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### **SOCIAL INFRASTRUCTURE AS AN ESSENTIAL ELEMENT OF REGIONAL INFRASTRUCTURE**

*SUMMARY. This article presents the results of a theoretical and methodological analysis of contemporary social infrastructure from a regional perspective. The infrastructure under discussion is a multilevel organizational economic system, which includes the sectors of industrial, social, network, institutional and critical infrastructure. Both in Russian and foreign scientific literature special attention is paid to social infrastructure, because it is critical for the contemporary society to create a comfortable environment for daily life human activities. The authors describe the functions, types, models and distinctive features of social infrastructure on the basis of functional, structural and dynamic characteristics analysis. The development of social infrastructure is a key element of social and economic policy of any specific territory. On the one hand, social infrastructure serves as a channel for delivering various social non-material services, including health care, education, and recreation. On the other hand, it creates appropriate conditions for the daily living activities and development of the society in the sphere of health care, education and personal development.*

*KEY WORDS. Regional infrastructure, social infrastructure, dynamism, functionality, structuredness.*

The issue of living conditions for people and society had aroused scientific interest long before the notion itself was defined and categorized. Talking about the factors for forming and functioning of national economy, A. Smith distinguished a set of material conditions required for rational industrial management. R. Owen spoke about the necessity to provide people with their general and cultural needs [1]. In the late 1940s, economists introduced a new term “infrastructure” in order to denote the economic sectors involved in services to industry and agriculture [2].

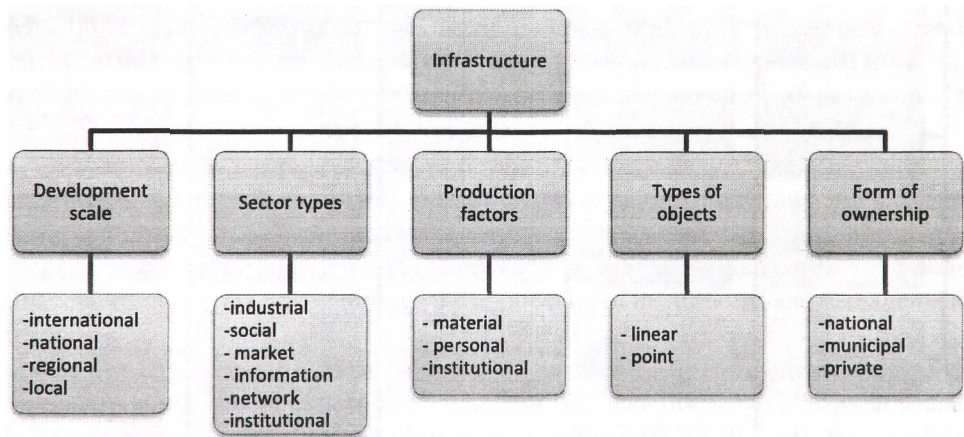
Gradually, this term came into frequent use, first, in economic studies and, then, in social life. Besides the material and technical aspects of social life, the key issue was how people evaluated its quality and to what extent their needs were met [3]. For example, P. Rosenstein-Rodan defines infrastructure as a range of conditions which help people satisfy their needs and contribute to the favorable development of private enterprises in major sectors of economy [1].

P. Samuelson, A. Marshall, and A. Hirschman compare infrastructural facilities with the so-called overhead capital and believe that the notion of infrastructure is closely connected with external economy, which is achieved by non-reciprocal acquisition of additional value produced by enterprises and the whole infrastructure sectors [4]. R. Frey and J. Stoler claim that infrastructure costs must be viewed as a kind of investment, since they are similar to real costs that will bring benefits in the future [5]. J. K. Galbraith is of the opinion that the “consumer society” upsets economic balance as it spends too many resources on goods production and too few on social needs and infrastructure [6].

Close ties between the objective laws and economic interests lead to gradual development of infrastructure elements, particularly those connected with production and production-related activities. The development of infrastructure is also caused by the rising necessity to provide suitable conditions for the daily life of both workers and their families [1].

In the 1960-1970s, Soviet economists paid special attention to the development of industrial, social and environmental infrastructure. In the early 1980s a new term *market infrastructure* appeared in scientific works to denote a subsystem meant for the sphere of distribution [7].

Figure 1 illustrates an infrastructure classification based on the development scale, sector types, production factors, types of objects, and form of ownership.



*Figure 1. Classification of infrastructure as an economic category*

There are plenty of infrastructure types as new structures are constantly emerging; they, in turn, create and determine new adequate types of infrastructure.

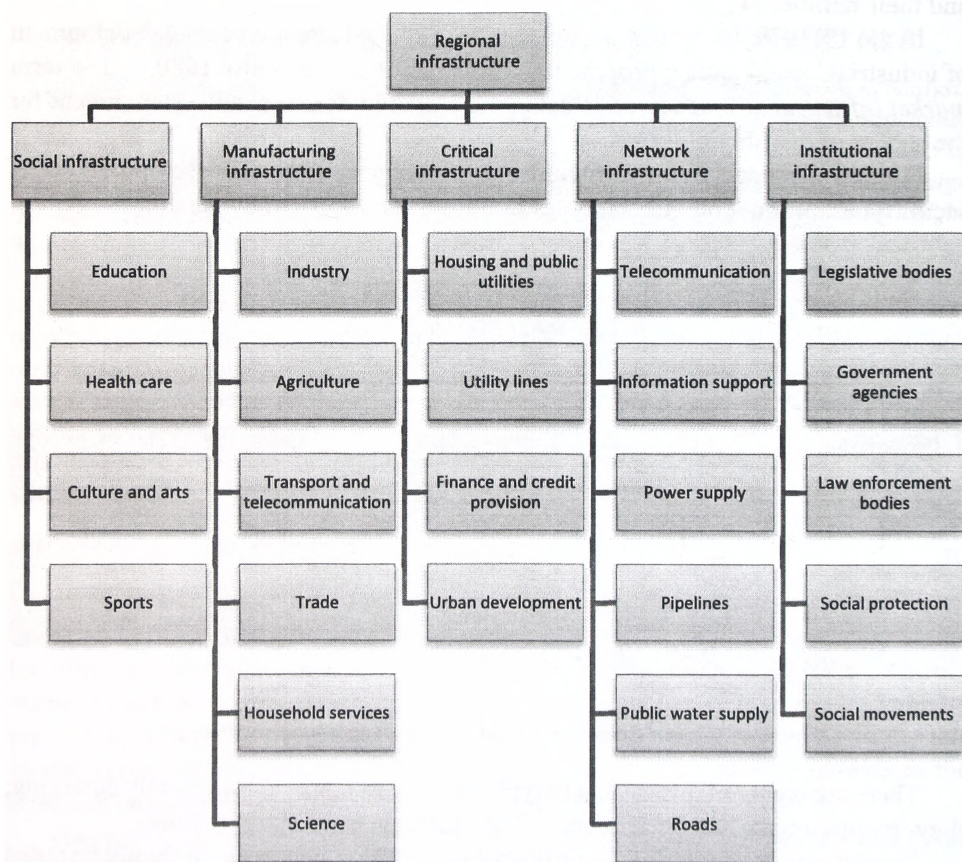
From the point of view of the infrastructure development scale, it should be noted that each level forms its own economic system and is marked by the presence of its own structure and respective infrastructure.

The regional infrastructure is linked with almost all types of public production. This combination of sectors encompasses both material production and social sphere,

i.e. all spheres of people's daily life activities. The factors that limit infrastructure development have a very negative effect on the regional economy [8]. Over time the approach to the configuration of regional infrastructure has changed from a number of military facilities to the social welfare-oriented capital. The social welfare-oriented capital is considered to be a base for the national economy and sustainable development of the sectors encouraging regional economic development [9].

Based on the form of ownership, infrastructure can be national, municipal, private or mixed. The national infrastructure is owned by the national and regional authorities and organizations. The municipal infrastructure is governed by the municipal authorities, while the private infrastructure belongs to legal entities and private individuals.

The modern regional infrastructure is a multi-level business structure. It includes a variety of social, manufacturing, institutional, network and critical infrastructure elements (Figure 2).



*Figure 2.* The regional infrastructure scheme

Social infrastructure plays a special role in the system of regional infrastructure. It characterizes the social structure of the region, alongside with the level of social

sectors development, quantity and quality of social services. The Russian researchers paid much attention to the studies of the regional social infrastructure. Zh. Toshchenko, A. Tuisheva, M. Nikolaev, O. Sogacheva, O. Radina, and I. Bykovskaya define the social infrastructure as a stable complex of material elements. These elements provide the facilities for rational organization of a person's essential activities [1], [9-13].

The social infrastructure studies are based on four methodological criteria listed below:

— Systemic criterion implies that a scholar must analyze the object as an integral complex of its subsystems in order to reveal ties and relationships within the object and between the object and its environment;

— Situational criterion implies that a scholar must examine some current situation by making use of standard methods and techniques;

— Dialectic criterion implies that a scholar must employ specific cognitive techniques to make a deep penetration into the very essence of specific phenomena and processes (dividing and combining the whole and its parts, main and secondary, essential and accidental, statics and dynamics, abstract and concrete);

— Reflexive criterion implies that a scholar must only use and process objective information on both internal and external ties and relationships of the object under study.

The regional social infrastructure includes many sectors, such as health care, education, sports, arts and culture. The efficient performance of regional social infrastructure contributes to sustainable social and economic development of a specific region, enhancement of life quality, and rational organization of the people's activities.

The main elements of the regional social infrastructure include capital resources (buildings, equipment, facilities), non-financial resources (staff and information system), institutional and management resources (supervision, planning, management, functioning, etc.). It is important to emphasize that capital and non-financial resources are linked through the application of institutional and management resources.

The major characteristics of the regional social infrastructure are considered to be functionality, structuredness and dynamism. The functionality of regional social infrastructure is discussed in detail in many publications [1], [12-17]. It is evident that the key function of regional social infrastructure is to provide a wide range of non-productive services to meet the needs of local population. These include:

— Public health care;

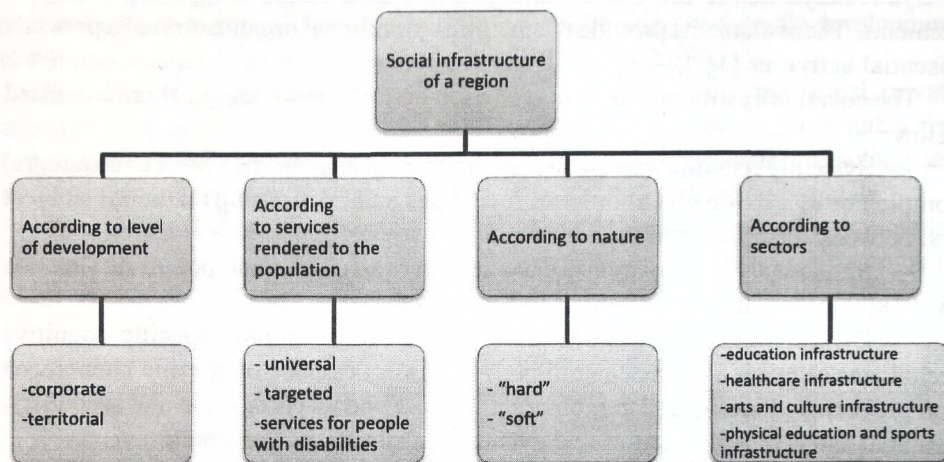
— Creation of suitable conditions for the reproduction of labor-power;

— Creation of suitable conditions for demographic growth;

— Smoothing territorial disproportions in personal consumption and delivery of equal access to social infrastructure services region-wide;

— Creation of suitable conditions for balanced personal development based on the desired structure of consumption values.

To single out the structural elements of the social infrastructure, one can accept the following criteria: the sectoral structure, nature of facilities, level of development, and consumer value (see Figure 3).



*Figure 3.* The social infrastructure classification based on the structure of its elements

The sector structure of social infrastructure is a combination of education, healthcare, sports, arts and culture. The classification of social infrastructure based on the level of development is linked with cooperation of the private and state sectors in the region [14]. The corporate level is aimed at a company's personnel; the territorial sector ensures quality of life for all citizens of the region.

It must be noted that social infrastructure can be either "hard" or "soft". The term "hard social infrastructure" typically refers to buildings, equipment, and facilities; i.e. the material basis for business and social activities. The term "soft social infrastructure" is typically associated with a variety of non-financial, organizational and managerial resources required for service delivery. The resources under discussion as taken together constitute the non-material basis, which is hard to define and measure. It is usually described in rather subjective terms.

It must be stressed that services, which are delivered through regional social infrastructural facilities, may be of three different types, namely:

Universal services (education, staff training, healthcare, social welfare, sports, recreation, arts and cultural institutions, etc.);

Targeted services (institutions and services for children, adolescents and retired people, such as kindergartens, higher educational institutions, pension service);

Services for people with special needs and disabilities.

As for the dynamism, it is described in terms of transformation and modernization. In the course of modernization all elements and their connections have a way to accumulate quantitative changes. In the long run, this leads to transformation.

As for the degree of maturity, the social infrastructure elements may be referred to as developing, developed or “passing”. At every cycle stage different conditions are possible. They are characterized by a definite set of parameters. Their changes make it possible to speak about dynamics. It helps to distinguish the subcategories of dominating, stagnating, recessionary, depressive and transforming social infrastructure.

Based on its level of development infrastructure can be new, emerging, and the one lagging behind the previous system. If infrastructure is lagging behind the structure itself, it becomes a deterrent and leads to underdevelopment. Infrastructure can change slowly and gradually (allowing time for modification and adaptation). There can also be sudden transforming “discontinuities”, which result from social and economic crises in the economic system [15].

The analysis of the system characteristics of the regional social infrastructure made it possible to define its peculiar features.

Firstly, the sectors of social infrastructure are complimentary, i.e. it is impossible to replace one infrastructure object with another as they co-exist only as a complex, interacting and complementing each other. For example, a clinic or a hospital cannot provide educational services and replace a library or a school. Social infrastructure satisfies people’s everyday needs and includes all elements of social welfare.

Secondly, the product of social infrastructure is a service. It does not create a new product, but results from some work. This adds a new value to the value of the already existing goods.

Thirdly, social infrastructure services are non-transferable. They are provided only to the citizens of the region; they cannot be imported, stored, reserved or saved.

Finally, the demand for such services is individual. At some periods of their lives people need kindergartens and schools, then they want to get higher education; some need sport facilities; others require culture and arts centers. Furthermore, there are people with disabilities or special needs arising from ethnic customs and traditions. As a result social infrastructure should be taken under consideration in combination with values and beliefs of various people, groups and associations.

We can summarize that the analysis of a theoretical framework for examining social infrastructure has enabled us to identify the main levels of its development, its types, system characteristics, and peculiar features. This will serve as a theoretical background for further analysis of social infrastructure and for defining its importance in the social and economic development of the regions of the Russian Federation.

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