Study of the Environmental Threats caused by Migration in Bandar Anzali city

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ABSTRACT : This study aimed to assess the threat posed by the presence of immigrants on the ecological structure of the city of Bandar Anzali. This study is a descriptive-analytic study. It is done based on the survey method by using library and field studies. Also, questionnaires in the form of 5-point LIKERT Scale have been utilized. SPSS and Excel Software have been used for data analysis and two statistical methods including T-Test and descriptive statistics have been applied. Our results indicate that the presence of immigrants has had negative impacts on environmental structures of the city which in turn had an extensive impact on four main parameters of the city namely on quality of urban hygiene, deterioration of urban landscape, destruction of natural ecosystems and increase in volume of solid wastes.

Key Words: Immigration, Bandar Anzali City, Immigrants, Environmental threats, Environmental Structure

INTRODUCTION

Migration is a process that a number of people move from one area to another, (Kazemipoor, 2003). In fact, Migration is displacement between to geographical units or in other words, leaving a territory and entering another one (Mahdavi, 1994). The dynamic relation between humans and location is in the center of the migration phenomenon. Due to the broadness of migration in today's world, all human societies are somehow encountered with migration issues especially the migration of youth from villages to cities (Sajjadpour, 2004). Migration is a result of a complex process of decisiveness that involves the individual, origin area and the destination area. Movement and displacement of population in the country can cause development or stagnation in some periods of time (Kazemipour,2003). As identifying the Migration reasons has been analyzed thorough various aspects, recognizing impacts and results of Migration could be at the same level of importance. In fact, being more aware of immigrants, environment impacts on the immigrants, and also the impact of immigrants on the environment in the form of Migration impacts and results, helps us understand more about the Migration phenomenon (Tayebiniea, 2008).Today, one issue that cities encounter is the numerous environmental problems, which occur due to various reasons, and one of the important reasons is the presence of immigrants in cities. This issue is especially more sensible in cities, which are rich regarding excellent natural and environmental situations.

Among these cities, is Bandar Anzali city in north of Iran which due to excellent environmental situations including Anzali International wetland, Convenient climate, Sea and coast and also due to having port substructures which is considered one of the important port cities south of The Caspian sea and has a good strategic situation in the Caspian area and also presenting the city as a Free Economical-industrial Zone, has caused the city to be considered as a host city and always over the years was a host to immigrants which this case causes the raise of threats on environmental structures of this city.

Research History: Senderson (2009) in his research entitled "Globalization and Environment, outcomes of human immigration" which was done by an analytical method (Analyze of obtained results in various fields of migration, globalization and environment), concluded that migration has rapidly developed to one of the outstanding features of trade, investment and production globalization and in fact there is a unknown relation between globalization, immigration, and environment destruction which globalization causes increase in national and international immigration and therefore the destruction of natural environments. He states that in the past studies in relation between population and environment, they have neglected the political and economical fields that exist in this relation. Therefore, special mechanisms that through them merging of globalization concept makes migration and environmental destruction possible, has relatively remained unknown.
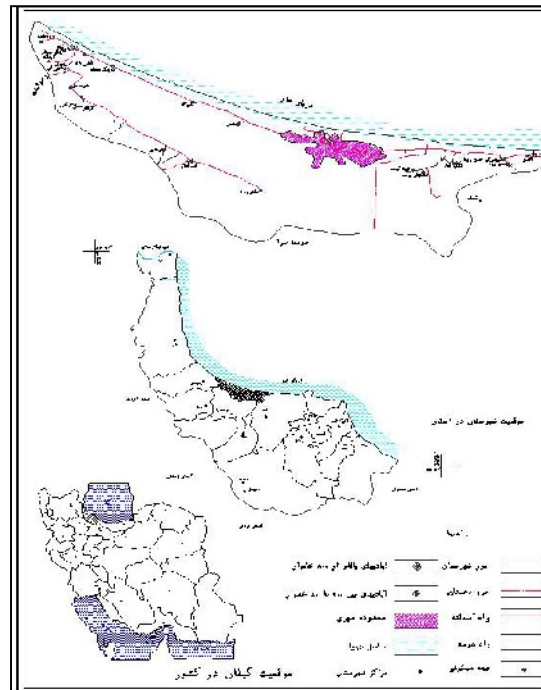
So in a case study in Ghana he concluded that in Ghana due to foreign debts and direct foreign investment and international monetary fund and the global bank from Ghana's Mineral material mines, causes economical and political fields of globalization to appear and consequently international emigration to Ghana and also the presence of Jobs in great scale mines has caused internal migrations (Rural to Urban) to exist, because it is followed by high income and possibility of reaching occupation skills and human resources development and also creates foreign immigration from the country for Ghana's people, so that in the mid 90s about 2 to 4 million people of Ghana which consisted 10-20 percent of the population, lived in other countries and this caused Ghana to encounter a problem called Brain Drain. All these migrations have led to Ghana's Environmental destruction. Presence of mineral mines causes urban migration increase especially in Ghana's capital (Accra) which this emigration causes the construction of illegal residential towns around Accra and leads to destruction of environments and also these emigrations has the most environmental destruction in rural areas that population spread causes increase in soil demand and intensification of deforestation for people land owning and also forest clear cutting for shelter and fuel and also polluting underground waters with high level of mercury and other toxic chemicals resulted from extracting mines in Ghana. So global trade in Ghana causes immigration increase and immigration causes environmental destruction in a wide range.

Jimba (2004), in his article entitled "Reasons and impacts of immigration from village to city in Borono (Case Study: City of Maiduguri) which was done by the Survey method using a survey and interviews concluded that the main reason for rural-urban immigration is searching for better education, occupation and job opportunities and other reasons identified are poverty, unemployment, famine and insufficiency of welfare-social facilities in rural areas. Impacts of rural-urban immigration involve pressure on urban housing and environment, high rate of population growth in city centers, life quality decrease, and population increase and rise of crime in cities, and reduction in the speed rate of rural areas development.

Jahan (2012) in an article entitle "Impact of rural-urban immigration on physical and social environment (Case study: City of Dhaka)." Introduced inequalities in social and environment opportunities between urban and rural areas and natural disasters in some areas of Bangladesh as a reason for high immigrant flow from rural areas to big cities especially Dhaka (Capital of Bangladesh) and recognizes these immigration impacts as economical, environmental effects, social-cultural such as deprivation and poverty of immigrants in their chosen destination's physical and social environment.

MATERIALS AND METHODS

Recognition of the study case range: Bandar Anzali City is located in Earth's northern hemisphere, in continent of Asia, country of Iran, in plain parts of Guilan province and near the Caspian Sea.

MAP 1 – Political situation of Bandar Anzali City.

This city is bounded by the Caspian Sea from the north, Rasht city from the east, Anzali pond and Sumeesara city from the south and city of Rezvanshahr from the west. Bandar Anzali is located in the geographical length from 49 degrees and 11 minutes to 49 degrees and 32 minutes and geographical width from 37 degrees and 23 minutes to 37 degrees and 34 minutes. Its area is 340.7 km^2.

The transit arbor of Rasht-Anzali-Astara, which has an inter-area function, passes through this city. The distance of the city center from the province center is 40 km and from Tehran (Iran's Capital) is 380km. In terms of Topography it has a plain surface and this city is located in the lowest point of Guilan province, which is -26 meters from the free water surface. This city is located in an area which is quarters of it is consisted of pond and sea water (Deputy of Organization, Guilan Governorate, 1385).

Methodology: This research is a descriptive-analytical type and its research type is fundamental-applied using the survey method and with collection of basic information in the form of library studies and direct observation and field studies using questionnaire which was designed, based on the Lickert 5 choice spectrum. Its justifiability was verified by experts and then for obtaining its stability the Cronbach's Alfa method with 5% error was done and the value of 0.83 was obtained and because the obtained value is more than 0.70, the questionnaire had a good capability. The research population involves Bandar Anzali's natives. For analysis of the data SPSS and Excel softwares were used and in two descriptive and illative levels using the One-Sample Statistics method.

Research Objective: The objective of this research is to analyze the negative impact of entered immigrants to Bandar Anzali City on the most important parameters of environmental structures of this city.

Research Assumption: The presence of immigrants in Bandar Anzali city is effective on Environmental structures destruction of this city.

Research questions: Considering the objective and assumption of the research, the following questions are stated:

1. How is the impact of immigrants' presence on solid waste materials increase?
2. How is the impact of immigrants' presence in Bandar Anzali's urban environment cleanliness disruption?
3. How is the impact of immigrants' presence on Bandar Anzali's city perspective destruction?
4. How is the impact of immigrants' presence on Bandar Anzali's natural environments destruction?

RESULTS

Information of this study is related to a questionnaire with 25 questions that 3 questions are related to respondents' general information and the next 22 questions are related to the study of research subject that responds to the research questions.

Regarding the research results:

The distribution of **respondents' gender** to the questionnaire (case study sample) is based on the following table:

Table 1: Distribution of respondents in terms of gender.

		Abundance	Percent	Cumulative Percentage
Option	Female	168	28.0	28.0
	Male	432	72.0	100.0
	Total	600	100.0	

Table 2: Distribution of respondents in terms of age.

		Abundance	Percent	Cumulative Percentage
Option	18-25 years	42	7.0	7.0
	26-36 years	192	32.0	39.0
	37- 47 years	192	32.0	71.0
	48-58 years	150	25.0	96.0
	Above 58 years	24	4.0	100.0
	Total	600	100.0	

As seen, 72 % were female and 28 % were male.

The distribution of respondents' age to the questionnaire (case study sample) is based on the following table:

As seen, 7 percent were 18-25 years of age,32 percent 26-36 years of age, 32 percent 37-47 years of age,25 percent 48-58 years of age and 4 percent above 58years.

The distribution of respondents' literacy rate to the questionnaire (case study sample) is based on the Table 3.

As seen, 1% no data, 5% high school diploma, 9% two year college diploma, 58% Bachelor degree, and 27% had master degree and higher.

Regarding the (One-Sample Statistics) T-test (single sample) which was based on 22 questions from 25 questionnaire questions that studied the negative impact or lack of impact on environmental structures of Bandar Anzali city, the table of this test is as shown in Table 4.

Considering the statistical table above it is obtained that significance level or SIG =.000 which is less than 0.05 % and indicates that entered immigrants to Bandar Anzali City had negative impacts on the city's environmental structure, therefore the research assumption which states that the presence of immigrants in Bandar Anzali city is effective on Environmental Structures destruction of this city is accepted. Regarding the research assumption acceptance, to respond to the research questions, descriptive statistics were used, which the results are as follows: 5 questions from 22 questionnaire questions were related to the research entitled "how was the impact of immigrants on solid waste materials increase of Bandar Anzali city" which the obtained statistics are as shown in Table 5.

Very Low 7%, Low 9%, Average 26%, High 31 % and very high 27%. Therefore considering the above table it is seen that most respondents state that impact of presence of immigrants on solid waste materials in Bandar Anzali City was high.

5 questions from 22 questionnaire questions were related to the research entitled "how was the impact of immigrants on Urban Environmental Cleanliness disruption of Bandar Anzali city" which the obtained statistics are as shown in Table 6.

Table 3: Distribution of respondents in terms of literacy.

		Abundance	Percent	Cumulative Percentage
Option	**No Data**	6	1.0	1.0
	High school Diploma	30	5.0	6.0
	Two Year College Diploma	54	9.0	15.0
	Bachelor Degree	348	58.0	73.0
	Masters Degree and Higher	162	27.0	100.0
	Total	600	100.0	

Table 4: T-test results (One-Sample Statistics).

One-Sample Test					
Test Value = 3					
The statistic	**Degrees of freedom**	**Sig. (2-tailed)**	**Average difference**	**Confidence interval %95**	
				Lower Bound	**Upper Bound**
11.642	599	.000	.88000	.7300	1.0300

Table 5: Descriptive statistics results related to immigrants impact on waste material increase in Bandar Anzali City.

		Abundance	Percent	Cumulative Percentage
Option	**Very Low**	42	7.0	7.0
	Low	54	9.0	16.0
	Average	156	26.0	42.0
	High	186	31.0	73.0
	Very High	162	27.0	100.0
	Total	600	100.0	

Very Low 4%, Low 15%, Average 20%, High 29 % and very high 32%. Therefore considering the above table it is seen that most respondents state that impact of presence of immigrants on Urban Environmental Cleanliness disruption was very high.5 questions from 22 questionnaire questions were related to the research entitled "how was the impact of immigrants on urban perspective destruction of Bandar Anzali city" which the obtained statistics are as shown in Table 7.

No Answer 1%, Very Low 6%, Low 13%, Average 29%, High 37 % and very high 14%. Therefore considering the above table it is seen that most respondents state that impact of presence of immigrants on urban perspective destruction was high.

7 questions from 22 questionnaire questions were related to the research entitled "how was the impact of immigrants on Natural environment destruction of Bandar Anzali city" which the obtained statistics Very Low 4%, Low 15%, Average 20%, High 29 % and very high 32%. Therefore considering the above table it is seen that most respondents state that impact of presence of immigrants on Urban Environmental Cleanliness disruption was very high.

5 questions from 22 questionnaire questions were related to the research entitled "how was the impact of immigrants on urban perspective destruction of Bandar Anzali city" which the obtained statistics are as shown in Table 8.

Very Low 12%, Low 14%, Average 28%, High 23 % and very high 23%. Therefore considering the above table it is seen that most respondents state that impact of presence of immigrants on Urban Environmental Cleanliness disruption was high.

Table 6: Descriptive statistics results related to immigrants impact on Urban Environmental Cleanliness disruption in Bandar Anzali City.

		Abundance	Percent	Cumulative Percentage
Option	Very Low	24	4.0	4.0
	Low	90	15.0	19.0
	Average	120	20.0	39.0
	High	174	29.0	68.0
	Very High	192	32.0	100.0
	Total	600	100.0	

Table 7: Descriptive statistics results related to immigrants impact on urban perspective destruction in Bandar Anzali City.

		Abundance	Percent	Cumulative Percentage
Option	Reply	6	1.0	1.0
	Very Low	36	6.0	7.0
	Low	78	13.0	20.0
	Average	174	29.0	49.0
	High	222	37.0	86.0
	Very High	84	14.0	100.0
	Total	600	100.0	

Table 8: Descriptive statistics results related to immigrants impact on Natural environment destruction in Bandar Anzali City.

		Abundance	Percent	Cumulative Percentage
Option	Very Low	72	12.0	12.0
	Low	84	14.0	26.0
	Average	138	23.0	49.0
	High	168	28.0	77.0
	Very High	138	23.0	100.0
	Total	600	100.0	

DISCUSSION AND CONCLUSION

Migration is considered as an ecological factor which due to various effects that it has is one of those subjects that doesn't have any expiration date for its exploration. Especially migration is an important issue in urban ecology discussions because it is one of the main factors of population variation and the most important external factor of population amount and creation variation, which has important impacts on other city structures and in continue natural structures. In fact, urban ecology is a field related to different sciences especially geography and environment. With identifying and keeping urban habitats and ecosystems, this science takes a great step towards maintain and keeping them and eventually in keeping and developing of urban nature. One of the important issues, which have been discussed in urban ecology especially in the modern age, is the immigration phenomenon that could have extensive impacts which sometimes these impacts are negative and destructive. One of these impacts is environmental threats and destructions caused by immigrants. These threats are especially more sensible in cities that have natural environments. Bandar Anzali City due to having a unique environment including sea and Anzali International wetland and also pond areas and marsh and many penstocks, natural green areas and also having port infrastructures is one of the host cities that the presence of immigrants during continuous years has caused a lot of problems regarding environmental structures. Research results obtained from the T-Test exam also indicate that the presence of immigrants in Bandar Anzali City had negative impacts on environmental Structures. With fields studies done, the most important threats of the presence of immigrants on Bandar Anzali City environmental Structure were studied which 4 parameters were more sensible including: 1- Solid waste material increase in Bandar Anzali urban space which includes garbage accumulation and solid waste material in Bandar Anzali urban environment and has created pollutions and various problems.

2- Cleanliness disruption and problems caused by it in Bandar Anzali urban environment, which causes disruption of urban health discipline. 3- unsuitable urban perspective destruction as inappropriate houses and abnormal in physical construction which is located around the city and illegally and in the suburbs and caused a lot of moral and vision impacts and also has created environmental problems and pollutions like water, soil, air and sound pollution, garbage and sewage problems and even vision pollution in this area. 4- destruction of natural ecosystems including rivers, destruction of pond and sea boundary by immigrants for providing fields and also destruction of various ponds for construction in these areas, which has caused loss of natural environments and consequently loss of biodiversity in these areas. Based on this, the amount of impact of these parameters has been studied which considering the research results it can be stated that the immigrants presence effects on solid waste material increase, urban perspective destruction, Bandar Anzali natural environments destruction were High and disruption of urban space cleanliness was very high. Since the existence and life of Bandar Anzali City is based on environmental structures of this city, the presence of immigrants, threats and destruction caused by their presence has had irreplaceable damages and concerns for Bandar Anzali Environments and therefore it is required to take immediate actions to reduce the environmental destructions caused by immigrants presence.

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