Rural Women’s Contribution in Food Availability: A Case Study in Kafr Tesfa Village, Qalubia Governorate

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Abstract

The resent study aims to identify the score of rural women’s contribution in food availability for her family through determining the nature of participation of rural women in various agricultural activities (plant and animal activities). Furthermore, to determine the most important factors affecting rural women’s contribution in food availability of the study sample. Finally, to identify the most important problems and obstacles facing the rural woman and limiting her contribution in food availability for her family.

A study was conducted in “Kafr Tesfa” village, Kafr Shokr district in Qalubia governorate. A systematic random sample was selected including 170 rural women from the village. A questionnaire was used during personal interviews with the rural women from December 2017 to January 2018.

The data was tabulated and analyzed by using several statistical methods such as: range, arithmetic mean, mode, standard division, Spearman’s rank correlation coefficient, Chi Square test and Kramer’s V coefficient using SPSS program.

The study results indicated that the score of rural women’s contribution in food availability indicator ranges between (25) - (97) scores with Arithmetic mean (65.4) scores, standard deviation (19.99) score. The indicator range was divided into 3 equal categories. The results also showed that (45.3%) from the total population sample fell in the high category of the indicator. The medium category included (24.1%) and the lowest category included (30.6%) from the total sample population.

To measure the association relationships between the score of rural women’s contribution in food availability (dependent variable) and the study independent variables, the study used Chi Square test. Where, the study results indicated that there are association relationships between the dependent variable and the following independent variables: woman’s social status, ownership of agricultural machineries, sources of access to food information at significance level 0.01. While the association relationships of variables: socio-economic level of respondent’s family and get a pension were significance at level 0.05.

To show the combined effect of the studied independent variables on a score of rural women’s contribution in food availability (dependent variable) the study used Kramer’s V coefficient for the strength of the relationship.

The analysis of the data using Kramer’s V coefficient showed that the Determination Coefficient was (0.560). This result means that five factors out of all independent factors explain (56%) from the total variance in the score of rural women’s contribution in food availability (dependent variable) at probability significance level 0.01.

Keywords: Socio-Economic Level; Food Availability; Agricultural Activities

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Introduction and Research Problem

In many developing countries, rural women play a fundamental role in agricultural production processes, where the share of agriculture in the GDP in these countries is estimated at 32% and 70% of the poor live in rural areas in which women constitute the majority the agricultural labor force, where statistics indicate that these women constitute an average of 43% of the total agricultural labor force in these countries (World Bank, 2008, p. 1).

There are many approaches that target the participation of women in development efforts and guarantee equality with men by making use of available resources. Among these approaches is the entrance to women and well-being: it aims to ensure access to well-being and enjoyment of the basic elements of life such as health, nutrition, education, housing, income and everything that is important to achieving the basic necessities of life and the entrance to equality and justice: It aims to gain justice and equality for women in the development process by increasing Their contribution to production outside the home by giving them equal economic and political opportunities with men and the efficiency approach: which takes into account the ability of women to contribute to production and improve it so that development is more efficient and effective through the economic contribution and social equality of women and the anti-poverty approach: which recognizes the role Productive women and seeks to meet their practical needs through small income-generating projects. Participation entry: It aims for the full participation of women with men in all development activities, especially economic, social and political fields, Empowerment approach: It is the most recent curriculum used to integrate women into development and it appeared at the end of the eighties and it is the most widely used approach for its recognition of the role of women as an active element in development, as it believes in the tripartite role of women: reproductive, productive and societal, seeking to eliminate all manifestations of discrimination against them (United Nations Development Fund for Women, 2000, pp. 6-8).

Despite the enormous contribution of women to family prosperity and agricultural production, men generally control the sale of crops and the use of the resulting income, which leads to the neglect of the value of women’s work and their transformation into entities that do not exist in economic transactions, the allocation of family resources and decision-making at the level. The wider community. Studies have confirmed that gender discrimination in work and wages - where female agricultural workers get lower wages than men - results in women not enjoying their human rights, as rural women suffer discrimination in accessing the resources necessary for socio-economic development. In many countries, the death of the husband may lead to his family extracting what he owns of land and animals from his widow to join the ranks of the destitute, as the percentage of owners of agricultural lands in developing countries ranges between (3 - 20%) of the proportion of landowners, while the contribution Women in the agricultural workforce reach much higher rates ranging from (20 - 50%) (FAO, 2011, p.7).

Rural Arab women play a prominent role in providing food security at the family and community level. Good pasture or migration to cities to work in the more income-generating sectors of the economy. The international forums and conferences concerned with women’s issues emphasized their pivotal role in agriculture, food security and rural development in particular, which led to the crystallization of general international awareness and special attention to the need to empower women to acquire and manage agricultural production resources and to enhance their participation in productive activities during the past three decades The share of women in agricultural work in the Arab region witnessed a significant increase compared to the share of men (FAO, 2011, p.9).

In view of the many and multiple contributions of rural women to agricultural production in its two parts (plant, animal and poultry) through their actual practice of agricultural work, which varies according to different agricultural operations, as their participation in some agricultural operations that require great muscular effort or high technical training is reduced, so it was necessary to shed light On the agricultural work of women, the focus of this research has been on the degree of women’s contribution and participation in the field of agricultural production and their contribution to providing food for their families, given the distinguished role of women in this field,
Rural Women’s Contribution in Food Availability: A Case Study in Kafr Tesfa Village, Qalubia Governorate

where women make major contributions to plant, animal and poultry production and home gardens. One study estimated that agricultural productivity in sub-Saharan Africa would have increased by 20% if women in that region had equal access to land, seeds, fertilizers and modern technology, since it is the man who controls the crop and ultimately owns it. Often “female” crop production is invaded as it becomes more profitable (FAO, 2011, p. 14).

Study Questions

In light of the previous presentation, the study problem can be crystallized in the following questions:

1. What is the nature and degree of participation of rural women in the study sample in the various agricultural activities in the study area?

2. What is the degree of rural women’s contribution to food availability (agricultural production) in the study area?

3. What is the nature of the relationship between the independent variables studied for the respondents and the degree of their contribution to food availability (agricultural production) for her family?

4. What are the most important problems that limit the contribution of rural women in providing food for her family in the study area?

5. What are the respondents’ suggestions to overcome the problems they face in order to provide food for their families in the study area?

Study Objectives

In light of the formulation of the study problem, its objectives can be elaborated as follows:

1. Identify the degree of participation of rural women in the study sample in the various agricultural activities in the study area.

2. Identifying the degree of rural women’s contribution in providing food (agricultural production) in the study area.

3. Determine the relationship between the studied independent variables of the respondents and the degree of their contribution to the availability of food (agricultural production) for her family.

4. Identify the most important problems that limit the contribution of rural women in providing food for her family in the study area.

5. Identify the respondents’ suggestions to overcome the problems they face in order to provide food for their families in the study area from their point of view.

The Theoretical Framework of the Study

Rural women are the cornerstone and the main focal point that most rural families depend on in developing family economies and improving incomes by engaging in agricultural and non-agricultural activities related to small rural enterprises that use their revenues to spend on children’s education requirements, health as well as food provision. The International Labor Organization points out that women’s work, whether paid or unpaid, represents the main element and decisive factor that contributes to reducing family poverty rates in most developing economies ([1], p 1) and ([2], p 12).

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The economic contributions of women through the activities and works that they perform, whether inside or outside the home, take many forms, including direct contributions and they appear in material form as wages or salaries that they obtain or the prices of goods and products they sell, or a profit obtained from the manufacture of some products or handicrafts. Indirect contributions represent the value of materials produced by women and consumed within the home and this is an added monetary value that women contribute to the family's budget and participate in improving the family's standard of living (Rihan, Jasent, 2018, p.2).

In Egypt, despite the noticeable increase in female education rates, the Central Agency for Public Mobilization and Statistics data revealed that the contribution of women to the workforce represents one-third of the contribution of men to the national economy from the reality of the 2014 workforce research. The research indicated that the most important obstacles to women’s participation in the formal labor market is represented by traditional social conditions and beliefs ([3], p13).

In addition, evaluating the roles of women in the field of agricultural and non-agricultural family work is difficult to assess for their true value because most of them are unpaid. This may be due to the fact that the family works together as an economic unit, whereby work is divided among its members, that is, between the husband, wife and children, within the framework of prevailing social norms and values based on the rural lifestyle [4]. Since the beginning of the nineties of the twentieth century, the international community began to put the issue of women’s development in the priority of its concerns, as it linked the International Conference on Human Rights in Vienna in 1992 and its program of action to show the human right to development regardless of gender and emphasized that poverty, exclusion, marginalization and discrimination They constitute a blatant violation of human dignity and rights (Yehya, 2000, p. 86).

The Population Conference “in Cairo” came in 1994 to affirm the responsibility of society to raise the standard of living of citizens in general, male and female and their right to a decent and appropriate life. In 1980, the “Copenhagen” summit issued a declaration explicitly stating that the development of women is a social, moral, political and economic responsibility and that overcoming the problems they face is the responsibility of all countries, rich and poor alike. In the International Conference on Women held in “Beijing” in 1995, there was a strong focus on the issue of the feminization of poverty in all its forms: economic, educational, cultural and health... etc. with the need to invest the energies, efforts and capabilities of women in order to achieve sustainable development (Rihan, Jasent, 2002, p. 17).

Agriculture is one of the most important elements of local development, as it is the main source of income for thousands of families and rural communities and represents the mainstay of social and economic security in local communities. Women play an important role in sustaining the local economy based on agriculture in many local communities (Mardam, 2006).

In some areas, the home garden plays an important role in improving and obtaining various foods to feed the family by cultivating various food crops that help in obtaining balanced meals, in addition to the diversity of crops that reduces the risk of losing or damaging some of them due to pests and diseases or due to bad weather. Because some crops have the ability to resist diseases more than others and some food crops such as capsicum and garlic have the property of repelling insects, in addition to the cultivation of legumes helps to improve soil fertility (Ahmad, 2012, p. 2).

**Previous studies**

The studies available for review indicated: (Nasreddin, Asma, 2017), (Rayhan, Jasent, 2017), (Abdullah, Ibrahim, 2016), (Kharabsheh, Fatima, 2015), (Mustafa, Amina and Shaima Hashem, 2014), (Attia, Amani and others, 2014), (Al-Zaabi, Saja and others, 2013), (Hawari, Hana, 2013), (Abdel-Wahab, Mervat, 2012), (Mustafa, Amina, 2012), (Al-Azab, Ashraf and others, 2010), (Al-Sayed, Mervat, 2007), (Muhammad, Zainab, 2001), (El-Garhy, Aman, 1999a), (El-Garhy, Aman, 1999b), (Desouki, Mina 1999), (Al-Jarhi, Aman, 1998), (Al-Hanafi, Muhammad Ghanem and Muhammad Shalabi, 1997), (Allam, Yusriya and others, 1994), (Al-Sayed, Aziza, 1990) indicate that there are many variables that can affect The contribution of women to the availability of food, although these studies differ regarding the signifi-
cance of these variables. Therefore, the current study believes that the following factors should be taken into consideration as affecting the availability of food, namely: age of the respondent, educational level of the respondent, profession of the respondent, marital status, nutritional knowledge level of the respondent, profession of the husband, total number of children, average age of children, number of family members, Monthly household income, total household expenditure, spending on food, size of agricultural holding, size of animal holding.

Study hypotheses and method of analysis

Study hypotheses

To study the relationship between the independent studied variables and the dependent variable (the degree of rural woman’s contribution to the availability and provision of food for her family), one general hypothesis was formulated, from which (10) statistical hypotheses were derived as follows.

General hypothesis

The degree of rural women’s participation in the provision and provision of food for her family is affected. For the study sample (the dependent variable) with the effect of the independent variables studied. From this general hypothesis, ten statistical hypotheses were derived, which are explained as follows.

Statistical hypotheses (1 - 9)

These hypotheses are concerned with testing the effect of independent variables, each separately on the degree of rural women’s contribution to the availability and provision of food for her family for the sample of the study. The degree of rural women’s participation in providing food for the study sample is not significantly affected by the effect of the following independent variables: the age of the respondent, the marital status of the respondent, the socio-economic level of the family, the social status of the rural woman in making farm and food decisions, possession of a ration card, obtaining a pension, Family-owned agricultural machinery, sources for obtaining nutritional information, the respondent attending training courses in the field of food and nutrition.

The tenth statistical hypothesis: It is concerned with testing the combined effect of the independent studied variables on the degree of rural woman’s contribution to the availability and provision of food for her family for the study sample and its operative: The degree of rural woman’s contribution to the availability and provision of food for her family is not affected by the combined effect of the independent variables studied.

Method of Analysis

To show the nature of the association between the independent variables studied and the dependent variable (the degree of the respondents’ contribution to the availability and provision of food for their families) the study used the Kai square test and the “Chipro” coefficient was used to estimate the severity of the relationship between the studied independent variables and the degree of contribution Rural women in the study sample in providing and providing food for their families.

Research method

Operational definitions

**Food availability:** Food Availability is intended to provide food in theory: the availability of sufficient quantities of good quality food, whether the source of these quantities is through local production or import (including food aid).
What is meant by the procedural availability of food in this study: is the degree of the contribution of the rural woman (the surveyed) to the agricultural production of the family in its two parts (plant, animal and poultry), through her contribution to the various agricultural activities and processes that would ensure the availability and provision of food for her and her household.

The concept of the socio-economic level of the family

Socio-economic status (SES) What is meant by the socio-economic level in this study: It is a measure prepared by O.P. Aggarwal, S.K. Bhasin, A.K. Sharma, P. Chhabra, K. Aggarwal, O.P. Rajoura [5] and the scale expresses the total score obtained by the family through 22 items to measure the socio-economic level of the respondent’s family, after making appropriate adjustments to it to suit local conditions, so that it has acceptable indications of reliability and validity and can be applied to any community.

Study Methodology

The current study is part of descriptive studies within the framework of the case study approach in an effort to identify the degree of rural women's contribution to the provision and provision of food for their families. The study also followed the quantitative approach to extract conclusions and indicators from the information and previous studies that could be obtained. The analytical method was mainly used in processing the data collected from the study sample, in order to conduct statistical analysis on the one hand and test the validity of statistical hypotheses on the other hand.

The geographical area of the study

The survey frame is represented in the village of “Kafr Tesfa” - Kafr Shukr Center - Qalyubia Governorate, given that Qalyubia Governorate is the main geographical area for the researcher, which provides freedom of movement, information and data collection, ease of transportation and availability, as well as the desire to achieve the scientific goal. For research, which is linking scientific studies with the surrounding local environment, which contributes to serving local communities and developing them, by linking scientific research policy with reality.

The human domain of the study sample

The comprehensive nature of this research is represented by the total number of the wives of the holders based on the most recent registration of holdings in light of what was available with the agricultural association in the village under study, which amounted to 1666 rural women. The wives of the owners of the village. The field data collection period took about two months, during the period from December 2017 until January 2018.

Quantitative measurement of study variables

The study's choice of the quantitative approach required the formation of some quantitative measures and indicators expressing the various independent variables studied and the dependent variable, so that the appropriate statistical tests can be performed for the nature of the previously mentioned hypotheses.

Results and Discussion

Quantification of independent variables

Age of the respondent

The number of years representing the age of the respondent was used as a numerical indicator to measure this variable. The actual range of the age of the study sample ranged between (20 - 70 years) with an arithmetic average of 44.5 years and a standard deviation of
10.26 years. By dividing this range into three categories of equal length and graded upwards and distributing the respondents according to their responses, it became clear that about 60% of the total sample fall. In the middle class (37 - 53 years), while both the low group (20 - 36 years old) and the high group (54 - 70 years old) represent about 20% of the total study sample, as shown in table 1.

![Table 1: The relative distribution of the study sample according to the age of the respondent.](source)

The marital status of the respondent

A classification was used (married/widowed/divorced), where the values (1), (2), (3) were given to each of them, respectively, as a numerical indicator to measure this variable. The results of the study presented in table 2 indicate that about 88.8% of the total sample fall into the “married” category, while the “widowed” category represents about 12.2% of the total study sample.

![Table 2: The relative distribution of the study sample according to the respondent’s marital status.](source)

Possessing a ration card

A classification (not possessing/possessing) was used, where the values (1) and (2) were assigned, each respectively, as a numerical indicator to measure this variable. The results of the study presented in table 3 indicate that about 29.4% of the total sample do not possess, while the percentage of those who possess is about 70.6% of the total study sample.

![Table 3: The proportional distribution of the study sample according to possession of the ration card.](source)

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Getting a pension

A classification was used (yes/no), where the values (2) and (1) were given respectively, as a numerical indicator to measure the extent to which the respondent obtained a pension. The results of the study presented in table 4 indicate that about 84.1% of the total study sample do not receive a pension, while the percentage of those receiving a pension is about 15.9% of the total study sample.

| Vein | Yes |  No  |  Total |
|------|-----|------|--------|
|     | No. | %   | No.   | %     | No.   | %     |
| 1   | 143 | 84.1| 27    | 15.9  | 170   | 100.0 |

*Table 4: The relative distribution of the study sample according to the extent of their pension.*

*Source: The field study sample.*

Number of agricultural machines

The number of agricultural machines owned by the respondent’s family was used as a numerical indicator to measure this variable. The study considered the sum of the responses of the study sample as a numerical indicator to measure this indicator. The actual range of the values of this indicator ranged between (0 - 8 units), with an arithmetic mean of 1.49 units and a standard deviation of 1.69 units, which led to the division of the actual range into three categories of equal length and graded upward and the distribution of the respondents on these groups according to their responses. The data presented in table 5 indicate that about 54.1% of the total sample fall into the low index category (0 - 2 units), while the average category for the index (3 - 5 units) represents about 42.9%, while the high category does not represent the index. (6 - 8 units), about 2.9% of the total study sample.

| Actual run | Mean | Standard deviation | Categories |
|------------|------|--------------------|------------|
| Minimum    | Maximum | 1.49              | 1.69       |
| No.        | %     | No.                | %          | No.    | %    |
| 0 - 2      | 3 - 5 | 6 - 8              | 92         | 54.1   | 73    | 42.9  | 5     | 2.9 |

*Table 5: The proportional distribution of the study sample according to the number of agricultural machines.*

*Source: The field study sample.*

Attending training courses

A classification was used (did not attend/attended), where the values (1) and (2) were assigned to each of them respectively as a numerical indicator to measure the extent to which members of the study sample attended training courses in the field of food and nutrition. The results of the study presented in table 6 indicate that about 94.1% of the total sample did not participate in any training courses related to food and nutrition, while the percentage of those who attended training courses amounted to about 5.9% of the total study sample.

| Vein | Attended | Did not attend | Total |
|------|----------|----------------|-------|
|      | No.      | %              | No.   | %    | No.   | %    |
| 1    | 10       | 5.9            | 160   | 94.1 | 170   | 100.0 |

*Table 6: The proportional distribution of the study sample according to their attendance at training courses in the field of nutrition.*

*Source: The field study sample.*

*Citation:* Doaa Fathy Khalil Abd ElkhAlek., et al. "Rural Women's Contribution in Food Availability: A Case Study in Kafr Tesfa Village, Qalubia Governorate*. EC Agriculture 7.3 (2021): 21-41.
Sources of obtaining nutritional information

A classification (always/sometimes/rarely/no) was used for nine sources from which the respondent could draw her information about food and nutrition, where the values (4), (3), (2), (1) were given on the arrangement and the study considered the sum of the study sample responses to these sources as a numerical indicator to measure this indicator. The actual range of the values of this indicator ranged between a minimum (12 units) and an upper limit (30 units), with an arithmetic mean of 19.1 units and a standard deviation of 3.69 units. Respondents according to their responses. The results presented in table 7 indicate that about 55.9% of the total sample fall into the middle category of the index (18 - 24 units), while the low category of the index (12 - 18 units) represents about 34.1%, while the high category of the index represents about 10% of the total study sample.

| Categories | Minimum | Minimum | Mean | Standard deviation |
|------------|---------|---------|------|-------------------|
| Low        | 12      | 30      | 19.1 | 3.69              |
| Medium     | 18 - 24 |         |      |                   |
| High       | 24 - 30 |         |      |                   |

Table 7: The relative distribution of the study sample according to the nutritional information sources.

Source: The field study sample.

The social status of rural women

This variable was measured through twelve statements that reflect the social position of rural women in making agricultural and food decisions. The study used a classification (always/sometimes/rarely/no), where the grades were given (3), (2), (1) and (zero) for each, respectively. The study considered the sum of the study sample responses to these twelve statements as a numerical indicator to measure the social position of rural women in making agricultural and food decisions for the study sample. Scale preparation.

Preparing the scale

The scale related to the social position of rural women in making agricultural and food decisions was prepared according to the following steps:

1. Preparing the initial image of the scale: The study prepared the initial image of the scale by choosing a list of (14) statements that the study assumed would contribute to measuring the social status of rural women in making agricultural and food decisions, taking into account the selection of these phrases appropriate to their content and the diversity of their language formulation to avoid the stereotypical responses of the respondents.

2. The experimental stage of the scale: The experimental stage of the scale was conducted to identify the extent of the internal consistency of the expressions that the initial image of the scale had concluded, which are (14) statements. The experimental stage of the scale was applied to (10) respondents from outside the study sample and the responses of the respondents were coded on the phrases. The component of the scale so that it obtains three degrees in the case of “always” and two degrees in the case of “sometimes” and one degree in the case of “rarely” and (zero) in the case of “no”, thus it was possible to obtain for each respondent a score for each statement and an overall score for the scale. The total represents the total of her scores that she obtained in all the scale statements and after that the coefficients of correlation “Spearman” between the degree of each statement and the total score of the scale were calculated to identify the expressions that are related as closely as possible to the total score of the scale, given that the statement that achieves a high moral correlation it contributes more than others in measuring the degree of social standing of rural women in making farm and food decisions for the study sample.
By extracting the correlation coefficients, two statements were excluded from the scale due to the non-significance of their correlation coefficients at 0.05 probability level.

3. **The final stage of the scale:** The final version of the scale consists of the expressions that the experimental stage has ended and their number is (12) statements. In light of the findings of the study, the results of the scale of the degree of social status of rural women in making the agricultural and food decisions subject of the study can be summarized through the following items.

**The results of the reliability of the scale**

"Reliability Analysis-Scale (ALPHA)" was used using the SPSS statistical analysis program to calculate the reliability of the scale, which is called the alpha coefficient (α), where the value of the reliability coefficient (α) reached 0.8858, which is a statistically acceptable value indicating the stability of the scale. Results related to the validity of the scale: In order to achieve the validity of the scale, two types of validity were reached, the results of which were as follows: 1. Self-validity: To measure the self-validity coefficient, the square root of the scale reliability coefficient was calculated, (Khairy, Al-Sayed, 1970) with a value of 0.9412, which is a high validity coefficient for this scale. 2. Statistical validity: The statistical validity coefficient was measured according to what was done by Rihan, Ibrahim and Magdy Yahya, 2005, p. 178 citing “Warren.”

Through the data provided in table 8, the statistical validity factor of the scale was calculated, with a value of 0.9597, which is a high validity factor.

| X₁ | X₁₂ | X₁₁ | X₁₀ | X₉ | X₈ | X₇ | X₆ | X₅ | X₄ | X₃ | X₂ | X₁ |
|----|-----|-----|-----|----|----|----|----|----|----|----|----|----|
| 69**| 15.*| 16.*| 23.*| 21**| 30**| 44**| 46**| 57**| 75**| 54**| 62**| X₁₂|
| 79**| 21**| 23**| 44**| 29**| 23**| 67**| 62**| 53**| 59**| 83**| X₁₀|
| 75**| 23**| 19.*| 34**| 25**| 20**| 63**| 66**| 58**| 56**| X₁₁|
| 74**| 14.*| 19.*| 29**| 27**| 25**| 51**| 58**| 62**| X₁₂|
| 73**| 15.*| 14.*| 29**| 31**| 22**| 61**| 65**| X₁₀|
| 84**| 29**| 32**| 55**| 28**| 21**| 84**| X₁₁|
| 83**| 30**| 32**| 54**| 31**| 17.*| X₁₂|
| .45**| 33**| 28**| 25**| 69**| X₁₀|
| 50**| 35**| 16.*| 31**| X₁₁|
| 66**| 30**| 52**| X₁₂|
| 49**| 60**| X₁₀|
| 46**| X₁₁|

**Table 8:** Matrix of rank correlation coefficients for expressions of the social position of rural women in making agricultural and food decisions for the study sample with the total score of the scale.

*:* Significant at 0.05 level; **:* Significant at 0.01 level.

**Source:** The field study sample.

The results presented in table 9 indicate that the actual extent of the indicator of the social status of rural women in making farm and food decisions for the study sample ranged between a minimum (zero) and a maximum limit (35) units, with a mean of 22.7 units and a standard deviation of 8.49 units. This led to the division of the actual extent of this indicator into three categories, graded upward and the study sample distributed according to their responses. It is noticed from the following table that about 47.6% of the total sample fall into the high category of the index (25 - 35 units), while the average category of the index (13 - 24 units) represents about 38.2%, while the low category represents the index (0 - 12 units). About 14.1% of the total study sample.

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The socio-economic level of the respondent’s family

This variable was measured through twenty-two items that reflect the socio-economic level of the households of the study sample, namely: the average gross monthly income, the education of the husband or wife (the most educated in them) and the husband or wife profession (the same profession The higher level), the ownership of household appliances, the type of household housing, the possession of a car or its equivalent, the number of individuals in the family who have a fixed income, the number of children in the family, the availability of basic services (tap water and electricity), children’s education, the presence of a household assistant (servant) in household work (other than children), the level of the area in which the family resides, the social class of the family (the family), the number of family members who have traveled abroad in the last five years, the possession of agricultural lands, the possession of non-agricultural land (residential), the possession of large animals for the purposes of Commercial, owning any type of animal for self-consumption, the number of homes they own other than the house they inhabit or the shop (owned or rent), the positions held by any family member in NGOs (besides the position as an employee), parental support in the form of non-property Transported (Inheritance), the total amount of income tax that a family pays annually. The study considered the sum of the study sample responses to those items as a numerical indicator to measure the socio-economic level of the study sample households.

Preparation of the scale

The scale related to the socio-economic level of the households of the study sample was prepared according to the following steps:

1. **Preparing the initial image of the scale:** The study prepared the initial image of the scale by choosing a list of (22) items that the study assumed would contribute to measuring the socio-economic level of the sample families. studying.

2. **The experimental phase of the scale:** The experimental phase of the scale was conducted to identify the extent of the internal consistency of the items that the initial image of the scale reached, which is number (22) items. The experimental phase of the scale was applied to (10) respondents from outside the study sample and the responses of the respondents were coded on the items The components of the scale according to the aforementioned in the digital measurement of the scale items. Thus, it was possible to obtain for each respondent a score for each item and an overall score for the scale and after that the coefficients of correlation “Spearman” between the degree of each item and the total score of the scale were calculated in order to identify the items that are related as closely as possible to the total score of the scale, considering that the item The one who achieves high moral correlation contributes more than others in measuring the socio-economic level of the study sample families. By extracting the correlation coefficients, (4) items were excluded from the scale due to the lack of significance of the correlation coefficients at the probability level 0.05.

**Table 9:** The relative distribution of the study sample according to the indicator of the social status of rural women in making agricultural and food decisions.

*Source: The field study sample.*

| Categories | Low | Medium | High |
|------------|-----|--------|------|
| No.        | 24  | 14.1   | 65   |
| %          | 38.2| 47.6   |      |

| No. | % |
|-----|---|
| 35  | 22.7 |
| 24  | 8.49 |

| Minimum | Mean | Standard deviation |
|---------|------|--------------------|
| 0       | 35   | 22.7               |
| 0 - 12  | 13 - 24 | 25 - 35          |
| No.     | %   | No.    | % | No. | % |
| 24      | 14.1| 65      | 38.2| 81  | 47.6 |

*Citation:* Doaa Fathy Khalil Abd ElkhAleK., *et al.* “Rural Women’s Contribution in Food Availability: A Case Study in Kafr Tesfa Village, Qalubia Governorate”. *EC Agriculture* 7.3 (2021): 21-41.
3. **The final stage of the scale**: The final version of the scale consists of the items that the pilot phase has ended and their number is (18) words. By extracting the correlation coefficients for the eighteen items with the total score of the scale, it is noticed from the results presented in table 10 that there are seventeen items whose correlation coefficients were confirmed with the total score of the scale at the probability level 0.01 and that there is one item whose correlation coefficient was proven to be significant with the total score of the scale on the probability level is 0.05.

In light of the findings of the study, the results of the socio-economic level scale for the households of the study sample can be summarized through the following axes: The results of the reliability of the scale.

"Reliability Analysis-Scale (ALPHA)” was used as explained before, where the value of the reliability coefficient was 0.7344. It is a statistically acceptable value and indicates the stability of the scale. Results related to the validity of the scale:

1. **Self-validity**: The value of the self-validity factor was 0.9412, which is a high validity factor for this scale.

2. **Statistical validity**: Through the data contained in table 10, the statistical validity factor of the scale was calculated, with a value of 0.9361, which is a high validity coefficient for this scale.

| Total | X₄ | X₈ | X₆ | X₅ | X₇ | X₉ | X₂ | X₃ | X₁ | X₁₀ | X₁₁ | X₁₂ | X₁₃ | X₁₄ | X₁₅ | X₁₆ | X₁₇ | X₁₈ |
|-------|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| .58** | .12 | .32** | .10 | .14 | .05 | .01 | .20** | .24** | .48** | .22** | .11 | .34** | .18* | .25** | .43** | .29** | .44** | X₁ |
| .64** | .16 | .13 | .13 | .13 | .02 | .08 | .15 | .01 | .25** | .42** | .05 | .32** | .06 | .23** | .57** | .40** | | X₂ |
| .43** | .01 | .26** | .09 | .01 | .25** | .21** | .08 | .04 | .19* | .12 | .10 | .21** | .01 | .16* | .35** | | | X₃ |
| .63** | .10 | .25** | .17* | .08 | .17* | .24** | .09 | .11 | .45** | .47** | .15* | .27** | .15 | .26** | | | | X₄ |
| .34** | .07 | .15 | .01 | .17* | .01 | .06 | .20* | .14 | .20** | .29** | .20** | .16* | .07 | | | | | X₅ |
| .37** | .25** | .13 | .07 | .20* | .09 | .19* | .10 | .02 | .27** | .05 | .19* | .08 | | | | | | X₆ |
| .53** | .27** | .18* | .10 | .40** | .18* | .15* | .27** | .01 | .34** | .07 | .07 | | | | | | | X₇ |
| .18* | .06 | .09 | .01 | .18* | .05 | .01 | .18* | .07 | .20** | .18* | | | | | | | | X₈ |
| .40** | .13 | .18* | .07 | .01 | .07 | .20* | .10 | .11 | .29** | | | | | | | | | X₉ |
| .63** | .32** | .45** | .17* | .22** | .16* | .12 | .21* | .29** | | | | | | | | | | X₁₀ |
| .34** | .24** | .49** | .09 | .07 | .16* | .09 | .40** | | | | | | | | | | | X₁₁ |
| .49** | .35** | .23** | .11 | .46** | .34** | .33** | | | | | | | | | | | | X₁₂ |
| .29** | .37** | .04 | .01 | .46** | .71** | | | | | | | | | | | | | X₁₃ |
| .33** | .38** | .03 | .11 | .56** | | | | | | | | | | | | | | X₁₄ |
| .53** | .37** | .26** | .09 | | | | | | | | | | | | | | | X₁₅ |
| .22** | .11 | .06 | | | | | | | | | | | | | | | | X₁₆ |
| .54** | .41** | | | | | | | | | | | | | | | | | X₁₇ |
| .59** | | | | | | | | | | | | | | | | | | X₁₈ |

**Table 10**: Matrix of correlation coefficients for the statements of the socio-economic level of the study sample with the total score of the scale.

*: Significant at 0.05 level; **: Significant at 0.01 level.

**Source**: The field study sample.

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**Citation**: Doaa Fathy Khalil Abd ElkhAle, et al. "Rural Women's Contribution in Food Availability: A Case Study in Kafr Tesfa Village, Qalubia Governorate." *EC Agriculture* 7.3 (2021): 21-41.
The results shown in table 11 indicate that the actual range of the socio-economic level of the households of the study sample ranged between a minimum (21) and an upper limit (60) units, with a mean of 40.7 units and a standard deviation of 7.9 units, which led to the division of the actual extent of this indicator into three categories of equal length and graded upward and the study sample distributed according to their responses. It is noted from the data presented in the table that about 57.6% of the total study sample fall into the middle category of the indicator (34 - 47 units), while the high category of the indicator (47 - 60 units) represents about 24.1% of the total sample, while the low category represents the index (21 - 34 units) about 18.2% of the total study sample.

| Categories | Actual run | Mean | Standard deviation |
|------------|------------|------|--------------------|
|            | Minimum    | Minimum | Low  | Medium | High |
|            | 21         | 60     | 40.7  | 7.90   |      |
| No. %      | No. %      | No. %  | No. % |
| 21 - 34    | 31         | 18.2   | 98    | 57.6   | 41    | 24.1  |

*Table 11:* The relative distribution of the study sample according to the scale of the socio-economic level of the study sample.

*Source:* The field study sample.

Quantitative measurement of the dependent variable

The degree of rural woman’s contribution to the availability of food for her family

The index included the degree of rural woman’s contribution to the availability and provision of food for her family through her participation in agricultural production activities and processes, both plant and animal and their number is (25) processes and activities, where plant production included (12) Process and activity and animal production included (7) operations and activities and plant production included (6) operations and activities. A classification (always/sometimes/rarely/no) was used and the scores were assigned (3), (2), (1), (zero) for each, respectively.

The study considered the total responses of the study sample to the previous statements as a numerical indicator to measure this variable.

Preparing the scale

The scale related to the degree of rural woman’s contribution to the availability and provision of food for her family for the study sample was prepared according to the following steps:

1. **Preparing the initial image of the scale:** The study prepared the initial image of the scale by choosing a list of (25) activities and processes that the study assumed would contribute to measuring the degree of the rural woman’s contribution to the availability and provision of food for her family for the study sample.

2. **The experimental phase of the scale:** The experimental phase of the scale was conducted to identify the extent of the internal consistency of the items that the initial image of the scale had concluded, which are (25) statements. The experimental phase of the scale was applied to (10) respondents from outside the study sample and the responses of the respondents were coded on the phrases the component of the scale according to the aforementioned. Thus, it was possible to obtain for each respondent a score for each of the phrases and an overall score for the scale and after that the coefficients of correlation “Spearman” between the degree of each statement and the total score of the scale were calculated to identify the expressions that are related as closely as possible to the total degree of the scale, considering that the statement Those that achieve a high moral correlation contribute more than others in measuring the degree of rural women’s contribution to providing food for their families.
3. **The final stage of the scale**: The final version of the scale consists of the expressions that the experimental stage has ended and their number is (25) statements. By extracting the correlation coefficients for the 25 statements with the total score of the scale, it is noticed from the results presented in table 12 that all the expressions proved the significance of their correlation coefficients with the total score of the scale at the probability level 0.01.

The results of the reliability of the scale

"Reliability Analysis-Scale (ALPHA)" was used, where the value of the reliability coefficient was 0.9449, which is a statistically acceptable value that indicates the stability of the scale. Results related to the validity of the scale:

1. **Self-validity**: The value of the self-validity factor was 0.9721, which is a high validity factor for this scale.

2. **Statistical validity**: Through the data contained in table 12, the statistical validity factor of the scale was calculated, with a value of 0.9791, which is a high validity coefficient for this scale.

![Table 12: *: Significant at 0.05 level; **: Significant at 0.01 level. Source: The field study sample.](image)

**Citation:** Doaa Fathy Khalil Abd ElkhAlel, *et al.* “Rural Women’s Contribution in Food Availability: A Case Study in Kafr Tesfa Village, Qalubia Governorate”. *EC Agriculture* 7.3 (2021): 21-41.
Results of the study

First: The nature and extent of rural women’s participation in the study sample in the various agricultural activities

The first objective of the study was concerned with identifying the nature and extent of rural women’s participation in the study sample in various activities related to agricultural production. The study in the operations and activities related to agricultural production, both plant and animal and from this it becomes clear that the participation rates differ from one operation to another according to the values of the participation indices shown in front of each of the agricultural operations or activities and the rank obtained. From the table, it is clear that the bird feeding activity ranked first (Participation Guide 483), where 161 respondents work and bear the responsibility and burden of managing this activity in full, representing about 94.7% of the total study sample. The bird cleaning process occupies the second place (Participation Guide 480), as 160 female respondents participate in this process on a permanent basis. Egg collection operations come in third place (participation guide 474), as 92.9% of the respondents participate in them on a permanent basis. Cleaning of pens and places of education comes in fourth place (participation guide 473), with 91.8% of the respondents participating in them on a regular and permanent basis and 1.8% irregularly. The sale of poultry and eggs came in the fifth place (participation guide 449) and treatment and vaccination of birds came in sixth place (participation guide 440). And feeding animals at home is ranked seventh (Participation Index 316). Milk operations come in eighth place (Participation Guide 315) and so on, as shown in table 13.

| Agricultural activities (operations) | Participation Categories | Participation Guide | Arrangement |
|-------------------------------------|--------------------------|---------------------|-------------|
| Plant production activities:        |                          |                     |             |
| Preparation of municipal fertilizer | 27 21 9 113             | 132 21              |             |
| Seed preparation                    | 249 39 7 100             | 157 20              |             |
| Planting                            | 69 29 2 70               | 267 13.5            |             |
| Hoeing                              | 4 4 8 154               | 28 25               |             |
| Slacking and patching               | 21 15 6 128             | 99 23               |             |
| Cleaning weeds                      | 71 20 2 77              | 255 15              |             |
| Harvesting and collecting           | 76 20 2 72              | 270 12              |             |
| Sifting and cleaning grains         | 69 10 7 84              | 234 17              |             |
| Sorting and grading                 | 16 3 6 145              | 60 24               |             |
| Packing                             | 57 13 3 97              | 200 19              |             |
| Transportation and storage          | 62 17 4 87              | 224 18              |             |
| Marketing (selling the crop)       | 90 11 2 67              | 294 9               |             |
| Animal production activities        |                          |                     |             |
| Cleaning animals                    | 87 12 - 71              | 285 10              |             |
| Cleaning the barns                  | 83 8 2 77               | 267 13.5            |             |
| Feeding animals at home             | 94 16 2 58              | 316 7               |             |
| Grazing and feeding animals with muffle | 34 11 2 123     | 126 22              |             |
| Treating and vaccinating animals    | 78 6 - 86               | 246 16              |             |

Citation: Doaa Fathy Khalil Abd ElkhAleK, et al. “Rural Women’s Contribution in Food Availability: A Case Study in Kafr Tesfa Village, Qalubia Governorate”. EC Agriculture 7.3 (2021): 21-41.
It is also noted from the table that there are some agricultural activities that some respondents may practice in a limited way, such as hoeing operations, sorting and grading, slipping and grafting, grazing and feeding animals with mulching, preparing municipal fertilizer, as the percentage of respondents who had not previously participated in these agricultural operations reached 90.6%, 85.3%, 75.3%, 42.4% and 66.5% respectively.

**Second: The degree of rural woman’s contribution to the provision and provision of food for her family**

The second objective of the study was concerned with identifying the degree of rural woman’s contribution in providing food for her family. The results presented in table 14 indicate that the actual extent of the indicator of the degree of rural women’s contribution to the availability and provision of food for her and her family for the study sample ranged between a minimum (25) units and a maximum (97) units, with a mean of 65.4 units and a standard deviation of 19.99 By dividing the actual extent of this indicator into three categories of equal length and graded upward and distributing the study sample according to their responses, it becomes clear that about 45.3% of the total sample fall into the high category of the index (73 - 97 units), while the average category of the indicator represents (49 - 49). (73 units) about 24.1%, while the low index category (25 - 49 units) represents about 30.6% of the total study sample.
Third: The conjugal relationships between the degree of rural woman’s contribution to the availability and provision of food for her family and the independent variables studied

The third objective of the study was concerned with determining the conjugal relationships between the degree of the rural woman’s contribution in the availability and provision of food for her family and the independent variables studied. Since there are four independent variables out of nine independent variables (the respondent’s marital status, possession of a supply card, the respondent’s obtaining a pension, the respondent attending training courses in the field of nutrition) of the nominal level, the study used the Kai-square test ($X^2$) to study the pairing relationships The potential between the degree of rural woman’s contribution to the study sample in the availability and provision of food for her family ($Y$) and between the independent variables studied separately.

It is evident from the results presented in table 15 that there is a correlation between the degree of rural woman’s contribution to the study sample in the availability and provision of food for her family ($Y$) and the social position of the respondent (hypothesis No. 4), the ownership of agricultural machinery (hypothesis No. 7) and sources of information. (Hypothesis No. 8) and it is significant at the probability level 0.01, while the coupling relationship between the two variables of the respondent’s socio-economic level (Hypothesis No. 3) and obtaining a pension (Hypothesis No. 6) at the probability level 0.05 was proven. As for the independent variables: the age of the subject (hypothesis No. 1), the marital status of the respondent (hypothesis No. 2), possession of a ration card (hypothesis No. 5) and attending training courses in the field of nutrition (hypothesis No. 9), there is no correlation between it and the dependent variable.

| The degree of rural woman's contribution to the study sample in providing food for her family | Dependent variable | Independent variable | Low |
| --- | --- | --- | --- |
| Total | High | Medium | (20-36) | (37-53) | (54-70) | "Wholesale" | "Married" | "Widow/divorced" |
| 34 | 13 | 7 | 14 | 47 | 133 | 14 | 151 | 68 | 36 | 47 | 19 | 9 | 5 | 5 |
| 102 | 50 | 22 | 30 | 92 | 110 | 28 | 170 | 77 | 41 | 52 | 151 | 68 | 36 | 47 |
| 34 | 14 | 12 | 8 | 46 | 52 | 8 | 170 | 77 | 41 | 52 | 151 | 68 | 36 | 47 |
| 170 | 77 | 41 | 52 | 34 | 14 | 12 | 8 | 170 | 77 | 41 | 52 | 151 | 68 | 36 | 47 |
| 31 | 7 | 8 | 16 | 7 | 8 | 16 | 170 | 77 | 41 | 52 | 151 | 68 | 36 | 47 |
| 98 | 46 | 25 | 27 | 46 | 25 | 27 | 170 | 77 | 41 | 52 | 151 | 68 | 36 | 47 |
| 41 | 24 | 8 | 9 | 24 | 8 | 9 | 170 | 77 | 41 | 52 | 151 | 68 | 36 | 47 |
| 24 | 2 | 22 | (0-12) | 2 | 22 | (0-12) | 170 | 77 | 41 | 52 | 151 | 68 | 36 | 47 |
| 65 | 10 | 28 | 27 | 10 | 28 | 27 | 170 | 77 | 41 | 52 | 151 | 68 | 36 | 47 |
| 81 | 67 | 11 | 3 | 67 | 11 | 3 | 170 | 77 | 41 | 52 | 151 | 68 | 36 | 47 |
| 170 | 77 | 41 | 52 | 4 | 3 | 1 | "Possessing" | 166 | 74 | 40 | 52 | "Not possessing" | 170 | 77 | 41 | 52 |
| 27 | 18 | 5 | 4 | 18 | 5 | 4 | 170 | 77 | 41 | 52 | 151 | 68 | 36 | 47 |
| 143 | 59 | 36 | 48 | 59 | 36 | 48 | 170 | 77 | 41 | 52 |

Citation: Doaa Fathy Khalil Abd ElkhAleK., et al. “Rural Women’s Contribution in Food Availability: A Case Study in Kafr Tesfa Village, Qalubia Governorate”. *EC Agriculture* 7.3 (2021): 21-41.
Based on this, it can be said that the following statistical hypotheses cannot be rejected: (the first, the second, the fifth and the ninth).

To test the validity of the tenth statistical hypothesis using the combined test ($X^2$) to build a synthesis model to demonstrate the combined effect of the independent variables studied on the degree of rural woman's contribution to the study sample in providing food for her family ($Y$) all explain about 56% of the variance in the degree of the rural woman's contribution to the study sample in providing food for her family, where the strength of the relationship ($T_2$) was equivalent to 0.560. The significance of the model was proved at the probability level 0.01 and the above means that the remaining 44% can be attributed to other variables not included in the study and then the tenth statistical hypothesis can be rejected for the five variables included in the model and the alternative hypothesis is accepted.

**Table 15:** The associative relationship between the degree of rural woman's contribution to the study sample in providing food for her family and the independent variables studied.

*:* Significant at 0.05 level; **: Significant at 0.01 level.

*Source:* the field study sample.

| Assignment Number | Variables                          | The calculated $x^2$ value | Degrees of freedom | The strength of the conjugal relationship | Arrangement |
|-------------------|------------------------------------|----------------------------|--------------------|------------------------------------------|-------------|
| 3                 | Socio-economic level               | 11.43*                     | 4                  | 0.197                                    | 4           |
| 4                 | The social position of the woman   | 115.6**                    | 4                  | 0.627                                    | 1           |
| 6                 | Receive a pension                  | 6.47*                      | 2                  | 0.195                                    | 5           |
| 7                 | Ownership of agricultural machinery| 43.15**                    | 4                  | 0.383                                    | 2.5         |
| 8                 | Sources of obtaining information   | 43.18**                    | 4                  | 0.383                                    | 2.5         |
| -                 | Total                              | 219.83                     | 18                 | 0.560                                    | -           |

**Table 16:** Results of the statistical analysis of the combined effect of the independent studied variables on the degree of rural woman's contribution to the study sample in providing food for her family.

*:* Significant at 0.05 level; **: Significant at 0.01 level.

*Source:* Table No. 15.

**Citation:** Doaa Fathy Khalil Abd ElkhAlekJ, *et al.* “Rural Women’s Contribution in Food Availability: A Case Study in Kafr Tesfa Village, Qalubia Governorate”. *EC Agriculture* 7.3 (2021): 21-41.
Fourth: The problems facing rural women and limiting their contribution to food availability from the viewpoint of the study sample members

The fourth objective of the study was concerned with identifying the problems facing rural women from the viewpoint of the study sample members. The results of the study presented in table 17 refer to the numerical distribution relative to the most important problems facing the study sample members according to the frequency of their occurrence, as "high food commodity prices" ranked first with a rate of about 52.9% of the total responses of the study sample and "high prices of non-food commodities" came in second place, with a rate of about 44.1. The lack of family savings comes in third place with a rate of about 8.8% and in fourth place came "the lack of ownership of money by rural women and the lack of income of their own" with a rate of about 8.2%, followed in the fifth place by "fewer opportunities in education. Women, with a rate of about 7.1% and in sixth place, "the abundance of work, burdens and household obligations", with a rate of about 5.9% and in seventh place, "lack of ownership by rural women of agricultural land," with a rate of 5.3%, followed by a For the eighth place, "lack of training, counseling, or food awareness" by about 2.9% and "lack of time" comes in ninth place with a rate of about 1.2% and "women's work in the family fields without pay" came in the tenth and last place with a rate of about 0.6% Of the total responses of the study sample.

| The proposals                                           | No. | %    | Arrangement |
|--------------------------------------------------------|-----|------|-------------|
| Rural women’s lack of ownership of agricultural land    | 9   | 5.3  | 7           |
| Rural women do not own money and have no income of their own | 14  | 8.2  | 4           |
| The high prices of food commodities                     | 90  | 52.9 | 1           |
| High prices for non-food commodities                    | 75  | 44.1 | 2           |
| Lack of family savings                                  | 15  | 8.8  | 3           |
| Lack of training, counseling, or nutritional education  | 5   | 2.9  | 8           |
| Fewer opportunities for educating women                 | 12  | 7.1  | 5           |
| Shortage of time                                        | 2   | 1.2  | 9           |
| Women work in the family’s fields without pay           | 1   | 0.6  | 10          |
| The large number of chores, burdens, and household obligations | 10  | 5.9  | 6           |
|                                                        | 170 | -    | -           |

*Table 17: The numerical and relative distribution of the economic problems facing the study sample.*

Fifth: The proposals of the study sample in case the monthly income is insufficient to cover the family’s obligations

The results of the study presented in table 18 refer to the numerical and relative distribution of the most important proposals of the study sample in case the monthly income is insufficient to cover the family's obligations, as it occupied "providing job opportunities for women" The first place, with a percentage of about 32.1% of the total responses of the study sample, came in the second place for "reducing commodity prices" by about 30.2% and in third place came "providing training programs or seminars for nutritional awareness for women in the village" with a rate of about 11.3%. It came in fourth place "raising government wages" by about 7.5%, followed by "providing pensions for non-employees and the handicapped" at a rate of about 5.7% and it came in sixth, seventh and eighth place "providing all goods in the village", "facilitating projects", "Commodity price control" by about 3.8% each and "providing a pension for rural women" came in the ninth and last place, with a rate of about 1.9% of the total responses of the study sample [6].

*Citation: Doaa Fathy Khalil Abd ElkhAlekJ., et al. “Rural Women’s Contribution in Food Availability: A Case Study in Kafr Tesfa Village, Qalubia Governorate”. EC Agriculture 7.3 (2021): 21-41.*
Table 18: The numerical and relative distribution of the study sample proposals in case the monthly income is insufficient to cover the family’s obligations.

| The proposals                                                                 | No. | %   | Arrangement |
|--------------------------------------------------------------------------------|-----|-----|-------------|
| Provide job opportunities for women                                           | 17  | 32.1| 1           |
| Reducing commodity prices                                                      | 16  | 30.2| 2           |
| Providing all goods in the village                                            | 2   | 3.8 | 7           |
| Providing training programs or seminars for nutritional education for women in | 6   | 11.3| 3           |
| the village                                                                  |     |     |             |
| Facilitate projects                                                           | 2   | 3.8 | 7           |
| Control over commodity prices                                                 | 2   | 3.8 | 7           |
| Providing pensions for non-employees and the disabled                         | 3   | 5.7 | 5           |
| Raise government wages                                                         | 4   | 7.5 | 4           |
| Providing a pension for rural women                                           | 1   | 1.9 | 9           |
| Total                                                                        | 53  | 100 | Total       |

Conclusion

Rural women in Egypt contribute to achieving food security in its various axes, especially the axis of access to and provision of food for the family, through their main contribution to agricultural production in its two parts, plant, animal and poultry and in home gardens and despite this contribution, there is neglect and lack of appreciation of the role of rural women. Considering that what it makes in terms of its contribution to achieving food security and the multiple roles in agriculture is nothing but an extension of the service system in the house that is not paid in cash. And the provision of food through practical study and identifying the nature of the relationship between the degree of rural women’s participation in providing food and the socio-economic level of the family; as it became clear through this study that the most important variables that affect the degree of rural women’s participation in the availability and provision of food were social status and the ownership of machines. Agricultural, sources for nutritional information and access to a pension.

The study referred to some recommendations that would improve the contribution of rural women in providing food for them and their families throughout the year and thus achieving food security and meeting their important roles with the necessary appreciation and attention, by finding bodies concerned with the rights of rural women in cooperation with the local community, governmental and civil institutions. It is concerned with organizing the agricultural work of women and ensuring their right to receive a wage commensurate with their exerted effort. It is also concerned with finding appropriate marketing channels and securing the necessary facilities to help rural women in marketing their produce.

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Citation: Doaa Fathy Khalil Abd ElkhAleak, et al. “Rural Women’s Contribution in Food Availability: A Case Study in Kafr Tesfa Village, Qalubia Governorate”. EC Agriculture 7.3 (2021): 21-41.