



Analysis of Spatial Criteria of Industries in the Village Based on Environmental Standards

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Article info

Received: 05.01.2025

Accepted: 20.02.2025

Available Online: 22.02.2025

Checked for Plagiarism: Yes

Keywords:

Development planning, villages, effective solution, Environmental Standards.

ABSTRACT

During six decades of development planning at the level of developing countries, which has been done with different forms and patterns. Development planning has not had a proper place and rural development is mainly based on tourism perspectives or physical functions and has never led to introspection and self-criticism, so that in our country in the last few decades by providing amenities and services to the villages, the process of migration has not decreased, and the provision of facilities without planning for employment and income has increased the expenses of the residents of the rural areas of the country, while the income has remained constant. In this way, rural areas have always played a role related to urban areas as a margin and far from the comprehensive thinking of development. Creating industries is one of the strategies that help the development of villages, the industrialization of rural areas as an accelerator for creating sustainable employment and the most effective solution to solve the problem of rural unemployment. The theory of industrialization and the optimal planning of industries in rural areas are considered as a catalyst for creating sustainable employment and as a last resort to solve the problem of poverty in the potential areas of the same region to solve the problem of unemployment and a soothing factor for disadvantaged rural areas. Come the consequences of the appropriate establishment of rural industries in temperate and humid rural areas, where the amount of agricultural land is decreasing every day, is considered a suitable solution.

Introduction

Meanwhile, rural industries are more useful than other non-agricultural activities for creating employment and increasing the income of villagers. In other words, the industrialization of the village and the expansion of non-agricultural activity units is an important factor in increasing welfare and providing essential goods and services for poor rural families. The effects of industrial influence in rural areas, while creating an active economy, can have multiple effects and also lead to the knowledge economy itself. Therefore, rural development planning in this field should use spatial analysis and evaluate the potential of the environment to provide areas for the harmony of the rural community with its environment [1].

Studies conducted in the field of establishing rural industries show that in some villages the industries have environmental effects and the establishment of industries in the place has caused the destruction of the environment of the surrounding villages [2]. Considering that the creation of industries for the employment of villages is considered essential along with other activities, the necessary care should be taken in the creation and construction of industries in order to prevent its destructive effects. The problems and issues of agriculture in the current century involve farmers, it seems that farmers should gain experience and gain the necessary advantages in various fields in order to raise the level of their product and income, but this process is

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not possible for them in all cases be only knowledgeable and capable farmers who consider it necessary to create new fields for employment and increase income in the village, can benefit from it. On the other hand, the use of these factors for economic development causes damage to the environment of the village. Therefore, it is necessary to establish industries for the economic development of villages, and on the other hand, to protect the environment of the village, to investigate and identify ways to prevent environmental damage [3].

Village: The village is the origin of the country's divisions, which biologically means the natural, social, cultural and economic conditions are homogeneous and the majority of its real residents

are directly and indirectly involved in one of the agricultural activities, animal husbandry, horticulture and generally handicrafts and fishing or a combination of If these activities have employment, it is commonly called as village, village or village [4]

Villager: Villager or villagers refers to the people living in the village environment, whose livelihood is obtained from the mutual trade between natural renewable factors and human behavior and has the main role of agriculture, animal husbandry, animal husbandry, horticulture and related industries and services [5].

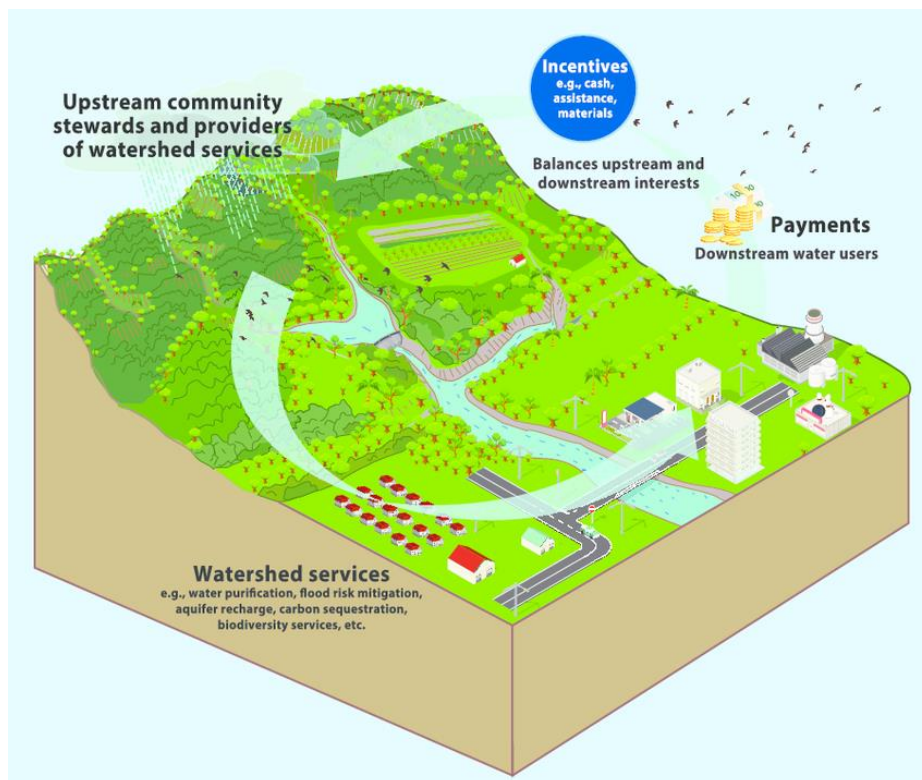


Figure 1. Payments for Ecosystem Services (PES)

Development

Development in its general concept means improving the material and spiritual level of human society and creating suitable conditions for a healthy life for all members of the society. According to this concept, development includes economic, social, political and cultural aspects, which includes quantitative and qualitative changes, and at the same time, it is considered a relative concept from the internal and external point of view [6].

Sustainable Development

Sustainable development means the management and protection of natural resources, the basis of directing technological and institutional

developments, in such a way that the needs of humans and current and future generations of humanity are continuously and sustainably met. In the sustainable development of agriculture, fisheries and aquaculture, the soil and water resources and plant and animal genetic resources are preserved and the environment is not destroyed, and it is technically acceptable, sustainable, and socially acceptable from a technical point of view.

Rural development: Rural development is an important part of the national development process, especially in developing countries. If the development is to be carried out and be continuous, it should generally start from the rural areas and

especially from the agricultural sector. The problems of widespread poverty, growing inequality and increasing unemployment are all rooted in the stagnation and regressive course of economic life in rural areas. Perhaps the most reliable decision about the poor is that they are disproportionately located in rural areas and are mainly engaged in agriculture and related activities. Any type of policy that is

planned to reduce poverty and create development, must necessarily be to a certain extent rural development in general and the agricultural sector in particular [7].

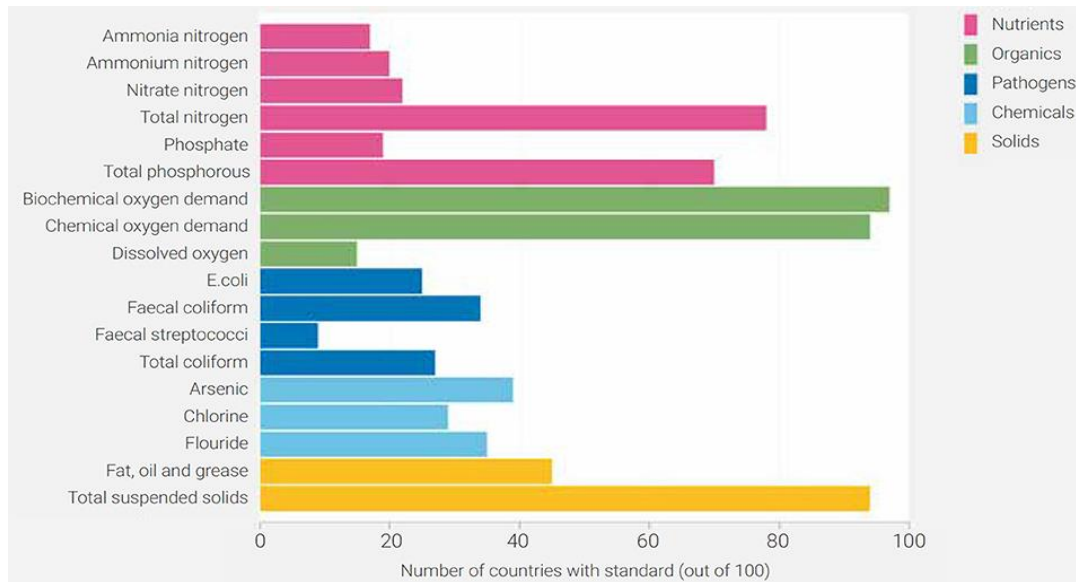


Figure 2. Wastewater Discharge Standards in the Evolving Context of Urban Sustainability

Agricultural transformation and supplementary industries: These industries are divided into the transformation of agricultural products and animal husbandry. In fact, the products of each of the agricultural and animal husbandry sectors are used as raw materials in this industry. Industries related to sugar, oil extraction, compote making, textile and wood industries are part of this group of rural industries. Also, with the growth of each of these industries, other rural industries will be created to complete the final product to the market, such as maintenance industries, warehousing industries, and packaging industries [8].

Small rural industries: Small scale industries cannot be precisely defined. The border between small industries and light and heavy industries is not clearly defined. A workshop that is considered large in developing countries is considered a small unit in an advanced country. In some countries, the number of employed workers and in others the amount of capital or a combination of different criteria such as the number of workers, the amount of capital, the number of annual sales, fixed assets, etc. These industries must supply the needs of agriculture, livestock and animal husbandry and complement and support these needs according to the geographical conditions of each region. Small industries provide agricultural needs and

complement and create the basis for self-sufficiency in villages [9].

Industrialization of the village

Industry by its very nature is principles that can make those materials valuable and usable by performing a series of actions on raw materials. Although industrial activities occupy a small area compared to other activities, we must know that it fulfills the needs of billions of people in terms of food, clothing, housing and other essentials of life. The industrialization of the village can be viewed from two points of view:

- ❖ Establishing and establishing industry in rural areas.
- ❖ Industrialization of the village.

In the industrialization of the village, the emphasis has always been on small and medium industries. Because these industries have the ability to establish social justice, promote culture and human excellence.

Rural industries: Rural industries have special characteristics due to having special conditions such as being scattered throughout the country, low literacy level of employees, being small and rural, etc., some of which are:

1- In this field, the necessary coordination between rural industries should be established.

2- In this field, the survival of the production unit should be considered above all else.

Natural environment: This part of the environment includes a part of the earth's surface that is not made by human hands, such as mountains, plains, forests, seas, etc.

The natural environment can be divided into two general parts: animate and inanimate:

1- Living nature such as air, water, soil.

2- Inanimate nature such as wildlife, vegetation.

The collection of animate and inanimate nature constitutes the living space of the earth or the biosphere.

Artificial or man-made environment: Artificial environment is what is made by human hands. Some ecologists call this part of the environment the environment born of thinking. Because its appearance and form are the result of the creative force and thought of society. In short, our cities and villages with all their contents constitute our artificial environment. Houses, streets, factories, schools, airports and the like are all part of the artificial environment.

Social environment

This part of the environment consists of the people around us and our mutual relationships with them. Family, neighbor and seller all make up our human environment [10].

Discussion

Ecology is a science that examines the mutual relations of living organisms with each other and with their environment [11].

H. Antolf et al. (1979) in comprehensive research in order to evaluate the consequences of rural industrialization in Indonesia came to the conclusion that with the establishment of textile units for 60 years, vast changes occurred in this country. So that during this period, the studied area was known as the textile pole for 60 years and was able to create significant changes in the region [12].

Rizanol (1994) in comprehensive research has investigated the effects of industrialization in rural areas of China in the post-reform period and has introduced industrialization as the driver of rural development in China [13].

S. K. Rao (1985) by analyzing the process of rural industrialization in four countries, India, Philippines, South Korea and Japan, pointed out the role of industry establishment in the process of expanding exports and believes that: each of these countries, by choosing a suitable industrial model, is a step towards creating employment, increasing income and eventually expanded exports [14].

Matiei Langroudi (2007) in his book *Rural Planning in Iran* has discussed the problems of life in many rural areas, the difference in income and standard of

living between urban and rural communities is one of the main factors of rural-urban migrations. Many planners are of the opinion that by creating some amenities and services in rural areas, the process of migration will decrease [15].

While providing welfare services in rural areas, we should seek to create employment and income in these areas. Because the provision of welfare needs in rural areas increases the spirit of consumption and the emergence of more needs in the population, which needs to earn more income to meet them. Therefore, along with the increase of service and welfare facilities in rural areas, planning for creating employment and income is necessary and necessary. Otherwise, a large number of facilities created in rural areas will remain unusable due to the migration of villagers to cities, while a lot of money has been spent to create these facilities [16]. Therefore, in rural development strategies, attention should be paid to diversifying the rural economy and making it efficient by creating a variety of economic activities, especially the industrialization of villages. Because the concentration of industries in villages, in addition to creating employment and income, causes the reduction of problems related to the proximity of industries to cities, such as severe population density, traffic problems, and environmental pollution [17].

Rural development includes a deep process of changes in the whole society, in the local community and most importantly in the role of individuals. This process is a method to increase accessible opportunities for rural people and to increase the possibilities of exploiting the resources available in the village. The scale, complexity and stagnation of the rural economy is often not compatible with effective and coordinated efforts to create new means of livelihood and increase welfare.

The nature of poverty and the need for social justice and more equality require that the transformation process be carried out in a wide and extensive front and use all the interconnected political, economic, technical, institutional and human factors to reduce poverty. Additional investment in rural areas should be in the direction of helping to increase the productivity of the labor force by eliminating low-efficiency activities, increasing expertise and better utilization of raw materials. These investors should create more opportunities for employment and income to employ all the workforce in the village for the main economic activities. Therefore, the goal of rural planning is to create diversity in the rural economy and to provide the basis for non-agricultural activities in sync with agriculture, especially rural industries.

The International Labor Organization has defined rural industries as follows: Rural industries are industries that are located in rural areas or rural centers and mainly use rural labor. In general, their market links are geographically limited, or in other

words, these industries consume most of the raw materials or local products and their products are sold to local markets, but sometimes, these industries sell their products to other markets. to supply nationally and internationally [18].

The United Nations regional development center has said in the definition of rural industries, all the industries that can be developed in rural and rural-urban centers should be considered as elements of rural industries, provided that they can be a means for the industrialization of the village. In the definition of the ministry of Jihad and construction of rural industries, the proportionality of these industries with the rural areas of the country has been taken into consideration and these industries are divided into the branches of agriculture-related industries, small industries and handicraft industries, and the following characteristics have been considered for them:

- ✓ As much as possible, it should try to match the needs of agriculture and animal husbandry, or supplement and support them, be appropriate to the geographical conditions in the region and not contradict the growth of agriculture and animal husbandry.
- ✓ As much as possible, it should be in accordance with the needs of the villagers and lay the groundwork for the economic and industrial self-sufficiency of the country.
- ✓ In terms of technology, it should be at a level that can be set up and used by the villagers and help to increase their technical knowledge.
- ✓ Even if it is possible to maintain and repair it on site.
- ✓ It is possible to provide the raw materials and its tools as much as possible in the place, region or inside the country.

Statistics center of Iran also considers all the industries located within the village as rural industries, which cannot be accepted, because many industries are located in or around the village due to the availability of suitable space. The industrialization of the village can be viewed from two points of view:

- ❖ Creation and establishment of industry in rural areas.
- ❖ Industrialization of the village.

Nouri et al. (2006) in their article entitled Prioritization of small and workshop industries in rural areas of Ardestan came to the conclusion that rural industries should be determined according to the environmental and human capabilities of rural areas according to the views of local and organizational scientific experts [19].

Nasiri (2007) in research titled rural industries as an influencing factor on the economic and social development process of Bomhan villages in order to

evaluate the impact of industrial areas on the economic and social development of rural areas, ten villages, among which five villages have industries and five villages do not have industries. In the vicinity of Bomehan city, which is located 40 km from Tehran metropolis, it was concluded that in two sample communities, out of ten selected indicators of food, clothing, housing quality, job satisfaction and stability, lack of migration, and the motivation to stay in the studied villages showed a significant difference [19].

Rural industries: The classification of rural industries is different from each other based on the country's definitions of these industries. Generally, three types of classification are common among different countries, which are:

- 1- Based on the amount of production and its type;
- 2- Based on the workforce [20];
- 3- Based on capital;

The classification based on the amount of production, labor and capital that is relevant for small industries differs from one country to another. For example, in China, the production of less than 100,000 tons of steel is in the category of small industries, while this is not the case in other countries. Also, in America and Japan, workshops with 100 employees and less are in the category of small industries, while in Iran, 10 employees and more are in the category of large industries. Based on the organization systems, another type of classification has been presented, for which the rural industries have been placed in three categories:

- 1- Household industries [21].
- 2- Workshop industries.
- 3- Small factories.

In this classification, all the internal and external components of the rural industrial organization have been investigated [22-24].

Definitions of rural industries: Each country has provided a definition of rural industries according to its own experience and desired policies and goals. Most of the countries have used factors and parameters to define rural industries, which have caused different definitions. The United Nations economic commission for Asia and the far east proposes the following general definition and classification [25-27].

Rural or domestic industry is an industry that requires skill to produce its products, and it is a profession that is entirely or mainly carried out with the help of family members, and all or part of their time is spent on this work. One of the main parameters for determining rural industries is the use of the desired industry in connection with local facilities and data that the rural person is able to understand and use effectively [28-30].

In fact, the creation of an endogenous development in the village according to the requirements and

needs of the village and the use of appropriate technology that can play a significant role in the economic fertility and production facilities of the plain, i.e., transformation industries that are able to

transform the agricultural products of the villagers. and supply in the form of industrial goods [30].

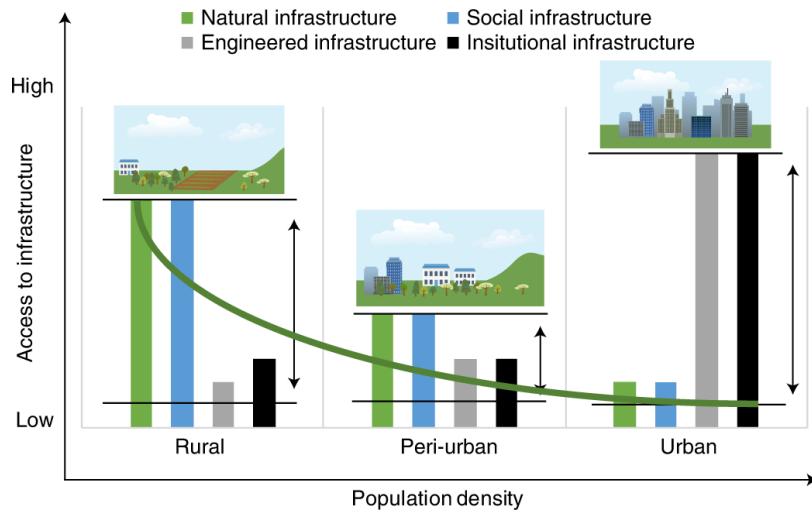


Figure 3. Understanding rural–urban transitions in the Global South through peri-urban turbulence

According to this definition, rural industries should be transformational industries that complement agricultural products in line with agricultural activities and turn these products into industrial goods and offer them as final or intermediate products. Of course, the necessity of these industries is the existence of livestock and agricultural products in that region, according to which, coordinated planning can be provided in relation to the transformation industry and its raw materials. Rural industries are started from within the village. Although it is possible, its main motivation is outside the village, but the main and basic role should be given to the villager and he should actively participate in this field. Therefore, many rural industries can be classified as small industries [31].

Conclusion

Small industries, which are mostly workshops, can be established in rural areas in addition to cities. Compared to light industries, these industries require less manpower and simpler equipment and tools and do not require large investments. According to the above, there is a difference between small industries and handicrafts in terms of work tools and production facilities. Although they are not very different from each other in terms of working space. Because handicrafts can be both a workshop and a home, and like small industries, they can be established in cities and villages. This art industry relies on native and traditional specialties and most of the raw materials and consumables and tools required for it are procured in the country and locally, which is more than natural resources and local production. This feature

shows the degree of independence and economic self-sufficiency of this craft compared to other industries. This industry contains the vision, taste, thought and culture of the producer, so that it can be considered a tasteful and artistic industry. The environment of the village has the necessary grounds for the growth of handicraft activities. Because in rural areas, agricultural and animal husbandry activities provide a large percentage of raw materials that are suitable for making all kinds of handicrafts. The features announced for rural industries are not accepted today. Because rural industries must be innovative, benefit from new technology, be competitive in national and international markets, and have currency exchange power in order to gain a suitable economic position at this stage of globalization of economic functions. Therefore, you should try to diversify industrial activities in rural areas. Because currently, all industrial production activities that are established in the village environment using local and regional capabilities are called rural industries.

Disclosure Statement

No potential conflict of interest reported by the authors.

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Authors' Contributions

All authors contributed to data analysis, drafting, and revising of the paper and agreed to be responsible for all the aspects of this work.

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