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Conditions and Prospects of Development of Modern Russia

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Abstract: This article is to consider the conditions and prospects of development of industrial and social infrastructure, to provide the definition of the infrastructure and indicate its key elements for the country. The author proves that the infrastructure is a type of frame of a modern economics. The literature overview represented in the article reveals the problem of development of infrastructure sectors of industry. The author aims to find the mechanisms contributing to the development of industrial and social infrastructure and describes the general functions of infrastructure sectors. In the present, the infrastructure industries are faced the great troubles due to the Russian private sector can hardly use them in the interests of the population and the state. The state requires additional funds for the full implementation of infrastructure projects. The author analyzes the main reasons resulted in a serious crisis of infrastructure. The modern mechanism of development of industrial and social infrastructure corresponding to the conditions of Russia - state-private partnership has been suggested as well as substantiation of its forms and implementation mechanisms. The article reveals the reasons that impede the implementation of the mechanisms such as insufficient development of institutional and legal environment for the implementation of the potential of the private entrepreneurship. The article concludes with a list of government measures required for the decision of problems of development of industrial and social infrastructure.

Key words: Industrial infrastructure · Social infrastructure · Real sector · Infrastructure frame · State-private partnership

INTRODUCTION

Infrastructure is the basis of the state economics that combines all economic resources except financial and consists of a number of sectors (infrastructure) based on own material resources for the creation, operation and maintenance of the effectiveness of these industries for prospective development as the branches of the real economic and social sectors [1-3]. The specificity of infrastructure frame of economics provides the methods and supply mechanisms of the products and services to production process based on resources created inside of this frame and population based on newly created resource.

MATERIALS AND METHODS

Analysis of infrastructure branches, their features, modern condition, the problems of development in the economics of Russia and implementation of the state-private partnership in the infrastructure sectors have been considered in studies of V.G. Varnavskiy, A.V. Klimenko, V.A. Korolev [7], M.A. Deryabina [8], T.E. Kuznetsova and L.V. Nikiforova [9], V.V. Maksimov [10] and O.S. Pchelintseva [11]. The problem of the development of infrastructure sectors has been also considered in numerous studies of foreign authors [1-6].

The data used in this study are represented in [12-17].

Objectives: This study is to determine the role of infrastructure branches in the modern economics of Russia and search for the mechanisms of the development of industrial and social infrastructure. One of these mechanisms is a state-private partnership widely used in the world practice. We have considered the possible use of state-private partnership in the development of Russian infrastructure branches.

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RESULTS AND DISCUSSION

The economic branches supplying the economic activity of industrial sector ensure its production efficiency, establish business relations and the integrity of the economics. The branches of social infrastructure are an important part of the economic system that organize the livelihoods of people, ensure the health of population and develop the labour and spiritual potential of the nation.

The essence of infrastructure is that "the results of its activity express in the profit of the enterprises, savings on costs, increase of profit of the enterprises and growth of welfare of the population. Moreover, the mass production of the so-called public goods has been also realized in the infrastructure branches, i.e. the production of the goods and services with a high social value which due to technical reasons cannot be sold as conventional private goods" [11].

The functions of industrial and social infrastructures are based on the development of territorial and spatial relations. The diversity of these relations is formed by vertical spatial relations (federal, regional and municipal) and based on the industrial (branch and interbranch) relationships.

The integrity of the infrastructure and identification of the key complex infrastructure element are the basis for the implementation of the functions of the infrastructure sectors to ensure the livelihood of the population, economic activities and the territorial integrity of the country. This element is determined by the peculiarities related to regional (territorial) production structure taking into account demographic, national, historical and other features. This element can be related with social or productive maintenance of a single settlement, territorial community, social group or another object that requires infrastructure supply.

In present, the infrastructure sectors remain in a complex and ambiguous position in terms of development level and material supply conditions. On the one hand, a number of infrastructure sectors and life scopes of the population of Russia remained the state status during overall privatization took place in the country therefore, it was impossible to make these private neither then nor now. First of all, the consequences of this privatization are unpredictable. Modern Russian private sector assessed on the results of the development of the already privatized industrial branches and enterprises cannot efficiently manage these branches and enterprises in the interests of the population and the state. At the same time, the state requires additional funds and qualified management for the efficient realization of infrastructure projects. These projects include the branches of industrial infrastructure related to the natural monopolies: petroleum and oil, gas transportation and services of heat and electric energy supply, railway transport, services of terminals and other transport infrastructure, ports, airports, electrical and postal communications, municipal economy, etc. education, health, science and culture are the branches of social infrastructure which majority belongs to the state and municipalities.

At the present, it can be concluded that modern both industrial and social infrastructure are in crisis caused by several reasons. Among these, first of all, the backwardness of infrastructure industries historically formed during Soviet period and caused by secondary residual financing and, consequently, the development level compared with the branches of industry, or the branches of the real economic sector. However, it should be noted that modern real sector of the Russian economics is inefficient. Secondly, in modern conditions, this signifies the disappearance of incentives for development of infrastructure sectors based on the resources of industrial, agricultural and enterprises of other branches of the real sector which resources were used during Soviet period for development of social infrastructure of the Russian territories. Thirdly, the constant shortage of the state funds intended for development of infrastructure, the overall commercialization of the economics, the shortcomings of the privatization of enterprises, the transfer of the infrastructure objects to municipalities, the depreciation of fixed assets, the continuous burden on the infrastructure objects created more than 50 years ago, characterize the condition of social infrastructure in the country in present.

The conditions of the housing sector draws the special attention therefore the wear of the housing fund is up to 70% and 80 million people would like but enable to improve their living conditions. These conditions persist for more than 20 years [5]. In 1990, the 61,7 million m^2 of residential housing were put in operation, however, this parameter has decreased until 30,3 million m^2 by 2000 and gradually increased by 2005 until 40,2 million m^2 and reached 65.2 million m^2 only by 2012 [14]. However, if take in to account that annual wear of domiciles and thus, decreasing the number of housing convenient for living, these figures show the insufficiency of housing for people.

The capacities of educational institutions are also insufficient. The number of vacancies in educational institutions decreased from 514,6 thousand in 1990 to 88,5 thousand seats by 2005. However, at present, the situation changes and the number of new modern schools have been constructed in the cities and villages, although in some regions, especially in rural areas, the schools are closed due to dilapidation of buildings, lack of municipal services, etc. In 2012, 22 schools with more than 6 thousand student seats are put into operation in Russia and 13 schools with approximately 4 thousand seats are ready for exploitation [14]. Preschool institutions with 224,8 thousand seats in 1990 decreased until 7,7 thousand by 2003 and their number increased until 45,1 thousand by 2011. The number of beds in the hospitals decreased from 21,8 thousand (in 1990) until 7,8 thousand. The number of the hospitals also decreases from 9847 in 2005 until 6454 by 2010 [14]. The number of state hospitals drastically decreases or become commercial in both rural areas and in the cities. This evidences the unfavorable situation in the social infrastructure of the country that results in extension of the gap in the life duration between Russia and the developed countries, which range from 12 to 16 years.

However, there are good prospects. The budgetary message to the Parliament for 2011-2013 clearly defines ... "the main priorities of budget expenditures and declares the social orientation, the creation of mechanisms to improve the quality of public services. In particular, it was emphasized that the health, education, scientific research work and experimental development are the priorities of budget expenditures" [15].

The search for resources and investors is the main goal to fulfill the objectives including the industrial infrastructure. The resource base of the country is sufficient but the conditions for investments are still unfavorable. However, the gradual growth of the indices of energy and transport infrastructure of the country including communication facilities is observed.

The economic crisis and the accident at the Sayano-Shushenskaya hydroelectric power plant in 2009 including the crisis of 2008 affected the performance of the energy infrastructure. However, it is evident that the situation in sector of industrial infrastructure has improving (Table 1). The data on capacity of power plants in different countries draw attention. For example, in China the capacity of the power stations reached 1056 million kW in 2011, 1025 million kW in USA, 284,5 million kW in Japan and 233,3 million kW in Russia. The export of electricity reached 19 million kW in China, 19,4 million kW in the United States and 23,7 million kW in Russia [17]. A grater part of export of electricity in Russia is related with previous system of relations with former Soviet republics – the largest consumers of electricity. In addition, the reduction of internal demand for electrical power is related with the fall of the real sector of the economics in Russia.

The transport infrastructure is scarcely developed in Russia. The total length of railways in Russia is 87.157 thousand km, while in the United States - 224792 thousand km and in China - 86 thousand km. Meanwhile, the length of the Russian territory requires a substantial increase in the scale of rail and road construction. These projects are outlined including a great ring of the Central Russia, the motorway to Vladivostok as well as the development of highways from St. Petersburg to the Urals.

The data on transport infrastructure in Russia are combined in Table 2.

According to Table 2, the significant growth has occurred only in the length of the pipelines, while the other kinds of transport infrastructure require further extension.

The total freight turnover except for the fall in during crisis is growing, but extremely slow. This evidences the underdevelopment of the real sector of economics, which is the main consignor of goods for all transportation types.

Air transportation in Russia unlike in other countries is dedicated by the significant extension of Russian territory. Russia has the longest air routes in the world that is only 1% of the total (800 thousand km), while the cargo turnover is only 1 million tons. During the period of market reforms, the number of airports and airfields decreased by 2,5 times, depreciation of fixed assets of the aviation exceeded 50%, more than 30 airfields have artificial pavement, the rest – the dirt pavement.

The program of development of civil cargo aircraft including the expansion of space covered by the airlines, the increase of the number of aerodromes, reduction of the depreciation of fixed assets of both airfields and aircrafts, has been developed. Growth of Russian aircraft companies is forecasted. However, the high cost of this type of transport limits its rapid development and there is one of the most serious contradictions of development of the Russian economics - the demand for large-scale operations and the necessity to cover the large distances. In present, the cost reduction of cargo transportation in the country largely results in quality diminishing. Thus, the quality-price ratio is one of the main current problems of Russia.

Table 1: Energy infrastructure of Russia [17].

	Year			
Energy	2006	2009	2011	2012
Electricity production (billion kW)	995,8	992	1055	1064
Consumed	980	977,2	1041,1	1038
Exported	20,9	17,9	23,7	19,1
Total capacity of power plants (million kW)	221,4	226,1	233,3	-
Capacity of thermoelectric power plants	151,5	155,4	161,4	-
Capacity of hydroelectric power plants	46,1	47,3	47,5	-
Capacity of nuclear heating plants	23,7	23,3	24,3	-

Source: Macrorf.ru/inffrststr

Table 2: Transport infrastructure of Russia [17]

	Year			
Transport network (thousand km)	2006	2009	2011	2012
Length of railways	85	86	86	87
Length of motorways	754	776	841	927
Length of waterways	102	102	101	101
Length of the major pipelines	227	230	242	242

Source: Macrorf.ru/inffrststr

Tables 3: Dynamics of the freight turnover (billion tons/km) [17]

	Year			
Freight turnover (billion tons/km)	2006	2009	2011	2012
Total freight turnover:	4800	4446	4915	4999
by railway	1951	1865	2128	2222
by motorways	199	180	223	239
by pipeline	2499	2246	2422	2479
by general waterways	62	98	78	45
by internal waterways	87	53	59	80
by airways	2,9	3,6	5	5,1

At present, search for modern mechanisms of development of infrastructure sectors, one of which is the state-private partnership (SPP) – widely discussed but insufficiently developed in present is the actual problem of development of Russia. In fact, SPP in Russia is insufficiently development that derived from economic policy of 1990s, which resulted in the peculation and no purpose use of state resources, formation of oligarchic structures and destructive processes of socio-economic transformation of Russia, but stimulating the country's involvement into the global crises caused by the constant neglecting of the objective characteristics of the country.

A significant lag in the development of SPPs is explained by unfavorable institutional and legal environment in the modern Russian economics and society for the realization of the potential of the all types and forms of private entrepreneurship. In particular, small business, which can make a significant contribution to the development of the service sector, is insufficiently realized. This is mostly related with the meddling of the state authorities in the activities of business structures.

Corruption and bureaucratic barriers distort socio-economic functions of the state and obstacle the economic growth of the country using own Russian experience of socio-economic transformation and search for the mechanisms of the involvement of innovative potential of the population into the economic process. In many cases, there is the administrative hierarchy, which limits the economic activities.

Meanwhile, the changes of this situation are possible in case of the interaction between state and private entrepreneurship and use of their potential. This requires, first of all, the development of substantiated concept of development of Russia, in which the SPP would play a key role in a socio-economic and geopolitical development of the country [18, 19].

Thus, the specific government measures are required and first of all, the strategic measures. These measures can include and require:

- The development and substantiation of required integrated concept of the strategic perspective socio-economic *spatial* development of the country, which is missing now. This will become one of the key conditions for attracting of investments into the country and possibilities for realization of state-private partnership;
- The concept that the state is ineffective owner existing in the public mind should be changed by the example of different known contractual forms of SPPs ensuring the choice of effective forms of the economic activities administrated by the state;
- The necessity of the change of the perception that initiatives of SPPs development should solely come from the state and recognition of various innovative initiatives proposed by corporations, as well as at regional or municipal level;
- Development and adoption of a science-based program on development of the real sector of economics as the basis for rapid development of SPP in order to diversify the sector and development of the innovations and creation of a competitive environment;
- Initiation of different economic activities, primarily in the sectors of infrastructure, ready to perception of SPP;
- Study of the international experience of attracting of investments into the economics, particularly in the infrastructure sectors and development of adaptation mechanisms of implementation of various forms of SPPs to the Russian conditions;
- Avoid the preferences to any individual types and mechanisms of SPP;
- Overcoming of various informal and shadow forms of SPPs manifesting on municipal, regional and federal levels;
- Include the concession forms of SPP into federal, regional programs of branch and regional development and various national programs;
- Revise the approaches to regional and municipal development ensuring the appropriate conditions for the development of SPP at all levels. In particular, the municipal authorities like the regional should have an access to investments and have the different legal guarantees of development and participation in SPP.

Secondly, these measures and actions should possess the institutional and legal character, consisting in:

- Development of the logical and intelligent system of legislative acts reflecting the general concept of development of the different types of SPP in the country;
- Account of specificity of different forms of partnership both in industrial and infrastructure spheres;
- Implementation of the specific features of the SPP as a possible mechanism of transformation of regions (municipal subjects and other territories) transforming them from financial recipients to the donators. This is particularly important in the current socio-economic differentiation of Russian regions based on the level and character of the infrastructure development;
- Pay special attention to legislative substantiation of the relations between autonomous districts and subjects of the Russian Federation in the formation of infrastructure projects (transport, social etc);
- Clearly state the legal concepts in the legislation that characterize the economic relations in SPPs, including the definitions of the “owner” and “operator”, that is especially important for the operation of infrastructure objects.

Thirdly, it should be applicable measures to particular branch of infrastructure such as:

- Initiation of a number of large infrastructure mega-projects based on SPP (development of the Northern sea route; construction of motorways connecting industrial clusters and various regions of the country, etc.) for more efficient use of natural resources of the country and its spatial integrity;
- Substantiation of institutional and financial support of national manufacturers of equipment for the infrastructure sectors;
- Elaboration of clear provisions related to the infrastructure sectors, which are natural monopolies by identification of the elements which should be administrated and controlled only by the state and which should be passed to the private business, including the conditions of this process;
- Extend the involvement of the business community into solution of tasks to modernize the infrastructure of the country and training of professionals.

CONCLUSIONS

The practical implementation of the proposed measures will allow the solution of the problems of industrial and social infrastructure in the country through economically efficient, modern, well established and verified integration process - a state-private partnership already implemented in numerous foreign countries.

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