| Journal of Research a<br>Volume 12, No. 2, Spring 2023 |                 |
|--|-----------------|
| eISSN: 2783-2007                                       | ISSN: 2783-2791 |
| Original Article                                       |                 |

# Studying the Effects of Women empowerment on the Evolution of Human Settlements (Case Study: RFLDL Project Settlements in Sarayan County)

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#### Abstract

**Purpose-** How to move toward community empowerment is one of the most crucial challenges in local and regional development programs. This is essential for the role of women in measures and programs for sustainable development that is founded on environmental activities. One of the South Khorasan province's local development measures is the RFLDL project in Sarayan county, and one of its selected techniques for achieving the project's main objectives is the local women empowerment. This study aims to evaluate the geographical and spatial aspects of the effects of women empowerment in the implementation area of the RFLDL project in Sarayan county .

**Design/methodology/approach-** The current research is practical in terms of purpose and descriptive-analytical in terms of nature and method. Among the households whose women participated in the RFLDL project, 273 women was determined using Cochran's formula.

**Findings**- The findings demonstrated that local women empowerment has increased greatly over the past ten years as a result of implementing the RFLDL project in the studied area. Women empowerment has resulted in improving the economic environment of human settlements and increasing the income of residents through the creation of small and home-based employment. In addition, self-confidence has improved, self-esteem has developed, and group participation has been promoted. The settlements are changing more and more in terms of ecology. Additionally, the development of human settlement ties and the strengthening of spatial links have benefited greatly from women empowerment.

**Research limitations/implications-** The spread of the Coronavirus complicated efforts to collect data in the studied villages and significantly decelerated the article's production. Accordingly, surveys and interviews were conducted online to lessen the negative effects of this constraint.

**Practical implications-** The development of human settlements and their transformations are significantly accelerated by women empowerment through spatial dynamism .

**Originality** / value- The findings of the research are mentioned in this article, and according to the guidelines, the sources used, such as theses, articles and books all are cited. The use of traditional statistical indicators and the investigated villages within the RFLDL project's purview in Sarayan county provide the value and originality of this research. **Keywords**- Sustainable development, Empowerment, Women, Spatial developments, RFLDL international project.

| Use your device to scan<br>and read the article<br>online | How to cite this article:   | Date:  |
|---|---|--|
|   | Sudying the chects of women empowerment on the evolution of numan | Received: 22-01-2023<br>Revised: 13-01-2023<br>Accepted: 03-05- 2023<br>Available Online: 03-05-2023 |

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# 1. Introduction

umans are the most crucial component of development, and women represent half of all human resources in any society. Therefore, fundamental planning for them should be the pillars of any society, especially considering this population, whether as a service provider or even a consumer, which plays an essential role in the development balance. Future generations are nurtured and created by women. They are valuable perspective human resources for national socioeconomic and cultural growth, thereby it is crucial to pay close attention to how their skills are developing (Taleghani et al., 2009: Nejati Aji Bisheh & Jamali, 2007). A common belief is that women give birth and are causes of fertility, and they are mothers of humans and the earth. The form and structure of the plates from the earliest agricultural period demonstrate the center and main character of a woman, which is a reflection of her real and potential talents in gathering, cultivating, guarding, feeding, and giving life. These works serve as an analogy for the nature, social standing, and skills of women (Lahiji & Kar, 2011). In 1980s and 1990s, hunger increased as a result of the expansion of economic gaps between developed industrial nations and developing and underdeveloped ones, as well as the widening of class divisions within the mentioned societies. At this time, attention was focused for the first time on women's labor and their potential to generate income. The inclusion of gender issues in the development process has prompted consideration of some principles, including welfare, equality, eradication of poverty, efficiency, and women empowerment. Role distinctions, social expectations for men and women, and gender structures have also been considered. As a result, as strong evidence can be observed throughout the world, it is essential to elevate women and increase their participation in the development, planning, and implementation of fundamental measures (Alwani & Zarghami Fard, 2010).

Women make up a large part of the population in smaller communities, especially rural villages. As a result, this aspect of human resources is always crucial for reaching development objectives. Although women play an important role in development, their degree of access to facilities is at the minimum level. It is claimed that economic, social, cultural, and ecological conditions have a greater impact on local and rural women than they do on male society. When the effect of their roles is considered on a global scale, a trend toward encouraging local women to participate in development can be observed since 1970s. To encourage women to participate in the development, it is necessary to find effective ways to enhance their sense of self-esteem (Bouzarjemehri and Naibzadeh, 2018). Women should play a large role in local and rural communities, not only in the home economy, which is planned primarily within its framework, but also in the economic, cultural, social, and political spheres. Undoubtedly, without the participation of rural women, it is often difficult for various economic and productive activities to continue in the village, or at the very least, it would face some significant problems. Therefore, women's roles in development should receive special attention so that they recognize their importance and effectiveness, their various educational demands and technical gaps, and the need to make an effort to improve and empower themselves. As stipulated in World Conference on "Agrarian Reforms and Rural Development" (1979), rural women should equally participate in the rural development process. The conference's formal stances were focused on issues like equality in the legal system, access to rural resources and services, equality of opportunity in school and work, obtaining data on rural women, and supporting organizations. The fundamental objective of this measure was to assist rural women in their role as "producers" and to give them optimal access to resources for production, particularly technology that can minimize their suffering, and workloads that women must burden while also increasing their productivity. While some philosophers relate empowerment to more participation, others see it as one of its enabling aspects. People should evolve to the point where they are capable of making decisions based on their preferences as part of the empowerment process (Shadi Talab, 2011).

The adoption of participatory approaches is one of the most effective ways to promote the empowerment of local and rural women. The international project called "The Rehabilitation of Forest Landscapes and Degraded Land (RFLDL)" in Sarayan county is a significant and worthwhile experience in the nation because of the indispensable role that women play in the development process and the need to strengthen their participation in resolving spatial (settlement) issues of development in various economic, social, cultural, and environmental dimensions. It aims to



combine empowerment strategies with the utilization of women's power to make the areas desert greening, save natural resources, and support family economies under the supervision of national and international organizations. As argued by the systemic thinking that every change and transformation in one area of the social space causes changes in other areas of the system, a fundamental question rises here as how women empowerment (as a part of human society) affects the settlement scale (macro system)? The answer to the above question can aid in providing a more logical explanation of the effects and results of women empowerment in the local society. Moreover, it increases knowledge of the factors affecting the system of changes and transformations in human settlements. For this purpose, this study aims to investigate the knowledge and analysis of the spatial aspects of the effects of empowering rural women in the implementation area of RFLDL project in Sarayan County (containing the Sehgaleh city and Zanagu, Doust Abad, and Bostaq villages).

# 2. Research Theoretical Literature

To address current development concerns such as resource distribution, poverty. unequal and environmental deterioration, regional and local development studies and the integration of microlevel research in particular locations with macroprojects in the economy and society are required. That is, understanding these demands is important since many planning issues are the result of improper usage of the notion of space. Integrating and focusing on space and place with established standards necessitates meeting these needs. Space and the body are traditionally viewed as unacceptably different from other facets of life and growth. In other words, the relationship between space and social, political, and economic power is not considered, and spatial structure is provided without considering social relations. Such a viewpoint serves to reflect and mold certain notions about how the world is or ought to be. According to this perspective, the regions are appropriate for case studies that focus on the social development process. Communities and societies are defined as areas of land where social identity is linked to land continuity. According to this paradigm, a new area of study known as "location studies" has emerged in the fields of geography and its surrounding disciplines in recent years as a result of the growing interest in the role of space and place in development (Eftekhari et al., 2011). Regarding the development of villages, it should be mentioned that

planning needs to give a multidimensional image of the studied area in sustainable development approach. To plan for the sustainable development of rural areas, it is crucial to connect the dimensions of sustainability, particularly in social, institutional, economic, and environmental areas. In essence, the body of rural settlements is considered the foundation for these areas' economic and social performances. Therefore, the first stage in enhancing settlement performance is physical organization and transformation (Rezvani, 2014). Planning for physical growth is a reflection of social life's progress and is considered an endeavor to give direction to the evolution of the environment of human life. The physical structure of rural regions has a major impact on how settlements develop physically. Then, it relates to subjects and elements like land usage, communication and transportation, infrastructural facilities and equipment, housing, employment, recreation, tourism, and general welfare that the villages cannot supply independently. In physical development, social processes are attempted to be guided by the physical program. As a result, social campaigns may be directed by making better use of natural world and space for human existence. Therefore, both the components of space and society are tied to physical development. Planning physical development in rural areas is thus an effort to find the most advantageous level of compatibility between space and society for society's benefit (Pourtaheri et al., 2010).

One of the transformational actions at the core of society is "empowerment and expansion of power" among the core components of society (men and women). The process through which people, communities, and organizations take charge of the difficulties and problems they encounter is known as empowerment. It is intended to do these things to assist weak people to strive to overcome their weaknesses, enhance the positive aspects of their lives, and develop their skills and abilities for smart control over life (McWhirter, 1994). Briefly, empowerment refers to a person's capacity to manage and control their own life. They must organize themselves for this shift. The ability to self-organize is a sign of competence. People identify their difficulties and problems, set objectives for themselves, develop a plan of action, gather resources, and begin to take action. The consequences of this action are reflected in this activity (Rappaport, 1985). By enhancing women's self-confidence, empowerment enables them to freely defend their <u>YININ</u>

rights and exercise control over resources. Women learn to recognize their inner desires and needs during this process, and they develop the skills needed to carry out their desires (Shakuri, et al, 2007; Mardani, 2009; Sivayojanathan, 2003). The process of women empowerment involves empowering them to change the systems and beliefs that have put them in a position of inferiority (dependence). Women feel more independent, self-assured, and in command of their lives thanks to this procedure, which also helps them obtain more resources and control over their life. It also enhances their self-esteem and selfimage (Ugbomeh, 2001). Government must provide grounds for Women empowerment to support knowledge-based economic development and progress.

The ideas describing how women contribute to development has been the feminist approach, particularly the discoveries of scholars like Boserup. Reportedly, lack of attention to the topic of gender and the growth of gender inequality (gap), which is also a result of the presence of gender discrimination in society, has been one of the primary causes of failure of development programs and even their oppositive results (Lange, 1993). It is easy to comprehend the three opposing ideas of "integration," "marginalization," and "exploitation" from the perspective of feminists like Tiano who attempts to explain the consequences of economic and social progress on women's living conditions. According to proponents of the "integration" hypothesis, development is defined as a growth in women's participation in socioeconomic issues, which leads to their liberation and a narrowing of the gender gap. According to the "marginalization" theory, a capitalist approach to development prohibits women from working in the production and economy and confines them to the household, which places them in financial dependence and restricts their access to material resources. In addition, according to the "exploitation" hypothesis, the modernization of society makes women involved into cheap labor since they are treated as inferior to males in industrial production units, which exposes them to exploitation (Abbott & Wallace, 2011). Buvinic claims that the aforementioned tactics have not yet had a positive impact on women's affairs while criticizing the development strategy and the methods used to implement it. The distribution of resources and advantages from the development process for women

will also expand as a result of taking into account a portion of women in employment and the labor market to address this challenge. In this situation, socioeconomic development will be accompanied by the emergence of equality (Moser, 1993). The women participation in the phases and measurements of development, as well as its outcomes and advantages, should be well considered to actualize development, especially the ones that are acceptable to both groups. The physical development of human settlements with a sustainable approach necessitates planning attention in the two dimensions of space and society, as can be from the presented theoretical seen perspectives (Figure 1). The central position of society and people as the primary participants in spatial arenas suggests a twofold focus on the core components of society, i.e. women and men. If they have enough strength and power, they can start changes and spatial transformations. As a result, every change in the social impact of society has the potential to specifically affect spatial and residential development. One of the key elements in the reconstruction and transformation of rural (and even urban) communities' sustainable development aspects is women empowerment.

The position of women and the type of their participation is one of the significant crietrion for measuring development in any country, and women empowerment is considered as a development objective. Few studies have been conducted to fully grasp the spatial implications of the "Women empowerment method" in human settlements. Also, the majority of the limited studies have focused on the examination and justification of how participation. local empowerment, and rural Women empowerment contribute to the advancement of plans and measures, some of which are briefly listed below. Therefore, the analysis of the results and spatial impacts of empowering women in the development of their settlements distinguishes the current research from earlier studies (Table 1).

Researchers

et al

al

P.A., et. al

Year

**Table 1. Literature review** 

**Results summary** 



#### The carbon sequestration project has been effective in enhancing rural women's cultural, social, and Fallsoleyman economic emancipation, and the level of women's awareness, income, variety of job activities, 2011 financial independence, greater participation in decisions, and change of their attitude to the project activity, has been more satisfied with an ascending trend. Group techniques, such as holding educational workshops on the processing of agricultural Chermchian commodities, were the most effective way to offer extension-educational services to rural women in Langroudi 2013 Sari County. Lack of trust among women was the biggest barrier to the psychological empowerment and Ali Beigi of rural women in Sari County, and providing loans and credit to these women was the most crucial remedy. The findings indicated that participation in economic activities, as well as individual and social variables, are the most significant elements influencing rural women empowerment. Additionally, Ghanbari and 2015 obstacles to empowerment are positively and significantly correlated with the features such as a lack Ansari of career prospects, poor level of education, the presence of familial biases, and lack of legal assistance and communication networks. The assumptions of equality, fairness in consequences or opportunities, equality of education, the assumption that women work, and that men are the primary providers of income, and the equality of Khairdoust employment between men and women in the definition of this index have been identified and Langroudi et 2019 examined in this article. The women empowerment index is based on Amartya Kumar Sen's theory of capacities and agency as well as feminist economics, which is one of the study's most significant findings. According to the findings of Friedman's test, economic considerations such as lack of employment, income, available land, enough assurance for purchasing goods, and insurance issues were ranked first with an average score of 2.3, followed by cultural and social variables such as those that attract people to the county, youth issues with family and the rural environment, the presence of relatives in the 2021 Taklou et al county, marriage, and the rapid increase of the village population with an average rating of 2.08. Finally, service and infrastructure factors with an average rating of 1.63, such as the lack of educational, medical, recreational, and construction facilities, have been effective in the third stage of

generating the issue of human resources in rural regions. The findings demonstrated that in the development of a creative village, the criteria of promotion and education have the most effectiveness, while risk-taking has the greatest impressionability. 2021 Jahantigh et al Considering the results of the geographical study of the influence of creative village indicators, six villages have a good condition, eleven villages have an average condition, and three villages have a low status. Six indicators—contribution to family income, possession of assets, access to resources, participation

|                     |      | six indicators—contribution to family income, possession of assets, access to resources, participation    |
|---------------------|------|---|
| Parveen&            | 2004 | in family decision-making, perception of gender awareness, and tolerance for family issues-have           |
| Leonhauser          | 2004 | been used to examine the empowerment of rural women. According to the findings, compared to               |
|                     |      | other features, rural women are less capable of participating in the economy and property ownership.      |
|                     |      | They discovered that to empower and promote rural women, there should be some supports for the            |
| Sanayang & chi Hang |      | women's groups in the villages, and one of the most effective methods for doing this is through the       |
|                     | 2009 | establishment of these groups' organizations and the use of microcredits. In this regard, the Social and  |
|                     |      | Economic Commission of the United Nations (ESCAP) has noted that by offering microcredits, it is          |
|                     | 2008 | possible to achieve significant objectives like creating employment, self-employment, increasing self-    |
|                     |      | reliance, earning income, reducing poverty, socioeconomic development, promoting self-esteem, and         |
|                     |      | improving the health and nutritional status as well as the level of literacy of underprivileged people,   |
|                     |      | women, and children.  |
|                     |      | The signs of rural women empowerment include increased empowerment in income and economic                 |
|                     |      | issues, living standards, high self-confidence, increased awareness, a sense of success, increased social |
| Sathiabama          | 2010 | interaction, participation in political activities, an increase in participation level, an improvement in |
| Samabana            | 2010 | leadership quality, participation in problem-solving related to women and society, and an increase in a   |

Enhancing local capacity will increase local engagement, promote literacy and awareness, improve Lima-2012 Constantino, people's income and standard of living, and market the goods made in the target villages.

decision-making capacity in the family and society.



## **3. Research Methodology 3.1 Geographical Scope of the Research**

The settlements where the RFLDL project was performed, including one city (Sehqaleh city) and three villages, (Zanagu, Doust Abad, and Bostaq villages) were part of the study area in Sarayan county (Figure 1). In their capacity as representatives of the government of the Islamic Republic of Iran, Global Environment Facilities (GEF), the Food and Agriculture Organization of the United Nations (FAO), and the National Forests, Ranges and Watershed Organization (FRWO) are collaborating on the international project for the restoration of forest and degraded lands with a focus on lands sensitive to wind erosion and saline soils (RFLDL). In addition, it supports the national measures to create and implement sustainable development methods in the arid and semi-arid regions through the execution of long-term, inclusive watershed management plans. This project was supposed to last for 5 years (2011-16) and help restore land in arid and semi-arid areas and so help people live in a sustainable way, have food security, keep biodiversity, and prevent desertification. It has been implemented since December 2010 in two pilot projects, Sarayan and Regan, in the provinces of South Khorasan and Kerman, respectively, with a total area of 462,068 hectares. Due to its success over the previous five years, the project has been extended for an additional four years to the end of June 2020. With a total size of 163,568 hectares, the Sarayan watershed was divided into two phases, the first of which was 51,229 hectares under the Sehgaleh (Hembo) watershed (General Administration of Natural Resources of South Khorasan Province, 2019).

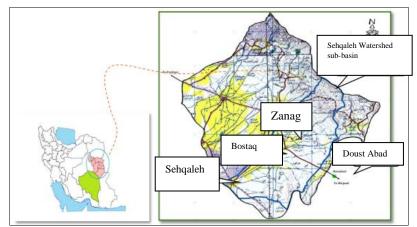


Figure 1. Location of the study area

# 3.2. Methodology

The current research was practical in terms of purpose and descriptive-analytical in terms of nature and method. The data was collected through the use of surveys and library studies (document reviews), and a researcher-made questionnaire was the instrument utilized to explore the survey in the studied area. Experts in rural geography and sociology from Birjand University evaluated and verified the questionnaire's validity, and a pre-test (the completion of 30 questionnaires) and Cronbach's alpha (with a value over 70%) were used to determine the questionnaire's reliability. The housewives (15–64 years old) who participated in the global RFLDL experiment made up the research

population. The city of "Sehqaleh" and the villages of "Doust Abad," "Zanagu," and "Bostaq" with 1959 households (as of the 2015 census) make up the examined settlements. The most recent statistics show that 939 households have participated in the project. Random-stratified probabilistic sampling has been used to determine the size of the study sample among the households. A sample size of 273 women was acquired at the level of each household following the pretest and the application of Cochran's method to estimate the variance of the community feature. Table 2 displays the spatial distribution of the sample size.

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## N(t⋅s)<sup>2</sup>

 $n^{=} \overline{Nd^2 + (t \cdot s)^2}$ 

$$n = \frac{939(1/96 \times 0/5)}{939 \times (0/05)^2 + (1/96 \times 0/5)^2} = 273$$

$$N=statistical population$$
  
 $t^2 = Confidence level of sample estimation at 1.96$ 

*D*= *Probable accuracy* 

*S*=*variance* 

n = sample size

| Tab | le 2 | . S | pa | tial | distr | ibution | of the sa | mple size bas | sed on t | the hous | eholds | tha | t pa | rticij | pate | ed in | the | pro | ject |
|-----|------|-----|----|------|-------|---------|-----------|---------------|----------|----------|--------|-----|------|--------|------|-------|-----|-----|------|
|     | 5    |     | -  |      |       |         |           | (0.0.1.5)     |          |          |        |     |      |        |      | 2     | -   |     |      |

|            | Studied settlement   Total household consensus (2015)   7 |      | Total households participated in the project | Sample size |
|------------|---|------|--|-------------|
| Doust Abad |   | 494  | 236  | 69          |
|            | Bostaq  | 263  | 126  | 37          |
|            | Zanagu  | 182  | 87   | 25          |
|            | Sehqaleh  | 1020 | 490  | 142         |
|            | Total   | 1959 | 939  | 273         |

A database was first made in the SPSS software and used to evaluate the data collected from the analyzed samples. Subsequently, a summary of the data status has been presented using descriptive statistics. Then, the normality of the data distribution was checked by performing the Kolmogorov-Smirnov test, as a result of which it was determined that the binomial non-parametric test should be used to infer the effects of women empowerment measures in the three dimensions of rural spaces (social, economic and biological). environment) be used.

# 4. Research Findings

Examining any subject in the area of social studies requires considering the unique traits of the respondents. To better understand the investigated women, four key factors were examined, including marital status, education level, employment status, and primary household occupation. The results of the study indicate that 81.7% of the subjects were married, and 18.3% were single (Table 3).

| Table 3. Frequency distribution of the studied subjects in terms of their man |
|---|
|---|

| Marital status | Frequency | Percentage |
|----------------|-----------|------------|
| Single         | 51        | 18.3       |
| Married        | 227       | 81.7       |
| Total          | 278       | 100        |

Women's education levels were examined, and 4.3% of them were illiterate, 16.6% had completed elementary school, 18.1% had a middle

school diploma, 39.4% had a diploma, and 21.7% had an associate degree or higher (Table 4).

| Education level            | Frequency | Percentage |
|----------------------------|-----------|------------|
| Illiterate                 | 12        | 4.3        |
| Elementary school          | 46        | 16.5       |
| Middle school diploma      | 50        | 18         |
| Diploma                    | 109       | 39.2       |
| Associate degree or higher | 60        | 21.6       |
| Not answered               | 1         | 0.4        |
| Total                      | 278       | 100        |

Considering the frequency distribution of the studied women in Sarayan county based on their

employment status, 69.9% were employed and 30.1% were unemployed (Table 5).

| Table 5. Frequency | distribution of the stud | ied people in | terms of their | employment status |
|--------------------|--------------------------|---------------|----------------|-------------------|
|                    | Employment status        | Frequency     | Percentage     |                   |

| Employment status | Frequency | Percentage |
|-------------------|-----------|------------|
| Employed          | 188       | 67.6       |
| Unemployed        | 81        | 29.1       |
| Total             | 269       | 96.8       |
| Not answered      | 9         | 3.2        |
| Total             | 278       | 100        |

The findings revealed that 19.8% of the women were household heads, 14.8% worked in agriculture, 4.9% were involved in horticulture, 15.2% worked as workers, 13.6% were employees, and 31.7% worked in other occupations (Table 6).

| Table 6. Frequency distribution of the studied | neonle in terms of the type | of main household occupation |
|--|-----------------------------|------------------------------|
| Tuble 0. Frequency distribution of the studied | people in terms of the type | of main nousenoid occupation |

| Type of job      | Frequency | Percentage |
|------------------|-----------|------------|
| Animal husbandry | 48        | 17.3       |
| Agriculture      | 36        | 12.9       |
| Gardening        | 12        | 4.3        |
| Worker man       | 37        | 13.3       |
| Employee         | 33        | 11.9       |
| Others           | 77        | 27.7       |
| Not answered     | 35        | 12.6       |
| Total            | 278       | 100        |

The Kolmogorov-Smirnov test was used to determine the normality of data distribution. The assumption of normality of data distribution was rejected based on test findings (Table 7). Therefore, a non-parametric test was used in the inferential analysis of the data.

| Data Domain                                     | Test statistics value | p-value |
|---|-----------------------|---------|
| Economic impacts of empowering measures         | 0.151                 | 0.000   |
| Social impacts of empowering measures           | 0.148                 | 0.000   |
| Environmental impacts of empowering measures    | 0.158                 | 0.000   |
| Impacts of empowering measures on spatial links | 0.174                 | 0.000   |

The study variables' data (Table 7) do not follow a normal distribution, hence the binomial test was used for the inferential analysis of these variables. The following are the  $H_0$  and  $H_1$  hypotheses for this test:

$$H_0: P = 0.5$$

$$H_1: P \neq 0.5$$

The data were divided into two groups: answers with no impact and answers with low impact were classified in the first group, and answers with moderate impact, high impact, and very high impact were classified in the second group. Considering the null hypothesis in this test, the ratio of responses from the two groups was equal. This hypothesis was rejected and the alternative hypothesis was accepted if the test's sig value was less than 0.05.

The findings of the binomial non-parametric test on the economic impacts of women empowerment measures in the studied settlements revealed that except for the cases of "Purchasing power of luxury goods", "Purchasing power of housing", "Purchasing power of vehicles", "Purchasing power of agricultural and garden land and water" where the ratio of answers is equal in both groups, the sig value of the test in the other cases is less than 0.05. Therefore, the ratio of the observed responses in the two groups is not equal. The survey respondents believed that empowering measures had significant economic benefits in



both situations since there were fewer responses in the first group than in the second group, as proved by the number of responses in the two categories.

According to the last line of Table (8), the null hypothesis is often rejected when the magnitude of the economic consequences of empowering measures is considered since the sig value of the test is less than 0.05. Because the ratio of responses in the two groups is not equal and the number of responses in the two groups indicates that the first group's number of responses was lower than the second group's, empowering measures have generally had significant economic benefits.

| Table 8. The results of              |              | Number of observed | Rate of observed | Test  | Significa |       |
|--------------------------------------|--------------|--------------------|------------------|-------|-----------|-------|
| Economic indicators                  | Group        | responses          | responses        | ratio | nce level | sig   |
|                                      | First group  | 27                 | 251              | 0.7   | 0.07      | 0.000 |
| Level of monthly income              | Second group | 0.10               | 0.90             | 0.5   | 0.05      | 0.000 |
|                                      | First group  | 39                 | 238              | 0.7   | 0.05      | 0.000 |
| Level of monthly savings             | Second group | 0.14               | 0.86             | 0.5   |           | 0.000 |
| Household appliances                 | First group  | 98                 | 179              | 0.7   | 0.07      | 0.000 |
| purchasing power                     | Second group | 0.35               | 0.65             | 0.5   | 0.05      | 0.000 |
| Agricultural and garden land         | First group  | 132                | 145              | 0.5   | 0.05      | 0.471 |
| and water purchasing power           | Second group | 0.48               | 0.52             | 0.5   | 0.05      | 0.471 |
| Hanning much soin a manual           | First group  | 140                | 138              | 0.5   | 0.05      | 0.052 |
| Housing purchasing power             | Second group | 0.50               | 0.50             | 0.5   | 0.05      | 0.952 |
| Financial potential to perform       | First group  | 108                | 169              | 0.5   | 0.05      | 0.000 |
| major housing repairs                | Second group | 0.39               | 0.61             | 0.5   | 0.05      | 0.000 |
| Entrepreneurship generating          | First group  | 33                 | 244              | 0.5   | 0.05      | 0.000 |
| power                                | Second group | 0.12               | 0.88             | 0.5   |           | 0.000 |
| Possibility of processing            | First group  | 39                 | 237              | 0.5   | 0.05      | 0.000 |
| agricultural products                | Second group | 0.14               | 0.86             | 0.5   |           | 0.000 |
| Ability to calculate profit and      | First group  | 44                 | 233              | 0.5   | 0.05      | 0.000 |
| cost of economic activities          | Second group | 0.16               | 0.84             | 0.5   |           |       |
| Consumer goods purchasing            | First group  | 41                 | 237              | 0.5   | 0.05      | 0.000 |
| power                                | Second group | 0.15               | 0.85             | 0.5   |           | 0.000 |
| Vehicle purchasing power             | First group  | 130                | 148              | 0.5   | 0.05      | ٠/٣٠٨ |
| 1 01                                 | Second group | 0.47               | 0.53             | 0.5   | 0.05      |       |
| Luxurious goods purchasing           | First group  | 124                | 154              | 0.5   | 0.05      | ۰/۰۸۲ |
| power                                | Second group | 0.45               | 0.55             | 0.5   | 0.05      |       |
| Increasing investment power          | First group  | 52                 | 226              | 0.5   | 0.05      | 0.000 |
| increasing investment power          | Second group | 0.19               | 0.81             | 0.5   | 0.05      | 0.000 |
| Level of activity in the             | First group  | 28                 | 250              | 0.5   | 0.05      | 0.000 |
| handicraft sector                    | Second group | 0.10               | 0.90             | 0.5   | 0.05      | 0.000 |
| Level of activity in home jobs       | First group  | 28                 | 249              | 0.5   | 0.05      | 0.000 |
| Level of activity in nome jobs       | Second group | 0.10               | 0.90             | 0.5   | 0.05      | 0.000 |
| Job opportunities for family         | First group  | 24                 | 254              | 0.5   | 0.05      | 0.000 |
| members                              | Second group | 0.09               | 0.91             | 0.5   | 0.05      | 0.000 |
| Reducing the economic                | First group  | 26                 | 252              |       |           |       |
| poverty of the family in the village | Second group | 0.09               | 0.91             | 0.5   | 0.05      | 0.000 |
| Self-reliance and financial          | First group  | 23                 | 255              | 0.5   | 0.05      | 0.000 |
| independence                         | Second group | 0.08               | 0.092            | 0.5   | 0.05      | 0.000 |
| Economic effects of                  | First group  | 25                 | 253              | 0.5   | 0.05      | 0.000 |
| empowering measures                  | Second group | 0.09               | 0.91             | 0.5   | 0.05      | 0.000 |

| Table 8. The results of | the binomial te | st in examining the | economic impact of | empowering measures |
|-------------------------|-----------------|---------------------|--------------------|---------------------|
|                         |                 |                     |                    |                     |

The results of the binomial non-parametric test on the social effects of empowering measures in the investigated human settlements indicated that in all cases, since the test's sig value is less than



0.05, the ratio of responses in the two groups is unequal, and based on the number of responses in the two groups, the first group had fewer answers than the second. Therefore, the survey respondents believed that in these situations, empowering actions had significant social consequences.

According to the last line of the table, the null hypothesis is generally rejected when the number of social effects of empowering actions is considered since the sig value of the test is less than 0.05. As a result, the ratio of responses observed in the two groups is not equal, and based on the number of responses observed in the two groups, the first group's number of responses was lower than the second group's, indicating that empowering measures have high social effects (Table 9).

| Social indicators                          | Group        | Number of<br>observed<br>responses | Rate of<br>observed<br>responses | Test<br>ratio | Significance<br>level | sig   |       |
|--|--------------|------------------------------------|----------------------------------|---------------|-----------------------|-------|-------|
| Indexedence                                | First group  | 19                                 | 0.07                             | 0.5           | 0.05                  | 0.000 |       |
| Independence                               | Second group | 259                                | 0.93                             | 0.5           | 0.05                  | 0.000 |       |
| Spirit of self-confidence and              | First group  | 19                                 | 0.07                             | 0.5           | 0.05                  | 0.000 |       |
| self-belief                                | Second group | 259                                | 0.93                             | 0.5           | 0.05                  | 0.000 |       |
| Sminit of importation                      | First group  | 19                                 | 0.07                             | 0.5           | 0.05                  | 0.000 |       |
| Spirit of innovation                       | Second group | 258                                | 0.93                             | 0.5           | 0.05                  | 0.000 |       |
| Decision-making and planning               | First group  | 15                                 | 0.05                             | 0.5           | 0.05                  | 0.000 |       |
| power                                      | Second group | 262                                | 0.95                             | 0.5           | 0.05                  | 0.000 |       |
| Creativity and innovation                  | First group  | 21                                 | 0.08                             | 0.5           | 0.05                  | 0.000 |       |
| Creativity and Innovation                  | Second group | 257                                | 0.92                             | 0.5           | 0.05                  | 0.000 |       |
| A conviring logal norsenality              | First group  | 31                                 | 0.11                             | 0.5           | 0.05                  | 0.000 |       |
| Acquiring legal personality                | Second group | 243                                | 0.89                             | 0.5           | 0.05                  | 0.000 |       |
| Willingness to educate and                 | First group  | 23                                 | 0.08                             | 0.5           | 0.05                  | 0.000 |       |
| participate in the community               | Second group | 254                                | 0.92                             | 0.5           | 0.05                  | 0.000 |       |
| Salf control course shiliting              | First group  | 22                                 | 0.08                             | 0.5           | 0.05                  | 0.000 |       |
| Self-control over abilities                | Second group | 256                                | 0.92                             | 0.5           | 0.05                  |       |       |
| Having more time and                       | First group  | 25                                 | 0.09                             | 0.5           | 0.05                  | 0.000 |       |
| opportunity                                | Second group | 253                                | 0.91                             | 0.5           |                       |       |       |
| Fasimes in shilden's such in size          | First group  | 35                                 | 0.13                             | 0.5           | 0.05                  | 0.05  | 0.000 |
| Easiness in children's upbringing          | Second group | 243                                | 0.87                             | 0.5           | 0.05                  | 0.000 |       |
| Lunner lining on ditions                   | First group  | 20                                 | 0.07                             | 0.5           | 0.05                  | 0.000 |       |
| Improve living conditions                  | Second group | 258                                | 0.93                             | 0.5           | 0.05                  | 0.000 |       |
| Internet in a secolitary                   | First group  | 29                                 | 0.10                             | 0.5           | 0.05                  | 0.000 |       |
| Improving welfare                          | Second group | 248                                | 0.90                             | 0.5           | 0.05                  | 0.000 |       |
| D. L L                                     | First group  | 29                                 | 0.10                             | 0.5           | 0.05                  | 0.000 |       |
| Reduced emigration                         | Second group | 249                                | 0.90                             | 0.5           | 0.05                  | 0.000 |       |
| Creating the ground for                    | First group  | 13                                 | 0.05                             | 0.5           | 0.05                  | 0.000 |       |
| collective activity                        | Second group | 263                                | 0.95                             | 0.5           | 0.05                  | 0.000 |       |
| Control to a t                             | First group  | 16                                 | 0.06                             | 0.5           | 0.05                  | 0.000 |       |
| Social trust                               | Second group | 262                                | 0.94                             | 0.5           | 0.05                  | 0.000 |       |
| . 1 . 1. 1                                 | First group  | 26                                 | 0.09                             | 0.5           | 0.05                  | 0.000 |       |
| social solidarity                          | Second group | 251                                | 0.91                             | 0.5           | 0.05                  | 0.000 |       |
| Destational transmitted                    | First group  | 18                                 | 0.07                             | 0.5           | 0.05                  | 0.000 |       |
| Participating in activities                | Second group | 258                                | 0.93                             | 0.5           | 0.05                  | 0.000 |       |
| Luna di su Ci                              | First group  | 24                                 | 0.09                             | 0.5           | 0.05                  | 0.000 |       |
| Increasing profit                          | Second group | 254                                | 0.91                             | 0.5           | 0.05                  | 0.000 |       |
| Creating an exchange of ideas              | First group  | 18                                 | 0.07                             |               |                       |       |       |
| and cooperation to solve existing problems | Second group | 258                                | 0.93                             | 0.5           | 0.05                  | 0.000 |       |

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#### Studying the Effects of Women.../Fallsoleyman et al.



| Social indicators  | Group        | Number of<br>observed<br>responses | Rate of<br>observed<br>responses | Test<br>ratio | Significance<br>level | sig   |
|--|--------------|------------------------------------|----------------------------------|---------------|-----------------------|-------|
| Accessing to credits, market and   | First group  | 24                                 | 0.09                             | 0.5           | 0.05                  | 0.000 |
| decision-making authorities  | Second group | 254                                | 0.91                             | 0.5           | 0.03                  | 0.000 |
| Decreasing family biases and opposition of husbands to fathers             | First group  | 38                                 | 0.14                             | 0.5           | 0.05                  | 0.000 |
| with the presence of women in social and economic activities               | Second group | 240                                | 0.86                             | 0.5           | 0.05                  | 0.000 |
| Reducing the negative attitude   | First group  | 33                                 | 0.12                             | 0.5           | 0.05                  | 0.000 |
| toward women's ability   | Second group | 254                                | 0.88                             | 0.5           | 0.03                  | 0.000 |
| Reducing gender discriminations  | First group  | 34                                 | 0.12                             | 0.5           | 0.05                  | 0.000 |
| Reducing gender discriminations  | Second group | 244                                | 0.88                             | 0.5           | 0.03                  | 0.000 |
| Eliminating patriarchy and not   | First group  | 37                                 | 0.13                             |               | 0.05                  | 0.000 |
| allowing women to participate in group activities                          | Second group | 241                                | 0.87                             | 0.5           |                       |       |
| Increasing scientific and  | First group  | 17                                 | 0.06                             |               |                       |       |
| practical information,<br>knowledge, and awareness                         | Second group | 261                                | 0.94                             | 0.5           | 0.05                  | 0.000 |
| Interest in training rural and   | First group  | 17                                 | 0.06                             |               |                       |       |
| artistic industries through the project                                    | Second group | 261                                | 0.94                             | 0.5           | 0.05                  | 0.000 |
| Interest in teaching agriculture,  | First group  | 26                                 | 0.09                             |               |                       |       |
| horticulture, and animal<br>husbandry through the project                  | Second group | 252                                | 0.91                             | 0.5           | 0.05                  | 0.000 |
| Interest in teaching   | First group  | 37                                 | 0.13                             |               |                       |       |
| transformation and processing of<br>agricultural and livestock<br>products | Second group | 241                                | 0.87                             | 0.5           | 0.05                  | 0.000 |
| Interest in teaching   | First group  | 56                                 | 0.20                             |               |                       |       |
| housekeeping, health, and family planning                                  | Second group | 222                                | 0.80                             | 0.5           | 0.05                  | 0.000 |
| Individual and social effects of   | First group  | 10                                 | 0.04                             | 0.5           | 0.05                  | 0.000 |
| empowering actions   | Second group | 268                                | 0.96                             | 0.5           | 0.05                  | 0.000 |

The analysis of the environmental impacts of women's empowering measures in the research region demonstrated that in all the cases examined in this table, it is decided that the ratio of the answers in the two groups is not equal since the sig value of the test is less than 0.05. The first group had fewer responses than the second one based on the number of answers in the two groups. Therefore, the survey respondents believed that in these situations, empowering measures had a great impact on the environment. Considering the last line of the table, since the sig value of the test is less than 0.05, the null hypothesis is generally rejected when the extent of the environmental impacts of empowering measures is considered. Given the number of responses in the two groups, the first group had fewer responses than the second one since the ratio of responses observed in the two groups is not equal. Therefore, empowering actions generally have strong environmental consequences (Table 10).

| <b>Environmental impacts</b>                             | Group        | Number of<br>observed<br>responses | Rate of<br>observed<br>responses | Test<br>ratio | Significance level | sig   |
|--|--------------|------------------------------------|----------------------------------|---------------|--------------------|-------|
| Increasing awareness and acquiring                       | First group  | 22                                 | 0.08                             | 0.5           | 0.05               | 0.000 |
| environmental skills                                     | Second group | 256                                | 0.92                             | 0.5           | 0.05               | 0.000 |
| Changing the traditional views to                        | First group  | 21                                 | 0.08                             |               |                    |       |
| scientific and technical ones in<br>environmental issues | Second group | 257                                | 0.92                             | 0.5           | 0.05               | 0.000 |

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| Environmental impactsUsefulness and efficiency of<br>environmental trainingAttention to preserving animal and<br>wild species of the environmentAttention to the values of herbaceous<br>species in the environment | Group<br>First group<br>Second group<br>First group<br>Second group | Number of<br>observed<br>responses<br>21<br>257 | Rate of<br>observed<br>responses<br>0.08 | Test<br>ratio | Significance level | sig   |       |
|---|---|---|--|---------------|--------------------|-------|-------|
| environmental trainingAttention to preserving animal and<br>wild species of the environmentAttention to the values of herbaceous<br>species in the environment  | Second group<br>First group   | 257   | 0.08                                     |               |                    |       |       |
| Attention to preserving animal and<br>wild species of the environment<br>Attention to the values of herbaceous<br>species in the environment  | First group   |   |  | 0.5           | 0.05               | 0.000 |       |
| wild species of the environment   Attention to the values of herbaceous   species in the environment  | U 1   | 21  | 0.92                                     | 0.5           |                    |       |       |
| Attention to the values of herbaceous species in the environment  | Second group  | 31  | 0.11                                     | 0.5           | 0.05               | 0.000 |       |
| species in the environment  |   | 247   | 0.89                                     | 0.5           |                    |       |       |
|   | First group   | 24  | 0.09                                     | 0.5           | 0.05               | 0.000 |       |
|   | Second group  | 254   | 0.91                                     | 0.5           | 0.05               | 0.000 |       |
| Using clean energy for heating and  | First group   | 20  | 0.07                                     | 0.5           | 0.05               | 0.000 |       |
| baking  | Second group  | 258   | 0.92                                     | 0.0           | 0.05               | 0.000 |       |
| Generating the capabilities needed to   | First group   | 22  | 0.08                                     | 0.5           | 0.05               | 0.000 |       |
| perform environmental activities  | Second group  | 256   | 0.92                                     | 0.0           | 0.00               | 0.000 |       |
| Reducing pulling out of bushes to   | First group   | 24  | 0.09                                     | 0.5           | 0.05               | 0.000 |       |
| meet various consumptions   | Second group  | 254   | 0.91                                     | 0.5           | 0.05               | 0.000 |       |
| Transferring new environmental  | First group   | 28  | 0.10                                     |               |                    |       |       |
| knowledge and experiences to family<br>members  | Second group  | 250   | 0.90                                     | 0.5           | 0.05               | 0.000 |       |
| Cooperating with and participating  | First group   | 21  | 0.08                                     |               |                    |       |       |
| with other rural women in performing<br>environmental activities  | Second group  | 257   | 0.92                                     | 0.5           | 0.05               | 0.000 |       |
| Supplying the local species' seeds for  | First group   | 34  | 0.12                                     | 0.5           | 0.05               | 0.000 |       |
| the project seedling  | Second group  | 244   | 0.88                                     | 0.5           |                    |       |       |
| Principle of becoming aware of  | First group   | 25  | 0.09                                     | 0.5           | 0.05               | 0.000 |       |
| pastures protection and maintenance   | Second group  | 253   | 0.91                                     | 0.5           |                    |       |       |
| Performing activities in the project for  | First group   | 28  | 0.10                                     | 0.5           | 0.05               | 0.000 |       |
| pruning and irrigating the seedling   | Second group  | 250   | 0.90                                     | 0.5           |                    |       |       |
| Collecting and separating garbage at  | First group   | 33  | 0.12                                     | 0.5           | 0.05               | 0.000 |       |
| the rural level   | Second group  | 245   | 0.88                                     | 0.5           |                    |       |       |
| Getting the potential required to continue pasture restoration-related  | First group   | 25  | 0.09                                     | 0.5           | 0.05               | 0.000 |       |
| activities at the time of project termination   | Second group  | 253   | 0.91                                     | 0.5           | 0.05               | 0.000 |       |
| Getting the potential required to train   | First group   | 28  | 0.10                                     | 0.5           | 0.05               | 0.000 |       |
| environmental issues to others  | Second group  | 250   | 0.90                                     | 0.5           | 0.05               |       |       |
| Reducing the number of livestock for  | First group   | 28  | 0.10                                     |               | 0.05               | 0.000 |       |
| preserving pasture given the project training   | Second group  | 250   | 0.90                                     | 0.5           |                    |       |       |
| Increasing the potential needed to  | First group   | 21  | 0.08                                     | 0.5           | 0.05               | 0.000 |       |
| plant pharmaceutical plants   | Second group  | 257   | 0.92                                     | 0.5           | 0.05               | 0.000 |       |
| Purchasing the facilities and tools   | First group   | 26  | 0.09                                     |               |                    |       |       |
| required for alternative firewood fuels<br>(gaseous oven, gas stove, etc.)  | Second group  | 252   | 0.91                                     | 0.5           | 0.05               | 0.000 |       |
| Increasing afforestation and making a   | First group   | 21  | 0.08                                     | 0.5           | 0.5                | 0.05  | 0.000 |
| flower bed around the settlement  | Second group  | 257   | 0.92                                     |               | 0.05               | 0.000 |       |
| Environmental impacts of  | First group   | 9   | 0.03                                     | 0.7           | 0.07               | 0.000 |       |
| empowering measures   | Second group  | 269   |  | 0.5           | 0.05               |       |       |

Since the test's sig value is less than 0.05, all the cases examined in this table demonstrate the influence of women empowerment measures on spatial connections. According to the response rate in the two groups, the first group had fewer responses than the second one based on the

assumption that the ratio of responses observed in the two groups is not equal. Therefore, the survey respondents believed that in these situations, empowering measures had a significant impact on spatial connections.



According to the last line of the table, the null hypothesis is often rejected when the effect of empowering measures on spatial connections is considered since the sig value of the test is less than 0.05. As a result, the ratio of responses in the

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two groups is not equal, and based on the number of responses in the two groups, the first group's response rate was lower than that of the second group. As a result, empowering measures have a high influence on spatial connections (Table 11).

| Table 11. The results of the binomial test in examining the impact of empowering measures on spatial |  |  |  |  |  |
|--|--|--|--|--|--|
| connections  |  |  |  |  |  |

| Spatial connections indicators   | Group        | Number of<br>observed<br>responses | Rate of observed responses | Test<br>ratio | Signific<br>ance<br>level | sig   |
|--|--------------|------------------------------------|----------------------------|---------------|---------------------------|-------|
| Level of project effectiveness on  | First group  | 32                                 | 0.12                       |               |                           |       |
| population relations with the center<br>of the village   | Second group | 246                                | 0.88                       | 0.5           | 0.05                      | 0.000 |
| Level of project effectiveness on  | First group  | 29                                 | 0.10                       |               | 1                         |       |
| population relations with the district center  | Second group | 249                                | 0.90                       | 0.5           | 0.05                      | 0.000 |
| Level of project effectiveness on  | First group  | 31                                 | 0.11                       |               |                           |       |
| population relations with the pre-<br>province center  | Second group | 247                                | 0.89                       | 0.5           | 0.05                      | 0.000 |
| Level of project effectiveness on  | First group  | 91                                 | 0.22                       |               |                           |       |
| population relations with the province center  | Second group | 217                                | 0.78                       | 0.5           | 0.05                      | 0.000 |
| Level of project effectiveness on  | First group  | 81                                 | 0.29                       |               |                           |       |
| population relations with the national center  | Second group | 197                                | 0.71                       | 0.5           | 0.05                      | 0.000 |
| The impact of the project on the   | First group  | 19                                 | 0.07                       |               |                           |       |
| marketing of village products in other settlements   | Second group | 259                                | 0.93                       | 0.5           | 0.05                      | 0.000 |
| The impact of the project on better  | First group  | 31                                 | 0.11                       | 0.5           | 0.05                      | 0.000 |
| supply of raw materials from other settlements   | Second group | 247                                | 0.89                       |               |                           |       |
| The impact of the project on the   | First group  | 15                                 | 0.05                       |               | 0.05                      | 0.000 |
| reputation of the village at the<br>district level   | Second group | 263                                | 0.95                       | 0.5           |                           |       |
| The impact of the project on   | First group  | 22                                 | 0.08                       | 0.5           | 0.05                      | 0.000 |
| migration from the village   | Second group | 256                                | 0.92                       | 0.5           |                           |       |
| The impact of the project on   | First group  | 28                                 | 0.10                       | 0.5           | 0.05                      | 0.000 |
| emigration from the village  | Second group | 250                                | 0.90                       | 0.5           |                           |       |
| The impact of the project on the   | First group  | 21                                 | 0.08                       | o <b>-</b>    | 0.05                      | 0.000 |
| presence of non-native teachers and facilitators   | Second group | 257                                | 0.92                       | 0.5           |                           | 0.000 |
| The impact of the project on the   |              | 23                                 | 0.08                       | 0.5           | 0.05                      | 0.000 |
| establishment of skill workshops by non-native people  | First group  | 255                                | 0.92                       |               |                           |       |
| Impressionability on the supply of   | First group  | 29                                 | 0.10                       | 0.5           | 0.05                      | 0.000 |
| manpower outside the village   | Second group | 249                                | 0.90                       | 0.0           | 0.05                      | 0.000 |
| The impact of the project on the   | First group  | 38                                 | 0.14                       |               | 0.05                      |       |
| investment of household financial<br>resources in the banking system in<br>the rural center    | Second group | 240                                | 0.86                       | 0.5           |                           | 0.000 |
| The impact of the project on the   | First group  | 37                                 | 0.13                       |               |                           | 1     |
| investment of household financial<br>resources in the banking system in<br>the district center | Second group | 241                                | 0.87                       | 0.5           | 0.05                      | 0.000 |
| The impact of the project on the   | First group  | 39                                 | 0.14                       | 0.5           | 0.05                      | 0.000 |

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| Spatial connections indicators   | Group        | Number of<br>observed<br>responses | Rate of observed responses | Test<br>ratio | Signific<br>ance<br>level | sig   |
|--|--------------|------------------------------------|----------------------------|---------------|---------------------------|-------|
| investment of household financial<br>resources in the banking system in<br>the pre-province center | Second group | 239                                | 0.86                       |               |                           |       |
| The impact of the project on the   | First group  | 42                                 | 0.15                       | 0.5           | 0.05                      | 0.000 |
| investment of household financial<br>resources in the banking system in<br>the province center     | Second group | 236                                | 0.85                       |               |                           |       |
| The impact of the project on group   | First group  | 35                                 | 0.13                       |               |                           |       |
| meetings in the market outside the village   | Second group | 243                                | 0.87                       | 0.5           | 0.05                      | 0.000 |
| The impact of the project on the   | First group  | 35                                 | 0.13                       |               |                           |       |
| financial and credit cooperation of<br>the market outside the village                              | Second group | 243                                | 0.87                       | 0.5           | 0.05                      | 0.000 |
| The impact of empowering   | First group  | 11                                 | 0.04                       | 0.5           | 0.05                      | 0.000 |
| measures on spatial connections  | Second group | 267                                | 0.96                       | 0.5           |                           | 0.000 |

# 5. Discussion and Conclusion

Social spaces change and evolve through spatial feedback. In addition to having an impact on human settlements and physical space, the empowerment of "women" as a fundamental transformation in a significant area of human civilization can also have such effects. In other words, empowerment is a multifaceted phenomenon that necessitates understanding and exposing all of its impacts, particularly in the context of the local women's community considering its close connection to development. As a result, an analysis of the role of women empowerment in the development of human settlements was made within the context of the RFLDL international people-oriented project in the Sarayan district. One of the project's fundamental strategies is the empowerment of local women, and some significant steps have been taken in this direction. Investigations revealed that local women have been empowered in the socioeconomic and environmental fields because of their interests and participation in group activities, their authenticity in social and economic activities, and the elimination and reduction of gender discrimination and negative attitudes toward women's abilities. One of the key factors in the success of the empowerment measures may be attributed to the relatively high literacy rate of the local women's community in the studied region. These results are consistent with those of Fallsoleyman et al. (2013) since innovation and self-reliance are more accepted in societies where levels of literacy are greater, and people are also more empowered and confident. Human settlements have undergone major changes in socioeconomic and

environmental dimensions as well as geographical connections as a result of the shift in the empowerment of local women within the context of the RFLDL project's implementation in the Sarayan district. These findings are consistent with those of Lima-Constantino et al. (2010) and Satyabama (2012). Generally, the women empowerment and the effects of this phenomenon on people and households (such as income growth, etc.) have been able to change the behavior of housewives. Some families have been given the chance to take unusual or unexpected measures (either updating tools or buying newly produced tools in the usual part of the household or daily life consumables). The range of social, economic, and geographical connections has grown as a result of the shift in how people and households consume. In the area of the environment, empowered women have played a major role in promoting and supporting the environment, which has affected how other settlers interact with nature and increased everyone's concern for preserving the natural environment. The development of human settlements and their transformations are significantly accelerated women empowerment bv through spatial dynamism. Moreover, the following is a list of possible policy suggestions:

- Inviting experienced consultants and trainers to provide women training;
- Incorporating participated and empowered women in the planning and decision-making processes for the settlement, including the guiding plan and the creation of the employment development document;



- Granting selected elite women genuine participation in Sarayan County's administrative council, employment working group, and planning committee;
- A commitment from organizations in charge of rural development (such as the governorate, district administration, department of agriculture, housing foundation, cooperative administration, and relief committee) to regularly meet with women involved in social and economic activities to hear their needs and

potential solutions, remove any barriers in their way, and obtain their approval before action.

#### Acknowledgments

This research did not receive any specific grant from funding agencies in the public, commercial, or notfor-profit sectors.

#### **Authors' contributions**

The authors equally contributed to the preparation of this article.

#### Conflict of interest

The author declares no conflict of interest.

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|                  | esearch and Ru<br>2, Spring 2023, Serial 1 | 0               | $\cap$ |
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| eISSN: 2783-2007 | http://jrrp.um.ac.ir                       | ISSN: 2783-2791 | JRRR   |
| Original Article |  |                 |        |

# اثرات توانمندسازی زنان بر تحولات سکونتگاههای انسانی (مطالعهی سکونتگاههای پروژه RFLDL در شهرستان سرایان)

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# چکیدہ مبسوط

#### ۱– مقدمه

از مهمترین مسائل در پروژههای توسعه محلی و منطقهای این است که چگونه میتوان در جهت توانمندسازی جامعه گام برداشت. این مهم بالاخص در مورد جایگاه زنان در برنامه های توسعه پایدار و پروژه هایی که بر مبنای فعالیت های زیست محیطی آغاز می شود، اهمیت ویژه ای دارد. پروژه LFLDL در شهرستان سرایان از پروژه های توسعه محلی استان خراسان جنوبی است که یکی از راهبردهای اتخاذی آن در جهت نائل آمدن به اهداف کلان پروژه، توانمندسازی زنان محلی بوده است. این تحقیق به دنبال واکوی و تحلیل ابعاد مکانی و فضایی اثرات توانمندسازی زنان در ناحیهی اجرای پروژه MFLDL در شهرستان سرایان بوده است.

# ۲- مبانی نظری

در بطن جامعه، از اقدامات دگر گونساز «توانمندسازی و رشد قدرت» در بین عناصر بنیادین جامعه (مردان و زنان) است. توانمندسازی به عنوان فرآیندی تعریف میشود که در آن افراد، گروهها و سازمان ها بر مسائل و مشکلاتی که با آن مواجه هستند، کنترل پیدا کنند. بنابراین، هدف توانمندسازی کمک به افراد ضعیف است تا تلاش نمایند بر ضعفهایشان غلبه، جنبه های مثبت زندگیشان را بهبود بخشیده، مهارتها و تواناییهایشان را برای کنترل عاقلانه بر زندگی افزایش داده و آن را در عمل پیاده نمایند.

توانمندسازی زنان فراگردی است که با ارتقاء اعتماد به نفس زنان این امکان را فراهم میسازد تا ضمن دفاع مستقل از حقوق خود، کنترل بر منابع داشته باشند، در طی این فراگرد زنان از نیازها و

# \*. نويسندهٔ مسئول:

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خواسته های درونی خود آگاه می شوند و از توانایی لازم برای عملی ساختن خواسته های خود برخوردار می شوند.

توانمندسازی زنان فرآیندی پویاست که توانایی زنان برای تغییر ساختارها و اید دئولوژی هایی که آنها را در موقعیت فرودستی(وابستگی) نگه داشته است، در بر می گیرد. این فرآیند که به زنان برای دستیابی بیشتر به منابع و کنترل بر زندگی کمک می کند، موجب احساس استقلال و اعتماد به نفس بیشتر آنها میشود و عزت نفس آنها را افزایش می دهد، یعنی موجب بهبود تصویری می شود که زنان از خودشان دارند. دولت موظف است با فراهم سازی زمینههای توانمندسازی زنان به رشد و توسعه اقتصادی مبتنی بر دانش کمک نماید.

# ۳- روش تحقیق

تحقیق حاضر از حیث هدف، کاربردی است و به لحاظ ماهیت و روش، توصیفی – تحلیلی است. دادهها و اطلاعات با انجام مطالعات کتابخانهای (بررسی اسناد) و پیمایشی گردآوری شده است. ابزار مورد استفاده برای بررسی پیمایشی در جامعه مورد مطالعه، پرسشنامه محقق ساخته بوده است. روایی پرسشنامه با نظرخواهی از اساتید متخصص در جغرافیای پیشآزمون (تکمیل ۳۰ پرسشنامه) به کمک محاسبه آلفای کرونباخ (با مقدار بالای ۲۰ درصد) مورد ارزیابی و تایید واقع شده است. جامعه تحقیق شامل RFLDL درصد) مورد ارزیابی و تایید واقع شده است. جامعه تحقیق شامل زنان (۱۵-۶۴ سال) خانوارهایی که در پروژه بین المللی RFLDL مشارکت داشته، بوده است. سکونتگاههای مورد مطالعه مشتمل بر شهر "سه قلعه" و روستاهای "دوست آباد"، "زنگویی" و "بسطاق با ۱۹۵۹ خانوار (طبق سرشماری سال ۱۳۹۵) در شهرستان سرایان

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بوده است. از کل جمعیت ساکن در سکونتگاههای مورد بررسی طبق آخرین آمار ۹۳۹ خانوار در پروژه مـذکور فعالیـت داشـتهانـد. نمونه گیری به روش احتمالی از نوع تصادفی – طبقه ای انتخاب شده است. محدوده مورد مطالعه در شهرستان سرایان شامل سکونتگاههای محل اجرای پروژه RFLDL اعم از یک شهر (شهر سه قلعه) و سه روستا (دوست آباد، بسطاق و زنگویی) بوده است. در خصوص يروژه بين المللي احياي اراضي جنگلي و تخريب يافته با تاکید ویژه بر اراضی حساس به فرسایش بادی و خاکهای شور (RFLDL) اقدامي مشترك بين سازمان جنگلها، مراتع و آبخیزداری کشور (FRWO) به عنوان نماینده دولت جمهوری اسلامی ایران، تسهیلات جهانی محیط زیست (GEF) و سازمان خوارو بار و کشاورزی ملل متحد (FAO) می باشد که از کوشش های دولت جمهوری اسلامی ایران در توسعه و اجرای رویکردهای توسعه پایدار در مناطق خشک و نیمه خشک کشور از طریق اجرای طرح های مدیریت پایدار، جامع و مشارکتی حوزه های آبخیز حمايت مي كند.

# ۴– یافته های تحقیق

تاثیرات اقتصادی اقدامات توانمندسازانه زنان در سکونتگاه های مورد مطالعه نشان داد که به غیر از موارد" قدرت خرید وسایل تجملی "، " قدرت خرید مسکن "، " قدرت خریدوسایل نقلیه "، " قدرت خرید زمین و آب زراعی وباغی " که نسبت پاسخ ها در دو گروه برابر است در بقیه موارد مورد بررسی در این جدول از آنجایی که مقدار Sig آزمون کمتر از ۵۰/۰ می باشد نتیجه می شود که نسبت پاسخ های مشاهده شده در دوگروه برابر نیست و با توجه به تعداد پاسخ ها در دو گروه نتیجه می گیریم که تعداد پاسخ های مشاهده شده در گروه اول کمتر از گروه دوم بوده است، بنابراین از نظر افراد مورد بررسی تاثیرات اقتصادی اقدامات توانمند سازانه در این موارد زیاد بوده است. بررسی تاثیرات اجتماعی اقدامات توانمند سازانه در سکونتگاه های انسانی مورد مطالعه نشان داد که در همه موارد مورد بررسی نسبت پاسخ های مشاهده شده در دوگروه برابر نیست و با

توجه به تعداد پاسخ ها در دو گروه نتیجه می گیریم که تعداد پاسخ های مشاهده شده در گروه اول کمتر از گروه دوم بوده است، بنابراین از نظر افراد مورد بررسی تاثیرات اجتماعی اقدامات توانمند سازانه در این موارد زیاد بوده است. تاثیر اقدامات توانمند سازانه زنان در جامعه مورد مطالعه بر پیوند های مکانی نشان داد که نسبت پاسخ های مشاهده شده در دوگروه برابر نیست و با توجه به تعداد پاسخ های مشاهده شده در دوگروه برابر نیست و با توجه به تعداد مده در گروه اول کمتر از گروه دوم بوده است، بنابراین از نظر افراد مورد بررسی تاثیر اقدامات توانمند سازانه بر پیوند های مکانی در این موارد زیاد بوده است.

# ۵- بحث و نتیجه گیری

بررسیها نشان داد که تاکنون علاقه زنان محلی به فعالیتهای گروهی و مشارکت آنان و همچنین باوریذیری زنان در فعالیتهای اجتماعی، اقتصادی و حذف و کاهش تبعیضهای جنسیتی و نگرش منفی نسبت به توانایی زنان باعث توانمندسازی زنان در عرصههای اقتصادی، اجتماعی و زیست محیطی شده است. در تبیین آن، وضع سواد نسبتاً بالای جامعه زنان محلی در محدوده مورد مطالعه یکی از عناصر اصلی موفقیت برنامههای توانمندسازی بوده است. توانمندسازی زنان منجر به بهبود فضای اقتصادی سکونتگاههای انسانی شده و افزایش درآمد اهالی از طریق ایجاد مشاغل خانگی و خرد را به دنبال داشته است. بهبود روحیه اعتماد به نفس، رشد خودباوری و ارتقا مشارکت گروهی از دیگر پیامدهای به دست آمده بوده است. در بعد زیست محیطی، سکونتگاهها دارای تحول رو به رشد شده است. همچنین توانمندسازی زنان اثرمعناداری در تقویت پیوندهای مکانی و رشد مناسبات سکونتگاههای انسانی داشته است. كليدواژەھا: توسعه پايدار، توانمندسازى، زنان، تحولات مكانى -فضايى، پروژه بين المللي RFLDL. تشکر و قدردانی

پژوهش حامی مالی نداشته و حاصل فعالیت علمی نویسندگان بوده است.

