India's rate of 65.46.

Workers Profile

According to (Census 2001), there are 37,936 cultivators (About 26,000 of them are small/medium farmers) out of which 19,725 are males and 18,211 are females in East district. Of them 37,889 live in rural and only 47 live in urban area. In rural area 19,701 are males and 18,188 are females. Total no. of agricultural labourers 8,143 out of which 4,076 are males and 4,067 are females. Of them 8,110 live in rural and only 33 live in urban area. In rural area 4,056 are males and 4,054 are females.

There are 35,764 cultivators (About 16,000 of them are small/medium farmers) out of which 20,634 are males and 15,130 are females in West district. Of them 35,762 live in rural and only 02 live in urban area. In rural area 20,632 are males and 15,130 are females. Total no. of agricultural labourers in the district are 4,112 out of which 2,389 are males and 1,723 are females. Of them 4,110 live in rural and only 02 live in urban area. In rural area 2,389 are males and 1,721 are females.

There are 9,180 cultivators (About 6,000 of them are small/medium farmers) out of which 4,831 are males and 4,349 are females in North district. Of them 9,173 live in rural and only 07 live in urban area. In rural area 4,824 are males and 4,349 are females. Total no. of agricultural labourers in the district are 2,051 out of which 1,045 are males and 1,006 are females. Of them 2,038 live in rural and only 13 live in urban area. In rural area 1,033 are males and 1,005 are females.

There are 48,378 cultivators (About 20,000 of them are small/medium farmers) out of which 24,917 are males and 23,461 are females in South district. Of them 48,377 live in rural and only 01 live in urban area. In rural area 24,917 are males and 23,460 are females. Total no. of agricultural labourers in the district are 2,694 out of which 1,252 are males and 1,442 are females. All of them live in rural and no one live in urban area. In rural area 1,252 are males and 1,442 are females.

The above data, showed that in all the districts more than half of the cultivators are small/medium farmers. It was also observed that almost all of them live in rural areas and equal number of female participants was sighted as that of men.

RESEARCH METHODOLOGY

Universe or population

The universe or population for the study consisted of total number of married females in rural areas who are employed in farming in the state of Sikkim. This formed the pivotal point of the present research.

Sampling method for selected area of study

Multi-stage stratified random sampling technique of probability method is used to distribute the population into circles, revenue blocks and villages, then a combination of Judgment and Convenience sampling techniques of non-probability methods is decided upon for this study. Non-probability methods are of three types, namely Judgment sampling, Convenience sampling and Quota sampling. The state has only four districts; so, all of them have been taken for the study. Initially, under the multistage stratified random sampling technique- a selection of a tentative list of circles and revenue blocks from all the four districts was made followed by a selection of villages to be visited at the second and a selection of respondents at the final stage. A final list of the respondents from different farm households was prepared based on convenience and their accessibility to the researcher by stratified random sampling.

Sample size

Rural areas from all 4 districts of Sikkim were selected. As is clear from the table 1 below, though North district contains maximum area of the State i.e. almost 60%, but it holds only 7-8% of the population. On the contrary East district contains only 13% area of the State, but it holds maximum i.e. 45% of the population. So, for this study, maximum no. of females for data collection is from East & minimum are from North. Here, the size of the sampling female farmers from each district is neither proportional to the minimum size of the sampling female farmers of the district nor in the same ratio as is the percentage ratio of each district to the total population of the state. But the sample size of each district is just an indicative of the reason of taking maximum/minimum sampling units from that area.

Table I:- Selection of Sample Size

| District/ State | Total area(sq.km) | %of total area | Population Concentration | % Of total Population | Total no. of circle | Total no. of circles sampled | No. of female sample farmers |
|-----------------|-------------------|----------------|--------------------------|-----------------------|---------------------|------------------------------|------------------------------|
| East | 954 | 13.5 | 2,45,040 | 45.3 | 21 | 06 | 80 |
| West | 1166 | 16.5 | 1,23,256 | 22.8 | 21 | 06 | 60 |
| North | 4226 | 59.5 | 41,030 | 7.6 | 07 | 04 | 30 |
| South | 750 | 10.5 | 1,31,525 | 24.3 | 23 | 08 | 60 |
| Sikkim | 7096 | 100 | 5,40,851 | 100 | 72 | 24 | 230 |

Source- figures extracted from census 2001.

A data collected from a total of 24 circles from all the four districts in Sikkim has been analyzed. The district wise i.e. (East, West, North & South) distribution of circles selected is 6, 6, 4 & 8 respectively. A total of 80 females of farming community from East, 30 from North and 60 each from West & South districts have been interviewed. Data for 115 samples (50% of 230), was collected by the researcher herself, while for rest of 115 samples (40, 30, 15 & 30 from East, West, North & South respectively), was collected with the active help and participation of all the village heads. Data thus collected from 230 married females in rural areas in the state of Sikkim, employed in farming sector has become the basis of the Primary Data analysis in this Study.

Data collection and analysis

In order to collect qualitative data, three group discussion sessions were arranged separately in three villages (Syari, Sichey and Rawtey rumtek); each group contained 10 participants. During these group sessions, several open-ended questions were asked from the respondents in order to collect deeper information about their accessibility to resources and their participation in different farms and the related activities along with many hidden facts and factors. Based on this information, the research instrument i.e. questionnaire containing dichotomous, multiple choice and open end questions was designed and a pre-test was conducted with 18 respondents for its necessary modification. It was then translated into Nepali also for the convenience of the farm population. Primary data was collected by researcher by visiting the farming females of rural area in Sikkim, using questionnaires. The primary data was collected between March to September 2011 from all districts of Sikkim.

Books, journals, reports and internet documents were used as secondary sources of data supporting or supplementing the empirical findings of the study.

Data analysis

Data has been analyzed using the Statistical Package for the Social Science (SPSS) and some descriptive statistics, such as percentage, mean, standard deviation (SD) were used to interpret the data.

There is only one sample in the study. Ordinal and nominal level data can be analyzed using parametric statistics; therefore One-Sample t-test for inferential interpretation of the data has been run to understand the nature of relation between the variables. For the inferences of the hypotheses, Information from literature survey is taken to support some assumptions. Below are given the few hypotheses.

For Looking After the Nurturing of Children at Home

Hypothesis Statement – More farming females of rural area look after the nurturing of children at home.

H₀ –no more number of sample female farmers looks after the nurturing of children at home.

H_a - more number of sample female farmers looks after the nurturing of children at home.

For Looking After the Health of Children At Home

Hypothesis Statement – More farming females of rural area look after the health of children at home.

Ho –no more number of sample female farmers look after the health of children at home.

Ha - more number of sample female farmers looks after the health of children at home.

For Looking After the Education of Children at Home

Hypothesis Statement – More farming females of rural area look after the education of children at home.

Ho –no more number of sample female farmers looks after the education of children at home.

Ha - more number of sample female farmers look after the education of children at home.

For Looking After the Ritual Ceremonies at Home

Hypothesis Statement – More farming females of rural area look after the rituals ceremonies at home.

Ho –no more number of sample female farmers looks after the rituals ceremonies at home.

Ha - more number of sample female farmers looks after the rituals ceremonies at home.

For Feeling about Looking After the Responsibility at Home as Well as in Agriculture

Hypothesis Statement – More farming females of rural area would feel happy about looking after the responsibility at home as well as in agriculture.

Ho – no more number of sample female farmers would feel happy about looking after the responsibility at home as well as in agriculture.

Ha - more number of sample female farmers would feel happy about looking after the responsibility at home as well as in agriculture.

To test these hypotheses, one-sample t-test has been conducted. The t column displays the observed t statistic for each sample, calculated as the ratio of the mean difference divided by the standard error of the sample mean.

The column labeled Sig. (2-tailed) displays a probability from the t distribution with 229 degrees of freedom df, calculated as (n-1). The value listed is the probability of obtaining an absolute value greater than or equal to the observed t statistic, if the difference between the sample mean and the test value is purely random. The Mean Difference is obtained by subtracting the test value, from each sample mean.

The 95% Confidence Interval of the Difference provides an estimate of the boundaries between which the true mean difference lies in 95% of all possible random samples of 230 females. At this level if value of 't' is less than 1.96 and is also negative, then our null hypothesis is accepted else alternate hypothesis is accepted.

RESULTS AND DISCUSSION**Looking After the Responsibilities of Children at Home****Representation for the Parameter:**

A, B, C, D in the table represents - Nurturing (A), Health (B), Education (C), Rituals (D).

| | N | Mean | Std. deviation | Std. Error Mean |
|------|-----|------|----------------|-----------------|
| Q.9A | 230 | 2.71 | .525 | .035 |
| Q.9B | 230 | 2.44 | .701 | .046 |
| Q.9C | 230 | 1.90 | .813 | .054 |
| Q.9D | 230 | 1.67 | .785 | .052 |

One sample 't'-test is conducted to test our hypothesis

| Test Value = 2 | | | | | | |
|----------------|--------|-----|-----------------|-----------------|---|-------|
| | | | | | 95% Confidence Interval of the Difference | |
| | t | df | Sig. (2-tailed) | Mean Difference | Lower | Upper |
| Q.9A | 20.607 | 229 | .000 | .713 | .64 | .78 |
| Q.9B | 9.495 | 229 | .000 | .439 | .35 | .53 |
| Q.9C | -1.946 | 229 | .053 | -.104 | -.21 | .00 |
| Q.9D | -6.465 | 229 | .000 | -.335 | -.44 | -.23 |

Looking After the Nurturing of Children at Home

• Parameter Details:

Statistics for looking after the nurturing of children at home (A), by Female Farmers is shown in the table-II. From the table we find that there are 230 valid scores and a value of mean for them is 2.71. Standard deviation is 0.525 and standard error of mean is 0.035.

• Frequency of Looking After the Nurturing Of Children at Home (A), by Female Farmers:

In table-IV, frequency for looking after the nurturing of children at home (A) shows that 75% of the female farmers perform this responsibility independently. Only 8% males are found fulfilling this responsibility independently. While 49% are found jointly (both male and female) fulfilling this responsibility.

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|--------|-----------|---------|---------------|--------------------|
| Valid | MALE | 8 | 3.5 | 3.5 | 3.5 |
| | BOTH | 49 | 21.3 | 21.3 | 24.8 |
| | FEMALE | 173 | 75.2 | 75.2 | 100.0 |
| | Total | 230 | 100.0 | 100.0 | |

• Inferential analysis for the activity

From the table -III we find that confidence intervals lie entirely above 0.0 and also it is positive. The value of 't' for looking after the nurturing of children at home (A) is 20.607, which is higher than 1.96, mean difference column for it also shows positive values. This is further confirmed by significance levels which are 0.00 and also by confidence intervals, both limits of which lie entirely above 0.0 for it. We can safely say that null hypothesis for this view is rejected and thus alternate hypothesis for it is accepted, which says more number of sample

female farmers looks after the nurturing of children at home. Further, we conclude it by saying that significantly more number of sample female farmers on an average look after the nurturing of children at home.

Looking After the Health of Children At Home

- **Parameter Details:**

Statistics for looking after the health of children at home (B), by Female Farmers is shown in the table-II. From the table we find that there are 230 valid scores and a value of mean for them is 2.44. Standard deviation is 0.701 and standard error of mean is 0.046.

- **Frequency of Looking After the Health of Children At Home (B), by Female Farmers**

In table-V, frequency for looking after the health of children at home (B) shows that 56% of the female farmers independently look after this responsibility. Only 12% males are found fulfilling this responsibility independently. While 32% of them are found jointly (male and female) fulfilling this responsibility.

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|--------|-----------|---------|---------------|--------------------|
| Valid | MALE | 28 | 12.2 | 12.2 | 12.2 |
| | BOTH | 73 | 31.7 | 31.7 | 43.9 |
| | FEMALE | 129 | 56.1 | 56.1 | 100.0 |
| | Total | 230 | 100.0 | 100.0 | |

- **Inferential analysis for the activity**

From the table III we find that confidence intervals lie entirely above 0.0 and also it is positive. The value of 't' for the Females Farmers for looking after the health of children at home (B) is 9.495, which is higher than 1.96, mean difference column for it also shows positive values. This is further confirmed by significance levels which are 0.00 and also by confidence intervals, both limits of which lie entirely above 0.0 for it. We can safely say that null hypothesis for this view is rejected and thus alternate hypothesis for it is accepted, which says more number of sample female farmers looks after the health of children at home. Further, we conclude it by saying that significantly more number of sample female farmers on an average looks after the health of children at home.

Looking After the Education of Children at Home

- **Parameter Details:**

Statistics for looking after the education of children at home(C), by Female Farmers is shown in the table-II. From the table we find that there are 230 valid scores and a value of mean for them is 1.90. Standard deviation is 0.813 and standard error of mean is 0.054.

- **Frequency of Looking After the Education of Children at Home(C), by Female Farmers**

In table-VI, frequency for looking after the education of children at home(C) shows that very less women i.e. only 28% of them are found independently looking after this responsibility.

While 39% of males are found fulfilling this responsibility independently and 33% jointly (both male and female).

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|--------|-----------|---------|---------------|--------------------|
| Valid | MALE | 90 | 39.1 | 39.1 | 39.1 |
| | BOTH | 76 | 33.0 | 33.0 | 72.2 |
| | FEMALE | 64 | 27.8 | 27.8 | 100.0 |
| | Total | 230 | 100.0 | 100.0 | |

• Inferential analysis for the activity

From the table III we find that confidence intervals do not lie entirely either above or below 0.0. Its value is positive for one limit and negative for the other limit. For this view, value of 't' is -1.946, which is lower than 1.96 but then again significance level is 0.053. But then again if we look at the mean difference, it is negative. The upper limit of the confidence interval is 0 and on the other hand the magnitude of lower limit (negative value) is more than the magnitude of the upper limit (positive value). Consequently, we can safely conclude that looking after the education of children at home (C) is more inclined towards negative side i.e. more male members look after this responsibility.

Looking After the Ritual Ceremonies at Home

• Parameter Details:

Statistics for looking after the ritual ceremonies at home (D), by Female Farmers is shown in the table-II. From the table we find that there are 230 valid scores and a value of mean for them is 1.67. Standard deviation is 0.785 and standard error of mean is 0.052.

• Frequency of Looking After the Ritual Ceremonies At Home (D), by Female Farmers

Frequency for looking after the ritual ceremonies at home (D) in table-VII shows independent male dominance for this responsibility and more than 50% male recording is seen for it. Least independent female involvement (only 20%) for this responsibility is observed. Although they were found fulfilling this responsibility jointly (27%).

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|--------|-----------|---------|---------------|--------------------|
| Valid | MALE | 123 | 53.5 | 53.5 | 53.5 |
| | BOTH | 62 | 27.0 | 27.0 | 80.4 |
| | FEMALE | 45 | 19.6 | 19.6 | 100.0 |
| | Total | 230 | 100.0 | 100.0 | |

• Inferential analysis for the activity

From the table III we find that value of 't' for looking after the ritual ceremonies at home (D) is -6.465, which is negative and also less than 1.96. This is further confirmed by significance level which are 0.00 and also by confidence intervals, both limits of which lie entirely below

0.0 for it. Mean difference column for it also shows negative values. Thus there are valid reasons for null hypothesis to be accepted for it, which says that no more number of sample female farmers look after the ritual ceremonies at home.

For Feeling about Looking after the Responsibility at Home as well as in Agriculture

- Parameter details:**

Statistics for Feeling about looking after the responsibility at home as well as in agriculture (E), of Females Farmers is shown in the Table-VIII below. From the table we find that there are 230 valid scores and value of mean for it is 7.18. Standard deviation is 2.403 and standard error of mean is 0.158.

| | N | Mean | Std. Deviation | Std. Error Mean |
|-----|-----|------|----------------|-----------------|
| Q.E | 230 | 7.18 | 2.403 | .158 |

- Extent of Feeling about Looking after the Responsibility at Home as well as in Agriculture**

Degree of answer for feeling about looking after the responsibility at home as well as in agriculture in tables-IX ranges from 1 to 10. 1 indicates strongly negative and 10 indicate strongly positive knowledge. Whereas, degree level 5 indicates moderate knowledge for the question. More than 5 means their views are more inclined towards positive side and less than 5 means, their views are more inclined towards negative side.

Tables-9 shows only 02% of the respondents strongly feel negative for looking after the responsibility at home as well as in agriculture. 14% of them rated 5 for their view and 07% rated it 4. 12% rated their view for this question as 6. 23% of them strongly feel positive for looking after the responsibility at home as well as in agriculture. Since only 28% of the respondents rated their view for this question up to 5. This shows the inclination of the view towards positive side. So, we can say that most of the female farmers do feel happy for looking after the responsibility at home as well as in agriculture.

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-----------------|-----------------|-----------|---------|---------------|--------------------|
| Valid | Strong Negative | 5 | 2.2 | 2.2 | 2.2 |
| | 1 | | | | |
| | 2 | 3 | 1.3 | 1.3 | 3.5 |
| | 3 | 8 | 3.5 | 3.5 | 7.0 |
| | 4 | 17 | 7.4 | 7.4 | 14.3 |
| | 5 | 32 | 13.9 | 13.9 | 28.3 |
| | 6 | 27 | 11.7 | 11.7 | 40.0 |
| | 7 | 14 | 6.1 | 6.1 | 46.1 |
| | 8 | 39 | 17.0 | 17.0 | 63.0 |
| | 9 | 33 | 14.3 | 14.3 | 77.4 |
| Strong positive | 52 | 22.6 | 22.6 | 100.0 | |
| 10 | | | | | |
| | Total | 230 | 100.0 | 100.0 | |

• **Inferential analysis for Feeling about looking after the responsibility at home as well as in agriculture**

From the table-X, we find that value of 't' for Feeling about looking after the responsibility at home as well as in agriculture (E) is 13.775 which is higher than 1.96, mean difference column for it also shows positive values. This is further confirmed by significance levels which are 0.00 and also by confidence intervals, both limits of which lie entirely above 0.0 for it. We can safely say that null hypothesis for this view is rejected and thus alternate hypothesis for it is accepted, which says that more number of sample female farmers feel happy about looking after the responsibility at home as well as in agriculture.

Further, we conclude it by saying that significantly more number of sample female farmers on an average feel happy about looking after the responsibility at home as well as in agriculture.

| Test Value = 5 | | | | | |
|----------------|--------|-----|-----------------|-----------------|---|
| | t | df | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference |
| | | | | | Lower Upper |
| Q.(E) | 13.775 | 229 | .000 | 2.183 | 1.87 2.49 |

CONCLUSION

On the basis of the data collected and analyzed, we conclude that we cannot ignore the fact while recognizing their crucial role in agriculture, that women continue to be concerned with their primary functions as wives, mothers and homemakers. This fact gets confirmed by the researcher's data also by showing significantly more number of sample female farmers on an average look after the nurturing and the health of children at home.

Though, the data did not show more number of sample female farmers look after the education of the children and ritual ceremonies at home. However, the data reveals that more number of sample female farmers feel happy about looking after the responsibility at home as well as in agriculture. By providing women food farmer easy access to credit and education, adequate training and instilling in them the importance of saving and enabling them with microfinance program helps women to engage in income-generating activities to increase their incomes and invest in their families and communities. Studies show that when women are supported and empowered, it helps in improving the health of their families, improving the education of the children, increasing the agricultural productivity and ultimately increasing their income. In short, communities become more resilient.

SUGGESTIONS

Keeping in view the above mentioned problems/needs of the area and conclusions derived there from, the researcher has made a fair endeavor to suggest some points for the upliftment of the beneficiaries.

As the data has shown that significantly more number of sample female farmers on an average feel happy about looking after the responsibility at home as well as in agriculture, but are not

able to look after education and family rituals part much because of some constraints. Hence the point of suggestion is that by converting their role from passive recipients to active own managers by enabling them to have credit and education access will help them in efficiently fulfilling their responsibility towards home as well as in agriculture. Because many studies have proved that empowering women has helped them in improving their socio-economic condition. For example, in Zimbabwe, a major portion of GDP of which, comes from the agriculture sector, decision to allow women to sell produce directly to the Grain marketing Board, without the involvement of their husbands, has given them more control over their produce (Muchena 1994). The census figures of 2011 have shown that education of girls is slowly picking up and this itself can act as a major catalyst in upgrading the status of women.

Women's empowerment cannot take place unless women come together and decide to self-empower themselves. A movement has to be built which awakens the individual self in each and every woman for creative and generative action. This shall help us sow the seed for real women empowerment.

With a strong focus on gender equality, there is a requirement to sustain a global effort for education as well as developmental programmes for the upliftment of the Women. The goal of any developmental policy, programme or project should be directed towards enabling the women in learning a skill, literacy and earning income to support their family in particular and in building social capital for the balanced progress of any country/state. Such kind of endeavours directed towards the womenfolk will lead to a positive change in their social and economic status, life, attitude, and behaviors ultimately leading to the development of the rural economy. It would be a very long drawn and difficult battle but the reward is worth the effort.

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