



**Supplementary Notebook (RTEP - Brazilian academic journal, ISSN 2316-1493)**

## **CURRENT STATE AND AVAILABILITY OF HOUSING AND COMMUNAL SERVICES FOR THE MOSCOW REGION POPULATION**

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**Abstract:** Housing and communal sector (hereinafter referred to as HCS) is one of the most significant sectors of the socio-economic system, influencing all aspects of society life. The need for housing and, accordingly, for high-quality public services is the main need of citizens, which in general unquestioningly influences the lifestyle of citizens, economic, cultural and professional activities, the development of society, upbringing and education. Housing is the most important condition for the normal life of citizens. Since the last decade of the 20th century, the housing sector has been undergoing the period of reforms. Its main goal is to transfer the activities of economic entities in this area to market principles, carry out a comprehensive modernization of its infrastructure, ensure the economical use of all types of resources, expand the range and improve the quality of housing and communal services (hereinafter referred to as HCS). However, positive changes in the housing sector take place slowly, and the planned results have not been achieved yet. This is partly due to a significant reduction of budgetary financing, and another significant reason is an insufficiently effective activity

of economic entities and their almost complete lack of incentives in the field of housing and communal service improvement. In market relations, the most important factor is to improve the quality of housing and communal services. At the same time, the correspondence of price and quality, as well as the availability of housing and communal services, become the main factors in the life support of citizens and characterize the quality of life. Even though considerable funds are invested in the industry transformation, it remains in a very difficult state and is characterized by an unsatisfactory state of the housing stock, high wear and tear of communal infrastructure, and an ineffective management system. Every day, the Reception of the President of the Russian Federation receives applications from citizens related to the quality of housing and communal service provision, which indicates the need to modernize the industry and the quality of housing and communal service provision.

**Keywords:** Housing and communal sector, housing and communal services, management of the housing and communal complex.

## INTRODUCTION

The housing and communal sector is an important area of social policy that affects the population interests, all levels of government, all sectors of the national economy, commercial and non-commercial organizations (4). The socio-economic significance of the housing and communal services sector has always been very high in our country. Its annual contribution to the GDP of Russia ranges from 5.5 to 5.8%, it provides employment for more than 3.5 million of the country working-age population at more than 50 thousand enterprises. Besides, the economic actors in this sphere provide most of the population with a fairly wide range of housing and communal services, the quality of which largely determines the conditions of its life activity.

The housing and communal services complex is a conglomerate of organizational and technological types of economic and production activities, which are strongly interconnected and focused on provision of services that satisfy the life support processes of the population through the implementation of housing and communal services (RF Housing Code (December 29, 2004) No. 188-FL (as amended by 31.01.2016), 2016). This range of services includes the following components: housing (consists of the non-residential and residential sector, served by repair and construction companies, contractors and management organizations of housing and maintenance facilities); a set of engineering and resource structures, expressed by the energy sector (heating networks, power grids, urban transport, gas facilities), the sanitary and technical sector (waste disposal, transportation, sewerage and water supply systems, sanitary and territory cleaning), exterior improvement services for urban objects (reservoirs, sidewalks, pedestrian crossings, plantings and natural park areas, roads, bridges, etc.) (14).

The housing and communal complex includes organizations and companies, regardless of their forms of ownership, organizational and legal structure, affiliation on a departmental basis, which, according to their purpose, carry out the activities expressed in production management. The direct object of housing and communal services is engineering communications, technological stages of the production cycle, buildings and structures (gas pipeline, non-residential and residential facilities, water supply, drainage

system, electrical networks, heating networks, engineering networks, etc.). Another important feature of housing and communal services is its following property: it is in the closest, everyday connection with the sphere of the household, and the family life of a person. The solution to the demographic problem is the birth rate increase, the decrease of mortality. The solution is largely conditioned by a constructive solution of the housing problem - real affordability provision for housing and high-quality housing and communal services.

The aspects of public administration in the field of housing and communal services were considered in the scientific works by V.M. Altukhov (2), R.N. Ismailov (9), L.G. Rudenko (18) and others. The analysis of legislation and the regulatory framework was studied in detail by A.O. Kishchenko (10). The works by A.N. Ryakhovskaya (19), S.A. Lee (12), R.G. Tvauro and E.G. Chmyshenko (23) are devoted to housing and communal service provision quality increase. Based on the foregoing, we can conclude that housing and communal services are provided to the population by a housing organization (a managing organization, a homeowners' association), which, in turn, acts as an intermediary between the population and a resource supplying organization (hereinafter referred to as RSO), as well as contracting organizations performing the works that are the part of housing and other utilities. RSO provides a communal resource, which is directly brought to the end consumer, however, it is the housing organization that provides this resource on a contractual and paid basis, turning the communal resource into a communal service. The same is the case with housing and other utilities. Carrying out the settlements with RSO, contractors and the population, a managing organization (or an association of homeowners) is, in fact, a manufacturer of housing and communal services.

RSO also acts as an intermediary, but already between the end consumer and the producers of resources (water, gas, energy, including heat). There are frequent cases of combining the functions of RSO and housing organizations, as well as the options for independent management of the housing stock and the conclusion of contracts directly between RSO and owners. RSOs include organizations and utility infrastructure facilities owned by them, subdivisions that support the continuous transmission and distribution of electricity, heat, water, gas, water disposal from and to the established boundaries of a residential property, as well as the organizations that provide other personal services, related to utilities (the Order of RF Government (February 02, 2010) No. 102-r "The concept of the Federal Target Program "Comprehensive Program for the Modernization and Reform of Housing and Utilities during 2010-2020"). The system of housing and communal management performs a set of necessary functions of financial and production accounting and regulation, which is manifested in the possibility of economic interactions and relation description, in accounting for market participants, in understanding their positional structure and financial and economic role in the infrastructure of housing.

## METHODOLOGY

This article uses the methods of formal logic, such as observation, measurement, comparison, analysis, idealization, problematization, explanation, as well as statistical methods. The information base of the study was represented by statistical data of the RF Federal State Statistics Service, the Ministry of Housing and Utilities of the Moscow Region, RF federal and regional legal acts, the articles of leading periodicals, the

materials of scientific conferences and seminars, general and special literature of domestic authors in the field of housing and communal services and public administration, thematic Internet pages, and the analytical data of management companies.

## RESULTS

The development of the housing economy is directly related to the development level of the region, its production base, which largely predetermines the features of the housing industry and the housing and communal complex in general. The Moscow region is one of the largest regions in Russia in terms of population. 7 million people live in the Moscow Region (about 4.7% of the total population of Russia), of which more than 80% make urban population. The total volume of the housing stock in the Moscow Region (01.01.2019) is 280.7 million square meters, the total area of residential premises per one resident of the Moscow region makes 31.4 sq. m. Housing commissioning in the Moscow region increased from 2.8 million square meters in 2006 to 6.75 million square meters of total area in 2019 (16). Along with the general trends in the development of housing and communal services within the country, the housing industry of the Moscow region has its own characteristics due to historical reasons, geographical location, demographic situation, the level of production development, the consideration of which is an objective necessity for adjusting and detailing the policy in the field of housing and communal services (13).

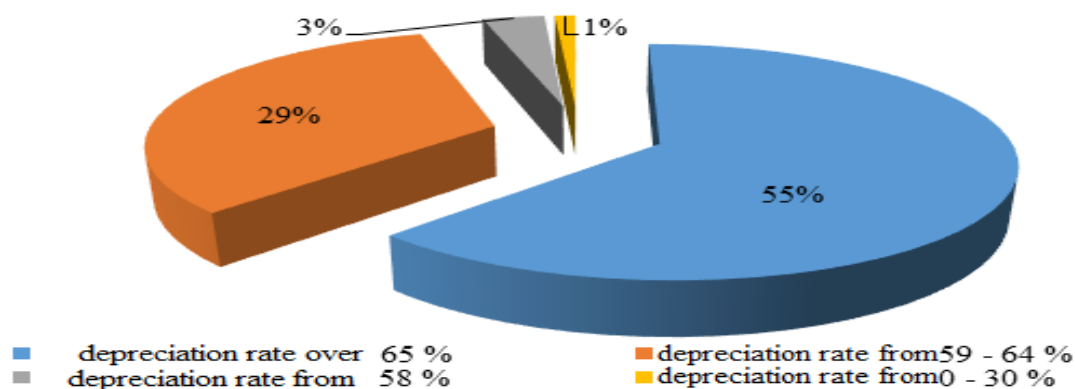
The quality of housing and communal services depends on many circumstances: the degree of the housing stock improvement, the level of wear and tear of engineering and communal infrastructure, the financial condition of housing and communal services organizations, the solvency of the population, etc. Landscaping is a set of measures for engineering preparation and security provision, landscaping, coating, lighting, the placement of small architectural forms and the objects of monumental art, and the housing stock improvement (10). It should be noted that there is the tendency towards comfortable housing increase in the Moscow region (16) (Table 1).

**Table 1.** The level of housing stock improvement in the Moscow region, %.

Years	The specific gravity of the area equipped with				
	Plumbing	Water disposal (sewerage)	Heating	Hot water supply	Gas
Housing stock - total					
2014	69,5	78,2	76,2	62,8	88,2
2015	75,2	80,4	85,6	63,6	89,6
2016	75,3	85,5	86,3	64,4	90,0
2017	76,4	87,7	92,1	65,0	91,6
2018	77,6	90,2	100	67,8	92,0
2019	82,3	92,0	100	70	94,2

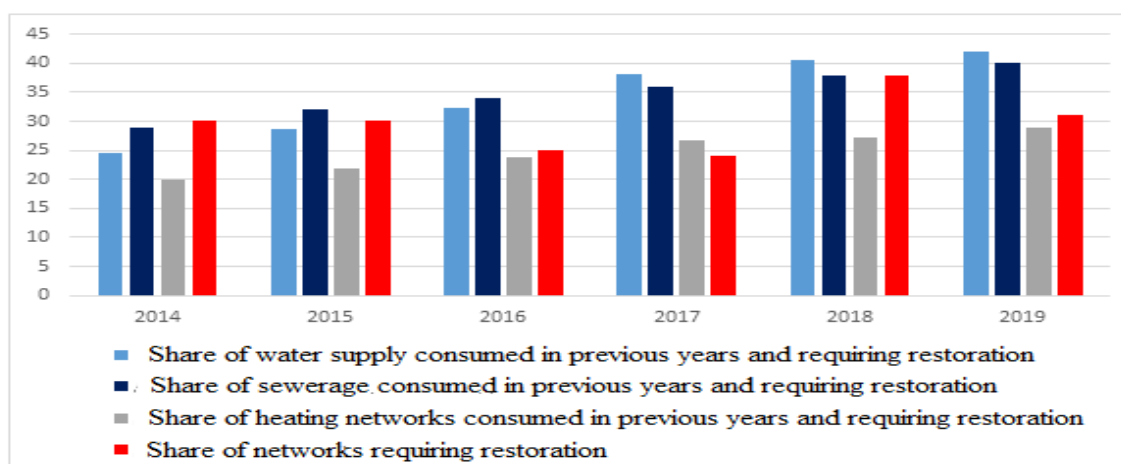
At the same time, if we look at the level of the housing stock improvement in the context of individual municipal districts and the urban districts of the Moscow region,

we will see that the most comfortable housing stock is located in large municipalities. The quality level of the provided housing and communal services is directly influenced by the degree of the housing stock depreciation, its accident rate and dilapidation. Most multi-apartment residential buildings have been in operation for more than 30-50 years, and, accordingly, have a high physical wear and tear.



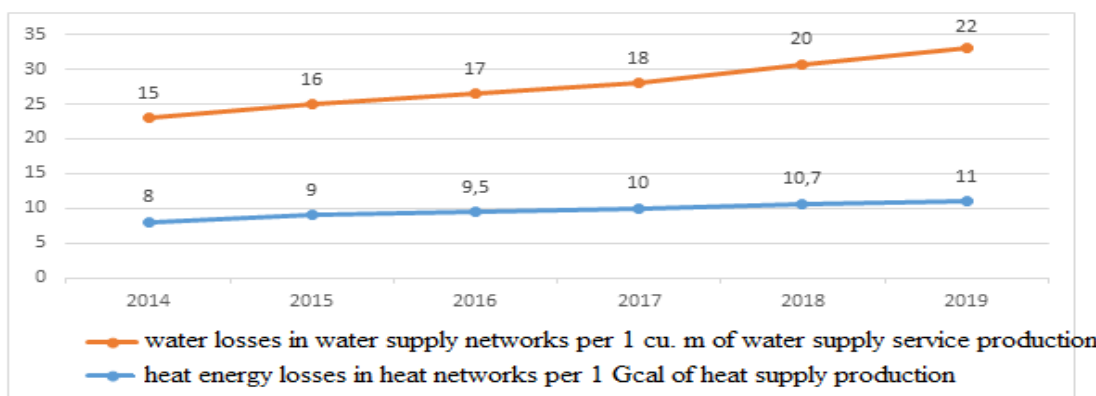
**Figure 1.** Distribution of the housing stock of the Moscow region by depreciation percentage for 2019.

A house overhaul allows you to ensure the high-quality functioning of all engineering systems and structural elements of the building. In recent years, great attention has been paid to the overhaul of residential buildings, and in addition to budget financing, the funds from owners were also attracted. However, these funds are insufficient. If the depreciation of the housing stock negatively affects the effective provision of housing to the population, then the depreciation of utilities manifests itself primarily in the costs of maintaining a given level of utilities resources (Federal Law (December 30, 2004) No. 210-FL (as amended on December 29, 2014) "On the basics of regulation of utility company rates", 2014). As Fig. 2 shows, the share of consumed utilities is increasing every year, and requires significant restoration.



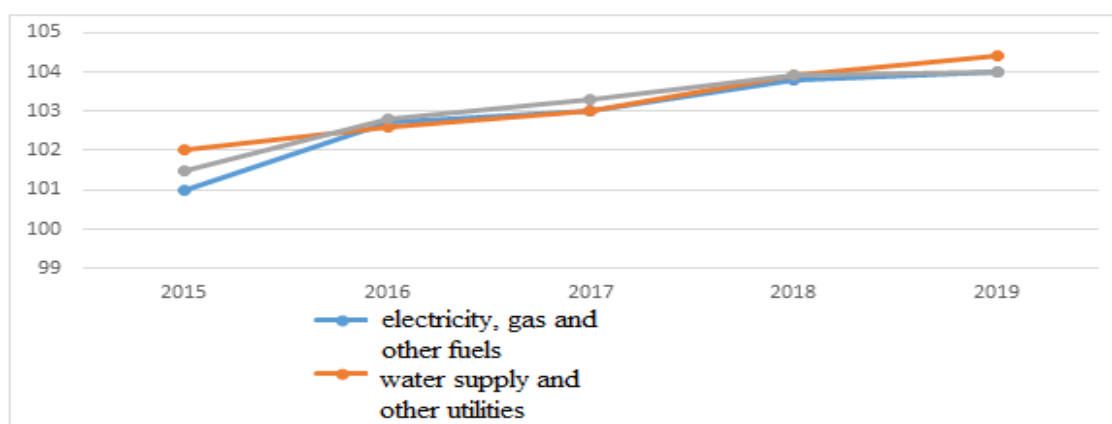
**Figure 2.** Consumption and restoration of water supply, sewerage and heating networks in 2014 - 2019, %.

As in the housing stock, the consumption share of utilities was constantly increasing in 2014-2019: from 24 to 42% for water pipes, from 29 to 40% for sewerage systems, from 20 to 29% for heating systems. This is due to the current lag increase for network recovery from demand, which is 4% per year, provided that the service life of the networks makes 25 years. Thus, the loss of utility resources increased (Fig. 3).



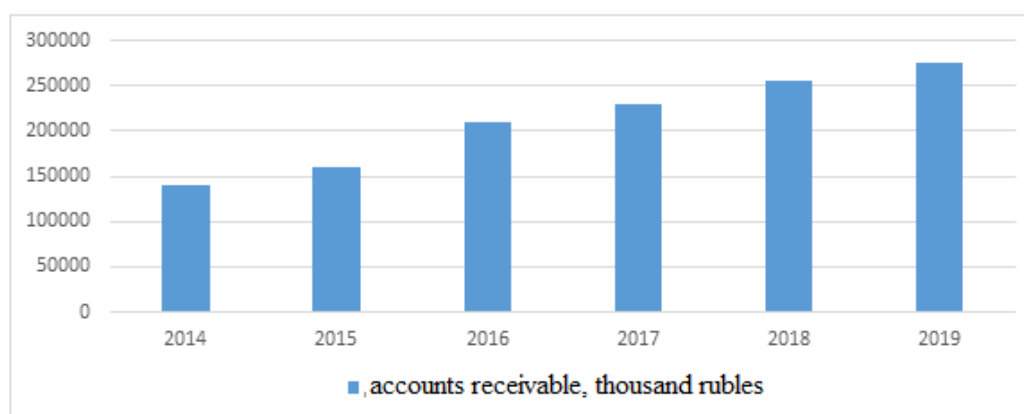
**Figure 3.** Losses of utilities in water supply and heating networks per unit of utility production in 2014 - 2019, %

The amount of non-provided utilities in the water supply sector (2014) was within 15%, however, this indicator makes 22% in 2019. The heat supply sector is characterized by losses from 8% to 11% calculated since 2014 till 2019. Affordability of housing and communal services means the population ability to pay for housing and communal services without prejudice to the consumption of other economic benefits. Overall, household expenditures for utilities in the Moscow Region are comparable to the average European share (6.91%) of expenditures on water and energy supply in consumer spending. In total, the population of the Moscow Region spent 20,564 rubles per year to pay for housing and communal services during the reporting year, which is 134.8% of the level of 2010, thus, costs are growing above the inflation rate. Such a significant increase is conditioned by the annual growth of tariffs for housing and communal services (Fig. 4).



**Figure 4.** Growth rates of tariffs for housing and communal services, in % to the previous year.

The growth of tariffs for housing and communal services encourages the population of the Moscow region to reduce the volume of service consumption. One of the indicators of payment availability for housing and communal services, in addition to the share of expenses for housing and communal services in the structure of consumer spending, is the level of population payment discipline for housing and communal services (the proportion of accounts receivable). The level of indebtedness of the Moscow region population for housing and communal services is clearly shown on Fig. 5. As follows from the figure presented, there is a stable growth of debts on utility and housing services - if the debt level was 16.27% in 2014, then this indicator increased by 9.65 percent and amounted to 25.92% in 2019.



**Figure 5.** The level of debt for housing and communal services

These data indicate a high burden of payment for housing and communal services on the budget of the Moscow region population. Thus, it can be concluded that the availability of housing services has decreased for the population of the Moscow region. Expenditures in this region significantly exceed the national level; in comparison with consumer spending, the Moscow region is also in the lead. These factors entail the payment discipline decrease among the population - the debt to management companies is growing. Debt growth has been particularly marked in rural areas and small towns (3). Besides, the population reduces the physical volume of service consumption.

## DISCUSSION

Today, we can say with confidence that the basic legal framework in the housing and communal sector has been formed at the federal level. The following legal acts have been adopted: Housing Code of the Russian Federation, the Federal Law No. 210-FL (December 30, 2004) "On the Basics of Tariff Regulation for Utility Complex Organizations", the Federal Law (June 21, 2005) No. 115-FL "On Concession Agreements", the Federal Law (July 21, 2007) No. 185-FL "On the Assistance Fund to the Reform of the Housing and Communal Services", Resolution of the RF Government (July 14, 2008) No. 520 "On the basics of pricing and the procedure regulating tariffs, surcharges and limit indices in the field of activity of the communal complex organizations", No. 1075 "On pricing in the field of heat supply" (October 22, 2012), No. 1178 "On pricing in the field of regulated prices (tariffs) in the electric power industry"

(December 29, 2011), No. 306 "On approval of the Rules for the establishment and determination of standards for the consumption of utilities" (May 23, 2006), No. 354 "On the provision of utilities to the owners and users of premises in apartment buildings and residential buildings" (May 06, 2011), the Order of the RF Government (February 02, 2010) No. 102-r "Concept of the Federal Target Program "Comprehensive Program for Modernization and Reform of Housing and Communal Services during 2010-2020" (Official website of the Ministry of housing and communal services of the Moscow region, 2020).

Thus, the legislation of the Russian Federation in the housing and communal sector is a fairly developed system, covering almost all aspects of this institution. Legislation is developing, constantly adapting to changing conditions, as the reform of the industry continues, but it is too early to consider it perfect. The problems of the communal infrastructure of Russian city development are associated, first of all, with the imbalances at the macroeconomic level, as well as with political and administrative factors: the lack of effective resource support for the activities of the authorities, deformation of relations with regional and federal authorities, the uncertainty of municipal property specifics, and low level of efficiency (7). One of the main trends of reforming the housing and communal services in Russia was the gradual departure from state-administrative methods of management concerning the provision of housing and communal services in favor of market mechanisms, the creation of conditions for the implementation of activities in the market of housing and communal services by the organizations of various forms of ownership - the organizations that carry out the management of apartment buildings (MC, CP).

The trend of recent years is the development in the field of communal infrastructure of mechanisms for investment project financing (water supply, road construction, etc.) based on public-private partnership (PPP) in the form of a concession agreement. The essence of the concession agreement is as follows: the state, within the framework of partnership agreements, while remaining the full owner of the property that is the subject of the concession agreement, authorizes the private partner to perform the functions stipulated in the agreement for a certain period and endows it with the appropriate powers for this purpose necessary to ensure the normal functioning of the concession facility. The concessionaire pays a fee for the use of state and municipal property on the terms specified in the concession agreement. The right of ownership to the products developed under the concession is transferred to the concessionaire (6). Even though the federal law "On concession agreements" was adopted by the State Duma back in 2005, this mechanism has not found widespread use yet in the housing and utilities sector. Meanwhile, the use of PPP mechanisms in the form of a concession agreement in the innovative activities of the housing and communal service sector will allow to solve several tasks that both the state and private business set:

- 1) to improve the quality of public services provided to the population;
- 2) to introduce advanced experience in innovative technologies;
- 3) to increase efficiency while maintaining the quality of work/services;
- 4) to reduce the burden on the budget by attracting private funds and shifting part of the costs to users (commercialization of service provision);
- 5) to increase competition in the market;



6) to strengthen the role of infrastructure development planning;

7) to increase the level of investment attractiveness and stabilize the indicators of socio-economic development of regions, etc.

Attraction of investments in the innovative activity of housing and communal services is fraught with several difficulties. The main factors hindering development are the following ones: imperfection of the legislative base (despite the fact that the programs for the development of communal and housing services have already been developed in a number of regions); unpredictable tariff regulation policy; low culture of contractual relations and consumer payments; imperfect organization of project development and holding of competitions; misuse of budget funds by private investors; untimely methodological study of the issues related to the reorganization of the area under consideration; lack of monitoring by the state during the entire period of the project implementation, etc. (1). The disadvantages of concession legislation are also expressed in the following: restriction of the parties' choice in respect of security instruments of the concession agreement, in particular, the possibility of pledging the object of the concession agreement is not allowed; excessive detail and imperativeness of the criteria that determine the candidacy of the concessionaire; availability of an exclusive list of the concessionaire's obligations under the agreement; the lack of opportunities to attract foreign investors.

The prospects for the development of concession mechanisms in the implementation of projects for the modernization of communal infrastructure are associated, first, with the regulatory framework improvement to regulate concession agreements, as well as with the improvement of the system of interbudgetary transfers to balance the interests of the concessioner and the concessionaire. The development of organizational and managerial mechanisms for the implementation of concession projects is also of great importance. In particular, to increase the investment attractiveness of communal infrastructure facilities, it seems possible to create territorially enlarged communal enterprises, which will ensure the implementation of such projects for small towns and rural settlements (the Decree of the RF Government (July 14, 2008) No. 520 (as amended on 04.09. 2015) "On the basics of pricing and the procedure for regulating tariffs, surcharges and limit indices in the field of public utility activities", 2015).

## CONCLUSION

Currently, the housing and communal services (HCS) in the Moscow region experience great difficulties, in connection with which the need for its modernization is becoming more and more obvious. In this regard, it is necessary to search for new effective methods to implement progressive transformations in this industry. The development of the market for housing and communal services is sustainable if the reproduction of the material and technical base of the industry is ensured based on modern resource-saving technologies in compliance with sanitary and environmental requirements, and an economically sound tariff policy helps to rationalize costs and reduce social tension in the process of satisfying consumers in high-quality and timely provided housing and communal services. In this regard, to increase the efficiency of the functioning and ensure the sustainable development of the industry, it is necessary to create a system of state regulation concerning the sphere of housing and communal

services, taking into account the rational use of new modern technologies in the development of territories (5). Improvement of concession mechanisms should become one of the priority areas of public administration to modernize the communal infrastructure of the region. The main effect of this infrastructure development is not so much the utility and income increase from this type of activity, but the economic development of the country and budget revenue increase.

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