

Position of environment in planning and stable rural development (Case study: villages of Astara)

SayyedeH Seddigheh Hassani Mehr *

Department of Geography, Astara Branch, Islamic Azad University, Astara, Iran

Abstract: Purpose of this research is studying the position of environment in rural planning and stable development. Current research has been conducted by descriptive-analytic method by using field study and field observation. Statistic population includes rural families in Astara that according to Morgan formula 10 villages have been selected as sample and by quota sampling 380 questionnaires were distributed among villagers. Based on data given in questionnaires, kinds of rural polluters and problems caused by them were recognized and analyzed. Then hypotheses were evaluated and also, suggestions were proposed to solve the problems and decrease rural environmental pollutions. Like: 1- At the first step it is better to clean up rural environment from trash by villagers' cooperation, participation and help. 2- Placing trash bins in village, widely and also, placing especial bins for collecting trash in front of the houses to keep trash out of reach of animals.

Key words: Environment; Planning; Stable development; Village; Astara city

1. Introduction

Ecosystems of villages have been a function of work, production and consumption in the village, itself or regions around it, before dominating new method of consumption. After industrial, social, economic and environmental revolutions, these ecosystems have been reinforced, comprehensively. Nowadays, different programs are determined and implemented for development of rural regions by government. Regulations, rules, policies, economic, social and framework plans all establish rural development and management system that according to villagers' needs and priority of needs, each try to reach to rural development. Paying attention to environment of villages is very essential for total system of rural management in the process of planning rural development. Of course, nowadays, resultants of development planning can be observed in improvement of quality of environment, its correct preservation and management and controlling pollution resources, recognizing methods of disposal and land filling the rural waste and methods of attracting people's participation in preservation of rural environment.

Current research by the title of "position of environment in planning rural development in villages in Astara city" has been prepared and conducted to solve the problems and environmental pollutions.

1.1. Statement of problems and necessity of the research

According to the special closeness to the nature around them, villages of Iran have the highest influence in environment and are also under its influence, too. So, they have the highest relationship with environment around them. Different dimensions that the villagers are related to, are varied. The first ones are wastes that are proposed because of increase in consumerism and development of tourism as a serious problem in rural regions. Soil destruction and pollution that are generally caused by traditional agriculture and using varied pesticides is other environmental problem that has important role in polluting water and water sources. Beside them, spreading cities and development of industries and tourism have lead into change in land use in rural regions and it has caused rural regions to be violated and abused by profiteers and lead into damage into rural environment.

So, recognizing and analyzing characteristics of planning of rural development and also environmental planning of rural development is essential and required. This is because environmental planning is essential for tolerating environmental crisis at the result of geographical condition, high amount of underground waters and being close to industries and firms in Astara.

1.2. Research questions

1-does environmental preservation have role in rural development in villages of Astara city?

2-are village governments effective in decreasing environmental influences?

1.3. Research hypotheses

* Corresponding Author.

1-there is a relationship between rural planning (people participation) and preservation of rural environment.

2-village governments are effective in decreasing environmental influences.

Research goals

1-recognizing position of environment and rural regions

2-determining importance of managing trash in rural residences

2. Research method

This research is a descriptive-analytic research and field observation and library studies have been used based on reasoning and statistic and different maps. Different ways of gathering data like library, interview, questionnaire, photo and ... have been used and analyzed after gaining information and registering and recording data and it has finally ended in conclusion and suggestions.

2.1. Data analyzing method

Data have been analyzed using EXCEL and SPSS software.

Statistic population and its size

The region under study of this research is villages in Astara. Statistic population is all villages in Astara that are totally 62 villages. So, according to Morgan table, 380 rural families were selected as research sample.

3. Review of literature

Studying process of development in countries with stable rural development shows importance of planning and evaluating environmental resources. Two countries of Canada and Australia, that seems to have high agricultural capabilities, faced poverty of some classes of their agricultural community; and despite having wide forests; they have faced woodmen’s poverty and inefficiency of forestry. To get rid of poverty and solving poverty problem, first

in 1985, Australia created study section of using land in industrial and scientific research organization of common wealth countries; then in 1962, by recognizing Canada in organization of development of forestry and rural lands, this country also started to conduct research and study in its country by creating section of evaluating and development sites. Now, these countries have exact awareness about their own potential resource power for different uses by human and development. New Zealand, Malaysia and Singapore also, have done like these countries and have gained some successes, too (Makhdoom et al., 1383).

3.1. Objectives of rural planning

1-preservation of rural development in order to sustain the life and conservation of natural resources

2-allocating lands for desired and pre-determined exploitation

3-improving people’s health and well-being in rural regions

4-avoiding destruction of beautiful and natural places in village

5-providing welfare for rural residents

6-creating and preparing social, economical and governmental institutions in village

7-paying attention to new buildings in rural regions that they should necessarily be coordinated to natural environment

8-preparing guide plan for villages (Motiee Langroudi, 1382: 26)

3.2. Geographic location

Astara city has an area of 432.5 km² with 2 Bakhshs and 2 counties that is in neighborhood with republic of Azerbaijan from north and is connected to Talesh from south, province of Ardabil from west and Caspian Sea from east. This city has two Bakhshs named central and Lavandavil.

Table 1: geographic location of Gilan province and Astara city

Location coordination	East longitude				North latitude			
	minimum		maximum		minimum		maximum	
	minute	degree	minute	degree	minute	degree	minute	degree
Astara city	53	48	34	50	36	34	27	38

Source: vice-chancellor of planning in Gilan province, 1385

3.3. Topography

Topographic characteristic of a geographic location is effective not only in distribution or integrating human activities, but also it is one of effective factors in physical appearance of the city. Moreover, infrastructure planning of rural regions is not separated from effects of topographic conditions because topography of the situation and location of terrains have undeniable role in construction or

organism of people’s migration and etc. although topography factor has positive advantages and works as the reinforcing factor, sometimes may work as a negative and withholding factor and block the way for development and planning and create some impasses. The role of topography is more than other natural factors. This city can be divided into four parts of coastal, foothill, mountainous and plain. (Geographic organization, topographic map of Astara, 1:50000, 1375).

3.4. Climate

Mankind’s permanent residence is easily possible just in places with specific thermal, rainfall, humidity, sun light and others. Certainly, limitations caused by climate can be more obvious in nonresidential regions or with less population compared with crowded regions (Mahdavi, 1373:48).

Parallel to other conditions, climate is one of effective factors in establishment of rural habitat. Any change in environment caused by human is related to the climate. Paying attention to this issue is worth considering in civil planning and pilot projects from different points of view. In climate of Astara, important factors like closeness to Caspian sea, latitude, terrains, forests and intrusion of cold air are effective and extraordinary determining and

have led into mild, humid and rainy climate of Astara.

3.5. Water resource

Villages of Astara have rich resources of surface and underground waters because of their geological structure, topography and climate. Underground water tables of these regions have caused water tables of these regions to be salty and with low quality. This is so, because of closeness to the Caspian Sea and narrowing of the width of the plain. The rivers are originated from eastern side hills of Talesh mountains parallel to each other and enter to the plain with a steeply and high slope tortuous path and after passing rural and residential regions and watering rice fields connect to Caspian Sea.

Table 2: condition of water resources in hamlets of Astara according to Dehestan

Dehestan	Number of permanent and seasonal springs	Number of hamlets that use the river	Number of dams	Number of ponds
Virmuni	120	18	-	1
Heiran	130	10	-	-
Lavandavil	27	4	1	1
Chelavand	194	4	-	1
total	371	36	1	2

Resource: department of agriculture of Astara- 1393

3.6. The number and density of population

Astara had the population of 79874 people in 1385 that 47434 people lived in urban regions and 32440 people in rural regions. Population growth has been 1.72 in 1365-75 and 2.36 in 137-85 and had increase in number of population in proportion to previous decade.

Astara has had increase in population density among 1375 to 1385, in such a way that of 148.69 people in one square kilometer increased into 187.77 in 1385. By looking at the above mentioned table we can see that population of urban regions in 1385 has increased considerably compared to 1375, but, the number of population in rural regions has been increased only 148 people. Of course, increase in population of urban regions may be because of immigration of people to these regions after dissolution of Soviet Union and ...

3.7. Gender

In 1385 total population of Astara has been 79874 that 40126 people have been men and 39748 people were women. Total population of rural regions of this city has been 16303 men and 16137 women.

3.8. Literacy

Among population of rural regions in Astara that were 29229, 79.29 were literate and 20.71 were illiterate.

3.9. Suitable solutions for collecting wastewater in rural regions

Collecting and disposal of sewage can be done intensively (collecting all sewage by a collecting network and transferring it to a point out of the village or non-intensively (collecting the sewage by some independent networks and transferring it to some points out of the village).

The ways for collecting rural sewage are:

- Common networks for collecting sewage
- Uncommon networks including network of collecting sewage under pressure, networks of collecting sewage under vacuum, gravity network with a small diameter and simple common network (Fahiminia, 1384: 139).

4. Problems and limiting factors of rural sewage installations, solutions and decreasing them

The most important problems for suitable managing of rural sewage are:

- Financial problems
- Technical problems
- Management problems

For overcoming and decreasing above mentioned problems, we can benefit from:

- Using simple and cheap methods of collecting sewage and natural systems and its disposal in the place of wastewater treatment
- Efficient designing of collecting and treatment of sewage
- Maximum use of health facilities

- Justifying necessity of hygienic disposal of rural sewage for managers who make decisions for allocating required credit
- making people aware by the media for asking people for their participation specially charity and benevolent.
- Using long-term bank facilities
- Holding training workshops for people and responsible for rural sewage affairs

4.1. Findings of field studies

4.1.1. Gender

According to the findings from field studies, 50% of responders have been men and 50% were women.

4.1.2. Age

Results have been shown in Table 3.

Table 3: responders' age

Total population	Up to 60	40-60	20-40	Under 20	items
380	40	100	210	30	number
100	10.5	26.3	55.3	7.9	percents

Resource: authors' field study, 1393

The results have been shown in table 4.

4.1.3. Job

Table 4: responders' job

others	employee	worker	housewife	gardener	rancher	farmer	items
Number	50	42	55	58	85	90	Number
percents	13.2	11.1	14.5	15.3	22.4	23.7	percents

Resource: authors' field study, 1393

5. Studying environment of the villages and disposal of the trash

About the question of what does your trash usually consist of? According to responders' answer, 52.6% had all kinds and they voted for 13.7% food waste, 11.1% vegetables, 10% stale bread and 7.4% wastepaper and 5.3% waste tissue paper. So, the highest one belongs to waste food that will be used as animal food.

preservation of the rural environment, so, above mentioned hypothesis is proved.

Second hypothesis: village governments are effective in decreasing environmental influences.

One of responsible institutions in rural affairs are village governments that show their efforts in issues related to the trash and because of this rural regions have clean views. In most villages they have used banners for persuading people for disposal of trash. So, they have effective role in decreasing environmental effects and then the second hypothesis is proved.

5.1. Non-recyclable waste

The results have been shown in Table 5.

Table 5: amount of using plastic dishes all day long

Very much	much	average	low	Very low	item
0	8	117	55	200	Number
0	2.1	30.8	14.5	52.6	percents

Resource: authors' field study, 1393

5.2. Evaluating the hypotheses

First hypothesis: there is a relationship between rural planning (people participation) and preservation of rural environment.

According to the findings, about 4 villages from sample villages had systems of collecting trash, weekly. It is worth saying that disposal of trash in this way has been done by people's participation and governor of the village. In other 6 villages, solid trash will be burnt or buried by villagers. And also, 62.6% of the villages had required propagan das for healthy disposal of the trash. All points mentioned above, show responsible people's planning in the village for

6. Conclusion

According to the field studies and library researches and evaluating the hypotheses, it can be concluded that:

Amount of producing the trash in each village is dependent to population, physical development and people's participation. According to the change in production method and consumption method in villages and entering elements like glass and plastic and... they have caused rural environment to be unstable. Among them, collecting and separating the trash in origin is important because of health related matters. But most of people have less awareness about process of collecting the trash, separating and amount of recycling it and suitable ways for its disposal.

Industrial sewage is one of the most toxic and dangerous ones that by leaving it in an open area and close to the sea, it may have disastrous effects in environment. This is done whilst sewage refinery is still being constructed from years ago.

6.1. Suggestions

1-at the first step it is better to clean the rural environment from trash by villagers' participation, cooperation and help.

2-putting trash bins in village and also putting special bins for collecting trash in front of the houses to be out of reach of animals.

3-persuading the villagers for using less non-recyclable dishes and materials like plastic dishes, nylon or plastic.

4-places for collecting the trash should be inside the village, if possible, to not to be difficult to transit there.

5-for conversing the trash into the fertilizer or domestic compost, the garbage can be kept without any bad smelling for the short time by putting some special worms on it or converse it to the fertilizer in the garden.

6-preventing the sewage like bathroom sewage inside the water channels by careful monitoring.

7-planting alongside the roads and creating parks in villages.

References

Behforuz, Fatemeh, 1378, philosophy of scientific research methodology in geography, publication of Tehran university.

Fahiminia, Mohammad, 1384, familiarity to the rural environment and its preservation, institution of rural development of Iran.

Geographical department of army of Islamic republic of Iran, 1375, topography map, 1:50000.

Hasanimehr, Sayyidah Sedigheh, 1393, research plan of the place of environment in planning and rural stable development, vice-chancellor of research and technology in Islamic Azad university Astara branch.

Mahdavi, Masoud, 1373, principles of geography of Tehran population, Ghoomes publication.

Makhdoom, Darvish Sefat, and Jaafarzadeh, 1383, environmental evaluating and planning by geographical information site, Tehran, Tehran university.

Motiee Langroudi Hasan, 1382, rural planning with focus on Iran, department of Jihad of Mashhad.

Organization of planning management of Gilan province statistic yearbook of Gilan province, 1385, statistic and information office.

Organization of planning management of Gilan province, structuring culture of Astara, 1385.

Organization of planning management of Gilan province, structuring culture of Astara, 1385.

Statistic center on Iran, general census of people and houses, 1375, Astara.

Statistic center on Iran, general census of people and houses, 1385, Astara.