

UDK 338.49(045)

*Kh.A. Badalova***MAIN FEATURES AND DEVELOPMENT MODEL OF INFRASTRUCTURE**

In modern times, the development of science and technology has had a positive impact on the territorial organization and development of infrastructure. The diversity of infrastructure plays a role of intersectoral integration in improving the socio-economic situation of the country, raising the living standards of the population and planning the territory. Infrastructure also fills a special role in the development of various sectors without a market mechanism. However, although no area of infrastructure is directly involved in the production of the final product, it is part of the productive forces of the society and serves the economy as a whole. Infrastructure development is mainly related to political, economic and social stability. This serves to increase the level of cultural development of the regions, raise the demographic potential of the population. From this point of view, the article studies the main leading features of the infrastructure and presents the infrastructure development model designed by us. The model covers the main areas of production, social and market infrastructure. Because, although the infrastructure is multifaceted, these areas, which have a leading position in its development, provide both material and moral requirements for the territorial organization of facilities serving the population by virtue of performing various functions.

Keywords: Infrastructure, production infrastructure, social infrastructure, market infrastructure, model.

DOI: 10.35634/2412-9518-2020-30-3-325-331

Ways to effectively use the natural resource potential of each region or country for sustainable socio-economic development and the increase in national income are important in our time. More efficient and effective use of these types of reserves is associated with the development of economic and infrastructure sectors [1. P. 387]. In regional research, infrastructure is considered as an integral part of the specialization of regions and cities, their integrated development and the formation of territorial-industrial complexes. Upon closer look, it would be observed that infrastructure can be classified according to the types of economic activities of people and the territorial environment. Because infrastructure has entered all spheres of human activity. Although production, social and market infrastructures are differentiated in accordance with to the type of material activity, people's field of activity and the principles of entrepreneurship relatively, there is a relationship between them. The above factors could be classified as follows:

- production infrastructure – participates in the manufacturing process of production and means of production;
- social infrastructure – the provision of services to people, protection of their health, management, formation of public consciousness and scientific outlook;
- market infrastructure – grouped by characteristics such as retrieval of socio-economic systems.

The main purpose of this article is to identify trends in the development of infrastructure areas, ways to improve and expand them, to develop a "development model of infrastructure" through a comprehensive study of infrastructure areas.

Research object and methods

The principles of territorial organization and location of infrastructure areas have been selected as the main object of our research area. Research methods include systematic approach, structural-functional analysis and generalization.

Results and discussion

The rapid development of infrastructure is related to the political, economic and social stability of the country. This serves to increase the level of cultural development of the regions and the demographic potential of the population [2]. Otherwise, the arisen problems complicate the work of the infrastructure. Because the infrastructure problem is complex and multifaceted. For example, the retrieval of production, the establishment of market relations, state support for entrepreneurship are a small part of the problem. Their elimination is of great scientific and economic importance.

The economic content of infrastructure is explained through its system functions [3]. These includes:

- to create favorable conditions for the functions forming the structure of economic sectors in the regions;
- to establish production relations through intersectoral interaction for the restoration of the lost economy;
- to ensure the sustainability of products for the dynamics of sustainable production.

Taking into account the above, it could be said that the process of concentration in the field of infrastructure has recently intensified. Namely, large enterprises offering better quality and cheaper services gradually eliminated medium and small enterprises [4. P. 161]. However, this does not apply to all areas. Because in recent years there has been an increase in the number of medium and small enterprises serving people. These include hotels, motels, domestic services, cafes, restaurants, passenger vehicles, training courses, etc.

Infrastructural areas have a comprehensive significance in the efforts such as land appropriation, urban planning, environmental protection. At present, the creation of prebaked playgrounds and technopolises is widespread in the world practice. For example, one of such platforms is the development of various infrastructures for transport and communication systems and their delivery to entrepreneurs. Thus, the complex development of these areas is achieved [5].

In general, the infrastructure is represented by the following subsystems with its innovative activity:

- finance: budget organizations, various funds (insurance, investment, etc.);
- production-technology: technoparks, innovative technology centers, business incubators, etc;
- information: database, central management, as well as analytical, statistical information centers;
- personnel: educational institutions for training and improvement of science and innovation managers, technological audit, marketing;
- legal-regulatory: state laws, regulatory acts, presidential decrees, rules;
- expert-consulting: organizations providing services in various fields (finance, investment, marketing, management, etc.), as well as intellectual civil problems, standardization, certification [6. P. 5].

The interaction of these subsystems of innovative infrastructure is called innovative activity. Innovative activities deal with the selection of projects with expertise, the creation of a favorable environment for small technology-innovative companies, the creation of interactive mechanisms with large companies, support to the formation of material and technological base for small companies (leasing), the creation of a network of information centers and access abroad, innovative insurance projects and support to foreign investors, provision of scientific and technical assistance, etc.

Infrastructure activity has a dual nature:

- 1) to provide services for material production;
- 2) reproduction of labor resources, ie factors directly involved in production.

Like in all sectors of the economy in a number of countries, during the transition to a market economy, there has been an objective need for the reconstruction of production, social and market infrastructures in compliance with the national interest. In order to implement measures in this direction, we have mapped out an infrastructure development model.

The geographical model expresses the rationality of a specific scientific understanding of the effective research and is crucial in determining the methodological effectiveness of the study [7. P. 143]. The model developed by us covers the main areas of production, social and market infrastructures, which are the main areas of infrastructure. Although the infrastructure is multifaceted, these areas, which have a leading position in its development, provide both material and moral requirements for the territorial organization of facilities serving the population by virtue of performing various functions.

Industry, agriculture and construction, which are the leading areas of production infrastructure, belong to the areas of material production by manufacturing material products. Infrastructure is typical for each industry. Industrial infrastructure includes elements that ensure production: raw materials and products of vehicles. Important factors such as repair of agricultural machinery, processing of products, land reclamation are included in the agricultural infrastructure. The construction infrastructure provides the engineering equipments with the necessary logistics which will be needed.

In addition to material production, transport and communication which serve production, belong to the sphere of material services for production purposes, but trade and public catering to non-production material services. Both areas are intertwined in the service sector. Trade infrastructure supplies outlets with goods and equipments. Markets, warehouses, large refrigerators, commodity supply bases, etc. are included in the

wholesale trade network, while companies, individual entrepreneurs, public catering establishments, etc. are encompassed in the retail trade network. Trade infrastructure also covers fairs, mega-shopping centers, commodity, advertising, etc.

Taking into account the regulatory role of the state in the development, improvement of the production infrastructure and its effect on the reproduction process, it can be divided into three major groups:

- intersectoral (communication, transport, water, gas, heating, electricity supply, etc.);
- field (amelioration, agrochemistry, etc.);
- internal production (infrastructure serving one area).

Production infrastructure characterizes the process of formation of needs and reproduction of production resources, as well as reflects the relationship between the volume of services and the structure of products [8. P. 284].

Social infrastructure is created on the basis of economic resources and operates through the requirements of the social policy line. This type of activity, aimed at improving the quality of life among the population, raising labor productivity, increasing life expectancy, is understood as an essential part of the principles of social stability and justice [9. P. 116]. The high level of development of social infrastructure facilities creates the basis for the development of other areas in the region. For example, the availability of jobs, high purchasing power of the population, supply of utilities, etc. affect provision of the population with housing. This field is being developed in connection with other spheres of economy and social development [10. P. 165]. Housing and utilities infrastructure is an integral part of the service sector, it also covers some areas such as repair of this apartment, preparation of furniture, cleaning of clothes, etc.

Transport and communication, housing utilities and domestic sides of social services belong to non-production material services; health, education, culture, art, research centers, financial-credit and insurance organizations serving the population to the spheres of intangible services, they generally are based on the principles of efficient placement of population and settlements on the territory.

The activities of the abovementioned areas serve to accelerate the development of the region and social infrastructure, and increase efficiency through the implementation of various socio-economic tasks. In this case, along with economic benefits, social security of the population is also taken into account. For example, health infrastructure, which includes social infrastructure, is aimed at improving and protecting the health of the community, and is represented by a number of health centers and institutions. In the educational infrastructure, in addition to educational level of people, it exists in the forms of centralized, decentralized and mixed systems. The centralized system is funded by the state, the state approves the documents of students, and carries out teacher training and improvement. The management of education in the decentralization system is within the competence of local (regional) authorities, the state only registers and makes financial choices. The powers of the mixed education system are divided by both central and regional authorities.

In the modern economy, social infrastructure performs the following functions:

- ensuring normal life activities for employees of economic entities;
- improving labor efficiency, which is important for the production process;
- increasing working capacity;
- formation of the young generation in the national moral spirit.

Market infrastructure consists of intangible services and non-production services. Intangible services include marketing, stock exchanges and auctions, financial and credit, insurance and tax systems; and non-manufacturing services include information and communication technology, chambers of commerce and the customs system. This area of infrastructure is mainly responsible for establishing mutual economic and trade relations with other countries and regional economic organizations and ensuring security when establishing cooperation. At the same time, the market infrastructure covers some services such as organization of financial centers, capital insurance, use of preferential customs systems, activities of chambers of commerce, etc. Thanks to it, tax system is also applied to ensure the safe transportation of goods.

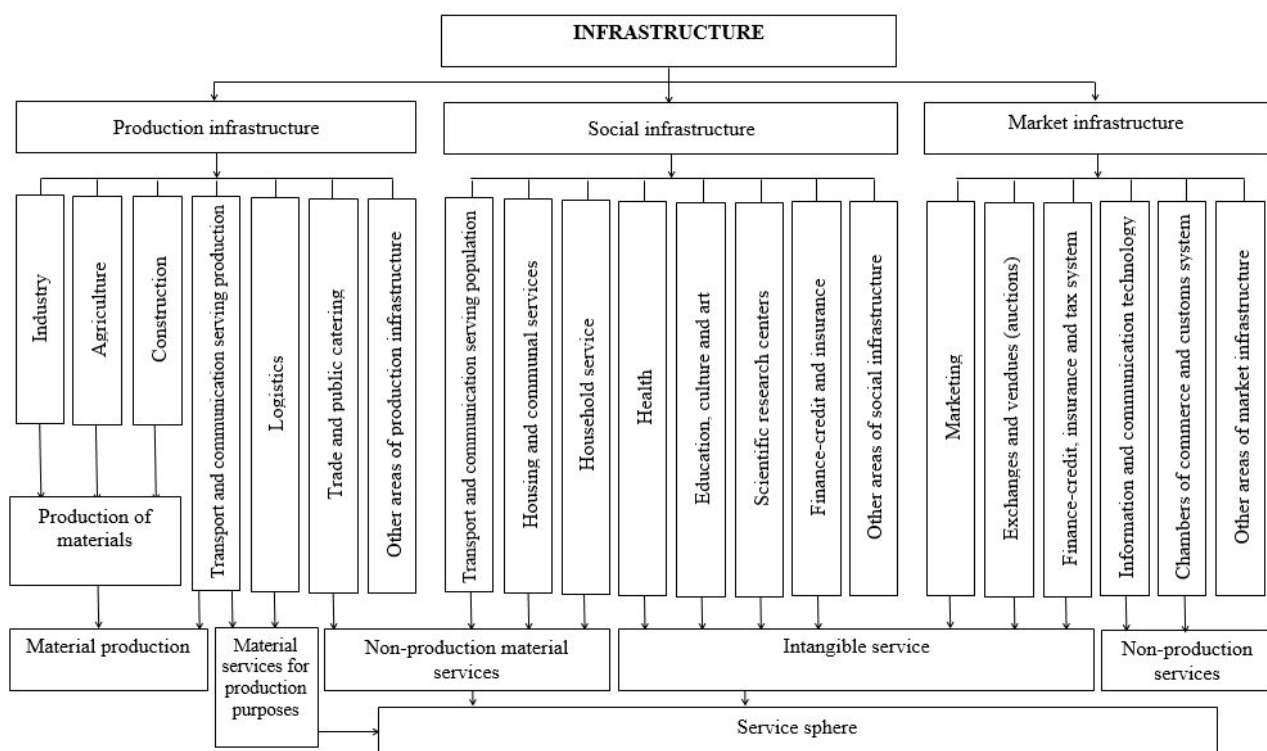
The components of the market infrastructure include commodity, stock, currency and labor exchanges, leasing companies, banks, fairs, etc. [11. P. 18]. They also operate within the framework of general economic rules. Market infrastructure, in turn uses marketing methods and techniques. Because the market is a system that provides a large number of connections. Here agreements are made, the subject of purchase and sale of various goods and services circulate.

In general, you might say that the market infrastructure facilitates the implementation of trade relations, serves to increase efficiency, creates a unified economic system between producers and consumers.

Thus, the market infrastructure creates the necessary economic environment for the operation of various forms of trade, as a result of which the normal operation between imports and exports is ensured.

As stated in the infrastructure development model, infrastructure can be studied at the level of country, region, city, district, economy or enterprise. The analysis of the infrastructure problem may be carried out within the territorial-industrial complex, industrial junction, economic zone.

Service areas occupy one of the key places in the infrastructure development model. According to M.A. Abramov, the features of the organization of service areas for the territory and the specifics of their location are closely related in terms of the system of “human-service” position, as opposed to industrial and agricultural fields, service “products” are not transported from one place to another, but both the consumers and the service providers can be relocated [12]. The location of service enterprises reflects planning and territorial organization of the overall infrastructure system [13]. This mainly depends on the natural conditions and settlement characteristics of the population. The development of this area is of great importance for all people and regions.



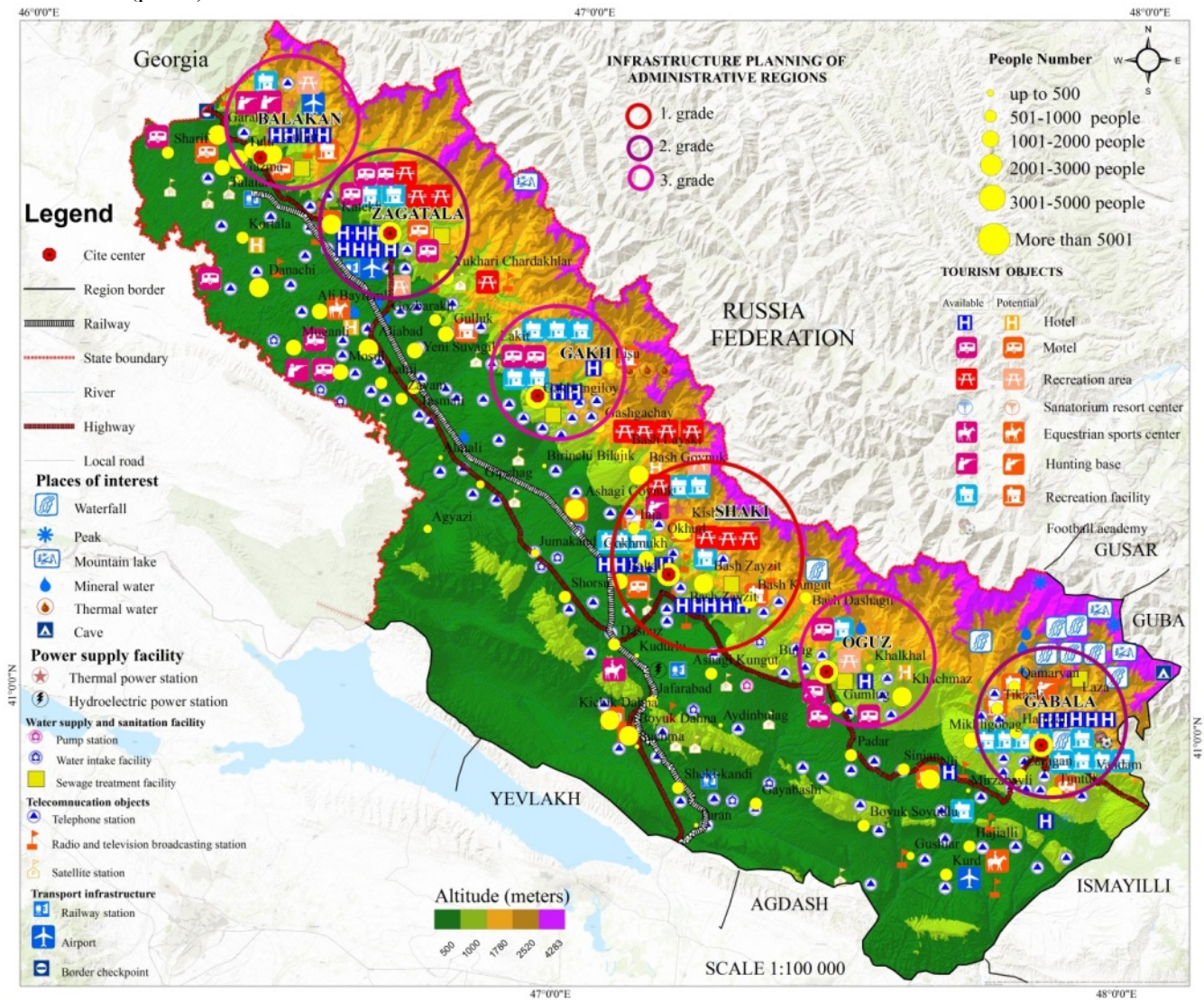
Pic. 1. Infrastructure development model

In addition to the above, I would like to say that the infrastructure covers all areas of people’s daily lives and economic activities. This is reflected in a broader sense, rather than in three main aspects, as we have shown in the Infrastructure Development Model (pic.1). These include:

- military infrastructure – surveillance system, control point, navigation, communication, transport, weapons depot, medical facilities, training center, shooting range, etc.;
- scientific infrastructure – buildings and structures of scientific centers, coordination of scientific researches, scientific personnel, libraries, publishing houses, information centers, logistical and social-domestic support, etc.;
- space infrastructure – study of atmosphere and space, meteorological observations, air monitoring, defense system, transmitters, receivers, navigation systems, etc.;
- tourism infrastructure – travel agency, guest houses, tourbase, hostel, tours, communication, currency exchange, transport, trade enterprises, public catering, etc.;
- ecological infrastructure – devices, enterprises, departments, technological systems, etc. providing environmental protection;
- sports infrastructure – sports ground and buildings, ancillary buildings, technical rooms, etc.

Based on the proposed infrastructure development model, we have studied infrastructure areas in the Shaki-Zagatala economic-geographical region of Azerbaijan. During this period, we found out some differences in the territorial organization of the infrastructure. We've been trying to explore these differences in terms of the number of people living in the area and their infrastructure provision. As a result, along with the existing infrastructure facilities of the economic-geographical region, its potential opportunities have also been appreciated [14].

As a result of the analysis, according to the development level and perspectives three zones have been distinguished in the region. The first zone includes the administrative centers and surrounding areas of Sheki; the second zone includes those of Gabala and Zakatala; and the third one includes those of Balaken, Oguz and Gakh (pic. 2).



Pic. 2. Territorial organization of infrastructure in the Shaki-Zakatala economic-geographical region

The primary zone includes the city of Shaki and its surrounding areas. This zone differs from neighboring areas in terms of its history, socio-economic development and infrastructure. Despite the fact that there are enough infrastructure facilities in the zone, construction works in Shaki and nearby villages is somehow lingering development. The regions of Gabala and Zagatala are included in the secondary zone. The opening of a new airport in Gabala during the recent years, as well as the development of the hotel industry is highly appreciated. There are many recreational facilities here, but these facilities are mainly concentrated in the central part of the region. Zagatala lags behind Shaki in terms of socio-economic development. Airport, railway station, hotels, motels, recreation facilities and playgrounds within the zone have had a positive impact on its development. However, the production infrastructure is poorly developed here, and a number of newly established food industry enterprises have ceased their operations. The center of Balakan,

which belongs to the third zone, has the position of an urban economic structure. From this point of view, if we'd take a look at the structure of employment within the zone, it could be seen that the majority of the population works in the fields of service and trade. The poor development of primary processing enterprises based on the processing of agricultural products in the Gakh region, has led to a significant fallback of production infrastructure compared to other regions. Oghuz lags far behind other areas in terms of its pace of development. The biggest problem in this area is unemployment. Despite the relatively high growth rate of labor resources in Oghuz, employment is weak.

Conclusion

Infrastructure, which fills an important role in the development of society, is an essential part of production and social spheres, and is a means of ensuring the normal development of economic activity. In this regard, many scientists call infrastructure the object of study of the economy. However, many infrastructure studies are economic-geographical in nature and are used to study regional differences. In the presented article, the main features of the infrastructure have been comprehensively studied, and the "Infrastructure Development Model" has been prepared, taking into account the main directions of production, social and market infrastructures.

The infrastructure development model prepared by us can be used to study the territorial organization and internal differences of infrastructure areas from the regional point of view, as well as to create production infrastructure, to eliminate existing social infrastructure differences between urban and rural settlements.

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Received 19.09.2020

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ОСНОВНЫЕ ХАРАКТЕРИСТИКИ И МОДЕЛЬ РАЗВИТИЯ ИНФРАСТРУКТУРЫ

DOI: 10.35634/2412-9518-2020-30-3-325-331

В наше время развитие науки и технологий положительно сказывается на территориальной организации и развитии инфраструктуры. Разнообразие инфраструктуры играет роль межотраслевой интеграции в улучшении социально-экономического положения страны, повышении уровня жизни населения и планировании территории. Инфраструктура также играет особую роль в развитии различных секторов без рыночного механизма. Однако, хотя ни один отдел инфраструктуры не участвует непосредственно в производстве конечного продукта, она является частью производительных сил общества и обслуживает экономику в целом. Развитие инфраструктуры в основном связано с политической, экономической и социальной стабильностью. Это способствует повышению уровня культурного развития регионов, увеличению демографического потенциала населения. С этой точки зрения в статье исследуются основные ведущие характеристики инфраструктуры и представлена разработанная нами модель инфраструктуры. Модель охватывает основные направления производственной, социальной и рыночной инфраструктуры. Потому что, хотя инфраструктура многогранна, эти направления, занимающие лидирующие позиции в ее развитии, обеспечивают как материальные, так и моральные требования к территориальной организации объектов, обслуживающих население в силу выполнения различных функций.

Ключевые слова: инфраструктура, производственная инфраструктура, социальная инфраструктура, рыночная инфраструктура, модель.

Поступила в редакцию 19.09.2020

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