

Identification of Rural Women's Priority Problems in Agricultural Production and The Effects of These Problems on Poverty; the Case Study Yaylacık Village of Konya in Turkey

Cennet OĞUZ⁺ and Arzu KAN

University of Selcuk, Faculty of Agriculture, Department of Agricultural Economics, Konya-Turkey

Abstract. Social, cultural and economic development of the society, first of all depends on the individuals to have equal opportunities. Having equal opportunities of individuals in a society is effective factor in a balanced development. In other words, gender-balanced approach in development studies should be envisaged. Women constituting half of the population in the world and in Turkey and having an important place in the social and economic aspects have to be dealt with separately within the framework of development programs. Because, women are structured differently than men by their nature and they have the abilities to operate in different areas.

The main objectives of this study are to determine rural women's priority problems in agricultural production by order of priorities and to put forward these problems' importance on poverty reduction on farm level.

Keywords: rural women, agriculture, Yaylacık Village-Konya-Turkey

1. 1.Introduction

The Republic of Turkey occupies a unique geographical and cultural position at the crossroads of Europe and Asia. Turkey has a total land area of 78 million hectares and a population of more than 70 million. About one third of the land is arable, and 26 percent of the population lives in rural areas. The active population, working in the rural area of Turkey, is 14 767 000 and women have 61.26% of this population (4). The population of women working actively in the agricultural activities shows an increase from year to year. From the point of this view, the place and importance of the women population in agricultural activities and rural development could be understood. In agricultural enterprises in Turkey, the individuals are comprised from 54% men and 46% women whose main work is agricultural activities. Nevertheless the number of unpaid family worker is 5 265 431 and it is conspicuous that 66% of this is formed by women (4). While the major portions of the works created by men who work for one's own business or paid labour force, women represent a larger proportion of laborers than men in the agricultural but in their own farms as unpaid workers in the rural area of Turkey. Konya is a province where is agriculture main sector and people make a living from this sector majorly. 49% of the workers in Konya whose main work is agricultural activities are women and the ratio of the unpaid family worker is about 59%. On the side of this, 2% of employers and 9% of who works for own self are formed by women (4). In the research area, Konya, the study estimated 52 % of women labor in agriculture (2). Even women has been taking big percentage of farm labor, they are not benefiting from rural development aids, so they are the most effectible gender in poverty. For civilization rural development aids must be reached to the women in rural area and women respect must be increased in developing countries. The women works in agriculture commonly are unpaid workers in Turkey since farm owners are men. In this case, rural development aid must be offered to women in order to establish their own business. The business sustainability is depending on the knowledge on the women in

⁺ Corresponding author.Tel.: + 90 3322232875; fax: +90 332 2410801
E-mail address: coguz@selcuk.edu.tr

rural social and economical situation. For the woman who is in the rural area of Turkey, being made of manufacture and home works together, lowness of education level and social status, not being provided organization, not having possibilities for working as paid and the presence of legal regulations deficiencies about working as social security are seen as important problems. These problems are also effective factors for livelihood to put forward poverty alleviation strategies. The main objectives of this study are to determine rural women's priority problems in agricultural production and to put forward these factors' importance according to poverty states of the farms calculated by poverty line as 2,15\$/EP per day.

2. Material and Method

The main material that will be used in this research will be obtained from the questionnaire that will be applied to the rural women by the research team. The questionnaire will be pre-tested in the research areas before its application to sample rural women. Also some secondary data such as reports and statistics will be used to facilitate and to support the research. Primary data will be collected from research area in 2009. The "judgment sampling" method was used in selecting the village. Soil classes, cropping pattern, livestock situation, agricultural production techniques, economic structure and distribution of farms were taken into consideration as criteria in representing the zone. To identify rural women's priority problems in agricultural production, questionnaire forms were used and these forms were applied to rural women in Yaylacık village. The "Full-Count Method" was used to determine the number of women would be interviewed and total of 64 women were interviewed. The annual income of agricultural holdings was calculated and this income was converted to equivalent person (EP). The FAO's approach was used the EP calculation based the minimum calorie requirement of working-age men that is highest value (3). Logistic Regression was used to analyse the influence of each explanatory variables, which are belonging to the women, on the dependent variable, which is a dichotomous variable (poor and non-poor family), the binary logistic regression was used as a method (1). The logit model is written:

$$\text{Pr ob}(y = 1) = \frac{\exp(\alpha + \beta_1 X_1)}{1 + \exp(\alpha + \beta_1 X_1)} = \frac{e^{\alpha + \beta_1 X_1}}{1 + e^{\alpha + \beta_1 X_1}}$$

where Prob (y=1) is once again the probability of the event, α is the Y intercept, β s are regression coefficients, and Xs are a set of predictors. α and β s are typically estimated by the maximum likelihood (ML) method.

Per capita as EP for every farms was calculated by taking a measure of all sources of income in the aggregate and dividing it by the total household number converted EP.

3. Findings and Discussion

The household size, age, education, sex distributions as demographic characters of agricultural holdings were examined from the data gathered from 55 farmers via survey. The household size was calculated as 5.73 in the interviewed agricultural holdings. The gender distribution according to the farm size groups was examined and the ratio of women in total population was found as 51.27% on general average. Another part of the survey is setting a model with the women interviewed via public survey to determine their efficiency in poverty alleviation. Efficiency in general describes the extent to which time or effort is well used for the intended task or purpose and enabling the business to see in which situation. It is also an indicator for the value of using existing capacity. It is often used with the specific purpose of relaying the capability of a specific application of effort to produce a specific outcome effectively with a minimum amount or quantity of waste, expense, or unnecessary effort. The increasing of efficiency refers to be reached the outcomes of the business (economic, social, technological etc.) to the highest level in all sides. Delivering the outcomes to the highest level in economic and technological ways also increases the productivity. One of the main aims of the survey is to determine of the women's economic efficiency in the working area. The following assumptions were taken into consideration in determining women's efficiency. The changes in occurring on per equivalent person income with change in production and social activities of women in the agricultural holdings s are different. For this reason, the efficiency of the women was tried to be calculated as affecting of

women activities on poverty alleviation of the farms by considering the TUIK poverty lines (\$1, \$2.15 and \$4.30 per day) (5). In Table 1, the variables and model result were presented. Y dependent variable was taken as TUIK poverty line \$2.15 in Binary Logistic regression. If the agricultural holdings were under this poverty line according to per equivalent person daily income, we gave the “0” code which showed that these agricultural holdings were poor, in the other statement was coded as “1”. According to the analyses results, while the proportion of idle women labor in total idle labor (%), and total farm land size (Ha) were found as statistically significant at 95% confidence level, the proportion of agricultural income in total income and the meeting situation of women with Agricultural Extension Experts were found as statistically significant at 90% confidence level (Table 1). When the model is examined, the occurrence of more idle women labor in the agricultural holdings is a feature of increasing poverty. The probability of the risk being under the poverty line in the agricultural holdings having more idle women labor is 0.917 times more than the agricultural holdings having less idle women labor (Table 1). That means that if the women labor is used effectively, the poverty risk on the agricultural holdings will be decreased. This is an indicator showing women power in the research area.

The other variable is the “total farm land size”. This variable is also an indicator showing the wealth. In theory, increasing of farm size will reduce the risk of the agricultural holdings staying under the poverty line. In this research similar result was found. When the reality which the farmers have limited, small and fragmented area, this is an expected result. According to the analyse, the probability of the risk being under the poverty line in the agricultural holdings having small land (small farm size) is 1.65 times more than the agricultural holdings having large land (big farm size) .

The other important variable is the share of agricultural income in total income. In this research, the expectation on agricultural income was in side of reducing the poverty of the agricultural holdings. But, in the model, the sign of this variable is negative was found. That means that agricultural income is not enough alone to the alleviation of poverty in the research area. Non-agricultural activities should be provided to the area as well as agricultural activities. The other factor is the features of the agricultural holdings in which the share of agricultural income is high in total income. These agricultural holdings were small size farms and mainly their life subsistence depended on agricultural activities. This indicator gives the information about the farm size. If the agricultural holdings had high agricultural income in regard to total income, their risk staying under the poverty line would be more than the other situations. The risk was calculated as 0.92 times more.

Significant the other variable is the meeting of women with agricultural extension experts. Organic strawberry production generally was done by women. When the contribution of women to this agricultural activity was thought, women are the key point in side of the sustainability of the activity. One of the key elements of the sustainability is education. In that state, it is important to determine the target group, men or women? In that case, the analyse results showed that if the women meet with agricultural extension experts and also were educated in agricultural education courses, the risk probability of the agricultural holdings staying under the poverty line decreases (7.43 times). This refers that in the research area, women should be integrated into the agricultural education programs.

The other variables involved to the model about women activities which could affect the poverty status of the agricultural holdings couldn't be found as statistically significant at least 90% confidence letter. Participation of women in decision-making processes can be shown among these variables. Participation of women in decision-making processes was shown in 3 variables. These were participation on monetary subjects, participation on non-monetary subjects, and the mutual exchange of ideas. Lack of statistically significant of these factors could be due to already participation of the women to the decision-making processes intensively. In other words, the large number of women participate the decision-making processes could be the most important reason not to determine the differences sufficiently. Same situation is valid for the statement of women for being member to agricultural organizations. The small number of women becoming members of any agricultural organization in the research area may have prevented identification of lesser differences

Except of these factors, the educational level of the women and the following statement of media (TV and Radio) by women factors were also found statistically not significant (Table 1)

Table 1 Binary logistic regression analyses results

Variables	Coefficients	Std. Errors	Wald	df	P Values	Exp(B)
Becoming a member of any Agricultural Organizations						
Not Member: 0	-0.77	1.66	0.22	1	0.64	0.46
Member:1						
Decision Makers on Monetary Issues						
Women not participate to the decisions:0	0.10	1.66	0.00	1	0.95	1.10
Women participate to the decisions:1						
Decision Makers on Non- Monetary Issues						
Women not participate to the decisions:0	-1.85	1.79	1.11	1	0.29	0.16
Women participate to the decisions:1						
State to exchange ideas with her husband						
Not exchange ideas with her husband:0	3.08	2.07	2.21	1	0.13	21.69
Exchange ideas with her husband:1						
The Share of Idle Women Manpower in Total Manpower (%)	-0.09	0.04	4.60	1	0.03**	0.92
Total Farm Land Size (Ha)	0.50	0.26	3.59	1	0.05**	1.65
The Share of Agricultural Income in Total Income (%)	-0.08	0.04	3.35	1	0.06***	0.92
The Share of The Time Women Spending in Agriculture in Their Total Time (%)	0.03	0.03	0.71	1	0.40	1.03
The Statement of Women Meeting Extension Specialists						
Not Meeting:0	2.01	1.24	2.61	1	0.10***	7.43
Meeting:1						
The Educational Level of Women						
Illiterate:0	-2.11	1.79	1.39	1	0.24	0.12
The Other Situation:1						
The Women Watching TV or Not						
Not watching:0	-2.22	1.55	2.05	1	0.15	0.11
Watching:1						
The Women Listening Radio or Not						
Not listening:0	0.56	1.64	0.12	1	0.73	1.76
Listening:1						
Constant	10.65	5.59	3.63	1	0.05**	42188.08

*Significant at 99% confidence level

**Significant at 95% confidence level

*** Significant at 90% confidence level

4. Conclusions and Recommendations

It can be said that an agricultural development initiative was started in Yaylacık Village with organic strawberry farming by Konya Provincial Special Administration and Konya Province Directorate of Food Agricultural and Livestock in 2006. Women, as always, are the most important figure in that development process. Determination of decision makers within family and outside in the study area will help policy makers and practitioners to identify the target audience. Because the incorrect determination of the target group may lead to the problems, which could not been noticed the first time and may adversely affect the future of studies and it may reduce the effectiveness of the studies. In this context, it was determined that men in the family have the superiority on income spent, but women have a considerable role in this decision making process was found in the agricultural holdings surveyed area. It could be said that women and men made decision together on the subject of raising children, marriage of children, purchase of goods, plant and animal production and also the other family members joined the process.

Organizational movement was one of the most important elements in the participation of women to within family and non-family life activities in the research area. The woman having an important role in the decision-makers also plays an important role in increasing the efficiency of the agricultural holdings with their organizational movement. For this reason, the agricultural holdings were examined in side of whether there were women's organizational movements or not, but only 12.73% of the women were been found as a member of an organization in the agricultural holdings average. The agricultural organizations in which women were members were Village Development Cooperatives, Irrigation Cooperatives and The Chamber

of Agriculture. When the organic strawberry farming were extended and the women had important role in that were thought, the organic strawberry farming could be an opportunity to form new initiatives among the women on product processing and marketing and to become more efficient for women.

In the research area, the women had TV watching habits, in addition to this, they didn't have listening to the radio, cell phone use, internet use, reading books, newspapers etc. habits were found as results of the analysis on related to the women technology usage level. Media and information technologies are adequate tools for agricultural extension activities related to the agriculture to reach the women in the research area. In spite of having seen to reach women via TV-shows, women's reluctance to TV programs about agriculture made that option futile. At first stage, face to face meetings are more efficient than using technology to reach out women in the survey area. Therefore, even extension experts and agricultural consultants should play an important role in reaching to the women.

Entrepreneurship of women is also important as well as technology usage of the women. In the research area, women's entrepreneurship has an active role in to improve the current potential and create new sources in organic strawberry production. Financial resources are the important element in the entrepreneurial activities. Therefore, in the inspected agricultural holdings, the survey was made on credit usage of women and it was stated that none of the women interviewed were using credits. There for the main components of the identification team should be: researches, extensionists and farmers.

5. References

- [1] Gujarati, D.N.. Basic Econometrics. Fourth Edition. McGraw-Hill Higher Education., 2003, New York, The USA.
- [2] Oğuz, C., ve Kan, A.. Konya İli Seydişehir İlçesi Yaylacık Köyünde Bahçe Tarımında Kadınların Rolü ve Etkinliğinin Ölçülmesi. Selçuk Üniversitesi Bilimsel Araştırma Projeleri Koordinatörlüğü, Proje No:08401120, 2009, Konya, Turkey.
- [3] TUIK (Turkish Statistic Institute). Tüketim Harcamaları, Yoksulluk ve Gelir Dağılımı, Sorularla Resmi İstatistikler Dizisi-6, Yayın no:3186, 2008, www.tuik.gov.tr/IcerikGetir.do?istab_id=155
- [4] TUIK (Turkish Statistic Institute). Statistical Indicators 1923-2010. publication number:3641, 2011, Ankara, Turkey. www.tuik.gov.tr
- [5] TUIK (Turkish Statistic Institute). Poverty Analyses, 2012, www.tuik.gov.tr