

## ORIGINAL ARTICLE

# Investigate the effects Aghghala Industrial town on Development of the Neighboring villages

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### ABSTRACT

*The aim of present study assessment of the positive and negative effects on Aghghala industrial town on villages around the town . Statistical population this research are residents of Aghghala industrial town that random sampling method and using the formula of 320 villages have been selected . Validity of the questionnaire using experts views confirmed and determine the reliability of questionnaire with do the pretest calculation of Cronbach's Alpha was conducted (.85) . To analyze the data, descriptive and inferential statistics Such as frequency ,percentage, mean, coefficient of variation and factor analysis were used. Results of factor analysis positive effects on Aghghala industrial town in area showed that four factors impacts the social, economic, physical, agricultural in total 61/44 percentage of variance explained and negative impacts industrial town in the area include three factors impacts economic, agricultural and environmental in total 55/10 percentage of variance explained . As the results of factor analysis show establishment of industrial town in terms of social, physical and economic have more positive effects so it can be argued that Aghghala industrial town in development of their surrounding villages have been effective.*

**Key word:** Industrial town , Rural development , Positive and negative effects , Industrialization of rural , Aghghala industrial town .

Received 11/01/2015 Accepted 20/04/2015

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### How to cite this article:

Hamid Barghi, RoghayeTaziki and FatemehKiyani, Investigate the effects Aghghala industrial town on development of the neighboring villages., Adv. Biores., Vol 6 [3] May 2015: 46-51. DOI: 10.15515/abr.0976-4585.6.3.4651

## INTRODUCTION

Rural development Include wide range of deep changes in social and economic structures in rural areas and looking equitable distribution of income , Increase Standards of living and creation job opportunities in these areas [6] . Rural industrialization process that instruments for diversify rural economy provided It is a strategy that rural poverty reduces and with industrial development from the perspective of rural economy and national economy [7], Balanced development Among rural and urban households ,agriculture and industry section ,regional economies and industrial and urban decentralization makes possible [3]. Establishment industry and industrial areas in the rural environment it can by strengthening the economic foundations, employment, absorb the surplus labor force and mobilizing little capital to exploitation of resources local skills do and with breaking the vicious circle of poverty, rural migration to urban is prevent. Industrial areas causing increase the income of villagers and reduce income disparity between burgher and villagers [9] between them graft buildup, also rural industries leads to strengthening the role of industrial decentralization [10]. Considering the population high growth restrictions on agricultural land, rural industries can with the creation of new employment opportunities acceptable proportion of the workforce has attracted and growth of unemployment rates to reduce and background to provide for rural development [8]. In addition to increasing the employment rate, as part of the non-agricultural sector leads to increasing non-locally incomes, the direct and Indirect in modernization Agricultural sector has a major role [5]. Das et al [5] In a study under " Investigation the pattern of industrialization in North East India" believes industrial expand has been able rural poverty to Reduce and leads to sustainable livelihoods of villagers [5]. Motiee Langroodi et al [11] In a study under " spatial consequences assessment establishment industrial towns in rural areas on spatial different

dimensions "The study results indicates existence significant differences in the context rate of income, saving, job satisfaction and job security. In the context environment consequences of physical can air pollution extensive control change of good agricultural lands change in environmental landscape can be pointed .

## MATERIALS AND METHODS

### The area of study:

This county of North in Republic of Turkmenistan , West of Turkmen and Gomishan, East of Gonbad Kavos, South of Gorgan and Aliabadkatul be limited . City area of Aghghala 1763/15 Km, (8/63 percent of the area of Iran and third ranking terms of breadth is among cities in the province)[2]. Gorgan villages Bavi in terms of location geographically 54 degrees 27 minutes of eastern longitude 36 ° and 5/57 minutes north latitude is located .The village region with plain topography and in terms of climate have temperate climate [1].

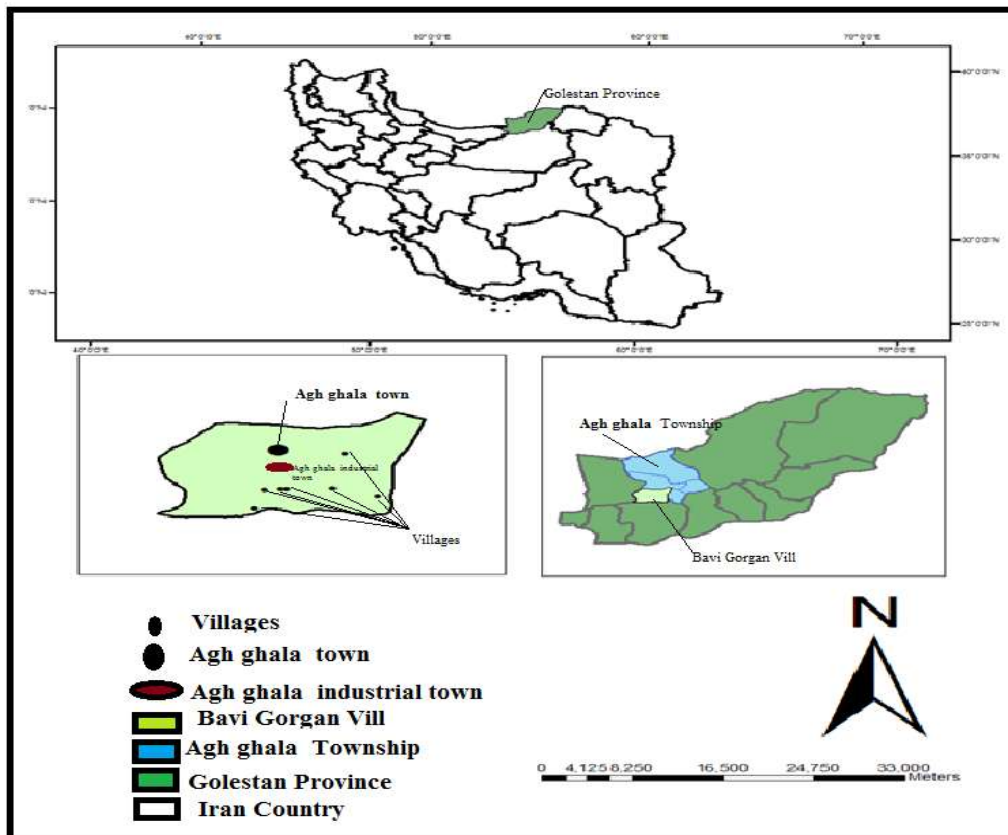


Figure 1: The geographical position of Aghghala industrial town

### Research methods

This research has been applied, statistical society this study whole of rural families Industrial park in Aghghala . Using the Cochran formula and randomization method with attribution proportional among 1676 population residing In rural the studied ,320 person As the sample were determined . In this sampling procedure beginning seven villages that less distance have towards the Aghghala industrial town Choice and given the number of people in each village , Number of samples proportional to the number population each village determined . Then randomly questionnaires among people residing in in each village were distributed. Research tools was questionnaire that validity according to opinion group of relevant experts confirmed to determine the reliability of Cronbach's alpha coefficient was used (. /85) . data using SPSS software were analyzed .For data analysis date Results of the study descriptive and inferential statistics such as frequency, percentage, mean, coefficient of variation, factor analysis was used

### Descriptive characteristics of respondents :

According to results obtained from collected rural people of case study 42/7 percent respondents are women ,and 57/3 respondents are men. And age, Most people of statistical society in age group 35-45 year 42/8 percent has been exist .

Literacy status of studied population showed that about 48/2 having diploma Above of diploma,./18 cycle ,16/2 primary,12/2 bachelor and above 5/4percent were illiterate employment status of respondents have self-employed with ./41. Average family dimension in villages research sample has been equal to 5/1.

#### Analytical findings:

According to Table 1 observe that among the positive effects of industrial parks on surrounding villages Marketing of products agricultural and livestock , Increase the purchasing power of agricultural inputs, Increasing job diversity, Improvement the quality of village streets respectively rank first to fifth from the perspective of villagers have acquired the most important effects are known. So factors The use of mechanized equipment in agricultural activities, Desire to continue agricultural activities, The use of agricultural products in the industry as raw material, Improvement quantitative and qualitative and transport vehicles respectively rating of 25 to 28 The positive effects point of view villagers allocated .

**Table 1: Ranking indicators positive effects industrial town from the perspective villagers**

indicators	mean	Standard deviation	Coefficient of Variation	Rank
Marketing of products agricultural and livestock	2/931	./740	./252	1
Power increase welfare and people shopping	2/912	./775	./266	3
Houses entitlement to appropriate health services	3/181	./895	./281	5
Improvement the quality of village streets	3/122	./864	./276	8
Migration reducing people from rural	2/634	./730	./277	6
Increasing of financial participation in rural development	2/531	./708	./279	7
Increase participation with administrators and councils	2/776	./830	./298	14
Increase participation In the construction activities	2/684	./770	./286	9
Rising prices for agricultural products	2/666	./771	./289	10
Acceptance immigrants In the Village	2/640	./775	./293	11
Pattern the construction of housing	2/819	./833	./295	12
Using durable materials	2/966	./890	./300	17
Increase the purchasing power of agricultural inputs	2/959	./756	./255	2
Acquire new skills technical and agriculture	2/694	./807	./299	16
Improvement quantitative and qualitative and transport vehicles	2/028	./911	./449	28
Employment opportunities for educated people	2/588	./767	./296	13
Increase job satisfaction	2/572	./772	./300	18
Commitment youth for work in villages	2/568	./769	./299	15
Increase expertise and knowledge the villagers	2/247	./813	./361	24
Increase survival of heads of households	2/541	./791	./311	20
Average increase agricultural production	2/434	./773	./317	22
Increasing job diversity	2/716	./741	./272	4
Rural Poverty Reduction	2/497	./759	./303	19
Non-agricultural job creation in	2/425	./823	./339	23

rural				
The use of mechanized equipment in agricultural activities	2/251	./824	./366	25
Desire to continue agricultural activities	2/306	./824	./374	26
The use of agricultural products in the industry as raw material	2/059	./878	./426	27

According to table 2, can be receive that among the negative effects of industrial parks on surrounding villages price reduction of agricultural land, prices rise of residential land, Soil contamination and reducing the tendency to continue farming respectively, rank first to fourth have obtained.

**Table 2: Ranking indicators negative effects industrial town from the perspective villagers**

indicators	mean	Standard deviation	Coefficient of Variation	Rank
Agricultural water pollution in rural	2/450	./742	./302	8
price reduction of agricultural land	3/493	./715	./204	1
Investments decrease in the agricultural sector.	2/500	./783	./313	9
Change of land use	2/929	./803	./274	6
Reduce the tendency to continue farming	4/010	./947	./236	4
Price increases of residential land	3/257	./763	./234	2
Pollution of underground water	2/420	./826	./341	11
The destruction rural pastures	2/647	./891	./336	10
Soil Pollution	3/388	./796	./234	3
Transfer of agricultural water to industry	3/311	./890	./268	5
The destruction of agricultural land, garden, the vegetation	2/866	./806	./281	7

#### Factor analysis related to positive effects of Aghghala industrial town

Based on the results of factor analysis KMO amount is equal to .92 and Bartlett amount 5/90 that the significance level of ./1 located and the cumulative variance amount is 61/44 Social factors with the special value 6/91 expositor 23/84 of the total variance and as the most effective Among the positive effects of the industrial town of the neighboring villages are considered, The factors second, third and fourth respectively 16/69, 11/92, 8/98 percent of the total variance to explain. As table 4 shows The first factor with eleven variables, social factor were considered that alone 23/84 of the total variance to explain and the second factor with six variables be skeletal factors termed that 16/69 percent of the total variance to explain. And factors agriculture and economic respectively 11/92 and 8/98 percent of the total variance to explain.

**Table 3: Results of factor analysis the main revolves around 28 selected indicators (The positive effects)**

Factors	Eigen value	Percent of the Eigen value	Cumulative percentage of total variance
The first factor	6/91	23/84	23/84
The Second factor	4/84	16/69	40/53
The Third factor	3/45	11/92	51/45
The Fourth factor	2/60	8/98	61/44

**Table 4: The variables are loaded in factors social,skeletal, Agricultural, Economic**

Effects	Variables	Factor Load
Social factor	Increase participation with administrators and councils	./845
	Migration reducing people from rural	./817
	Increase participation In the construction activities	./797
	Acceptance immigrants In the Village	./787
	Increase job satisfaction	./770
	Acquire new skills technical and agriculture	./752
	Increasing awareness and expertise	./696
	Increasing of financial participation in rural development	./678
	Employment opportunities for educated people	./671
	Increase motivation and Persisting households in rural	./665
Skeletal factor	Commitment youth for work in villages	./663
	Improvement the quality of village streets	./854
	Improve the quality of roads and Village streets	./834
	Quantitative and qualitative improvement rural transport vehicles	./812
	Houses Entitlement of appropriate health services	./810
Agricultural factor	The use of durable materials with appropriate quality	./730
	Modeling and reconstruction of Houses	./628
	Desire to continue agricultural activities	./825
	Increase the purchasing power of agricultural inputs	./756
	The use of mechanized equipment in agricultural activities	./750
	Moderate enhancement of production agricultural and livestock	./741
Economic factor	Rising prices for agricultural products	./737
	The use of agricultural products in the industry as raw material	./721
	Welfare increase and purchasing power of people	./817
	Increase and Creation of employment diversity	./748
	Marketing of products agricultural and livestock	./675
	Rural Poverty Reduction	./660
	Creation of jobs seasonal and non-agricultural	./582

**Factor analysis related to negative effects of N Aghghala industrial town**

Based on the results of factor analysis KMO amount is equal to .70 and Bartlett amount 4/15 that the significance level of .1 located As table 5 shows 3 factors with eigen values higher than one was extracted . cumulative variance amount is explained by the three factor 55/10 That environmental factors with eigen values 5/028 explained 33/52 of the total variance and As the most effective among the positive effects of the industrial town of the neighboring villages are considered , the factors second, third respectively 11/64 ,9/94 percent of the total variance to explain . As table 6 shows the first factor with seven variables , environmental factor were considered that alone 33/52 percent of the total variance to explain and the second factor with two variables be Economic factors termed that 11/64 percent of the total variance to explain . and agriculture factors 9/94 percent of the total variance to explain.

**Table 5: Results of factor analysis the main revolves around 28 selected indicators (The negative effects)**

Factors	Eigen value	Percent of the Eigen value	Cumulative percentage of total variance
The first factor	5/02	33/52	33/52
The Second factor	1/74	11/64	45/16
The Third factor	1/49	9/94	55/10

**Table 6: The variables are loaded in factors Environmental, Economic**

Effects	Variables	Factor Load
Environmental factor	Soil Pollution	./870
	Pollution of agricultural water	./805
	The destruction of agricultural land, garden, the vegetation	./762
	Transfer of agricultural water to industry	./754
	Pollution of underground water	./709
	Change of land use	./697
	Destruction of pastures	./506
Economic factor	Prices reduce of agricultural land	./821
	prices rise of residential land	./795
Agricultural factor	Reduce the tendency to continue farming	./676
	Reduce investment in the agricultural sector	./669

## CONCLUSIONS

Rural industrialization process that instruments for diversify rural economy provided It is a strategy that rural poverty reduces and with industrial development from the perspective of rural economy and national economy balanced development among rural and urban households ,agriculture and industry section ,regional economies and industrial and urban decentralization makes possible. Based on the main objective of this research investigate and analysis the effects Aghghala industrial town on development of the neighboring villages and goals generalist included cognition the effects of the industrial towns some of dimensions economic , social , environmental, skeletal neighboring villages . industrial town on the variables marketing products agricultural and livestock , increase the power of agricultural inputs, increasing purchasing power and welfare has had a positive impact and so on the variables price reduced for agricultural land , sale of farmland , soil pollution has had a negative impact . Based on factor analysis social factors as the most important effect among the positive effects town industrial on neighboring villages overall it can be said that industrial town development of surrounding villages prepared reduction immigration Also context for acceptance immigration in rural provides .

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