



Assessment and Analyzing the Effects of the Corona Pandemic on the Livelihood Resilience of Rural Households (Case Study: Oraman District of Sarvabad County)

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Abstract

Purpose- The main goal of this article is to investigate the effects of the corona pandemic on the resilience of the livelihood of the villagers of the Oraman District of Sarvabad County. Moreover, the study aimed to measure the villagers' resilience and ability to adapt to crises and propose solutions to improve their livelihood resilience .


Design/methodology/approach- The research approach is a mixed method of quantitative and qualitative methods. Data collection was theoretical, using documentary and survey methods. The statistical population of the research include three groups of local people (300 people according to Cochran's method), development officials (18 people according to the targeted method), and experts of the region (12 people according to the targeted method) .

Findings- Data analysis using inferential statistics tests (chi-square, Friedman rank, Pearson correlation) showed that two components gained averages of 2.63 and 2.72 at a significance level of 0.01. Therefore, the livelihood resilience of the villagers in Oraman District is in a bad situation in both dimensions of confrontation and adaptation. Also, the results suggest a direct, positive and significant relationship between the reduction of both dimensions of livelihood resilience and the overall livelihood resilience of the villagers.

Practical implications- The leading solution to improve the livelihood resilience of the villagers in the region against crises is to change the managerial perspective of crisis management from a traditional and passive approach to a new proactive approach. To this end, in addition to training development managers, there is a need to train locals and form a crisis management unit headquarters with adequate performance, efficiency and up-to-date knowledge and awareness.

Originality/Value- Livelihood resilience is major in achieving livelihood sustainability to ensure the optimal quality of life and the living environment. One of the pressures on the livelihood system of the villagers in the last two years was the Corona pandemic. Therefore, identifying these effects and planning to solve them can help to reduce the vulnerability and thus increase the livelihood resilience of the villagers.

Keywords- Corona pandemic, Livelihood resilience, Oraman District, Sarvabad County.

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1.Introduction

Poverty is a durable worldwide challenge. According to the statistics published by the World Bank in 2015, more than 735 million people live in extreme poverty. Also, over 651 million people are expected to live in extreme poverty in the world by 2020, who are primarily in rural areas of developing countries. Therefore, fighting rural poverty is crucial. Poverty can affect all economic, social, managerial and environmental dimensions of sustainable development. Different types of poverty call for planning, especially extreme poverty, which otherwise leads to a poverty trap (Qarani, 2014). The primary solution to preventing poor households from returning to poverty and having a sustainable livelihood is to raise the resilience level of their livelihood. Suppose capacity building is addressed for households caught in the vicious trap of poverty. In that case, it is likely to use resources and activate their learning mechanism and the desire for innovation and transformation. As a result, the poverty trap will be disrupted. The capacity to use accessible resources is a prerequisite for livelihood. Learning capacity leads to skill creation and enhancement. Generally, how households deal with the external environment determines their level of self-efficacy. They can take advantage of external opportunities and manage risks to ensure livelihood sustainability and resilience (Li et al., 2019). Livelihood is not merely access to a job. The livelihood of villagers instead needs to be resilient against numerous economic, social and natural pressures (Ahmadi et al., 2019). The sustainable livelihood approach was proposed by researchers such as Chambers in the mid-1980s and early 1990s after various development paradigms failed to solve the main problems of rural development and mainly rural poverty (Alinovi et al., 2011). Providing a livelihood includes capabilities, assets accessibility and activities for a good life (Nawrotzki, 2012). The sustainability concept was first introduced at the Rio World Summit as a dominant aspect of development plans. In addition to that, poverty has become a concerning matter, so the new approach of sustainable livelihood has become a tool to remove the effects of poverty and sustainable rural development (Sojasi Qeidari,

2013). The core of the livelihood resilience approach is adaptive strategies adopted by households or individuals during shocks and stresses on their livelihoods. In their organizational priority, the United Nations Food and Agriculture Organization (FAO) introduced resilience to reduce vulnerability and cope with threats to villagers' livelihoods (Pain & Levine, 2013). Resilience is essential for two reasons. First, social and technical systems are unpredictable and vulnerable. Second, livelihood capitals in resilient societies are substantially more stable than in non-resilient places against pressures and shocks (Salmani et al., 2016-a).

Meanwhile, the Covid-19 crisis was a unique and unexpected shock that affected almost the whole world (Mahmud & Riley, 2022). The World Bank has estimated that the Covid-19 crisis has pushed between 40 and 60 million people into extreme poverty, especially sub-Saharan Africa. In another report, it is estimated that between 420 and 580 million people will be pushed into the poverty trap (Janssens, 2021). Weaknesses of rural areas, especially in the service, infrastructure, social support and security, were revealed more than ever after the corona pandemic their mandatory quarantine period. The ensuing psychological problems are another negative effect which has been created in rural communities (Jia et al., 2021).

Oraman District in Sarvabad County is one of the districts of Kurdistan Province that has experienced impediments during the corona pandemic. Corona has had many complications in this region due to tourism, being in the middle of Kurdistan and Kermanshah Province, and cross-border smuggling on the border with Iraq. As a result, the movement and connection of people in urban and rural areas have made the corona spread rapidly in the region and deteriorate the livelihood conditions of the people. Villagers' livelihoods were drastically changed due to the Corona. In particular, the rural labor force and tourism, which was a livelihood strategy, have stagnated. The current study aimed to discover what changes the villagers' livelihood had after the corona pandemic's emergence. The outcome of this study can offer practical solutions to get out of a crisis like Corona as one of the problems in the way of rural livelihood sustainability. Moreover, there is

a need to organize the villagers' livelihood with a resilient approach.

2. Research Theoretical Literature

2.1. Corona shock geometry

Corona pandemic was a sudden shock that turned into a complex health crisis in all dimensions of human life due to the lack of resilience. [Matni \(2020\)](#) suggested the concept of shock geometry, which refers to the type of directions that occurred following the economic crisis of 2008 in three different countries. This framework emphasizes the role of economic resilience or the extent of responding, coping and re-creating the economic system of different countries. The first type of shock geometry is (V) shape, where the performance of the economic system changes temporarily. However, a quick return to the initial

situation happens due to support and compensation programs (e.g., in Canada). In (U) shaped shock, although the reaction is done effectively and efficiently, returning to the previous conditions is not likely because of the crisis's depth and the effects' intensity. Moreover, in this type, the negative impact will dominate the economy for several years, and the pre-crisis situation is different from post-crisis (e.g., in the United States). The (U) shape shock shows the high vulnerability of the economic infrastructure. In this case, the impact caused by the economic crisis lasts on the economic structure, so returning to the previous path of economic growth and development never happens. In this situation, capital and labor have been damaged many times (e.g., in Greece).

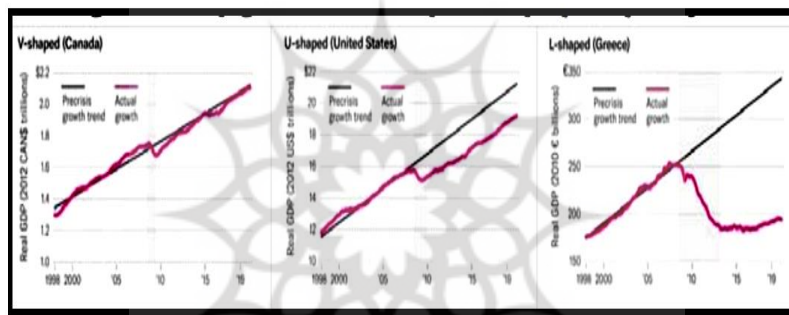


Figure 1. Types of shock geometry

Source: [Matni, 2020, 168.](#)

[Mousavi Matlabi \(2020\)](#) believes that the spread of the coronavirus has caused both shocks on the demand and supply side in the economy, which

makes a closed cycle of failure and a repeating trap if the pandemic continues.

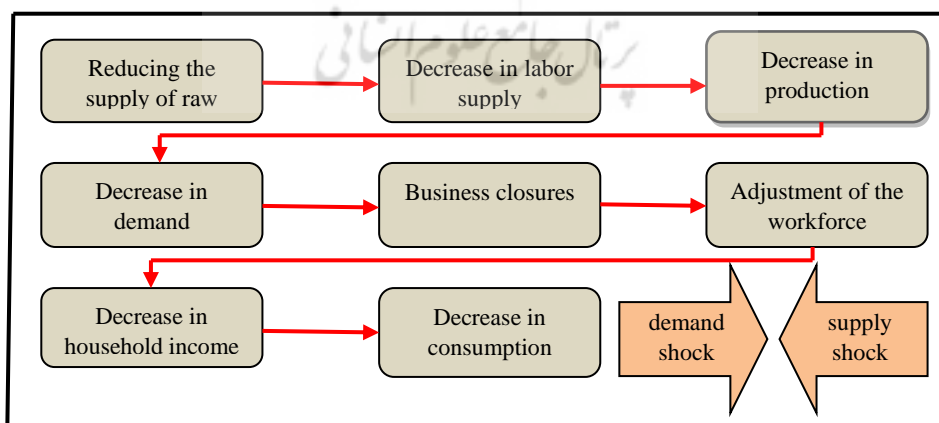


Figure 2. The closed supply and demand shock cycle due to Corona

Source: [Mousavi Matlabi, 2020: 193.](#)

In 2020, the peak of the outbreak of Corona, global trade in goods decreased by 13 to 32 per cent, and the world's economic growth reached - 6.4 per cent compared to the previous year.

Nevertheless, according to Mousavi Matlabi, for vibrant and resilient economies, economic growth will soar again in 2021 with correct policy and planning to return to the markets again.

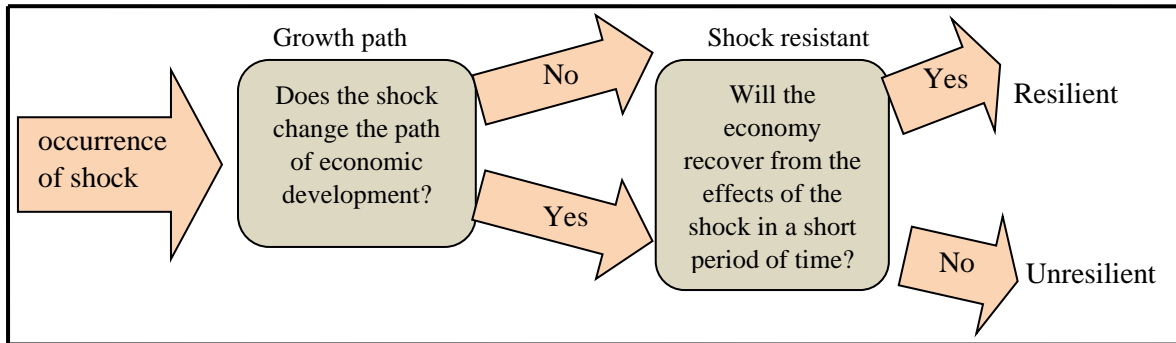


Figure 3. Explanation of resilience during shocks

Source: [Mirzaei et al., 2020: 237.](#)

2.2. Livelihood resilience

The core of the livelihood resilience approach is adaptive strategies adopted by households or individuals during shocks and stresses on their livelihoods. Livelihood flexibility is the strategies that individuals and communities take to cope with the effects of short-term, sudden and long-

term shocks ([Liu et al., 2020](#)). According to Tanner et al. (2014), a human-centred livelihood perspective leads to the empowerment and the capacity of human societies ([Campbell, 2021](#)). [Table 1](#) expresses the central cores of the concept of resilience.

Table 1: The cores of the concept of livelihood resilience

Subsystem		Economy	Meaning of each component
Resilient components	Characteristics of resilience	Stability	Sustainability includes the concept of reliability and refers to the ability to absorb and resist disturbances and crises.
		Extra capacity	It is to have additional capacity and support systems so the place is able to provide its defined service during incidents and disturbances.
		Strategic planning system	In response to crises, there should be flexibility and try to turn threats into opportunities
	Resilient performance	Reactivity	It means the ability to move quickly when faced with a crisis.
		Recovery	Having the ability to return to normal conditions after a crisis.

Source: [Mohammadi et al. 2018: 100](#)

There are two distinct perspectives on crisis management. The traditional point of view emphasizes the post-crisis stage, while it does not often plan for the pre-disaster stage. The new point of view is based on resilient societies, which use community-oriented approaches, empowerment of

different layers of society and attract participation in their preparation for disasters. In this approach, returning society to its previous state will be faster. At the same time, human and financial losses will be significantly reduced.

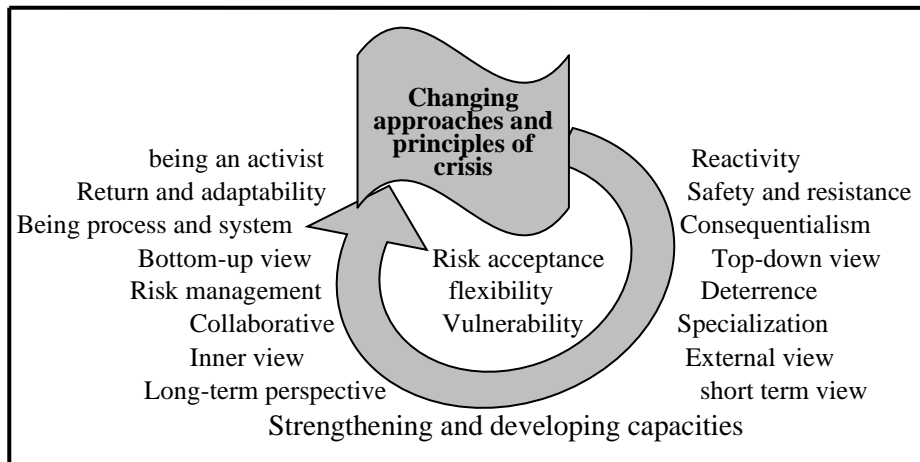


Figure 4. Evolution of approaches and principles emphasized in crisis management,
Sources: [Salmani et al., 2016-b](#); [Motahari & Rafiyan, 2016](#); [Hemingway & Gunawan, 2018](#).

Vulnerability refers to a sudden pressure more significant than the livelihood capacity; livelihood vulnerability is due to the lack of coping mechanism and limited capacity to adapt; hence little resilience. Vulnerability reduces the individual and group capacities of rural households to predict, confront, resist and recover from natural disasters ([Sadeka et al., 2013](#)). Flexibility, however, is the capacity of a system to absorb and adapt disturbance during an undergoing change. As a result, the system practically maintains the same function, structure, and identity as the previous state or reaches a new and desirable state of balance ([Borsekova et al., 2018](#)). Therefore, the sustainability of the livelihood of the villagers happens when they have the conditions of livelihood resilience after exposing to pressures, shocks and short and long-

term, unexpected or predictable natural and human events ([Figure 5](#)).

According to the conceptual model of the research, shown in [Figure \(5\)](#), we can examine the livelihood resilience of the villagers in the study area after Corona pandemic. This examination can investigate the ability to cope based on short-term measures and the capacity to adapt based on long-term measures for livelihood reconstruction after the Corona crisis and the stage before this crisis or prevention. Moreover, time is a significant factor, especially in the coping system of the livelihood resilience of the villagers. Therefore, how to return to the routine of livelihood before the disease or adopt a new way of providing livelihood during Corona pandemic determines the livelihood resilience of the villagers.

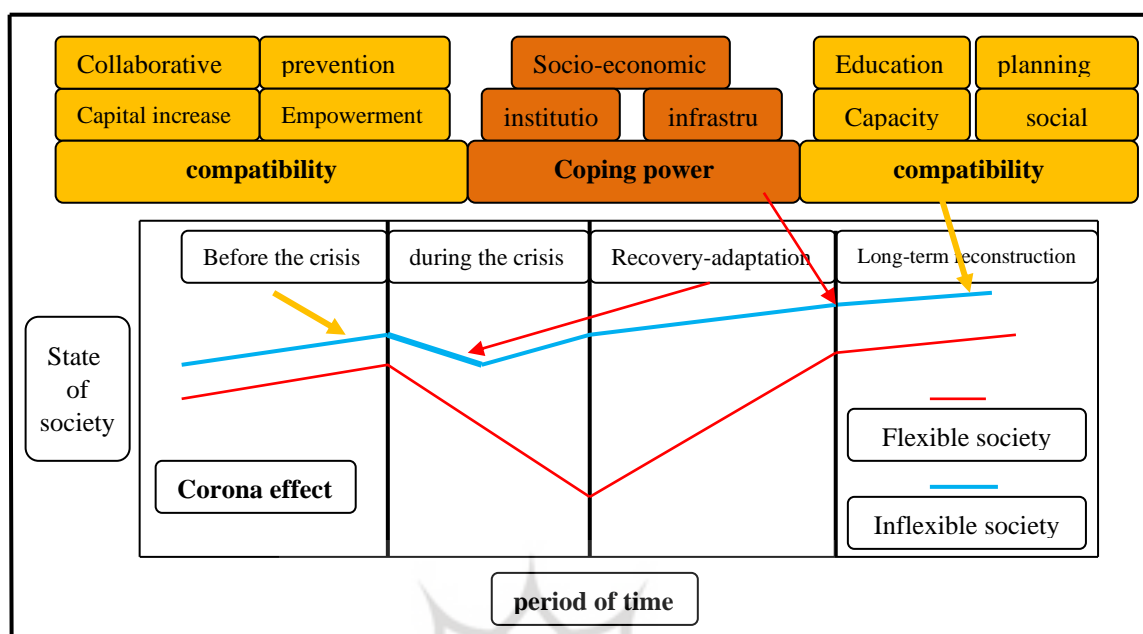


Figure 5. Research conceptual model

2.3. Research background

Imani Jajromi (2019), in a study about the social consequences of the corona pandemic in Iran, concluded that the coronavirus caused damage to social health because of the effects on social relations, the reduction of social activities and the closure of many businesses.

Tajeri Moghadam et al. (2020), in their research about the analysis of preventive measures to deal with the Corona in the rural areas of Dashtestan County, found that there is a significant relationship between the severity of the spread of the coronavirus and the severity of disease, mental norms, type of attitude, self-efficacy of villagers.

Mohammadi and Rastgunjad (2018) investigated changes in the livelihood resilience of rural households in two periods of living in the city and migrating to villages in the Dezli Rural District of Sarvabad County with descriptive and analytical methods. They found that returning to the village, the level of resilience of people increased during the period of returning to the villages. Eftekhari et al. (2014) analyzed the role of livelihood diversity in the resilience of rural areas under drought in Isfahan Province. They stated that adopting the livelihood diversity approach has led to more resilience of households in drought conditions.

In the villages exposed to severe drought, this variety of livelihood is more visible.

Janssens et al. (2021) investigated the impact of the corona outbreak on low-income households in rural areas of Kenya using a qualitative method. They asserted that income had reached a third of the amount before the coronavirus outbreak. Although villagers have yet to sell their assets, there were strategies such as receiving loans, delayed repayments, and avoiding lending money to other villagers. Generally, the most important strategy was to save more and consume less, which has led to a drop in social support for households.

Kansiime et al. (2021) analyzed the consequences of Covid-19 on household income and food security in Kenya and Uganda using a quantitative-qualitative method. They found that a common fraction of the respondents suffered an income shock due to the Covid-19 crisis. In addition, food security and diet quality, measured by the food insecurity experience and the number of nutritious meals, have decreased.

Liu et al. (2020) studied the effects of resettlement related to natural hazards on the livelihood resilience of rural households in China using a descriptive-analytical method. They concluded that the re-settlement of vulnerable households

has yet to be able to increase their resilience compared to the households that have withdrawn from the re-settlement project. Livelihood resilience has been measured in the form of three indicators: adaptation and coping capacity, self-organization and learning capacity.

3. Research Methodology

3.1 Geographical Scope of the Research

Sarvabad County covers an area of 1168.4 square kilometers, and it is located in the southwest of Kurdistan Province. This county is adjacent to Marivan County from the north, Iraq from the

northwest, Kermanshah Province from the west and south, and Sanandaj County from the east. According to the latest political divisions of the country, until the end of 2016, this region has Central and Oraman Districts, two cities named Sarovabad and Oraman Takht, and eight rural districts and 74 inhabited villages.

Oraman District, with 14 villages, has 3707 households and about 14269 people. This district is located 75 km southeast of Marivan County and 170 km southwest of Sanandaj, the capital of Kurdistan Province.

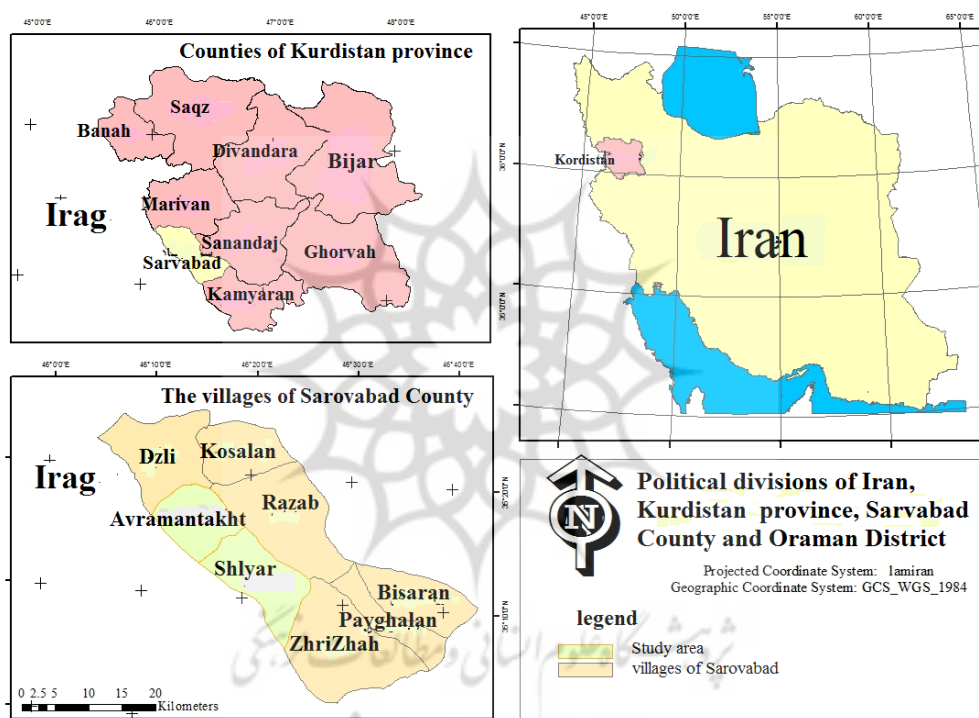


Figure 6. Geographical map of the research area

3.2. Methodology

This research is applied in terms of purpose. Also, it is a descriptive-analytical study in terms of method, and the survey method (based on the distribution of questionnaires, interviews and observations) was used for data collocation. The geographical territory of this study was rural areas of the central part of Oraman County, which was conducted in the second half of 1400 (S.H). In this study, the independent variable is the Covid-19 pandemic, and the dependent variable is the livelihood resilience of rural households in Oraman District of Sarvabad County. The

statistical communities of the research include three groups of local people, officials and scientific experts of the region. According to the general population and housing census of Sarvabad County in 2016, Oraman District has 3707 households in the form of 10 villages (Iran Statistics Center, 2016). Therefore, the population of the study was 5390 people, and the statistical sample size was determined to be 358 households. However, due to time and economic constraints, 300 households were determined as the sample size based on the corrected Cochran formula.

Moreover, because of difficulties in the accessibility of the villages, just five villages were selected as sample villages and classified based on their population. The villages are classified into three groups: high population (more than 501 people), medium population (301 to 500 people)

and low population (less than 300 people) and the number of questionnaires were designated based on the number of villages in each group. The selection of sample villages in each class was random. Finally, the questionnaires were randomly distributed among the villagers.

Table 2. Distribution of questionnaires in the district and selected villages

Population classes	Selected villages	The number of assigned questionnaires
Low population	Veysian - Ri Vari	35
Medium population	Nav- Bolbar	115
High population	Selin - Nevin	150
Total	5	300

The second group of respondents were selected through purposive sampling. There are 18 officials (chief executive administrative in county and district, village councils, agriculture department, health and treatment, cultural heritage, tourism and handicrafts, and rural cooperatives of the county). The third group consisted of academic experts, 12 people from the fields of geography and rural planning, tourism,

agriculture and development sociology. The validity of the measurement tool was examined by academic experts related to rural development. Twenty-five questionnaires were used as a pre-test. Cronbach's alpha coefficient calculated the reliability, and the value of this coefficient was 0.79, which is acceptable. Figure 7 illustrates the approaches used in this research, and Table 3 lists the research indicators.

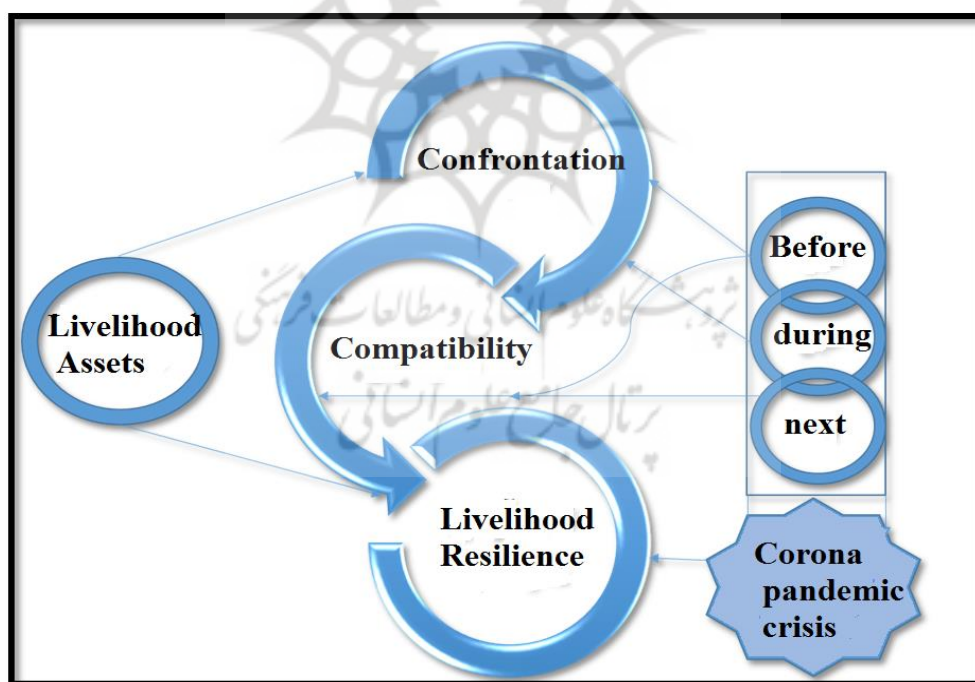


Figure 7. Approaches and principles for indicators of livelihood resilience of villagers after Corona based on the crisis management and sustainable livelihood framework

Table 3. Measuring the livelihood resilience of villagers after the Covid pandemic

Sources: Mohammadi & Manochehri, 2018, Taleshi & Akhlaghi, 2019, Motiee Langroodi et al., 2019; Jia et, 2021; Alinovi et al, 2011

Livelihood resilience of villagers against the spread of the Covid pandemic	Indexes	Variables
	The ability to confront and rebuild after the corona pandemic	Satisfaction with the effective actions of the officials for providing the necessary supplies, social and health effects of the Covid-19 pandemic, effective coordination of the targeted organizations, awareness and local self-organization, the cooperation of locals and officials, the existence of collective savings funds in the village to help the villagers, getting new jobs to unemployed villagers, insurance support for villagers, the ability of villagers to return to their pre-Corona jobs, the ability to rely on the jobs before the crisis (income security and stability), the unemployment rate, the income rate, the savings rate, the ability to receive and repay loans, appropriate amount of loans, the existence of a comprehensive management plan for emergency situations, the adequacy of essential health and welfare services (basic needs), support for vulnerable groups, providing training at the right time and place, the situation women's jobs related to tourism activities, conflicts and social and individual conflicts (reversed), financial assistance of villagers to each other, interruption in development projects of villages, nutritional status, ability to meet household expenses, satisfaction with the education of students, the amount of agricultural and livestock production, control of prices (no inflation).
The ability to adapt and rebuild after the crisis of the corona pandemic	Training of villagers by public institutions (economic and environmental training) to manage the crisis situation, the existence of a plan to deal with crises, the reaction and performance of organizations and people in times of crisis, understanding the importance of the support of non-governmental associations, social capital and solidarity, the existence of alternative job opportunities with economic diversity in the region, relationship between officials and locals, locals' trust in officials to crisis control, appropriate social security services in the village, collaborative process of developing and solving crises in the region, the existence of a pragmatic crisis management framework, desirability of communication, health, welfare and service infrastructures (justice in distribution and access), having assets outside the village, having a reconstruction program in the post-corona (especially tourism as the focus of rural development in the region), stabilization of the population and no movement, natural resources, guaranteed purchase of manufactured products and no intermediaries, use the lesson learned and make the best practice to face future crises, programs and measures for poverty alleviation and job creation, emphasizing on prevention and adaptation (not actions after the crisis) among people and officials.	

4. Research Findings

Assessing the confrontation ability of the livelihood situation against the corona pandemic Table 4 shows a brief of answers given for the capacity, coping power and reconstruction of the villagers of Oraman District. The results confirmed that all measured variables are significant at an alpha level of less than 0.05, which implies that villagers had almost same ideas regarding the current situation (pandemic conditions).

In virtually all variables, the average value is lower than the medium (3), which implies the severity of the pandemic's negative impact on the villagers' livelihood capital.

The lowest calculated average, or the most unfavorable variable, belongs to the control of prices (no inflation). After the pandemic, the country experienced price growth due to economic chaos and inefficient economic management, which left the most damaging and

difficult effects on vulnerable rural groups. The rampant inflation, even before the pandemic, made it difficult for the villager to earn enough livelihood. As a result, livelihood had greatly reduced when the recession was combined with the pandemic.

Three critical economic indicators, namely the amount of income, the unemployment status and the amount of savings of the villagers, can be critical to creating the capacity to deal with crises in villagers' livelihood. The value of these three indicators is calculated at 2.63, 2.73 and 2.42, respectively, with a mode of 2, which suggests their status is adequate in the region's villages. In fact, the pandemic has dramatically impacted the reduction in access to financial capital to provide livelihood and support for the villagers. In addition, quarantine and continuous closures have deteriorated these indicators. In the studied area, job opportunities are very limited, and the young population mainly chooses to migrate to big cities for employment.

Two variables are crucial in employment and creating and improving coping strategies for rural households. First, the ability of villagers to return to their pre-Corona jobs is calculated at 3.34, which suggests the relative ability of rural workers to return to their former jobs. On the contrary, the ability to rely on the jobs before the crisis is calculated at 2.53, and the mode of the responses is 2, which shows the low resistance of existing businesses against the crises (corona outbreak). Therefore, in addition to the slightly adverse employment situation in villages, there needs to be a satisfying state in the quality and stability of employment. As a result, the return of the villagers to their previous jobs needs to improve their coping ability to keep their livelihoods against crises, especially in Corona. The dominant employment form in Oraman District is limited agriculture, which has low profitability and hidden unemployment. Moreover, their tourism activities are in a chaotic situation due to a lack of proper management. Therefore, the unemployment problem is fundamental and is not limited to the period of the pandemic.

Funding and giving away loans to create jobs is one of the strategies considered worldwide, especially for vulnerable groups in the pandemic. When done well quantitatively and qualitatively, the booster financial resources can improve the ability and coping capacity of livelihood in a satisfactory way. We analyzed the state of giving away financial resources through loans in the study area by two variables, the ability to receive and repay loans and the appropriate amount of loans. Accordingly, the means were 2.66 and 2.75, respectively, which indicates the unacceptable condition of the loans for the villagers, the way of payment and the ability of the villagers to receive them. Administrative bureaucracy makes the villagers dismiss taking loans and even if they get around to the final stages, asking for guarantees will prevent them from receiving a loan. Banks that only accept villager's guarantee documents easily. Also, because of the severe inflation and growth of prices, the current amount of loans needs to be more robust and appropriate.

A key measure in crisis management is to improve social resilience and the status of support

for vulnerable groups in the population. This variable was calculated at 2.53, which shows the lack of support for vulnerable groups in the studied rural areas. Failure to support the valuableness group is detrimental to social resilience.

A variable which shows the employment and income outcome is the ability to meet household expenses. The response to this variable was 2.59, implying the corona outbreak's negative impact on the ability to meet household expenses. This situation is because of a mix of reasons, including the increase in unemployment (mainly tourism) and the decrease in income due to frequent closures, lack of proper support, and decreased income and job opportunities.

A coping and resilient solution is to provide insurance support for vulnerable villagers. The support after the pandemic for rural households in the region can be adequate because activities like tourism as a good source of income for rural households have shut down, and the consumption of agricultural products and their purchase has decreased. Therefore, it goes without saying that insurance and special protections for villagers were not taken into account, so there is a decrease in household income and losses for farmers.

The direct sale of products by villagers will increase profitability and motivation to work, hence the income and savings of the villagers. This solution can be effective for the coping capacity of villagers' livelihood. The value for this variable was calculated at 2.58, so the situation of direct sales of agricultural and produce products of the villagers in the region has decreased. The main reasons for avoiding direct selling were the closure of tourism activities, the need for more tourists, the decrease in consumption along with the increase in the price of manufactured products.

Another variable affected by tourism potential is the employment level of rural females after the pandemic. These women, who had gradually engaged with tourism slower than men, suffered greatly and lost their businesses (the average value for this variable is 2.20, and the mode of response is 1, a very unfavorable situation). As a result, the resilience of tourism businesses in the region is very low.

Table 4. Assessment of confrontation and rebuilding after the corona pandemic in the study area

Impact	χ^2	Significance level	Mode	Mean	Variables	Row
Negative	45.2	0.00	1	2.51	Satisfaction with the effective actions of the officials in providing the necessary supplies, social and health effects of the Covid-19 pandemic,	1
Negative	35.7	0.00	1	58.2	Effective coordination of the targeted organizations, awareness and local self-organization	2
Relatively positive	51.3	0.011	3	3.23	Cooperation of locals and officials	3
Negative	22.7	0.27	2	2.91	Existence of collective savings funds in the village to help the villagers	4
Negative	26.8	0.017	2	74.2	Getting new jobs by unemployed villagers	5
Negative	60.0	0.00	1	2.49	Insurance support for villagers	6
Relatively positive	57.1	0.047	3	3.34	The ability of villagers to return to their pre-Corona jobs	7
Negative	71.6	0.00	2	2.53	Ability to rely on the jobs before the crisis (income security and stability)	8
Negative	103.3	0.00	1	2.44	Understanding the importance of the support of non-governmental associations	9
Negative	73.8	0.04	1	74.2	Unemployment rate	10
Negative	77.2	0.00	2	2.63	Income rate	11
Negative	120.8	0.00	2	2.42	Savings rate	12
Negative	89.3	0.00	2	2.66	Ability to receive and repay loans	13
Negative	85.3	0.00	2	2.75	Appropriate amount of loans	14
Negative	72.5	0.00	1	2.53	Existence of a comprehensive management plan for	15
Negative	56.5	0.33	2	3.13	Adequacy of essential health and welfare services (basic needs)	16
Negative	136.0	0.00	1	2.35	Support for vulnerable groups	17
Negative	103.3	0.042	3	3.31	Providing training at the right time and place	18
Negative	54.4	0.024	1	2.58	Selling products directly by villagers	19
Negative	143.2	0.00	1	2.20	Affecting the jobs of females in tourism	20
Relatively positive	108.9	0.014	4	3.44	Social and individual conflicts (reversed)	21
Negative	58.9	0.002	2	2.88	Financial assistance of villagers to each other	22
Negative	62.3	0.001	2	2.85	Interruption in development projects of villages	23
Negative	57.6	0.00	2	2.79	Nutritional status	24
Negative	67.8	0.00	1	2.59	Ability to meet household expenses,	25
Negative	92.8	0.00	1	2.36	Amount of agricultural and livestock production	26
Negative	198.9	0.00	1	2.02	Control the prices (no inflation)	27
Relatively positive	104.9	0.017	3	3.12	Satisfaction with the education of students	28

Assessing the ability to adapt to the corona pandemic

Table 5 shows the analysis of the responses related to the ability to adapt after the Corona pandemic of the villagers of Oraman District. All calculated variables were significant at the level of 0.05.

The lowest averages were 2.21 and 2.25 for the variable "emphasizing on prevention and adaptation (not actions after the crisis) among people and officials" and "Training of villagers by public institutions (economic and environmental training) to manage the crisis situation." This situation implies that local development and social management have yet to be a compatible

perspective based on promoting capacities and preventive activities against all kinds of human and natural crises. In fact, the traditional perspective of crisis management is the dominant approach. In this approach, management happens after the crisis, and they take action to deal with the issue. Therefore, there was no necessary preparation to deal with the onset crisis (corona) in the study area. In crisis management today, capacity building through education is the key to sustainable solutions for increasing resilience and long-term individual and social adaptation. In the study area, there was no training for critical situations in general, specifically for the corona pandemic.

The responses to the variable of increasing the experience of dealing with crises showed a low average of 2.24 for the mode of the option (1). Also, for the variable of using the lesson learned and the best practice to face future crises, the mode of response was an option (2) with a low effect. The low impact of these variables shows that even in the ongoing pandemic, respondents believe that the experience has yet to be used for better planning in future.

One of the most important variables in the discussion of resilience in both confrontation and adaptation stages is the state of social capital and solidarity of local people. Like an invisible stimulus, social capital promotes the speed of activities, coordination and networking between different elements. Therefore, the appropriate level of social capital, especially in rural areas where there are structural, infrastructural and financial shortages, is a vital livelihood asset. The average value of this variable was calculated at 3.61 in the studied villages, which indicates a relatively good level of social capital and solidarity.

Diversity of livelihood resources based on job opportunities is an important policy that overcomes vulnerability and instability, leading to the sustainability of livelihood and long-term resilience. The variety of jobs and the existence of job opportunities can; Increase the level of rural households' access to financial capital, which itself strengthens the level of other livelihood capitals. However, the responses showed that the existence of diverse job opportunities in the region has a low average of 2.47. Job opportunities in the studied area are limited

because of the traditional structure of agriculture, limited access to agricultural land, intermediaries in selling horticultural products and lack of food processing, low skill level human resources, and the lack of sustainable development of tourism and seasonal tourism. Tourism in the region was almost in complete stagnation and closure, and there was no alternative activity at the village level for the active workforce.

The existence of dominant poverty in rural areas worsens their vulnerability to crises such as Corona pandemic. Implementing economic development and job creation programs has been a development policy in rural areas to alleviate poverty. Also, the access of the villagers to financial capital was greatly reduced after the pandemic due to stagnation. The average value of economic development programs at the regional level was calculated at 2.79, which indicates the inappropriate state of policymaking and adaptive measures in the livelihood capability of rural households.

Although a dam construction or investments in tourism have taken place, none of these projects has benefited the region's rural residents.

The required physical infrastructure is another livelihood capital in rural areas as the basis for creating justice and strengthening social capital and a prerequisite for rural economic activities. The necessity of access to communication infrastructure, health and services was doubled after the pandemic for isolated rural areas. The variable of the desirability of communication, health, welfare and service infrastructures (justice in distribution and access) in the studied rural areas was assessed as inappropriate, with an average of 2.78.

Two variables of the relationship between officials and locals and locals' trust in officials to crisis control had low averages of 2.33 and 2.50, respectively. These values show that the local people do not have a proper relationship with the officials and have lost trust in them.

The gap in trust becomes deeper because of accountability issues to reduce the pressure of the Corona crisis, especially in the livelihood of this region.

Another important source of livelihood in rural areas, which has a decisive impact on the livelihood resilience of villagers, is the state of the natural resources of the rural environment. This

variable was calculated at 3.89, which shows the appropriate natural capacity of the study area. Although agricultural lands in the Oraman region face shortages and deficiencies due to the extreme unevenness and the topography, other capabilities, such as access to running water sources and permanent rivers, unique nature the potential of horticulture and tourism to the villages, can be used in each of these capacities in order to strengthen the livelihood capital. However, this has not been deployed in the study area.

Participatory development as a global approach to rural and modern crisis management is suitable for this region. Solving crises with the people and by the people, and for the people can overcome marginalization. However, this variable has a low average of 2.63, indicating a centralized view of the development and management of the Corona crisis at the regional level. This perspective has caused neglect of locals' problems, and as a result, the damage to the livelihood is greatly increased in the studied area.

The variable of plans to deal with crises, in addition to the reaction of public organizations in crises, was calculated at 2.25 with the mode of the option (1), which is low and indicates inconsistency, lack of coordination and speed of reaction to the event in the region. During the outbreak of Corona, only health institutions were active in the region to some extent, and other organizations related to the state of livelihood and psychological and social issues were not so active in dealing with the crisis.

The last stage of crisis management is post-crisis reconstruction. The variable of having a reconstruction program in the post-corona (especially tourism as the focus of rural development in the region) had an average of 2.45. This value confirms the regional planners' lack of attention to rebuilding and developing the local community's capacity after the Corona crisis. Tourism, as the most important business in the region, has been seriously damaged by the spread of Corona. In the post-corona period, when the demand for travel to the region is increasing, the existence of supportive programs and the promotion of tourism capacities could quickly compensate for the damages in the region. However, these programs were absent in the studied area.

Maintaining the population in rural areas and the lack of migration is essential because allocating services and resources becomes optimal in places with a specific population threshold. Although there is no generality about it, it is expected that in the face of natural and human crises, more populated villages have more resistance and adaptability than less populated villages. Examining this situation at the regional level shows that the surveyed villages are faced with population migration (calculated average of 2.65), which continues due to the lack of access to job opportunities and the difficulty of livelihood at the village level

Table 5. Assessment of the ability to adapt and rebuild after the crisis of the corona pandemic

Situation	χ^2	Significance level	Mode	Mean	Variables	Row
Negative	1.6	0.00	1	2.20	Training of villagers by public institutions (economic and environmental training) to manage the crisis situation	1
Negative	1.4	0.00	1	2.25	Existence of plans to deal with crises, reactions and performance of organizations and people in crises	2
Negative	78.2	0.00	2	2.41	Increasing experience to deal with crises	3
Negative	1.4	0.00	1	2.23	Understanding the importance of the support of non-governmental associations	4
Relatively suitable	2.1	0.017	3	3.61	Social capital and solidarity,	5
Negative	68.3	0.00	2	2.47	Existence of alternative job opportunities with economic diversity in the region	6
Negative	79.6	0.00	1	2.50	Relationship between officials and locals	7
Negative	1.2	0.00	2	2.33	Locals' trust in officials to control crisis	8
Negative	91.5	0.00	2	2.56	Appropriate social security services in the village	9

Situation	χ^2	Significance level	Mode	Mean	Variables	Row
Negative	66.6	0.00	2	2.63	Collaborative process of developing and solving crises in the region	10
Negative	79.7	0.00	2	2.57	Existence of a pragmatic crisis management framework	11
Negative	74.3	0.011	2	2.78	Desirability of communication, health, welfare and service infrastructures (justice in distribution and access)	12
Negative	92.1	0.00	2	2.53	Having assets outside the village	13
Negative	1.06	0.00	2	2.45	Having a reconstruction program in the post-corona (especially tourism as the focus of rural development in the region)	14
Negative	62.3	0.01	2	2.65	Stabilization of the population and no movement	15
Suitable	3.60	0.09	4	3.89	Natural resources	16
Negative	1.4	0.00	2	2.37	Guaranteed purchase of manufactured products without intermediaries	17
Negative	1.1	0.005	2	2.79	Programs and measures for poverty alleviation and job creation	18
Negative	95.9	0.00	2	2.82	Using the lesson learned and the best practice to face future crises	19
Negative	3.1	0.00	2	27.2	Emphasizing prevention and adaptation (not actions after the crisis) among people and officials	20

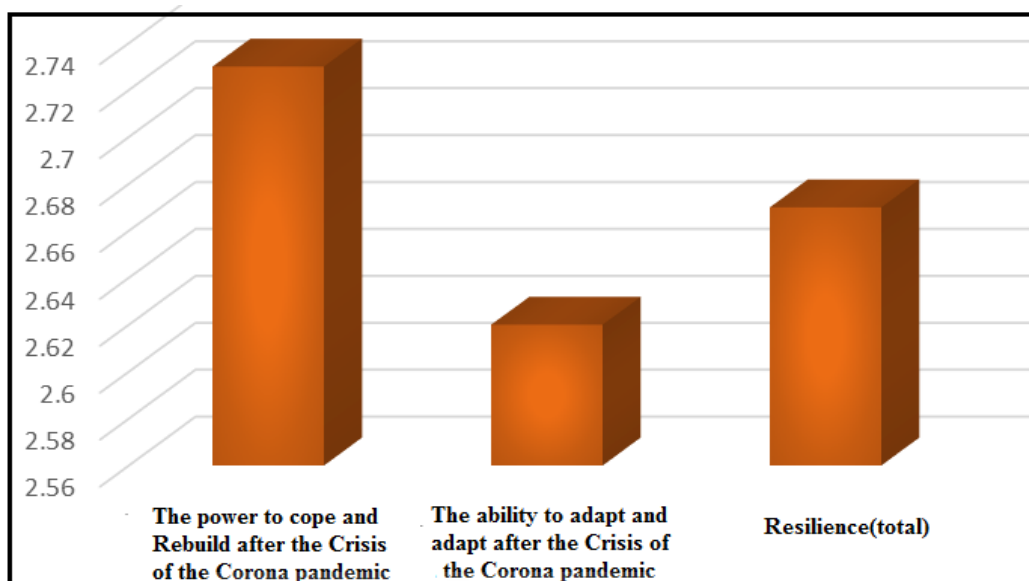
Table (6) shows the results of the t-test. Findings indicate that the average value for two measured dimensions of resilience, i.e., the ability to confront after the crisis and adapt after the crisis, are less than the optimal level (3), and calculated values are 2.73 and 2.62, respectively. In other words, the situation of confrontation activities and the adaptive capacity against the corona crisis were not at an inappropriate level. In general, the

average of 2.67 at a significance level of 0.01 shows the negative effect of the corona crisis on the livelihood resilience of the Oraman District of Sarvabad County villagers. In fact, it can be seen that the spread of the Coronavirus has severely damaged the livelihood of rural households due to the lack of access to assets, capacities and facilities.

Table 6. Summarized results related to the situation of coping and adaptation to the Corona pandemic at the regional level

Components	Expected Value	The difference from the optimal limit	T value	Significance	Degree of freedom	Mean	95% confidence level	
							Low	High
The ability to confront and rebuild after the corona pandemic	3	-0.262	-5.46	0.00	329	2.73	-0.357	-0.168
The ability to adapt and rebuild after the crisis of the corona pandemic	3	-0.379	-5.99	0.00	329	2.62	-0.516	-0.243
Resilience (sum)	3	-0.412	-6.94	0.01	329	2.67	-0.412	-0.230

Figure 8.



Summarized results for the situation of coping and adaptation to the Corona pandemic at the regional level

In the following, we used Pearson's correlation test to determine the adverse effect in the main dimensions of livelihood resilience of the villages in the region after the outbreak of Corona. The results, as illustrated in Table (7), suggest a direct, positive and significant relationship between the reduction of both dimensions of livelihood resilience and the overall livelihood resilience of the villagers. In other words, by reducing the value of each dimension, there has been a decrease in the desirability of another dimension, and the resilience of the villagers has also

decreased. The ability to confront and rebuild after the corona pandemic had the highest correlation with the state of livelihood resilience. The variables related to this dimension, which require immediate, necessary and short-term measure, has been mostly related to the decreased livelihood resilience of the villagers. In fact, the surprising and uncertain nature of the pandemic made short-term and immediate measures challenging and ambiguous, hence the short-term livelihood vulnerability of the villagers.

Table 7. Correlation of the main dimensions of resilience after the negative impact of the corona crisis in the region

		Livelihood resilience	The ability to adapt and rebuild after the crisis of the corona pandemic	The ability to confront and rebuild after the corona pandemic
Livelihood resilience	Pearson correlation	1	.520**	.653**
	Significance		.000	.000
	Total	330	330	330
The ability to adapt and rebuild after the crisis of the corona pandemic	Pearson correlation	.520**	1	.313**
	Significance	.000		.000
	Total	330	330	330
The ability to confront and rebuild after the corona pandemic	Pearson correlation	.653**	.313**	1
	Significance	.000	.000	
	Total	330	330	330

Significance at the level of 0.01

5. Discussion and Conclusion

This research aimed to answer the effect of the corona pandemic on the livelihood resilience of

the villagers in Oraman District of Sarvabad County.

In order to answer this research question, livelihood resilience was operationalized and measured in two components. First, short-term activities to confront the pandemic and prevent the impact of its adverse livelihood effects. Second, relying on actions and capacities that provide long-term adaptability to crises.

Two components gained averages of 2.63 and 2.72 at a significance level of 0.01. Therefore, the livelihood resilience of the villagers in Oraman District is in a bad situation in both dimensions of confrontation and adaptation. This situation implies neither the short-term confronting ability nor long-term adaptation ability for the region's villagers. In other words, after the pandemic, the provision of the livelihood of the villagers and the access to their livelihood assets has been severely reduced as the period was expanded and economic closures and social limitations were continued. This issue shows the low level of capacities of the local people. Capacity building is a central goal and program of international development organizations to improve the damaged areas. In addition, increasing the capacities in rural areas at the individual, social and organizational levels makes a strong society which returns to the previous situation at the minor damage in the quality and quantity of livelihood in the shortest possible time. Taking long-term activities such as education, social security and empowering the local community, we can easily manage human and natural hazards and not turn into a crisis. This way, the villagers can secure their livelihood so they can easily absorb the risks and react adequately.

Also, the results showed that the variables in the adaptation dimension had the most significant impact on the poor livelihood resilience of the villagers against the Corona pandemic. The best solution for the resilience of rural areas is to

overcome the existing deficiencies and weaknesses in a fundamental and structural way. Indeed, we can only hope to reduce the effects of the pandemic in the short term. However, the more this situation continues, the sooner the livelihood system of the villagers falls apart. Therefore, the optimal management in the crisis of the corona to improve the livelihood of villagers and other similar crises is to move towards adaptive measures that empower the local community and increase their individual, social and organizational capacities. Unfortunately, the programs implemented in Oraman District to increase adaptabilities are limited. In this region, the crisis management system is highly ineffective and based on old and outdated approaches to crisis management.

The leading solution to improve the livelihood resilience of the villagers in the region against crises is to change the managerial perspective of crisis management from a traditional and passive approach to a new proactive approach. The suggested approach requires integrated management and is far from disorganization and disharmony of organizations in relation to locals and their participation. To this end, in addition to training development managers, there is a need to train locals and form a crisis management unit headquarters with effective performance, efficiency and up-to-date knowledge and awareness. Also, the empowerment of the rural poor of the region should continuously increase their capacities.

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Authors' contributions

The authors equally contributed to the preparation of this article.

Conflict of interest

The author declare no conflict of interest.

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سنجش و تحلیل اثرات پاندمی کرونا بر تاب‌آوری معیشتی خانوارهای روستایی (مطالعه موردی: روستاهای بخش اورامان شهرستان سروآباد)

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چکیده مبسوط

۱. مقدمه

دارد، نقش تاب‌آوری اقتصادی را بسیار پررنگ می‌نماید چرا که آنچه تفاوت در ایجاد هندسه شوک را سبب می‌شود، وسعت پاسخدهی، مقابله و بازآفرینی نظام اقتصادی کشورهای مختلف می‌باشد هسته اصلی رویکرد تاب‌آوری معیشتی، استراتژی‌های سازگارانه‌ای است که توسط خانوارها یا افراد در زمان شوک و استرس‌های وارده بر معیشت‌شان، اتخاذ می‌شود. انعطاف‌پذیری معیشتی، به این معنا است که استراتژی‌های معیشتی فردی و اجتماعی بکارگرفته شده توان مقابله با تأثیرات فشارهای و شوک‌های کوتاه مدت، ناگهانی و بلندمدت را برای افراد و اجتماعات آسان می‌نماید با بررسی هسته‌های اصلی تاب‌آوری، می‌توان دریافت که: قدرت مقابله که مبتنی بر اقدامات کوتاه مدت با وقوع بحران کرونا و حین آن می‌باشد و نیز، ظرفیت سازگاری که مبتنی بر اقدامات بلندمدت در راستای بازسازی معیشتی پس از بحران کرونا و حتی؛ در مرحله قبل از وقوع این بحران و مبتنی بر پیشگیری است؛ می‌توان به بررسی وضعیت تاب‌آوری معیشتی روستائیان با تداوم پاندمی کرونا پرداخت. در این میان، زمان؛ عامل مهمی به ویژه در بخش مقابله‌ای بررسی تاب‌آوری معیشتی روستائیان است؛ چرا که بایستی، در بهینه‌ترین حالت، اقدامات مناسب و متناسب جهت جلوگیری از نزول سطح معیشت روستائیان انجام گیرد. در این میان، چگونگی بازگشت به روال عادی معیشت قبل از بیماری و یا حتی، اتخاذ یک شیوه جدید تامین معیشت مبتنی بر تداوم پاندمی کرونا است که تعیین‌کننده، میزان تاب‌آوری معیشتی روستائیان می‌باشد.

۳. روش تحقیق

تحقیق از لحاظ هدف، کاربردی، به لحاظ روش، توصیفی - تحلیلی و از لحاظ گردآوری اطلاعات ترکیبی از روش اسنادی - پیمایشی است، قلمرو مکانی نواحی روستایی بخش مرکزی شهرستان اورامان و از لحاظ زمانی ۶ ماهه دوم سال ۱۴۰۰ را شامل می‌شود. متغیر مستقل در این پژوهش، پاندمی کووید ۱۹ و متغیر وابسته تاب‌آوری

بحران کوید ۱۹ یک شوک بزرگ و غیرمنتظره‌ای بود که تقریباً تمام دنیا را به طور همزمان، تحت تأثیر قرار داد. بنابراین یک نمونه منحصر به فرد از یک شوک کلی در سراسر جهان است. ضعف‌های متعدد در عرصه‌های روستایی به ویژه در عرصه‌های خدماتی و زیرساختی و حمایت و تامین اجتماعی با شیوه پاندمی کرونا و تسلط دوران قرنطینه بیش از پیش، آشکار شد.

بخش اورامان شهرستان سروآباد یکی از بخشهای استان کردستان است که در دوران همه‌گیری کرونا و تداوم آن تا وضعیت کنونی، شرایط متفاوتی را تجربه کرده‌است. با توجه به مقصد گردشگری بودن این منطقه در عرصه ملی و بین‌المللی، قرارگیری در مسیر ارتباطی استان کردستان و کرمانشاه، نزدیکی به مراکز تجمع کولبری استان و مرز با کشور عراق، ورود مستمر و مکرر بومیان منطقه از شهرستان‌های اطراف و حتی؛ شهرستان دیگر کشور به دلیل خروج نیروی کار روستاها به این مناطق و بازگشت آنها به روستاهای منطقه، اپیدمی کرونا به سرعت در منطقه گسترش یافت و به دنبال قرنطینه‌های سراسری، شرایط ویژه معیشتی در منطقه شکل گرفت. روستائینی که تامین معیشت آنها بواسطه همه‌گیری کرونا به شدت، دچار تحول شد؛ به ویژه اینکه خروج نیروی کار روستا و گردشگری به عنوان مهمترین، راهبردهای تامین سرمایه‌های معیشتی روستائیان، دچار رکود گردیدند. حال در پژوهش حاضر، مسئله اصلی، این است که وضعیت تامین معیشت روستائیان با بروز و تداوم پاندمی کرونا، دچار چه تغییراتی گردیده است؟

۲. مبانی نظری تحقیق

شیوع کرونا یک شوک ناگهانی بود که به دلیل فقدان تاب‌آوری لازم، به بحرانی همه‌گیر، پیچیده و در تمامی ابعاد زندگی انسانی، مبدل شد. با مطرح شدن هندسه شوک که اشاره به نوع جهت‌گیری و شرایط پیش آمده به دنبال بحران اقتصادی ۲۰۰۸ اقتصادی جهان

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میانگین (۳)، کمتر بوده و به ترتیب با محاسبه میانگین‌های نامناسب برابر ۲.۷۳ و ۲.۶۲ می‌توان با اطمینان ۹۹ درصد اظهار کرد که وضعیت اقدامات مقابله‌ای و جبرانی و ظرفیت‌های سازگاران در برابر بحران ناشی از ویروس کرونا در منطقه مورد مطالعه در سطح رضایت بخشی نبوده‌است. در مجموع و حالت کلی هم، میانگین محاسبه شده برابر ۲.۶۷ در سطح معنی‌داری ۰.۰۱ نشان از اثرگذاری منفی بحران کرونا بر وضعیت تاب‌آوری معیشتی روستائیان بخش اورامان شهرستان سروآباد دارد. در واقع، می‌توان پی‌برد که معیشت خانوارهای روستایی بواسطه ضعف در دسترسی به دارایی‌ها، ظرفیت‌ها و امکانات مورد نیاز به شدت با شیوع و تدام کرونا آسیب دیده است

۵. بحث و نتیجه گیری

نتایج نشان داد که وضعیت تاب‌آوری معیشتی روستائیان در بخش اورامان در مقابل پاندمی کرونا، در هر دو بعد مقابله و سازگاری در وضعیت بسیار نامناسبی است. این وضعیت، نشان می‌دهد که نه توان مقابله کوتاه‌مدت و نه توان سازگاری بلندمدت معیشتی برای روستائیان منطقه وجود ندارد. به بیانی دیگر با شیوع کووید-۱۹، به دلیل آسیب‌پذیری بالای معیشتی روستائیان، تامین معیشت روستائیان و به ویژه دسترسی به دارایی‌های معیشتی‌شان به شدت، کاهش یافته و با تداوم تسلط این بیماری و آثار قرنطینه و تعطیلی‌های اقتصادی و محدودیت‌های اجتماعی آن، آسیب‌پذیری معیشتی روستائیان، افزایش یافته‌است. همچنین نتایج نشان داد که عدم مطلوبیت وضعیت متغیرهای بعد سازگاری، بیشترین تاثیر را در وضعیت نامناسب تاب‌آوری معیشتی روستائیان در برابر پاندمی کرونا داشته است. در این ارتباط، لازم به ذکر است که به واقع، به دلیل مشکلات متعدد نواحی روستایی و کمبودهای مختلف آنها در عرصه اقتصادی، اجتماعی و زیرساختی، تا زمانی که نتوان به صورت ریشه‌ای و ساختاری به کمبودها و ضعف‌های موجود، چیره شد و آن را از بین برد، نمی‌توان به افزایش قدرت تاب‌آوری معیشتی روستائیان، امیدوار بود.

کلیدواژه‌ها: پاندمی کرونا؛ تاب‌آوری معیشتی؛ بخش اورامان شهرستان سروآباد.

تشکر و قدردانی


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

معیشتی خانوارهای روستایی بخش اورامان شهرستان سروآباد در نظر گرفته شده است. جوامع آماری پژوهش را سه گروه، مردم محلی، مسئولین توسعه‌ای و متخصصان علمی منطقه، دربر می‌گیرند. در راستای تعیین حجم نمونه از این جوامع آماری در گروه مردم محلی، بر اساس جمعیت (۵۳۹۰ نفر) حجم نمونه آماری پژوهش برابر ۳۵۸ خانوار محاسبه گردید، اما در گروه دوم، یعنی در گروه مسئولین توسعه‌ای به روش هدفمند، تعداد ۱۸ نفر از مسئولین و در گروه سوم، مشتمل بر متخصصان علمی تعداد ۱۲ نفر از رشته‌های جغرافیا و برنامه‌ریزی روستایی، گردشگری، کشاورزی و جامعه‌شناسی توسعه، مشخص گردیدند

شهرستان سروآباد با مساحت ۱۱۶۸/۴ کیلومترمربع در جنوب غربی استان کردستان قرار گرفته است. این شهرستان تا پایان سال ۱۴۰۰ دارای دو بخش مرکزی و اورامان و دو شهر به نام‌های سروآباد و اورامان تخت و هشت دهستان و ۱۷۴ آبادی دارای سکنه بوده است. بخش اورامان با ۱۴ روستا دارای ۳۷۰۷ خانوار و حدود ۱۴۲۶۹ نفر جمعیت، تابع شهرستان سروآباد است که در ۱۷۰ کیلومتر جنوب غربی مرکز استان کردستان (سنندج) قرار دارد.

۴. یافته‌های تحقیق

بررسی پاسخ‌های ارائه شده در ارتباط با ظرفیت، قدرت مقابله و بازسازی روستائیان بخش اورامان، بعد از بحران‌ها به ویژه با شیوع پاندمی کرونا در تمامی متغیرهای مورد سنجش، سطح معنی‌داری کمتر از آلفای ۰.۰۵ محاسبه شده است و این امر، یکسانی اعتقاد روستائیان نسبت به وضعیت موجود (شرایط کنونی) را نشان می‌دهد و بررسی پاسخ‌های ارائه شده در ارتباط با توانایی سازگاری و انطباق بعد از بحران شیوع پاندمی کرونا روستائیان بخش اورامان، نتایج استخراجی از پاسخ‌های ارائه شده در تمامی متغیرهای مورد سنجش، سطح معنی‌داری کمتر از آلفای ۰.۰۵ محاسبه شده و این امر، نشان از اعتقاد یکسان روستائیان به وضعیت ابراز شده دارد. جمع‌بندی پاسخ‌های ارائه شده در آزمون تی تک نمونه‌ای، حاکی از آن است که مقدار میانگین‌های محاسبه شده برای هر دو بعد تاب‌آوری مورد سنجش، یعنی؛ قدرت مقابله و بازسازی بعد از بحران شیوع پاندمی کرونا که بر اقدامات کوتاه مدت، مقطعی و فوری جهت جبران آسیب‌ها و بازگشت به روال عادی تاکید دارد و بعد توانایی سازگاری و انطباق بعد از بحران شیوع پاندمی کرونا که بر اقدامات بلندمدت و ارتقای ظرفیت‌ها در مواجهه با بحران‌های آتی دلالت دارد؛ در سطح معنی‌داری ۰.۰۰۱ از حد مطلوب، برابر

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