

G.N. Nakipova, B.K. Spanova

*Karaganda Economic University of Kazpotrebsoyuz, Kazakhstan
(E-mail: bake1973@mail.ru)*

Conceptual approaches to the social infrastructure concept in economics

The paper presents main theoretical and methodological approaches to the «social infrastructure» category, identifies main distinctive features between infrastructure and social infrastructure. Definitions of the social infrastructure functioning theory as an important component of the regional economy providing production and consumption of services and non-material benefits are considered. Social infrastructure notion interpretations are diverse, which is explained by the absence of clearly substantiated principles, criteria of attributing certain industries to it, types of industries or activities. Providing public and non-excludable benefits, social infrastructure is the determining factor for successful socio-economic development and functioning of the region. It was revealed that the conditions for rural social infrastructure are specific due to insufficient budget resources. The analysis showed that rural social infrastructure development promotes and ensures efficient allocation of productive forces and forms of labour relations, including agro-industrial production. Social infrastructure development is becoming one of the most important priorities for economic modernization, since infrastructure services provide the basis for increasing all economy sectors' efficiency.

Keywords: social sphere, sustainable development, social and economic development, social infrastructure, rural areas, quality of life, population, efficiency criteria.

The infrastructure created in the Soviet times and which had a supportive character deserves special attention in the modern world. In the economic literature, there are various approaches to infrastructure classification problem, as well as its production, social, institutional, market and other components. All of them are of great importance for the society's various levels of infrastructure provision analysis, and, first of all, social infrastructure's economic role clarification in the regional system of population life support.

The role of social infrastructure is not only to provide decent living conditions for citizens, but also to create a competitive economic image of the region in the national scale. Social infrastructure affects economic system's efficiency, since social infrastructure branches become points of human capital development.

Scientific ideas about infrastructure problems are created in the works of Anglo-American political economy school representatives: K. Wicksell, J.M. Clark, A. Pigou. Western researchers studying macroeconomic problems in the late XIX - first half of the XX century came to the conclusion that a careful analysis of non-production relations is necessary.

In the mid-twentieth century, the Keynesian theory of economic growth and the theory of public goods became prerequisites for first concepts of infrastructure by leading American and European economists: R. Nurkse, P. Rosenstein-Rodan, W. Rostow, P. Samuelson, A. Hirschman et al.

The term «infrastructure» first appeared in 1955 in the works of the famous American economist, P. Rosenstein-Rodan, Massachusetts Institute of Technology Professor who attributed highways, dams, railways, on the one hand, and utilities – on the other, to the infrastructure.

From the point of view of methodology it is very important to determine the concept of «infrastructure». The term «infrastructure» derives from the Latin words: «infara» for below, under and «structura» for structure, position [1].

It should be acknowledged that initially the «infrastructure» term was used in military terminology where it denoted the system of troops serving facilities, and later it was used in the Western economic terminology. In general, this term appeared in economics relatively recently which indicates the importance of the problem for economic practice, creating conditions for production and, first of all, productive forces development.

There are different interpretations of «infrastructure» concept in theoretical studies. This is due to the fact that this category is difficult and complex.

Many prominent economists interpret the concept of «infrastructure» without identifying its industrial and social aspects. Along with schools, health facilities, parks, public buildings, churches, government buildings, it consists of roads, bridges, ports, railway transport, artificial ponds and water recreational systems, facilities for fish, wild animals and plants protection, flood control and prevention, and waste storage facilities.

Other authors also include airports, sewers, apartment houses and other social services.

Identifying forms to renew economic mechanism for agro-industrial production development in accordance with the growing needs of the national economy, and its agrarian sector in particular is of great importance for social infrastructure development.

Taking into account current state and prospects for national and regional economies' development it is necessary to distinguish infrastructure system's production, organizational, managerial, social, institutional, market and other blocks and element for more efficient use and expedient development in the long run. Without such an approach, it is very difficult not only to identify various forms of society's infrastructural support, but also to clarify rural social infrastructure's economic function and its agricultural sector in particular in the national economy development [2].

It is important to recognize that in the recent years the term «social infrastructure» has been widely used in the economic literature, but in practice well-known definitions of infrastructure are used, both in the production and non-production spheres, which, in the conditions of the expanding function of both national economy and its agricultural sector, requires correction and analysis.

The initial history of discussion about the labor nature in social infrastructure branches in the economic literature refers to 1920, when both «extensive» and «restrictive» concepts were mentioned.

There have always been supporters of the «extensive» concept among the leading economists. One of this concept founders S.G. Strumilin wrote: «Doctors and teachers' services have the same mechanism of price as the material values they are created for. And if the latter can serve as an object of income, the first ones can serve it as well». And further: «we have a reason to include the services of a doctor and a teacher along with the bread sold into the commodity output of the country.» Views similar to S.G.Strumilin's views found quite a lot of supporters, both among theorists and practitioners. Later plans based on the «extensive» concept were developed in T.I. Karyagina, V.M. Rutgaizer and others' works.

Although this concept has always taken place in the Economics, the restrictive theory on methodology for classifying national economy branches developed in the late 1920s was still prevailing in the economic practice. Social infrastructure branches' services were estimated in cash equivalent, this theory existed until recently with minor changes.

As a result of the fact that in social infrastructure branches labor was considered as unproductive and not creating a national income, and its role in production relations' system was reduced mainly to an auxiliary function, there was a leftover principle of its financing. V.M. Rutgaizer notes, «It was inevitable that national income participants of production are primarily provided with the necessary resources». It is natural that a slightly different principle of allocating resources, a residual one, is emerging in respect of the industries not included in the number of national income production participants. For a long time, there was a resource provision for the whole complex of social and cultural services' branches on the basis of this residual principle».

At the same time, economists propose to extend non-productive sphere (or services' sphere) to twenty branches and distinguish it as a special unit of social reproduction, while others offer to check the existing list of industries and include wholesale trade, production transport and communications.

It is known that the harmonious development of the human being consists of both material and intangible production. In this sense, such industries and spheres as communal services, consumer services, education, and health care have a very definite relationship to the process of production. Consequently, it would be correct to call these industries' material objects as «non-productive», and it is necessary to use this terminology with a sufficient degree of conventionality. In our opinion, it is wrong to identify these industries only with the consumption of material goods. And although it can be regarded as the reproduction process phase, social infrastructure branches' functions are to create conditions for a higher quality level of consumption.

According to the leading economists' estimates, social infrastructure and material goods production interdependence contribute to the achievement of higher-quality workforce reproduction which is especially evident in the areas of healthcare, education and enlightenment. Global practice and experience of the developed countries with classic market economy show that objects of trade, catering, consumer services, housing and communal services, passenger transport, communications, health, physical culture and sports, education, culture and art, whose activities are aimed at developing country's economic life, can be included into the social infrastructure. Since high quality of life and intellectual development of the population is impossible without this approach.

Emphasizing objectal character of the social infrastructure as an independent economic category, Zh.T.Toschenko notes that social infrastructure means a system of institutions and organizations that have

not only technical but also socioeconomic knowledge, as it creates conditions for optimizing human activity, first of all». At the same time, he suggests grouping social infrastructure elements according to the following hierarchy of its levels: social infrastructure of the republic, region, district, city, personnel. From the qualitative point of view social infrastructure's ability to influence economic growth, be a basis for social transformation and intensification of production is emphasized. Its importance in the society increases as soon as new structure-forming elements of the social infrastructure appeared which requires clarifying its classification and its essence and approaches substantiation in market relations.

Therefore, in new conditions of management, it is advisable to consider the social infrastructure as a combination of social and socio-non-material systems. It means that branches of the first system satisfy social and everyday needs, and branches of the second system satisfy people's social and non-material needs. As part of the social infrastructure aspects, social and economic (education, health, culture) and household (retail, communal services, housing, etc.) are designated. Later the classification of the elements became more complicated. Some authors emphasize material and household, social and healthcare, educational and spiritual, communication, as well as social and economic subsystems as relatively independent ones.

Hence the need to change theoretical and practical approach to social infrastructure structure and its role in the reproductive process is emerging. We note that social infrastructure reproduction conditions and rates, its successful functioning depend on the quality of the society's material base. Studies in this field have long been kept up due to a misunderstanding of the social infrastructure material objects' essence, or, as they are called, non-productive fixed assets. A number of authors previously believed that non-productive fixed assets do not directly or indirectly participate in the production process, but serve only the interests of consumption. Such arguments are based on a rather widespread view of spheres of activity division into material production and non-productive sphere, although this division itself can be accepted with a high degree of stipulation, as we mentioned earlier [3].

The existing earlier approach to the «social infrastructure» concept created a simplified view of this economic category nature, assigning the role of a passive participant in the reproduction process. In addition to existing approaches, there are others that have been officially reflected in statistical documents and in agricultural enterprises' reporting. M.S. Platon considered it possible to single out non-production objects depending on their location and assumed the existence of two groups. The first group includes:

- household objects (baths, showers, locker rooms),
- public catering facilities (canteens, buffets),
- culture and recreation (corners, libraries and their reading rooms),
- health care (health centers),
- fire safety and protection.

All of them are in big quantity mainly on the livestock farms and field camps' territory, therefore their capacities and throughput must be calculated on the basis of scientifically based norms and depending on the number of employees, and specifics and nature of the production process.

The second ones, located in the places of people residence, include the objects necessary to meet the people's needs during off-hours:

- housing and communal services,
- healthcare facilities,
- education facilities,
- culture.

Besides, these services are used by all categories of the population, regardless of the sphere of employment, type of activity and social status. These objects can be owned by agricultural enterprises.

Generally infrastructure includes various auxiliary productions of industry and sphere [4]. There is no common opinion about «infrastructure» content and concept, and its element-by-element complex among economists. The question of substructures and especially rural social infrastructure, its place and role in agricultural production development remains a debatable topic. In most cases, the infrastructure is limited to the areas of education, health, preschool education, housing and communal services, transport, trade and catering.

As for the social infrastructure notion content, there is no single point of view. Some researchers understand this as a type of activity that provides general conditions for the social processes' economy development that are consciously created by people. Others emphasize the fact that the backbone of the social infrastructure is supplementary and additional activities in the process of human reproduction.

Identifying the elemental set of social infrastructure and giving it a definition in general, we agree with Professor V.M. Kozlinsky who defined social infrastructure as a combination of branches, and types of activities that provide necessary conditions for reproduction of promising and productive individuals in the development of the service sector and consumer goods in the countryside.

These goods and services include: gross production of retail trade and public catering, public expenses on passenger transport communications, maintenance of housing, communal services and household services, healthcare, physical culture, social security, education, culture, art and other industries (Table).

Table

Different approaches to social infrastructure's essence characteristics

Author's name	Description
L.V. Bondarenko	Social infrastructure provides conditions for labor reproduction, preserves and develops demographic and labor potential
V.P. Vasiliyev	Social infrastructure is an integral part of the national economy's social infrastructure which fulfills socio-economic functions in a certain territorial unit
A.I. Kocherga	Infrastructure is characterized by resources used (fixed assets and labor costs), and service sector - by units' quantitative and qualitative indicators
A.V. Petrikov	Rural social infrastructure is the infrastructure subdivisions providing services to rural population.
M.S. Platon	Social infrastructure is a system of integrated sectors of the economy, a complex of institutions and organizations that provide favorable conditions for human life in the labor, social, political, spiritual spheres and simultaneously in the sphere of family and everyday life.
I.T. Shayakhmetov	Social infrastructure is a territorial and sectoral complex that provides social and spatial conditions for labor reproduction, population specialization and social protection, preservation and development of demographic, labor and non-material potential of the society.

We understand rural social infrastructure as a system of integrated branches of agriculture, a complex of institutions and organizations that are available in the rural area and which provide favorable living conditions for the rural population, activation of their labor, social, political and spiritual spheres, and at the same time in the sphere of the rural family and rural life. Consequently, rural social infrastructure is designed to meet the needs of the people under certain conditions of life, to ensure producers and villagers' reproduction of life, and to raise all-round development of the individual in the conditions of the market economy. Social infrastructure is a set of industries and spheres that provide rural population with consumer goods and necessary services produced in the material sphere.

Problematic of interaction between the groups of spheres and branches of rural social infrastructure, and their influence on the agroindustrial complex development is of particular importance. In view of the diversity and heterogeneity of the functions, one can subdivide social infrastructure industry into three groups:

- industries involved in providing material services to the population, utilities, household services;
- material production industries creating special intangible values (non-material values), as well as providing intangible services. This includes health, education, physical culture and sports;
- housing.

Characterizing the social infrastructure in general, first of it is necessary all to emphasize that it is, like other spheres of the public system, conditioned by the level of productive forces' development [5]. This conditionality is expressed in two ways:

- objective condition, and the material basis of its functioning is the level of production development in general, and agricultural production development in particular,
- the pace of infrastructure development is determined by the social composition of the population, that is, the direction and degree of rural infrastructure development depend on the object and the subject of production development in their interconnection and unity.

In our opinion, social infrastructure definition is not entirely justified in all these approaches, a person is regarded as a «labor resource», a condition for production functioning and development. This approach took place up to the 90s. A characteristic feature of this approach is the economic and productive po-

tential definition as the main goal of the society development, and not the provision of a high quality of people's life and work.

Considering the relation between «social infrastructure» and «non-productive sphere» concepts, we can conclude that the first concept is wider than the second one, since along with industries traditionally related to non-material production, social infrastructure includes a number of industries that the existing methodology refers to the material sphere (trade and catering, transport).

Thus, part of the social infrastructure branches partly coincides with the non-productive sphere. The basis of «infrastructure», «non-productive sphere», «social infrastructure» economic categories is the form of ownership. In recent years, the service sector role in the development of the agrarian economy has also increased which adequately reflects the modern market type agricultural production content. At the same time, certain terms in market economy conditions do not always accurately reflect the essence of the economic phenomena occurring in the rural areas. Together with the agribusiness industry's agrarian sector further development new structural formations within agro-industrial production appeared. For a more precise definition of agriculture structural entities' boundaries, it is advisable to single out the services' sphere into a separate subdivision which will make it possible to justify the importance of the social infrastructure, its functions and role in the system of the reproduction process more clearly. The concepts of «service sphere», «tertiary sector», «non-production sphere», «social sphere» adequately fit into the «service» block in the conditions of property forms diversity in the countryside, which makes it clear when studying the phenomena associated with the role of rural social infrastructure in the national economy development as a whole.

From the methodological point of view it would be correct to start the search for rural social infrastructure parameters and criteria definition with the study of the rural population needs. This principle is also consistent with the need to place the personality into the center of the market type economic relations' formation. The economic nature of the human being begins precisely with his or her needs, for the satisfaction of which he/she enters the most diverse social and economic relations and ties.

Thus, depending on the nature of the needs satisfied by rural social infrastructure, we distinguish three groups of industries:

- industries that meet physiological needs which should include household services of the population, housing and communal services, trade, public catering services, passenger transport and communication services for the rural population;
- social infrastructure branches that meet social needs of the rural population in healthcare, physical education and sports services;
- industries that meet non-material needs of the rural population for education, raising the level of culture, and culture of production.

Each branch of the social infrastructure performs specific (particular) functions that are sub-functions of the social infrastructure as a whole. Each element of the rural social infrastructure fulfills a specific, unique role in their objective function implementation, which consists in creating favorable living conditions for the population.

As a social subsystem, rural social infrastructure develops in close interaction with other systems of national economy (production, market, institutional, etc.). Consequently, its functioning and development are influenced by external relations and links. At the same time, rural social infrastructure is the result of the dialectical interaction of productive forces and forms of production relations. Together they form the basis of agrarian relations.

Another argument in defense of rural social infrastructure concept is that its implementation makes it possible to provide a proper level of employment for the rural population. This task, as was noted earlier, is of a well-known scale, as in many countries culture and traditions have deep roots in rural life and its values and historical heritage.

Taking into account the important feature of the villages of the republic, it is important to emphasize that in rural areas the demand for educational, medical services is represented and satisfied only by schools, community centers, etc., i.e. they represent a natural monopoly. Under certain conditions, this can adversely affect the cost and quality of services, the standard of living of the rural population. The way out of this situation is equal development of social infrastructure industries and spheres, taking into account region or district's contribution to the country development.

Another aspect of market inefficiency is related to the side effects that arise in the process of social rural infrastructure services' production and consumption. The useful effect of the service is not always achieved directly by market transaction participants which implies non-optimal distribution of resources.

These failures are even more characteristic of services that satisfy non-material needs. Their development benefits not only those who directly consume these services, but the whole society, because the higher the educational level, the more successfully social, economic and political problems are solved by the given society. It should be noted that human activities can have both positive and negative side effects, but concerning social infrastructure activities, a positive side effect is characteristic.

Specificity of agricultural production, i.e. uneven distribution of work during the year, causes fluctuations in the level of the rural population needs in a number of social services, and arrangement of their provision. So, for example, the intensity of cultural services providing was the highest in the least stressful periods of agricultural work. The peculiarity of labor supply in rural areas and keeping household farms greatly increases the labor load of the rural population and limits free time. For example, men in the countryside have 35-45 %, and women have 40-50 % less free time than the urban residents. Without any doubt, all this has a certain impact not only on the people's leisure time, but also on the level of non-material benefits' consumption, self-education, social and industrial activity of the rural population.

It is no longer necessary to prove now that social infrastructure branches do not act only as a passive object of economic trend. If we say that economic development can slow down or accelerate social progress, and immediate social goals achievement, it means that social development can also slow down or accelerate economic progress, and economic goals achievement.

Taking into account modern market economy realities, we consider that emphasizing social infrastructure as an independent object of research is not only still relevant, but also acquires special significance. Clear differentiation of people according to social indicators which is inevitable for the country's population in this period is emerging as the main negative feature of a market economy. Therefore, creating effective market social infrastructure with guaranteed high degree of low-paid social groups' protection should be considered as the main condition for market economy growth power. Consequently, the role of social infrastructure in the life of society is substantially increasing in the conditions of transition to the market economy. The most important component is the development of such a mechanism for rural social infrastructure functioning and management which will ensure its further development in the positions adequate for the market.

Summarizing all the above approaches, we believe that the social infrastructure is a public material and technical base for social and economic services' creation and consumption which ensures population reproduction and creates a decent level and quality of life in the region and in the country.

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Г.Н. Накипова, Б.К. Спанова

Экономикалық ғылымдағы әлеуметтік инфрақұрылым ұғымына тұжырымдамалық тұрғыдан қарау

Мақалада «әлеуметтік инфрақұрылым» тұжырымына негізгі ілімдік-әдістемелік тұрғыдан анықтама берілген, инфрақұрылым және әлеуметтік инфрақұрылым арасындағы негізгі ерекше белгілер айқындалған. Қызметтер мен рухани игіліктер өндірісін қамтамасыз етуші аумақтық экономиканың маңызды құраушысы ретіндегі әлеуметтік инфрақұрылымның қызмет атқару ілімінің ұғымдық құралы қарастырылған. Әлеуметтік инфрақұрылым ұғымын түсіндіру әр алуан екендігі, ал бұл оған жекелеген салаларды өндіріс немесе қызмет түрлерін жатқызу критерийлері мен нақты негізделген принциптерінің жоқтығынан туындайтындығы айтылған. Қоғамға игілікті қызмет ұсына отырып, әлеуметтік инфрақұрылым сәтті әлеуметтік-экономикалық даму мен қызмет атқарудың айқындаушы

фактор болып табылатындығы айтылған. Ауылдық жерлердегі инфрақұрылымның қызмет атқаруы бюджет ресурстарының жеткіліксіздігінен айрықша ерекшеленетіні айқындалған. Ауылдық инфрақұрылымның дамуы өндіргіш күштер мен өндірістік қатынастардың, соның ішінде агроөнеркәсіптік өндірістің тиімді жайғасуын қамтамасыз ететіндігін талдаулар көрсетіп отырғандығы пайымдалған. Инфрақұрылымдық қызметтер экономиканың барлық секторларының тиімділігін арттыратындығы себебінен экономиканы жаңартудың маңызды басымдылықтарының біреуіне айналып отырғандығы негізделген.

Кілт сөздер: әлеуметтік сала, тұрақты даму, әлеуметтік-экономикалық даму, әлеуметтік инфрақұрылым, ауылдық аймақтар, өмір сапасы, халық тиімділігі критерийлері.

Г.Н. Накипова, Б.К. Спанова

Концептуальные подходы к понятию социальной инфраструктуры в экономической науке

В статье представлены основные теоретико-методологические подходы к категории «социальная инфраструктура», выявлены основные отличительные признаки между инфраструктурой и социальной инфраструктурой. Рассмотрен понятийный аппарат теории функционирования социальной инфраструктуры как важной составной части региональной экономики, обеспечивающей производство и потребление услуг и духовных благ. Трактовки понятия социальной инфраструктуры многообразны, что во многом определяется отсутствием четких обоснованных принципов, критериев отнесения к ней отдельных отраслей, видов производств или видов деятельности. Предоставляя общественные и неисключаемые блага, социальная инфраструктура является определяющим фактором успешного социально-экономического развития и функционирования региона. Выявлено, что условия функционирования социальной инфраструктуры на селе специфичны вследствие недостаточности бюджетных ресурсов. Анализ показал, что развитие социальной инфраструктуры села обеспечивает эффективное размещение производительных сил и форм производственных отношений, в том числе и агропромышленного производства. Развитие социальной инфраструктуры становится одним из важнейших приоритетов модернизации экономики, поскольку услуги инфраструктуры создают основу для повышения эффективности всех секторов экономики.

Ключевые слова: социальная сфера, устойчивое развитие, социально-экономическое развитие, социальная инфраструктура, сельские территории, качество жизни, населения, критерии эффективности.

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