ANALYZING THE EFFECTS OF ILAM INDUSTRIAL TOWN CONSTRUCTION ON THE DEVELOPMENT OF THE SURROUNDING VILLAGES, IRAN

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ABSTRACT - The present study is descriptive-analytical and its purpose is to identify and analyze the positive and negative effects of industrial town construction before and after construction on the surrounding villages by using the survey method. The statistical population of this study is 14,647 residents in the surrounding villages around Ilam industrial town. 250 members of this population were chosen as sample members by random sampling method based on Cochran's sampling formula. Comparison of the studied regions by Wilcoxon test (before and after industrial town construction) indicates that this industrial town could not positively influence this area. All in all, the result is that the studied industrial town has no considerable positive effect on the development and stability of its surrounding villages.

Keywords: industrial town, rural development, surrounding villages, Wilcoxon, Ilam Province

INTRODUCTION

Loss or shortage of industrial activities and stagnation in service activities derived from villages and its reliance on agricultural section to achieve income is one of the main characteristics of rural economy in our country. Making industry active in rural regions can lead to the development of the service section and qualification of the rural economy with new characteristics and potentials (Motieilangarodi, 2001: 22). Industrialization of rural regions refers to the establishment of industry in its centre and leads to non-agricultural employment, prevention from rural-urban migration, improving the economic bases of rural centres, taking full advantage of skills and potentials, processing agricultural productions, and acquiring fundamental outcomes and commodities for farmers and others (Sarvamini *et al.*, 2011: 228). It is possible to increase people's income and also their saving(s), if rural industrialization in every region is in proportion with other sections (Zhang, 1994: 22). This also leads to the betterment of the agricultural section and other sections of national economy (Haghighi, 2001: 55). Based on this, rural industrialization is a process that provides instruments and facilities of rural economic diversification and also consider as a strategy that decreases rural poverty (Lee, 2001: 3). This also improves the balance between the rural and urban families, agriculture, industry, regional economy, and finally leads to the industrial decentralization of the urban areas (Choi, 2001: 1). Undoubtedly, identification and evaluation of these outcomes in different spatial dimensions refer to the effects of these plans and projects and also show the functional status of such activities in line with the goals of regional and local development. On the other hand, this is also considered as a step in rural spatial planning and discipline.

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Some of the main policies of the Iranian government in rural development are diversification of rural economy, preventing irregular rural-urban migration, decreasing spatial injustice between urban and rural regions by developing and supporting carpet-making workshops, changing the function of subsidies and paying cash subsidies to the people, implementing rural plans, implementing Tuba plan in gardening in rural areas, implementing semi-industrial livestock raising plans in rural areas, granting *ex gratia* loans for building pressurized irrigation systems in the rural farming, etc.

These overall goals were developed in the framework of plans and projects and are implemented in different regions of this country especially in rural regions. However, some of the researchers who have worked on the development of the rural areas discuss rural industrialization as the footstone of the future strategy and believe that increasing exports and creating an equilibrium in the balance of payments is inevitable in order to improve per capita income and decrease unemployment and injustice at interregional level, in the areas where economic development is the key. With respect to this fact, government officials and managers pay attention to the establishment of industries in rural regions (Motieilangarodi and Najafikani, 2006: 167). Therefore, the main purpose of this study is to examine, identify, and analyze the effects of Ilam industrial town on the development of the surrounding villages before and after its establishment. In other words, this study seeks to answer to what extent does rural industrialization or establishment of industrial towns around villages provide employment opportunities for the unemployed and prevent rural-urban migration? And do these towns reinforce the economic fundamentals of the rural regions in order to develop non-agricultural employment, prevent rural-urban migration, improve the economic bases of rural centres, take full advantage of skills and potentials, process agricultural productions, and acquire fundamental outcomes and commodities for farmers and others? All in all, the aim of this study is to examine, identify, and analyze the effects of Ilam industrial town on the development of the surrounding villages.

MATERIALS AND METHODS

Study area and data sources

Having an area of 20,133 km^2, Ilam province is located in the west of Iran and represents 1.2% of the country's total area. This province stretches from 45° and 24 minutes to 48° and 10 minutes east of the Prime meridian and from 31° and 58 minutes to 34° and 15 minutes north of the equator. It borders Lorestan, Kermanshah and Khuzestan provinces and it shares 425 kilometres of its border with Iraq in the west. Generally, the northern and the north-eastern part of the province is mountainous, with a stretch of Zagros Mountains known as the North-East Zagros.

According to the latest percapita and housing census in 2012, nine townships, 19 districts, 19 cities and 750 villages in this province are populated. The total population of the province is 559,599 inhabitants, which represents 0.77% of the country's population. This province has the least population in the country and the relative density of population is 27.79 people per square kilometre.

In this province, economic activities are mostly focused on farming and livestock raising and honey production. Compared with farming and services, industry occupies an inconsequential part in the employment of this province. Besides, this province is poor in terms of mining resources and its only mines are sediment mines restricted to non-metallic minerals. The province has great resources of oil and gas. Since up to three decades ago most of the province's population lived a nomadic life and still a considerable share of its population lives in villages. In addition, there is a potential for nomadic tourism in this province.

Ilam is an underdeveloped province as far as industry is concerned. Due to being far from the centre of the country and because of the deprivation imposed upon it before the Islamic revolution, it did not undergo the development waves which prevailed in the 1960s and 1970s. Despite the regime change, its developments were limited to the establishment of some small-scale businesses. According to the census of the country's industrial workshops, the number of production units with ten or more employees and with potential to turn job opportunities to stable jobs in good conditions and in terms of insurance, labour law, etc. are numerous. Table 1 presents a comparison between the number of the province's workshops and those of the country.

The area under study is mountainous with cold mountain weather located near Chavar district in Ilam Township which is about 11 kilometres away from the town of Ilam. The industrial town of Ilam covers 110 hectares. Out of the 73.8 hectares, 59.53 hectares of industrial lands have already been granted to applications for founding industrial units by signing 4,596 contracts. It should be noted that the intended industrial state was founded in 1991.

The study is descriptive-analytical and because of the overwhelming extent of area, the survey method was used. The statistical population includes 14,647 rural residents around Ilam industrial town. Sample size was calculated at 250 subjects by using Cochran's sampling formula (p&q = 0.05; d = 0.06; z = 1.96). This information is indicated in Table 1. The sample members were chosen by random sampling method. For this purpose, seven villages were first chosen around the city of Ilam and then, sample numbers were calculated in proportion with the population and questionnaires were filled by them.

Table 1. *Number of industrial workshop in industrial parks of Ilam province in comparison with those of the entire country*

Name	1000 and more employees	500-999 employees	100-499 employees	50-99 employees	40-49 employees	30-39 employees	20-29 employees	10-19 employees	10 employees and less
Iran	105	187	1,619	1,902	1,026	1,782	3,293	6,735	16,649
Ilam	0	0	1	2	3	4	6	10	26

Data analysis methods

The main data-gathering method of this study is a self-administrated questionnaire. The intended questionnaire has three sections. The first section includes people's particulars such as age, number of family members, education, distance of residence from the industrial town, main occupation, secondary occupation, proportion of income from the main occupation, and educational degree. The second section includes the positive effects of the industrial town (social, economic, environmental, physical and agricultural) on the villages surrounding the industrial town. These effects were investigated by using 30 variables and 6 statements in the final results. The third section comprises information about the negative effects of the industrial town (social, economic, environmental, physical and agricultural) on the villages surrounding the industrial town. These effects were investigated by using 30 variables and 14 statements in the final results.

The validity of the questionnaire was later examined and confirmed by the faculty members of the Department of Geography at the University of Isfahan. In order to examine the reliability of the questionnaire, Cronbach's Alpha was used on the pre-test and then, a sample of 30 members was chosen randomly and asked to indicate the questionnaires. Finally, after some corrections and modifications, the final version of the questionnaire was developed. The results of the pre-test indicate that the questionnaire is reliable (Cronbach's Alpha coefficients were 0.875 and 0.845 for the positive and negative effects). In order to analyze the data and conclude the results, the descriptive statistics as well as the factor analysis were used. Besides, Wilcoxon test was employed to investigate the effects before and after the construction of the intended industrial estate.

The purpose of using factor analysis was to condense a great number of variables into a certain number of factors. Of course, each variable was considered as a dependant variable (Kalantari, 2005). Therefore, in the first step, appropriate variables were chosen from among the variables used in factor analysis. In order to determine the appropriateness of the data for factor analysis, KMO method and Bartlett's test were employed.

Table 2. *Distances of target villages from the industrial town and the frequency of their sample members*

Target villages	Distance (kilometres)	Total population	Chosen sample	Target villages	Distance (kilometres)	Total population	Chosen sample
Chovar	3	5,574	95	Banghalan	10	2,586	44
Mahdiabad	2.5	1,357	23	Haftcheshme	7	3,497	59
Mort	15	1,082	18	Gallejar	7	301	6
Rahesefid	12	250	5	Total of seven villages	-	14,647	250

Besides, Wilcoxon test was employed when only one group among a statistical population was selected as the sample group. Afterwards, this group was investigated in terms of one or more dependant variables, before and after offering independent variables. In other words, we compared the variations before and after offering the independent variables by using the SPSS software.

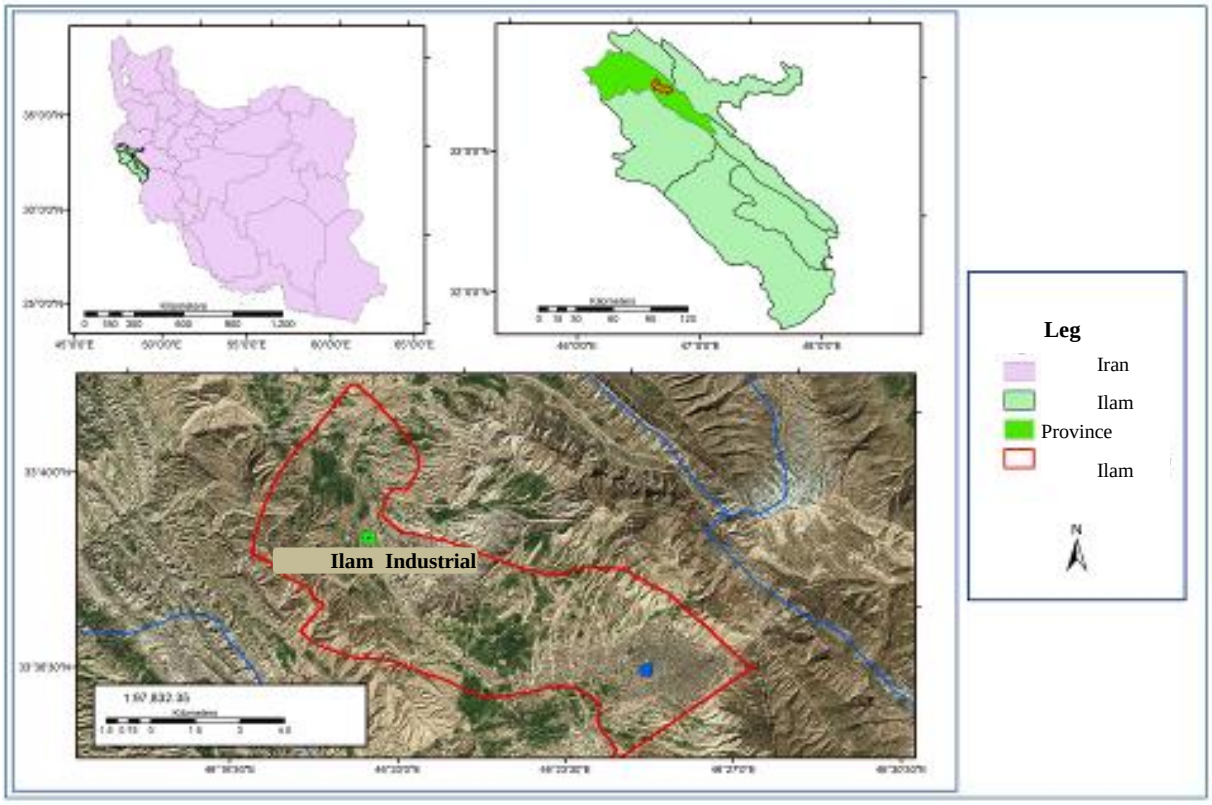

Figure 1. *Location of study area in Ilam Province, Iran*

RESULTS

1. Descriptive statistics

The descriptive findings of this study indicate that the average age of the people in the studied region is 49.5, the average number of the family members is about 6 and 15.3% of the respondents migrated from their rural regions to the villages that are closer to Ilam industrial town. Based on the results, 33.7% of the respondents were employed in Ilam industrial town and 75% of them were workers. 43% of the respondents later chose to be farmers. It should be remembered that about 60% of these respondents were employed in Ilam Petrochemical Company in full-time and part-time works.

2. Prioritization of Ilam Industrial Town's Effects on the surrounding villages

The results of this study indicate that the four most important positive effects of Ilam industrial town on its surrounding villages were new service jobs in the region, an increase in rural income, the improvement of the quantity and quality of transportation in villages, and better employment conditions for the educated. These are the most important effects from the perspective of the rural residents. Also, they indicate that the use of capital from the cities in rural regions, decreasing rural-urban migration, boosting the purchase power among the locals, and their confidence in achieving fixed incomes are the least important effects from their perspective. Therefore, these factors are less important than the others. In addition, the results indicate that selling agricultural lands and changing their use, providing necessary man power from the surrounding cities, less attention to agriculture and its problems, transition of local income and investment on urban regions are some of the most important negative effects of Ilam industrial town. Based on the results, some aspects of the rural employment, pollution in rural regions, decrease in investment in agriculture sector, and degradation of rangelands in the surrounding villages are the most important negative effects.

3. Factor Analysis of the Positive Effects of Ilam Industrial Town

Based on the results of Kaiser-Meyer-Oklin test, the KMO statistic is 0.68, the Bartlett value is 3512.3 and its significant levels is 0.01. With respect to the KMO, four factors have high eigenvalue (more than 1) in the investigated region. The results of this test are indicated in Table 3. These factors explain 56.70% of the dependent variable variation. In this study, social factor is the most important (its eigenvalue is 6.05). It explains 25.22% of total variation for industrial town and is considered as the main effective factor in the surrounding villages.

Table 3. *The results of factor analysis for positive effects of Ilam industrial town*

Factors	Eigenvalue	% Eigenvalue	% Explained variation
1th	6.05	25.22	25.22
2th	4.25	14.18	39.40
3th	3.45	9.08	48.40
4th	3.02	8.22	56.70
KMO: 0.68, sig: 0.000, Bartlett's test: 3512.3			

The results in Table 4 indicate that the first factor (social factor) includes decreasing rural-urban migration, increasing employment opportunities in rural regions, improving awareness and expertise among rural residents, easier access to industrial productions, providing employment conditions for the educated locals, providing seasonal employment opportunities for rural farmers, increasing employment in villages, and improving the quality and quantity in local transportation. This factor explains 25.22% of dependent variable variation. Considering the loaded variables, these factors could be named social factors.

Immigration is the adjusting factor of population in given geographical spaces. It slowly moves the surplus of work force from some areas to the areas where workforce is needed. This improves the conditions of the areas which are facing population pressure and shortage of productive resources. The working abilities of many people in rural or non-rural areas would decrease if they remained in their own environment (and did not use their ability for any reason), causing a diminishing in their proficiency. Studies conducted in various rural areas reveal that lack of equitable distribution of income in different strata of the community leads to emigration from villages. According to the findings, farming is the main occupation of 43% of the people in the study area. However, considering the droughts of the last two decades in this area, farming has decreased. Therefore, if there is not sufficient employment and income, those villages will face emigration. In such conditions, constructing industrial parks could enhance employment and solve income problems for the residents of these villages. Results in Table 4 reveal that by increasing job opportunities in the

villages under study, providing employment opportunities for some rural educated people, providing seasonal job opportunities for some farmers living in these villages, promoting awareness and skills among the villagers, a qualitative and quantitative improvement of transportation in villages, Ilam has reduced emigration in the area. Therefore, it could be said that the construction of Ilam industrial town has had the greatest effects in term of social factors. The factors ranked as secondary are presented in Table 4.

Table 4. *The extracted factors about positive effects of Ilam industrial town with their factor loading*

Effects	Variables	Factor loading
Social (32.18%)	Decreasing rural-urban migration	0.614
	Increasing employment opportunities in rural regions	0.725
	Improving awareness and expertise among rural residents	0.719
	Providing employment conditions for rural educated individuals	0.812
	Providing seasonal employment opportunities for rural farmers	0.825
	Quantitative and qualitative improvement in transportation vehicles	0.625
Agriculture (13.04%)	More and easy sale of animal productions	0.805
	Increasing animal and agricultural productions	0.622
	Using agricultural productions as industrial raw materials	0.745
Framework (4.18)	Increasing rural home prices	0.530
	Improvement in communication roads in the region	0.675
	Restoration of rural homes	0.672
Economic (18.28%)	Improvement in food consumption patterns	0.622
	Increasing rural residents' income	0.655
	Increasing rural residents' purchase power	0.601
	Rural residents' confidence about their fixed income	0.502

4. Factor Analysis of the Negative Effects of Ilam Industrial Town

Based on the results of Kaiser-Meyer-Oklin test, the KMO value is 0.712, Bartlett value is 3512.8 and its significant levels is 0.01. With respect to the KMO, five factors have high eigenvalue (more than 1) in this region. The results of this test are indicated in Table 5. These factors explain 69.05% of dependent variable variation.

The results in Table 6 indicate that the first factor includes the inclination of the families towards consumerism, adverse effect on traditional rural markets, more dropouts among students, labour supply from urban regions, less interest in agriculture among teenagers, and decrease in the population of young workers in the agricultural section. This factor explains 20.85% of dependent variable variation.

Creating job opportunities as well as job satisfaction and income stability are also important outcomes of creating an industrial town close to villages, which in turn reduces emigration. Many theoreticians believe that lack of productive employment would lead to less job security and, hence, to rural migrations. Therefore, one of the most important objectives of the development of industrial rural areas is to create productive and stable employment, to provide the villagers with job security and satisfaction. In the recent years, the industrialization of areas close to rural areas has developed more industrial products produced in local markets and has destroyed the local economy and the village markets. Besides, the entrance of these products into the market has changed the family consumption pattern and has also led to air, noise, and water pollution. Industrialization can also impinge upon the youth education since due to their employment in industry they will not have enough time to continue their education. Of course, we should not ignore the fact that the town of Ilam has been able to increase job opportunities in the area under study. However, as shown in Table 6, the industrial town has reduced the workforce in the farming sector of the region. Besides, the employment of the

farmers' children in industry has reduced their interest in farming. In addition, due to the low performance of the farming sector, because of several factors such as drought, not using modern and mechanized methods, etc., some of the young villagers have been forced to quit school and work in the industrial town in order to help their families financially. In addition, owing to the relative increase in the income of the families working in different sectors of the industrial town, the individuals under study have shown an interest in buying consumer and luxury goods.

Dimensions of the second factor (ecological effects) explain 15.92% of the dependent variable variation. Agricultural, economic and framework factors are the next variables that explain 14.87%, 12.09%, and 9.3% of the dependent variable variation.

Table 5. *The results of factor analysis for negative effects of Ilam industrial town*

Factors	Eigenvalue	%Eigenvalue	%Explained variation
1th	5.26	20.85	20.85
2th	4.01	15.92	36.77
3th	3.87	14.87	51.64
4th	3.02	12.09	63.73
5th	2.12	9.32	69.05
KMO: 0.712, sig: 0.000, Bartlett's test: 3512.8			

Table 6. *The extracted factors about negative effects of Ilam industrial town with their factor loading*

Effects	Variables	Factor loading
Social (20.85%)	Families' tendency to consumption-oriented behaviour	0.701
	Increasing dropout among students	0.652
	Labour supply from urban regions	0.823
	Decreasing teenagers' interest in agriculture	0.720
	Decreasing young labourers in agricultural sector	0.727
Ecological (15.92%)	Air pollution in rural regions	0.705
	Water pollution in rural regions	0.689
	Pollution of groundwater around the industrial town	0.722
Agriculture (14.87%)	Selling agricultural lands and changing their land use	0.790
	Decreasing investment in agricultural sector	0.870
	Decreasing attention to agriculture and its problems	0.752
Economic (12.09%)	Transition of rural residents' income towards urban investment	0.752
	Increasing some of rural residents' income	0.702
Framework (9.3%)	Relative development of some surrounding villages	0.768

5. Inferential Analysis

As the results of Wilcoxon test are indicated in Table 7, there are eight factors in examining the positive effects of Ilam industrial town from the rural residents perspective that do not have a significant effect on its surrounding villages (before and after industrialization). Therefore, the effects of industrial town construction in these eight factors have no significant differences in the periods before and after industrialization.

Although the primary objective of constructing industrial parks, especially in rural areas, is employing the workforce living in villages, according to Table 7, this park has been unsuccessful in increasing job opportunities. It should be noted that because of huge amount of construction in the early years and the need for a great number of workforce, the intended industrial park was successful in employing the remaining workforce of the region. However, when the workshops and industries

become prepared and reached the production stage, due to the lack of appropriate marketing by the authorities and the inability of the products of this park to compete with those produced in other parks located in other parts of the country, such as Tehran, Isfahan, etc., the production power of the workshops and industries in this park gradually diminished and their owners were forced to make redundancies. Besides, since in 2004 the petrochemical complex had been established and inaugurated in the study area and had employed a great share of the surplus workforce of the rural and urban areas of the region and even of the province, the people saw the industrial park as less effective.

Considering the low functionality of Ilam's industrial park in increasing job opportunities for the villagers of the region, it could be generally stated that, after its construction, the intended industrial park has had no impact on increasing the villagers' income and has been unable to ensure a stable income for them and hence motivate them to reconstruct their old houses. In addition, due to the lack of activity or the incapacity of industries to convert agricultural products in this industrial park, after its construction, it has been unable to buy agricultural products and encourage farmers.

Though youth represent 60% of the population of Ilam province, Iran's statistical centre has estimated an unemployment rate of 21% in this province. It is possible to solve the unemployment problem and meet the needs of the society by planning and utilizing these resources as well. This could increase the learning and skill in the area. As stated, the intended industrial park has been unable to enhance specialized information in the investigated villages. It is the main responsibility of central organizations to pave the way for employing workforce in the appropriate time and place by considering the existing needs and facilities in the industrial park. As stated by the people under study and by the employees of the industrial park, unfortunately, no measure has been taken by authorities to provide people with specialized trainings.

As the results of Wilcoxon test indicate in Table 8, there are several factors that have negative effects on Ilam industrial town. These include the decreasing of young labourers in agricultural sector, more human resources for the town coming from urban regions, increasing dropouts among students, adverse effects on traditional rural markets, shrink in rangelands, water pollution in the rural regions, indifference to the farmers and their problems, groundwater pollution in the surrounding villages, drops in family income, selling agricultural lands and changing their land use.

As Table 7 shows, in terms of positive effects, Ilam's industrial park has generally been unable to be effective in employing the rural surplus workforce. According to Table 8, the reason why this industrial park has been unable to be effective in the development of the villages surrounding it is the suspension or low progress of construction of workshops and industries in the industrial park and even their being left unfinished for reasons such as lack of finances by sponsors of the private and state sectors, the low quality of some products and their inability to compete with other industries and workshops producing similar products in other parts of Iran, the high cost of raw materials necessary for producing the intended products and so on. Accordingly, ineffectiveness of Ilam's industrial park in the relative development of the surrounding villages as compared with other villages of the region, lack of sufficient income for the villagers in this park and the transfer of the surplus of their income to cities for investment, ineffectiveness of the park in investing in agriculture and its lack of effect on the items shown on Table 8 are highly expected.

The investigated region is mountainous and farmlands are not vast. Besides, some of the best parts of the farmlands (170 hectares) have been allocated to the construction of the industrial park and about 110 hectares of these lands have been allocated to the construction of the petrochemical complex. It should be noted that because of the inefficiency of agriculture in the area and the great amount of money spent by the authorities of the industrial park and of the petrochemical complex for land use changes, these changes were welcomed by the land owners. These factors, as well as consecutive droughts in recent years, have led to the reduction in investment and to a higher attention of authorities to this region. In addition, factors such as the inefficiency of farming in the area due to rainfed cultivation and the small size of farmlands in the region, as well as other discussed factors, have reduced the motivation of the village families and their children to work in agriculture. Therefore, it could not be definitely said that the industrial park has diminished attention to agriculture. Rather, the findings could be acceptable.

Besides, industries and workshops such slaughterhouses, textile factories, ice factories and other industries in this park, which require a huge amount of water and produce industrial waste, have reduced the amount of farming water and the groundwater quality. This phenomenon is due to the fact that the industrial town is located at a higher elevation than villages.

Table 7. *Comparison of the positive factors of Ilam industrial town from rural residents' perspective (before and after construction)*

Factors (positive effects)	Z	Sig
Increasing price of the surrounding agricultural lands	5.332 **	0.001
Increasing price of the rural homes around town	0.453 ns	0.439
Improving food consumption patterns	1.23*	0.021
Emergence of new service jobs in the region	6.234 **	0.001
Decreasing rural-urban migration	6.124**	0.001
Increasing employment opportunities in the town	0.459 ns	0.449
Quantitative and qualitative improvement in the transportation vehicles	0.532 ns	0.431
Providing employment opportunities for the rural educated individuals	5.782 **	0.002
Providing seasonal employment for the farmers	0.214 ns	0.613
Increasing professional awareness in the villages	0.623 ns	0.438
Easier access to the town's productions	5.897 **	0.000
Reconstruction of the rural homes	0.123 ns	0.402
Using the agricultural productions in the industrial town	0.217 ns	0.495
Increasing the rural residents' income	2.147**	0.005
Increasing the rural residents' purchase power	2.587*	0.005
Attracting urban capital to rural regions	0.621 ns	0.512
Increasing the agricultural and animal productions	0.214 ns	0.341
Rural residents' confidence about fixed income (hope on future)	0.179 ns	0.320

Table 8. *Comparison of the negative factors of Ilam industrial town from the local perspective (before and after construction)*

Factors (negative effects)	Z	Sig
Decreasing young labour in the agricultural section	3.197 **	0.009
Decreasing teenagers' interest in agricultural activities	0.125 ns	0.592
Relative development of the surrounding villages compared to others	0.659 ns	0.312
Increasing dropout among the rural students	3.541 **	0.002
The families' tendency toward consumption-oriented behaviour	0.475 ns	0.112
Adverse effects on traditional rural markets	2.578*	0.012
Pollution of agricultural waters	2.641*	0.021
Decreasing attention to the farmers and their problems	3.912**	0.004
Pollution of groundwater in the surrounding villages	3.193**	0.004
Decreasing investment in the agricultural sector	0.439 ns	0.730
Increasing some of the rural residents' income	3.671**	0.001
Selling the agricultural lands and changing their land use	4.917**	0.003
Transition of rural residents' surplus income to investment in urban regions	0.193 ns	0.124

CONCLUSION

The main purpose of this study was to identify and analyze the positive and negative effects of industrial town construction (before and after construction) on the surrounding villages by using the survey method. The statistical population of this study is of 14,647 residents in the surrounding villages around Ilam industrial town. 250 members of the population were chosen as sample members by random sampling method based on Cochran's sampling formula. A self-administrated questionnaire was used to collect data and its validity was examined and confirmed by faculty members and its reliability was examined and confirmed by Cronbach's Alpha during the pre-test. The comparison of the studied regions by Wilcoxon test before and after the industrial town construction indicates that this industrial town could not influence positively its surrounding area). With respect to the prioritization of the negative and positive effects of Ilam on its surrounding villages, it is concluded that industrial development strategy did not have a fixed attitude towards agricultural sector in framework of constructing rural industrial regions (as one of the important sectors in rural development). With respect to this strategic trend toward sustainable agriculture, this did not have any considerable effect on the improvement of the association between agricultural and industrial productions. As indicated, decentralization and employment in the surrounding villages are the most important factors in the industrialization of rural regions and the construction of industrial towns around villages. No success was observed in the studied region and most of the necessary human resources were supplied from urban regions (such as Ilam, Sarabaleh, and Ivan).

The results of the Wilcoxon test on the positive and negative effects of Ilam industrial town on its surrounding villages (before and after industrial town construction) indicate that, from the local perspective, the studied industrial town has significant positive effects in several factors. These include higher prices for the surrounding agricultural lands, the improvement of eating habits, new service jobs, easier access to the productions of industrial town, solving the problems of animal husbandry in the region, better income rates for the locals. The results of comparing the negative effects of Ilam industrial town before and after its construction indicate that the studied region had significant effects on the surrounding villages in several factors. These include decreasing young labour force in the agricultural sector, more dropouts among students, adverse effect on the traditional rural market, pollution of the water supplies used in agriculture and of the groundwater resources in the surrounding villages, more income among some rural residents, selling agricultural lands and changing their land use. As the results of this test indicate, Ilam industrial town had negative, rather than positive, effects on its surrounding villages. This had detrimental effects on the rural regions and could not improve the sustainable agriculture in this area. Since agriculture is the dominant activity in rural regions and is closely connected to rural space, agricultural development will be meaningful in form of rural development. On the other hand, agricultural development leads to rural development by applying satisfactory changes and alterations for extending activities and increasing functions. Therefore, the review of the positive and negative effects of Ilam industrial town construction on the surrounding villages shows that the industrial town did not have any significant positive effects on the agricultural status of this region. Rather, it had negative effects on the surrounding regions. Some of these effects were selling agricultural lands and changing their land use, pollution of agricultural waters, and decreasing young labour in agricultural sector. With respect to the above-mentioned descriptions, it is claimed that Ilam industrial town did not change the surrounding environment for the better.

EMPIRICAL SUGGESTIONS

The following suggestions were offered to have more achievements in rural industrial regions and to decrease the impact of Ilam industrial town on different dimensions:

With respect to the positive effects of this town in increasing the income rates among the locals, it is necessary to provide them with opportunities for financial partnership that is considered as one of the most important effective factors in the sustainability on the local life. This also encourages rural residents to participate in this area of investment. For this purpose, officials should encourage rural investments and support them.

With respect to the industrial town construction and the agricultural potentials of the region, creating and reinforcing the economic relationships and associations with the regional economic activities and local markets, the strategy for the industrialization of the region should have an agricultural direction so that there are links between the created industries and rural economy. With respect to the fact that the nature of the economic activities is agricultural, it is suggested that food industries be reinforced and developed. Altogether, the reinforcement and consolidation of the links between these sectors are necessary in order to achieve sustainable development in this area.

Knowing that the industrial town leads to a rise in employment opportunities and that this paves the ground for general employment, it is necessary to offer people technical training. This also improves productivity in industries and local income rates. Thus, it is suggested that the organizational officials should start educational courses for the residents that were employed in industrial sector (especially for the unemployed farmers during droughts).

One of the most important negative effects of industrial town establishment on the region is the decrease of the rural teenagers' interest in agricultural activities. It is recommended that the relationship between industry and agriculture be reinforced and consolidated so as to achieve sustainable agriculture by offering promotional education. This encourages rural teenagers to take part in agricultural activities.

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