Ukrainian Journal of Ecology

Ukrainian Journal of Ecology, 2018, 8(1), 475–482 doi: 10.15421/2018_238

ORIGINAL ARTICLE

Ecological impact of unemployment on rural-urban migration in Zeberkhan District of Nishapur County

Rita Alizadeh, Hamid Ja'fari*, Katayoon Alizadeh, Mahdi Jahani Sani

Department of Geography, Mashhad Branch, Islamic Azad University
Mashhad, Iran
**Corresponding Author E-mail : Jafari1421@mshdiau.ac.ir*
Submitted: 02.01.2018. Accepted: 06.02.2018

In developing countries including Iran, migration from village to city is considered among the most important socio-economic and political issues. Migration, both in the origin and destination, creates various problems and difficulties such as changes in population composition, unemployment, level of wages and per capita income, the incidence of multiple disorders caused by pressure on the limited resources of urban communities and evacuation and destruction of villages. Today, one of the government's main concerns is to control the irregular migration, solve the city's problems and reduce the adverse effects of migration in rural areas. If this problem is not fundamentally addressed, irregular migrations will turn into uncontrollable economic, social and political crises of society. Since the phenomenon of migration makes multiple negative effects on the origin (village) and destination (city), the ultimate goal of all rural planning is to preserve population in the environment of villages, and any study helping to maintain population in villages and reduce the migration process is important and its implementation is necessary. The present study seeks to identify the most effective factors in migration incentives of villagers in the region under investigation. Thus, the main purpose of this research is to evaluate the impact of unemployment on migration. In the present study, field work and document study were used for data collection. To this end, 10 sample villages were selected and questionnaires were distributed and completed among these villages. The reliability and validity and the number of questionnaires were calculated by Cochran formula, and Cronbach's alpha coefficient. The obtained results demonstrated that unemployment has a great effect (a high impact is relative; we should say the greatest impact) on the migration of villagers in the studied region. Hence, it is essential to make a decisive decision in relation to identifying the factors affecting the migration of villagers and suggest practical solutions to control this migration.
Keywords: rural-urban migration; Zeberkhan District; Nishapur County

Introduction

Migration is one of the most important forms of population movement which, in addition to long-term population change, creates quick and short-term effects on the number and structure of the population (Pakdaman, 2010). Currently, migration from village to city is among the important phenomena both in industrial and developing countries, but its pace in developing countries is much greater than in industrial countries (Ramezani Esfeden, 2013). Indeed, migration is a response to differences (Hunt, 1993).

Migration is one of the key issues, especially in third world societies, which leads to several problems in the field of economic issues, false occupations and so on for migrants as a result of the evacuation of villages and the influx of villagers into the city. Therefore, it is necessary to discuss this issue and address its importance (Saroukhani, 1994). Migration generally means leaving the mainland and settling in another land permanently or temporarily. In the strict sense of the word which is the most important type of population movement, migration includes the individual or collective displacement of humans permanently without the intention of returning to the origin (Javan, 2004). Displacement can be considered as migration when it brings about a change in the socioeconomic situation of the moving person (Lucas & Mir, 2005). Population geographers argue that migration is the displacement between two geographic units or departure from one's land and settlement in another land (Diyani, 2007). Population displacement and movement is regarded as migration when the individual leaves his permanent labor market and housing and prepares a new place for work and housing (Zax, 1994).

The formation of migration as a social phenomenon has attracted the attention of many experts (Movahhed & Niyazi, 2008: 37). Migration is a phenomenon that is strongly influenced by economic and social conditions (Zanjani, 2002). Migration is the result of poverty in rural areas (Dasgopta, 1993) Moving from one land to another is an event that is more or less seen in all

advanced and third world societies (Ashofteh, 2005). Migration is not just a geographic transfer but is considered a kind of psychological and social transition and can be a cultural frustration for the people in the community of origin and destination (Moradi & Golmorad, 2006). The dynamics of the relationship between humans and places is at the heart of the migration phenomenon. Due to the widespread phenomenon of migration in today's world, all human societies are in some way faced with the challenge of migration, especially the migration of youths from village to city (Sajjadpour, 2005). Although economic and non-economic factors are consistently effective in motivating rural-urban migration, effective factors vary from region to region (Shefer, 1993).

Methods

The area under study is Zeberkhan District of Nishapur County, which is located in 25°52' N and 58°52' – 59°18' E. This district is one of the six districts of Nishapur County which is located on the southern slopes of Binaloud Mountains. This district is limited to Torqabeh of Mashhad from the north, Ahmadabad District of Mashhad from the east, Kadkan District of Torbat Heydarieh from the south and central parts and Miyan Jolgeh district of Nishapur from the west. This district with an area of 1102 square kilometers and an average height of 1250 meters above sea level and with the centrality of Gadamgah city accounts for around 9% of the area of Nishapur County (Department of Logistics Studies, Governor Generalship of Razavi Khorasan, 2017).

The placement of this district in the foothill fertile plain of Binaloud, its proximity to the second most populous city of the country, i.e. Mashhad, and the passage of Tehran-Mashhad railroad and access road through this geographic area have created a privileged position for this district (Department, 2017).

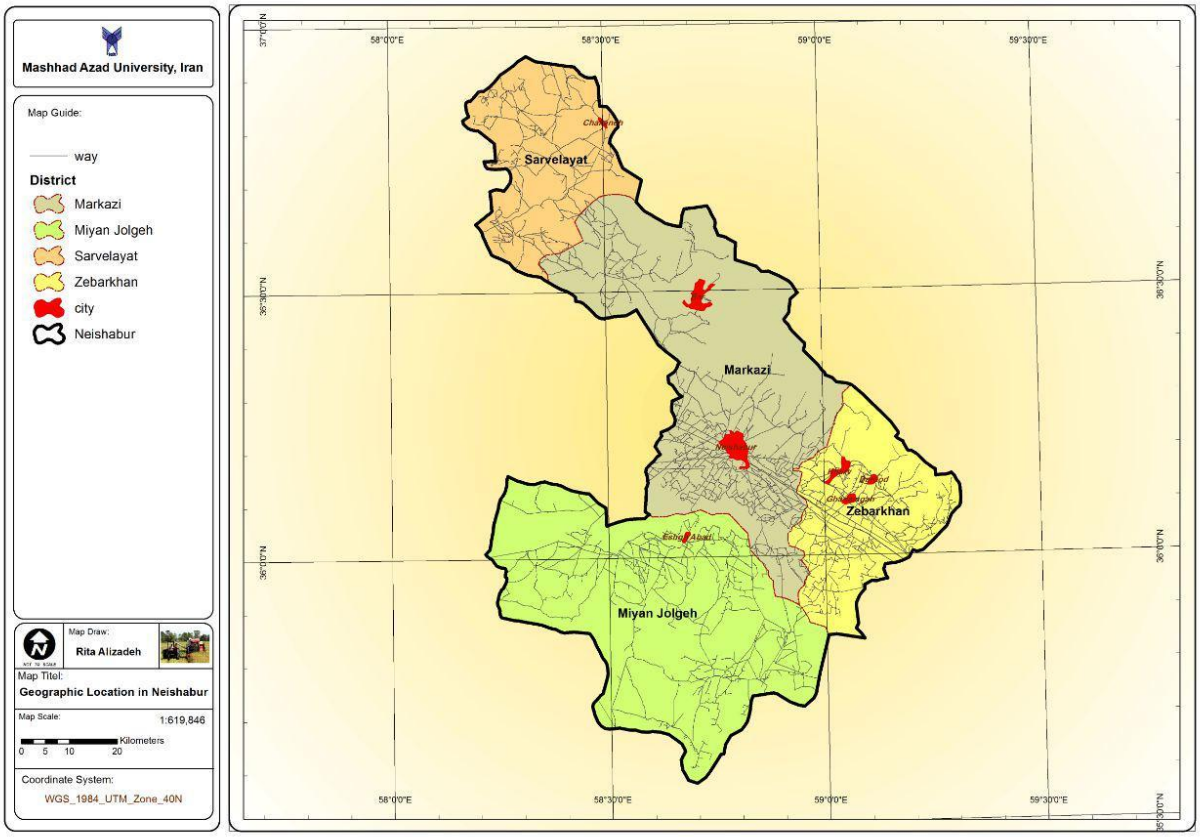

Fig. 1. Study area. Source: Central governorship of Nishapur (Author interpretation)

Understanding the main research problem is indicative of original tracing in the study (Sekaran, 1992). Given that the present research evaluates unemployment as the most important factor affecting rural migrations in Zeberkhan District of Nishapur County, it is an applied study in terms of purpose and a descriptive-analytical study in terms of methodology and its data has been collected through field and non-field methods.

In this research, "rural migration" is the dependent variable and unemployment is the independent variable. Further, questionnaire was recognized to be the most appropriate research tool and accordingly, its questions were arranged in two ways:

a) General questions: In these questions, the aim is to obtain general and demographic information of respondents. This part consists of cases like gender, age status, literacy status, rural residence history, causes of staying in the village, job status and type, the desire for migration and the reasons for the migration of friends and relatives.

b) Specialized questions (analytical-inferential): Specialized questions are based on the research hypotheses and items related to each question are scored based on a 5-point Likert scale, where Very Low, Low, Medium, High, and Very High correspond to the scores from 1 to 5 respectively.

In this study, the required information has been achieved through field and non-field methods, survey of sample villages, interview, completion of questionnaires, and observations. The research statistical population comprises 48 villages with a population of more than 100 people in the studied area. The total target population included 1800 households in 2016.

In this study, to determine the sample villages, out of 48 villages with a population of more than 100 people in 2016, 10 villages equivalent to 20% of the total population were selected as the sample to complete the questionnaire and next, out of 1800 households, 317 heads of household were chosen as the sample, using Cochran formula. The questionnaires were distributed in the sample villages and were then collected as provided in the table below.

Table 1. Spatial distribution of questionnaires in the sample villages

No.	Village name	Number of households	Required questionnaire
1	Hesar	78	14
2	Mohsenabad	299	53
3	Borj	389	69
4	Esmatabad	152	27
5	Heshmatiyeh	171	30
6	Chenaran	392	69
7	Daneh Kashefiyeh	102	18
8	Moushan	90	16
9	Javadiyeh	92	16
10	Mohammadabad	35	6
Total		**1800**	**318**

In the present study, face validity has been applied. To this end, the questionnaire was made available to professors and experts in a few steps and finally, ultimate edition was performed according to the opinion of the supervisor and advisor.

To measure Cronbach's alpha reliability coefficient, the variance of the scores of sub questions in the questionnaire and the total test variance were initially calculated and then, the coefficient was estimated using the following formula:

$$\alpha = \frac{k}{k-1}\left[1 - \frac{\sum_{i=1}^{k} s_i^2}{\sigma^2}\right]$$

In this equation, K is the number of questions and Si represents the standard deviation of total score of questions. The greater the positive correlation between questions, the higher the rate of Cronbach's alpha will be and vice versa; the greater the mean variance of questions, the lower the rate of Cronbach's alpha will be (Javari & Saberi-far, 2012).

In this study, since Cronbach's alpha coefficient is usually a suitable indicator for assessing the reliability of the measurement tool and internal consistency between its elements, the reliability of the questionnaire employed in this research was evaluated with the help of Cronbach's alpha.

Table 2. Cronbach's alpha coefficients for the research variables

Questions' headlines	Alpha coefficient
Unemployment	0.773
Lack of income	0.756
Lack of welfare, health and service facilities	0.715
Total	0.854

Considering that the index of instrument reliability desirability in this study has been determined to be 0.8543, internal validity of the research tool is approved. To analyze the data in the present research, methods of descriptive and inferential statistics have been employed. In descriptive statistics, frequency tables and percentages, means and standard deviations have been used and in inferential statistics, Kolmogorov-Smirnov test has been used to determine the normality of variables and one-sample test has been applied to answer the research hypotheses. Additionally, SPSS/PC++ software package was used to do the calculations.

Testing the assumption of normality of variables

Before specifying the test type specifically in comparative tests, we need to make sure that the variables are normal.

Table 3. Normal distribution of variables

Research variables	Descriptive findings		Kolmogorov-Smirnov test		Result
	Mean	SD	Z statistic	Significance level	
Unemployment	3.83	0.79	2.93	0.0001	Not normal
Lack of income	3.93	0.66	3.60	0.0001	Not normal
Lack of welfare, health and service facilities	3.41	0.72	1.56	0.0160	Not normal

If the variables are normal, it is recommended to use parametric tests; otherwise, the use of equivalent nonparametric tests is considered. To determine the normality of variables, the significance level should be examined. If the significance level is lower than 0.05, the variable is not normal and if it is higher than 0.05, the variable is normal. As observed in the above table, the significance level in all cases is less than 0.05; thus, all of them are non-normal.

Results

Gender

Table 4. Frequency distribution of respondents in terms of gender

Gender	Frequency	Percentage
Male	182.9	57.2
Female	129.9	40.6
Unanswered	7.9	2.2
Total	318.9	100.0

The above table indicates that the gender status in the sample under investigation includes 57.2% male and 40.6% female. 2.2% did not answer this question.

Age

Table 5. Frequency distribution of respondents in terms of age

Age	Frequency	Percentage
Less than 25 years	48	15.1
Between 25 and 35 years	78	24.5
Between 36 and 45 years	92	28.9
Between 46 and 55 years	51	16
Above 56 years	22	6.9
Unanswered	27	8.6
Total	318	100

According to the above table, it is concluded that the age status in the studied sample includes 15.1% less than 25 years, 24.5% between 25 and 35 years, 28.9% between 36 and 45 years, 16% between 46 and 55 years and 6.9% above 56 years. 8.6% did not answer this question.

Literacy status

Table 6. Frequency distribution of respondents in terms of education level

Education level	Frequency	Percentage
Illiterate	46	14.5
Elementary	73	23
Diploma	108	34
Associate degree	46	14.5
Bachelor's degree and higher	38	11.9
Unanswered	7	2.1
Total	318	100

The above table shows that the education level in the sample under study includes 14.5% illiterate, 23% elementary, 34% diploma, 14.5% associate degree and 11.9% bachelor's degree and higher. 2.1% did not answer this question.

Rural residence history

Table 7. Frequency distribution of respondents in terms of rural residence history

Rural residence history	Frequency	Percentage
Less than 5 years	52	16.4
Between 6 and 10 years	40	12.6
Between 11 and 20 years	69	21.7
More than 20 years	156	49.1
Unanswered	1	0.2
Total	318	100

As can be seen in Table 7, rural residence history in the sample under study includes 16.4% lower than 5 years, 12.6% between 6 and 10 years, 21.7% between 11 and 20 years and 49.1% more than 20 years. 0.2% also did not answer this question.

Job status

Table 8. Frequency distribution of respondents in terms of job status

Job status	Frequency	Percentage
Employed	239	75.2
Unemployed	77	24.2
Unanswered	2	0.6
Total	318	100

According to the findings of the above table, job status in the studied sample includes 75.2% employed and 24.2% unemployed. 0.6% did not answer this question.

Desire for migration

Table 9. Frequency distribution of respondents in terms of desire for migration

Desire for migration	Frequency	Percentage
Yes	171	53.8
No	147	46.2
Total	318	100

Based on Table 9, desire for migration in the sample under investigation includes 53.8% with the desire for migration and 46.2% without the desire for migration.

Causes of relatives' migration

Table 10. Frequency distribution of respondents in terms of the causes of relatives' migration

Causes of relatives' migration	Frequency	Percentage
Unemployment	60	18.9
Low income	84	26.4
Urban attractions	23	7.2
Lack of facilities and services	62	19.5
Other factors	20	6.3
Unanswered	69	21.7
Total	318	100

Causes of relatives' migration in the sample under consideration include 18.9% unemployment, 26.4% low income, 7.2% urban attractions, 19.5% lack of facilities and services and 6.3% other factors. 21.7% did not answer this question.

ANALYTICAL-INFERENTIAL FINDINGS

Effect of insufficient income on migration

Table 11. Interviewees' answer to the research items

Items	Very low	Low	Medium	High	Very high	Unanswered
Frequency distribution of the individuals' response to the effect of insufficient income on migration	1.6	3.5	21.7	53.1	19.2	0.9
Frequency distribution of the individuals' response to the effect of job opportunities on migration	2.8	17.6	29.3	31.4	18.6	0.3
Frequency distribution of the individuals' response to the effect of job shortage on migration	2.5	6	30.8	39	20.8	0.9

As provided in Table 11, the individuals' response to the effect of insufficient income on migration in the studied sample includes 1.6% very low, 3.5% low, 21.7% medium, 53.1% high and 19.2% very high. 0.9% did not answer this question.
According to the results of this table, totally 72.3% of the respondents have selected the options of "high" and "very high" for the impact of insufficient income on migration.

Effect of job opportunities on migration

Based on the findings of Table 11, the respondents' answer to the impact of job opportunities on migration in the sample under study includes 2.8% very low, 17.6% low, 29.3% medium, 31.4% high and 18.6% very high. 0.3% did not answer this question. In total, 50% of the respondents have selected the options of "high" and "very high" for the effect of job opportunities on migration.

Effect of job shortage on migration

The individuals' response to the impact of job shortage on migration in the sample under investigation includes 2.5% very low, 6% low, 30.8% medium, 39% high and 20.8% very high. 0.9% did not answer this question. Overall, 59.8% of the respondents have chosen the options of "high" and "very high" for the impact of job shortage on migration. With regard to the studies conducted, it seems that unemployment has a huge impact on the migration of villagers in the studied area. Given that the variable of the role of unemployment in the migration of villagers does not have a normal distribution, one-sample sign test (which is a parametric test) is used to answer the hypothesis. Now, assume that M is the real median of the variable of the impact of unemployment on the migration of villagers in the region under study. Given that this variable has values between 1 and 5, the values less than or equal to 3 are considered as lack of effectiveness and the values greater than 3 are regarded as the effectiveness of unemployment in rural migrations. Hence, we have to test the following hypotheses:
Null hypothesis: Unemployment has not been effective in rural migrations of the studied area.
Hypothesis 1: Unemployment has been effective in rural migrations of the studied area

Table 12. One-sample sign test for the effect of unemployment on rural migrations in the area under study

Factors	Mean	SD	Median	less than median	equal to median	greater than median	Significance level
The role of unemployment in rural migrations of the studied area	3.83	0.79	4	28	44	246	0.0001

Given the results of Table 12, it is determined that the mean of the variable of the impact of unemployment on rural migrations of the area under study is equal to 3.83 with a standard deviation of 0.79 and median of 4. Besides, the significance level of one-sample sign test is equal to 0.0001, which is lower than 0.05. Thus, the null hypothesis is rejected and hypothesis 1 indicating that unemployment is effective in rural migrations of the studied region is accepted. Also, the first hypothesis is confirmed with respect to Friedman test.

Conclusions

By examining the results obtained from the present study, it is found that unemployment is the most effective factor in strengthening migration incentives among the villagers of the sample villages in Zeberkhan District of Nishapur County.
Migration is a natural thing in today's world. Currently, migration and exodus of the active force from the village is one of the basic problems facing the rural community and the rules that restrict such a move are essential to prevent rural migrations. Since the beginning of the last century, the policies adopted in the field of economic and social modernization have led to

increased migration. But the most important issue in connection with migration is the management of its problems and difficulties. Considering that the degree of development and the amount of the enjoyment of facilities are the most important factors in migration, discriminatory policies in development planning of the regions and the rate of the enjoyment of facilities need to be abandoned and in order to prevent severe demographic movements, attempt should be made to improve the state of development of regions of origin. In general, any population movement that leads to a change in the place of residence exacerbates social and cultural conflicts and crises. Meanwhile, rural-urban migrations intensify cultural confrontation and lead to turmoil in society.

Although on one side, the migration of young people from village to city brings urban population density, prevalence of false occupations and some social damage, it leads to the evacuation of young and talented labor force from the village and ultimately depression of agricultural activity on the other side.

With the migration of rural youths to cities and the recession of agricultural activities, the livelihood and self-sufficient rural economy weakens and the extended rural family will collapse.

Given the prediction of a declining population in Zeberkhan District in the coming years and limited facilities and restrictions of Zeberkhan District, there is a need for expanding employment-generating activities with short-term emphasis on agriculture and hand crafts and long-term emphasis on small and large suitable industries. On the other hand, development of education, health and service centers, especially in elementary school to high school, tailored to the needs of the village environment in terms of content seems necessary to prevent unemployment and departure from the village for study and absorption in cities after or during schooling. All of these measures can be effective in modifying city-village relations and preventing the irregular migration of villagers.

Undoubtedly, development of job opportunities in order to benefit from regional relative capabilities and advantages is among the most important solutions to deal with rural-urban migrations. Moreover, the findings reveal that with the development of entrepreneurship and also a participatory approach to rural development programs, we can enhance the incentive to stay in the village.

References

Akbar Pour M., Motee Langaroudi, S.H., Rezvani, M.R. (2004). Proper strategy of population stability in rural settlements of Hashtrod, Iran. Journal of Rural Studies, 4, 64.

Asheri, E. (2004). The effect of development activities on rural population stability from 1976 to 1996. Journal of Geographical Studies, 70, 123.

Ashofteh Tehrani, A. (2005). Third World Sociology. Payame Noor University Press.

Beik Mohammadi, H., Mokhtar Abadi, R. (2003). Geographical analysis of migration in Khuzestan province. Journal of Geography and Development, 21, 237.

Dasgopta, B. (1993). Public housing and migration: A multi-level modeling approach. Int. J. Popul. Geo., 3.

Diyani, L. (2007). A survey on the resettlement of rural migrants covered by the Imam Khomeini Relief Committee in rural areas: A case study of Kelardasht County. Master's thesis, Tarbiat Modarres University (in Persian).

Jangi, H., Jafari, H., Ali Ahmadian, M. (2017). Factors affecting population stability in rural settlements (Case study: Chenaran, Iran). Journal of Research in Ecology, 5(2), 1026-1032.

Javan, J. (2004). Geography of the Iranian Population. Second Edition. Jahad Daneshgahi Publication of Mashhad.

Lucas, D. Mir, P. (2005). An Introduction to Population Studies. Translated by H. Mahmoudian, Tehran: Tehran University Press Institute.

Mechaniki, J., Qalibafan, S.H. (2003). The effects of rural migration on population structure and instability of rural settlements in Birjand, Iran. Journal of Geography and Development, 2, 128.

Momtaz, J. (2012). Impact of rural-urban migration on physical and social environment the case of Dhak city. International Journal of Development and Sustainability, 18, 12.

Moradi, I. & Golmorad, M. T. (2006). Investigating the religious values and mental health of immigrants: A case study of Eslamabad-e Gharb. Quarterly Journal of Population, 57-58.

Motee Langaroudi, S.H., Bakhshi, Z. (2010). The role of improvement facilities in population stability and empowerment of Beihagh, Sabzevar, Iran. Journal of Geographical Studies, 72 p.

Motee Langaroudi, S.H., Rezvani, M.R., Akbar Pour, M. (2013). Determining proper strategies for population stability in rural settlements of Hashtroud, Iran. Journal of Housing and Environment in Villages, 142, 32.

Movahhed, M. & Niyazi, S. (2008). The relationship between the tendency of female students to immigrate abroad and their cultural characteristics. Women's Research.

Pakdaman, M. (2010). Migration, social-cultural adaptation and psychological consequences. Selected Articles of the First National Conference on Immigration, Order and Security, Abrar Printing, 2 (in Persian).

Qasemi, M. (2011). Rural-urban migration in rural settlements of Mashhad villages. National Conference of Geography and Rural Development Planning, Ferdowsi University, 15-24p.

Ramezani Esfeden, A. (2013). Analysis of the factors affecting rural migration in Shaskouh District of Zirkouh County and its role in the order and security of the region. National Conference on South Khorasan, Order and Security, University of Birjand (in Persian).

Rostamali Zadeh, V., Qasemi, A. (2013). Factors affecting youth stability of Ahar, Iran. Journal of Rural Studies, 3, 9.

Rural Studies Center of Razavi Khorasan Governor Generalship. (2017). Rural Research and Information.

Sa'adi, H., Bahrami, L. (2013). Reasons of rural migration in Hamedan province, Iran. Journal of Faculty of Literature and Humanities, 2, 14.
Sajjadpour, M. K. (2005). A Conceptual and Operational Framework in International Immigration Management: A Case Study of Iran. Quarterly Journal of Geographic Research, 78.
Shayan, H., Hussein Zadeg, Sr., Khosro Beigi, R. (2011). Rural development stability assessment of Komijan, Iran. Journal of Geography and Development, 24, 16.
Statistical Year Book of Khorasan Razavi. (2015). Department of statistics and information. Khorasan Razavi management and planning organization, Negah publication.
Yang, Du, Albert Park, I., Sangui, W. (2005). Migration and rural poverty in China. Journal of Comparative Economics, 33, 688-709.
Zaki, M.A. (2012). The effect of migration on social and economic structure of urban communities. Quarterly Journal of Urban Studies, 2, 19.
Zanjani, H. (2002). Demographic analysis. Third Edition, Samt Publications.
Zax, S.J. (1994). When is move a migration. Regional Science and Urban Economics, North Holland, 24

Citation:
Rita Alizadeh, Hamid Ja'fari, Katayoon Alizadeh, Mahdi Jahani Sani (2018). Ecological impact of unemployment on rural-urban migration in Zeberkhan District of Nishapur County. *Ukrainian Journal of Ecology, 8*(1), 475–482.