

## **PARTICIPATION OF RURAL WOMEN IN THE AGRICULTURAL SECTOR AND ITS IMPACT ON THE SUSTAINABLE DEVELOPMENT OF THE VILLAGE (CASE STUDY OF RURAL WOMEN IN BARZOK AREA OF KASHAN)**

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### **Abstract**

*The main objective of this study is to investigate the impact of economic activities of the rural women on the sustainable development, and to identify the influential factors (individual, family, organization) on the rate of their participation in the agricultural activities in Barzok area of Kashan. The research method was descriptive – analytic, and the required information was collected based on the survey and library studies. The Statistical population consisted of 6,300 rural women being active in the agricultural sector of the area and by using the Cochran formula, 320 persons of them were identified as the sample size, having been interviewed by simple random sampling method. Coefficient of Cronbach's alpha for the determination of the reliability of the questionnaire was 71/5. For describing and analyzing of the data, we used the SPSS software, single variable t-test and Spearman correlation coefficient. The research's findings show that the economic activities of the rural women are effective in the sustainable development of the area. Based on the viewpoint of the regional authorities, this relationship were examined with consideration to three sectors of rural women's education, support for their economic activities and formation of the cooperatives of the rural women, and according to that, education of the rural women with the mean of 60/3 has allocated the maximum amount to itself. Also, the correlation coefficient between agricultural activities and the age, the income of horticulture and size of the family showed the significance level of  $p \leq 0/05$ . Consequently, there is a relationship between age, size of the family, income of the horticulture and the rate of agricultural activities of rural women, meaning that the agricultural activities of the rural women go up in tandem with the age and size of the family, followed by the raise of horticulture's income.*

**Key words:** agricultural sector, farmer women, rural economy of Barzok area, women's participation.

### **INTRODUCTION**

Rural women as half of the rural population have an important role in the economic and social activities, and in order to achieve the rural sustainable development, it requires to pay more attention to the women involved in the economic and social activities alongside the men (Mirak Zadeh and others, 2010). Studies and observations fulfilled regarding the rural women show that farmer woman enjoying local experience and knowledge of producing food products, play an important role in agriculture, in a way that women form the majority of farmers around the world, producing 50% to 60% of the world's food (Moshiri R., 2010, 2006). Since 1970, world attention and research projects were fastened on the women. In this regard, national and international agencies began their discussion and examination in

connection with making women involve in the control and orientation of the development's objectives. Thereby, researchers and policy makers came to a different understanding about men and women in the field of agricultural and industrial projects (Amiri, 2005).

Illustrating the importance of rural women's role in production, this is enough to know one of the accomplishments of the United Nations' world conference of "Decade of Women" held under the title of "Equality, Development and Peace" in New York in 1980 is that two thirds of the total work of the world is done by the women, and rural women do the most of that (Khatami, 2003). According to the United Nations' report, although women form 49% of the population in the village, 65% of the agricultural sector's activities of the village is done by them (Ali Mohammadi, 2008). Based on the statistics of the census in 2006, our

country's rural women have allocated 13% of the portion of occupation to themselves (Statistics Center of Iran, 2007). The undeniable fact is that rural women provide, averagely, about 40% of the force work in the agricultural activities, but their roles and activities have been neglected in discourses of rural sociology. Ignoring women's portion in the economic activities, especially agriculture, has caused the effect of their work's value not to be considered in the national computations. A cooperative approach of the development have been underlined since the early 2001s, and on the importance of cooperation as a tool as well as one of the development's objectives has been emphasized. In such a development, as half of the population, women are recalled to the cooperation, since it is impossible to achieve the sustainable development without women's active cooperation in all the fields such as family, economic, social and so on (Bozarjomehri, 2010). In Iran the role of rural women has been disregarded as well. In addition to their key roles in the economy of the household, they form a big part of work force in the economy as the invisible and undefined factors.

Despite the high value of their work and activities for family and the economy of the society, they have not enjoyed the appropriate roles according to their activities, socially. Undoubtedly, they must be considered among the most disadvantaged class in the society (Amini and others, 2009). Considering the fact that half of the women's population in both developed and developing countries work in the agriculture and animal husbandry sector of the villages, it is of much importance to design and fulfill educational-promoter programs for this stratum.

The objective of this study is to examine the impact of women's economic activities' increase in the sustainable development of the area. To achieve the above goal, the following hypotheses were examined. A) The relationship between individual characteristics of farmer women (age, family size and horticulture's income) and their agricultural activities. B) The impact of women's economic activities in the sustainable development of the area. And also, how much is answered to the question of

position and role of rural women in the agriculture sector of Barzok area.

## RESEARCH METHOD

The method used for the research can be introduced from various aspects. From the aspect of objective, the research is practical, and also it's descriptive - correlational in terms of type. Because it is not only dealing with the cognition and description of the impact of rural women's economic activities in the sustainable development of the region under study, but also it deals with the analysis as well as the correlation of relationships between variables influencing the rate of cooperation. Research questions have been assessed by data collection. Data collection was performed by two methods of library and survey which the latter has been done by the questionnaire technique including open and closed questions (two and multiple choices) as well as the spectrum of Lykrit scale. The statistical population of the research consists of rural women who are active in the agricultural sector of Barzok. The sample size has been determined by the use of simple random sampling and Cochran formula. With the certainty of  $t=96/1$ , coefficient of accuracy  $d=0/05$ , proportion of attribute's presence  $p=0/7$ , statistical population  $N=6300$ , and sample size  $n=320$ . In order to present an appropriate interpretation of the data, firstly, we have dealt with the examination of statistical population by using the descriptive analysis. After the descriptive examination, using inferential method, statistical analysis of the data has been done so as to test the hypothesis. The hypothesis has been tested by using one variable T-test and Spearman Correlation Coefficient.

## RESEARCH FINDINGS

### Individual characteristics

From the total sample size of 320 rural women, 87/8% are married, and 12/2% are single. The average age is 40/50 and 81/9% of the rural women are literate, including 41/4% at the elementary level, 22/4% at the pre high school and 18/1% at the high school level, and

also 18/1% of the rural women are illiterate. Regarding the statistics of literacy, it can be said that most of the rural women are literate but the quality of literacy level are low among them.

### Family characteristics

The range of family size is oscillating between 2 and 11, and its average is about 5/6. By the same token, rural families are nearly crowded. Moreover, 2/8% of the rural women are in charge of their families, and the rest of 97/2% are under protection of their fathers or husbands.

### The role of rural women in different activities of Barzok area

According to the survey examinations, women are engaged in different fields of activities, and most of them are doing several activities together such as housekeeping, handicrafts, horticulture and etc., especially in spring and summer that they work in tandem with men in farming as well as horticulture. Based on the results shown in Table 1, horticulture activities are more than those of farming and handicrafts in this area. The highest abundance is with women working in more than one case with the percentage of 58/9%, and farming has allotted the lowest percentage of 0/3% to itself.

Table 1. Distribution of farmer women based on different activities

Types of women's activities	Abundance	Percent
Farming	1	0/3
Housekeeping	50	15/6
Horticulture	68	21/2
Handicraft	9	1/9
Others	7	2/2
More than one case	189	58/9
Total	321	100

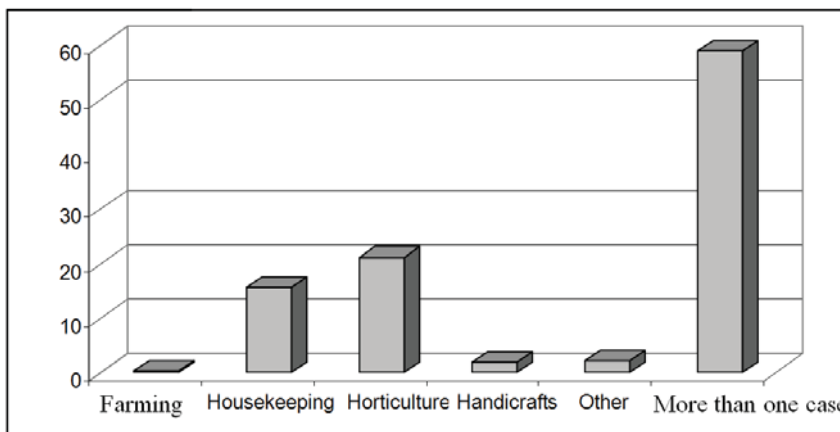


Figure 1. Distribution of farmer women based on the activities

### Activities of women in horticulture

Having an effective role in the employment, income, producing foodstuffs and bringing money, horticulture is included in the farming activities. Furthermore, many products can be

nurtured in the shadow of trees, and trees can refine the air. Enjoying the appropriate climate, soil and suitable sources of water in the area, the conditions are so much favorable for nurturing the fruit trees. Consequently, the number of fruit gardens is much more than the

number of farmlands. Rural women are so much engaged in the horticulture activities, because farming is one of the most important sources of income in the families. The highest

rate of their cooperation is in the harvest of products with the percentage of 57%, and the lowest rate is 0/3% which includes planting, pre harvest, marketing and sale.

Table 2. Distribution of farmer women based on their horticulture activities

Horticulture activities	Abundance	Percent
Planting	1	0/3
Pre harvest	1	0/3
Harvest	183	57/0
Keeping and changing the products	8	2/5
Marketing and selling the products	1	0/3
Others	6	1/9
More than one case	121	37/7
Total	321	100

### The position and role of rural women in farming

Regarding the level of economic development in country, women play an important role in the development of farming as well as the village in the majority of developing countries. According to F.A.O's report to the Food Security Congress, women averagely have produced 50% of the agricultural products in the recent decade. In spite of the fact that agriculture and related activities are the

economic foundations in the villages of developing countries, proportion of rural women in agriculture as well as the other economic sections have been hidden and that's why the real value of women's cooperation in economic production have been ignored and it does not count in the evaluation of economic activities. Table 3 demonstrates that the rate of women's activities in agricultural section is 63%, showing their high cooperation in this section.

Table 3. Results of two sentences test based on the agricultural activities of women

Farming activities of women	abundance	proportion	p
Low activity	119	0/37	
High activity	202	0/63	0/001

### Analysis of personal characteristics of rural women and their agricultural activities

Based on the results of Table 4, below, the correlation coefficient between agricultural activities of women and their age, horticulture's income and their family size was significant at

the level of  $05/0 \geq p$ . Therefore, the agricultural activities of women are directly associated with the age, horticulture's income and size of the family. Women with older ages and crowded families are much more engaged in the agricultural section than those who are young with thinly populated families.

Table 4. Correlation coefficient between agricultural activities and age, size of the family and horticulture's income

Variable	Agricultural activity		
	n	p	r
Age	298	0/001	0/413
Family size	298	0/002	0/209
Horticulture' income	298	0/001	0/289

### The raise of efficiency's effect and organizing rural women's economic activities in the sustainable development of the region

Considering three sections of education of rural women about agriculture and sustainable development of the area, supporting women's activities and formation of rural women's cooperatives, we have studied raise of efficiency's effect as well as organizing the rural women's economic activities in the

sustainable development of the area under the study. Based on the results of table (5) below, the highest mean number of the answers, 60/3, was related to "effectiveness of rural women's education in the improvement of sustainable development" and "effectiveness of rural women's education in the raise of agricultural products" and the lowest mean number is 11/3, which is related to "the effectiveness of creating rural cooperatives in the development of the area".

Table 5. The effect of rural women's economic activities in the sustainable development of the area

Variables	Mean	Standard of deviation
Education of rural women in the improvement of the sustainable development	60/3	0/699
Education of rural women in the raise of agricultural products	60/3	0/516
The influence of rural women's insurance in the sustainable development	40/3	0/843
The influence of the agricultural products' insurance in the sustainable development	44/3	0/726
Support of the economic activities of the rural women	30/3	0/675
Variables	Mean	Standard of deviation
Formation of rural women's cooperatives	11/3	0/978
Bank loans to rural women	3/3	1/07

### CONCLUSIONS and RECOMMENDATIONS

Being the main producers of food and income for the rural families, women form half of the population of rural society and produce an important part of the agricultural products in the world. Rural women undertake 50% to 60% of the world's food production, and the average participation of rural women in this section is estimated about 40%. According to the findings of the research, the position and role of rural women in the area under study is higher than the average level, and they have an effective role in agricultural activities especially horticulture. Therefore, it can be said that women's activities in the agricultural section are so much effective in the economy of the village.

Based on the results of Table 2, women are most engaged in the harvest activity to about 57%, but there are a few women who are paid and most of them are not. Some factors including individual characteristics (age, education), family characteristics (size of

family, income) and organization characteristics (participation in educational and promoter classes) are effective on the women's participation.

According to the results of Table 4, the correlation coefficient between the age, horticulture's income, size of the family and the rate of agricultural activities is significant. Since women form half of the area's population and they are actively engaged in different fields, especially agricultural section, so we cannot ignore the active role of women in the economic activities. Based on the findings of Table 5 it can be said that education of rural women in different fields of agriculture causes the increase of agricultural products and subsequently sustainable development of the area.

Governmental organizations' support for the women's activities is one of the other effective factors in the increase of economic activities' effectiveness of women, resulting in the effectiveness of women's activities in development. Generally, it can be said that there is a direct connection between raise of the

efficiency and organizing rural women's economic activities and its effect in the sustainable development of the area.

There are some recommendations to ameliorate the economic condition, the agricultural condition of the area under study and recognizing women's role in the force work of agriculture, such as: raise of the women's productive skills, how to make good use of the resources, professional training to ameliorate profit making, the method of fighting with the pests, which plays an important role in the improvement of economic condition and the augmentation of added value of rural women's activities, raise of rural women's access to credits (offering credits and loans to the rural women, especially women in charge of the family, will improve the situation of employment and living of the family in the area, and also is effective in the development of agriculture), creating Social Security Insurance and legal support for rural women's force work, especially women in charge of the family, considering the fact that women in this area are so much engaged in the agricultural activities, but they do not receive any support from the governmental organizations, preparing a way to offer health care and other social services, improve the situation of women in the area and raise their security against damages of the work.

Education of rural women and raise of their literacy's level are so much important, and the government or related organizations should provide the text book's content based on the

rural women's needs and make them available for them.

There are hopes, in near future, that the situation of farmers' lives, especially farmer women will be fully improved.

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