



## ON THE ROLE OF LAW IN ENSURING THE SUSTAINABLE DEVELOPMENT OF CITIES

*O papel do direito em garantir o desenvolvimento sustentável das cidades*

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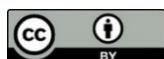
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## ABSTRACT

**Objective.** Explore the features and problems of implementing the Sustainable Development Goal No. 11 on the example of the Russian Federation. **Method.** When writing the article, several methods of scientific knowledge were used: the method of system analysis; method of comparative law; analysis; synthesis. **Results.** The theory and practice of attaining SDG No. 11 in Russia, dedicated to ensuring the sustainable development of cities, are analyzed in the article, and existing regulatory and doctrinal indicators that make it possible to assess the degree of achievement of the tasks set are defined. The authors conduct a comparative analysis of sustainable development with other environmental strategies (eco-city, smart city) and consider trends and prospects for developing urban planning tools to balance ecological, economic, and social interests in cities. **Contributions.** Taking into account the peculiarities of the existing legal doctrine in Russia and other former countries of the USSR, it is proposed to further develop the design of the “guarantee mechanism” for ensuring sustainable development, including the conditions for the implementation of SDG No. 11. To fill the legal gap in assessing the degree of achievement of the SDGs it is proposed to develop the Concept of Russia’s transition to sustainable development, with the definition of precise tasks for each of its stages, financing, responsible bodies, etc.

**Keywords:** Sustainable development; smart city; guarantees; digitalization; economy

## RESUMO

**Objetivo.** Explora-se as características e os problemas da implementação do Objetivos de Desenvolvimento Sustentável nº 11, no exemplo da Federação Russa. **Método.** Na redação do artigo foram utilizados diversos métodos de conhecimento científico, tais como: o método de análise de sistemas; método do direito comparado; análise; síntese. **Resultados.** A teoria e a prática para atingir o ODS nº 11 na Rússia, dedicado a garantir o desenvolvimento sustentável das cidades, serão analisadas no artigo, e os indicadores regulatórios e doutrinários existentes que permitem avaliar o grau de cumprimento do ODS. Os autores realizam uma análise comparativa do desenvolvimento sustentável com outras estratégias ambientais (eco-cidade, cidade inteligente) e consideram tendências e perspectivas para o desenvolvimento de ferramentas de planejamento urbano para equilibrar os interesses ecológicos, econômicos e sociais nas cidades. **Contribuições.** Tendo em conta as peculiaridades da doutrina jurídica existente na Rússia e em outros antigos países da URSS, propõe-se desenvolver ainda mais a concepção do “mecanismo de garantia” para garantir o desenvolvimento sustentável, incluindo as condições para a implementação de ODS nº 11. Para preencher a lacuna legal na avaliação do grau de cumprimento dos ODS, propõe-se desenvolver o Conceito de transição da Rússia para o desenvolvimento sustentável, com a definição de tarefas precisas para cada uma das suas fases, financiamento, responsabilidade corpos, etc.

**Palavras-chave:** Desenvolvimento sustentável; cidade inteligente; garantias; digitalização; economia.



## INTRODUCTION

The concept of sustainable development, first formulated in 1987 in the report of the commission G.H. Brundtland, contrary to the opinion of skeptics, continues to receive more and more support yearly, both at the international and domestic levels. The main reason for its popularity is that this concept is a qualitatively new strategy for social development, designed to balance the environmental, economic, and social interests of the citizen, business, society, and the state in the interests of not only the present, but also future generations. This means that, unlike many other strategies and concepts of interaction between nature and society, the idea of sustainable development is systemic in nature and takes into account the achievements of various sciences, including natural and social sciences, which makes it possible to understand and predict the action of multiple factors.

This concept reflects a sharp increase in the complexity of those global contradictions going since the second half of the 20th century, the need for bringing various social processes and phenomena to a “common denominator”. In essence, the concept of sustainable development is a new civilizational ideal. It is a dynamic program for the strategic development of humanity. Still, at the same time, it has many reasonably practical markers (criteria and indicators) that allow you to track the current state of socio-economic and environmental systems. Based on actual data, it carries out long-term and short-term planning at the international and national levels. Even though the concept of sustainable development has a variety of sectors of application (poverty alleviation, climate protection, agricultural development, etc.), its main postulates are most concentrated in cities, which are the location of a vast number of people, and, accordingly, centers of complex social, economic and environmental problems. The importance of sustainable urban development has been repeatedly noted at various international forums (for example, in the outcome document of the UN Conference on Housing and Sustainable Urban Development (Habitat III, October 2016). The UN has special bodies to coordinate the transition to sustainable urban development (HABITAT – United Nations Centre for Human Settlements). However, all these international documents contain only framework parameters and declarations to ensure sustainable urban development. The UN used the same approach to define the Sustainable Development Goals (SDGs), among which a particular goal was singled out to ensure the sustainable development of cities. Meanwhile, the analysis of all existing international documents shows that the bulk of the work to achieve this strategic goal should be done at the national level. There, the tasks and indicators for achieving sustainable urban development, the authorities' powers, the amount of funding, etc., will be determined. In turn, this circumstance causes interest in the national experience in ensuring the sustainable development of cities, their



success, and shortcomings. Considering that each country has its dynamics of building economic, legal, managerial, and other conditions for ensuring the sustainable development of cities, our article will analyze the legal aspects of this problem using the example of one country (Russia). This will make it possible to show both common inherent issues in one way or another to all states of the planet and the specific experience of their solution in one country, which may be of interest to the legal science of other countries.

About 40 large and largest urban agglomerations have formed in Russia today, in most of which the population has been steadily increasing since the early 2000s and currently exceeds 73 million people. At the same time, at the official level, there is a low level of comfort in the urban environment in most cities, including large and largest urban agglomerations. Public authorities have been ascertaining the unsatisfactory state of the environment in most cities with a population of more than 500 thousand people and industrial centers for more than one year. Among the problems mentioned are the deficit of the green fund, fragmentation and violation of its integrity in cities, and the continued accumulation and low level of processing and disposal of municipal solid waste.<sup>1</sup> In 40 regions of Russia, more than 54% of citizens live under the influence of high and very high air pollution.<sup>2</sup>

Similar problems exist in cities around the world. At the same time, certain aspects of the sustainable development of cities, including urban planning (Dobrucká, 2016; Sasanpour and Mehrnia, 2012), achieving the goals of ecosystem services (Ruhl, 2020), inequality in cities (Reese et al, 2017), etc., are well-studied in world science. At the same time, this concept still needs to be explored in terms of identifying its relationship with related ideas of the interaction between nature and society, the peculiarities of national specifics, and the mechanisms of legal support for the sustainable development of cities. Based on this, in the first part, we will consider the concept of sustainable urban development and the mechanism of urban planning regulation of these relations in Russia; in the second part, we will study theoretical developments related to the concept of sustainable development ("smart city"); in the third part, we will substantiate the doctrinal category "mechanism of guarantees of sustainable development of cities" – a legal structure that exists mainly only in the post-Soviet space, studying the conditions for the implementation and means of protecting sustainable development of cities, and consider some of its elements.

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<sup>1</sup> Decree of the Government of the Russian Federation of February 13, 2019 No. 207-D "Strategy for the spatial development of the Russian Federation until 2025". In: Legal reference system "Garant", accessed on May 12, 2023.

<sup>2</sup> Fundamentals of the state policy in the environmental development of the Russian Federation until 2030 (approved by the President of Russia on April 30, 2012). In: Legal reference system "Garant", accessed on May 12, 2023.



## 1. SUSTAINABLE DEVELOPMENT OF CITIES IN THE MECHANISM OF URBAN REGULATION OF ECONOMIC, ENVIRONMENTAL, AND SOCIAL RELATIONS

### 1.1. The concept and place of the concept of sustainable development of cities among other scientific concepts of the interaction of nature and society

To formulate the concept of sustainable development of cities, it is necessary to answer a more framework question – what is a city in the legal sense? The “city” within the framework of various sciences is understood very differently, although in most cases, it is distinguished by the number and nature of people’s employment. According to the UN recommendations, a city is considered a settlement of more than 20,000 people (Zagoruyko, 2017). In the case of Russia, the administrative-territorial structure here is the subject of the jurisdiction of the subjects of the Russian Federation. This means each region adopts its laws determining the number of large, medium, or small cities. For example, according to Article 1 of the law of Volgograd region of October 7, 1997, No. 139-OD, “On the administrative-territorial structure of Volgograd region”, at least 10,000 people should live in a city of district significance, and in a working village – at least 3,000 people. That is, the difference is negligible. At the same time, the distinction between urban and rural settlements is justified since cities with a higher population have a much higher degree of environmental impact due to industrial emissions, development, transport, and other infrastructure, use of underground space, and waste generation (Butovsky, 2010).

Note that in any large city, many social, economic, and environmental problems can be both interconnected (for example, if the city has one large factory where more than half of the population works, then the courts and authorities very often refuse to suspend its activities, despite the emissions of harmful substances, since it is a source of local taxes, and its closure will entail major social problems for the city related to unemployment, aggravation of poverty, etc.), and are not connected (for example, the low level of social benefits has a very indirect relation to the economic and environmental problems of the city). At the same time, SDG No. 11 (ensuring openness, security, resilience, and environmental sustainability of cities and towns) involves the solution of a large number of rather disparate tasks that are not directly related to building a balance of ecological, economic, and social interests (for example, measures for the protection of the world cultural heritage). This UN approach has both strengths and weaknesses. On the one hand, all the problems listed under SDG 11 exist and should be addressed. On the other hand, if we do not single out the “crossing points” of environmental, economic, and social interests, but list all these problems separately (for example, target 11.7 involves ensuring universal access to green areas,



which is very important from an environmental point of view, but not directly linked to the solution of economic and social problems of cities), then such a methodology may have its questions related to the selective nature of the identified tasks, which means that many issues that are relevant for the sustainable development of cities in a particular country may turn out to be not listed.

Despite such criticism, nevertheless, we note that the approach proposed by the UN is quite viable and, therefore, can be taken as a basis for researching this issue. However, what should be understood by “sustainable urban development”? There is no one-size-fits-all approach here. The first group of authors believes that the sustainable development of a resort city should be understood as a multi-functional process of optimizing the “socio-economic situation and reproductive capacity of the city’s ecological system in the interests of the present and future generations” (Tsapiyeva et al, 2010). Other authors focus on the stability of maintaining the functional division of the city territory with the possibility of small transformations that do not destroy the historical heritage (Poteryayeva, 2017; Andrianov, 2005). The third group writes that the sustainable development of a region (city) should be understood as “the process of change, when the exploitation of natural resources, the direction of investments, the orientation of scientific and technological development, the development of the individual and institutional changes are coordinated with each other and strengthen the current and future potential to meet human needs and aspirations to ensure the quality of life of people” (Balanovsky et al, 2015). Fourth believe that the city’s sustainable development provides the population with security and high quality of life while preserving the natural environment, resources, and the ecological balance of all economic and social activities of citizens (Webster et al, 2011). In turn, we believe that sustainable development is not a result. Still, a process that leads to a balanced solution of social, economic, and environmental problems of urban and rural settlements, improving the comfort of the life of citizens through the rational use of urban resources, effective urban planning, and not exceeding the assimilation potential of urban ecosystems, in the interests of present and future generations.

With regard to the Russian situation, this definition implies several problems that require serious discussion: it is necessary to refuse to support the existing imbalance in the development of Moscow and all other cities (when, due to increased salaries in Moscow, the population has to quit their jobs in the provinces and move to Moscow, exacerbating Moscow’s housing, transport, and other problems, as well as demographic, economic and other problems of the regions), which will improve the quality of the urban environment in the regions of Russia (Batunova, 2019; Belgisov and Kuznetsova, 2017); to prohibit the demolition in the order of renovation of city blocks that are not dilapidated and emergency, but representing an increased economic value for investors; take measures to prevent the irrational use of urban



land resources (for example, the city of Volgograd is stretched along the Volga River for 100 km., while its width is 10-20 km., which entails substantial transport problems, excessive emissions of car exhaust gases and air pollution); the development of renewable energy sources, mainly in small and medium-sized settlements, will lead to the emergence of a new category of neighborly disputes (for example, about the shading of a neighboring plot with solar panels or about the noise of wind turbines) (Walker, 2011), as well as the need for changing several ideas about zoning in the city.

A separate question is what should be understood as a mega-city and agglomeration (and how these concepts fit in with sustainable urban development), as well as the relationship between sustainable urban development concepts and the green economy. Answering the last question, we note that the immediate goal of the green economy is not the greening of cities, but the greening of the main sectors of economic activity (industry, transport, agriculture, etc.) is expected due to the emergence of new financial instruments (green bonds, etc.). At the same time, it does not have the task of solving social problems (The role of law, 2023; Guryeva, 2014). It follows that the achievement of the goals of the green economy in cities will make a significant contribution to the solution of the tasks that the UN set within the framework of SDG No. 11, but this will only be part of the problem, since the list of jobs in the concept of sustainable development incomparably wider (for example, the fight against poverty is not a vital task of the green economy).

Answering two other questions, we note that a metropolis is traditionally understood as a super-large city (in Russia, it is Moscow and Saint Petersburg) and the agglomeration – a new form of urbanization, which is a process of concentration around individual cities of new settlements and old single-industry towns, or involvement in the functioning of the city – the core of the agglomeration of suburbs, nearby small towns and urban settlements (Nikonorov and Papenov, 2016). Mentioning in strategies, plans, concepts, and other documents the creation of urban agglomerations and megacities, the federal legislator does not give their definitions or offer criteria for their formation and existence. It is equally unclear how to manage various areas of economic and other activities on their territory, including environmental protection (Lisina, 2018).

For our part, we note that both concepts are not used in Russian law. Nevertheless, the provisions of the concept of sustainable development undoubtedly apply to the metropolis as a large settlement. Still, this concept's requirements cannot be used for agglomeration as a non-legal category with no spatial boundaries. In world science, there are several concepts related to the idea of sustainable urban development. We will consider the theory of a “smart city” further separately. Still, we want to focus on a green city (eco-city) and an eco-settlement (ecological village). The concept of “eco-city” was first used by S.





Richard in 1975 to reconstruct the city to achieve harmony with nature. Currently, there are no criteria for defining an “eco-city”. However, its elements are apparent and often listed by scientists. These include carbon neutrality, rational public transport organization, an efficient (zero) waste management system, providing citizens with housing and work, and urban-rural development, farms, etc (Podkolzin, 2015). Other authors note that a green city (eco-city) should be designed taking into account its impact on the environment, it is inhabited by people who seek to minimize the consumption of energy, water, and food, eliminate the limited release of thermal energy, air pollution with carbon dioxide and methane, as well as water pollution (Djereliy, 2019). It is noted that eco-policies should be created based on medium and small towns (10-100 thousand residents). The goal of their development should be optimizing environmental management within their territory, ensuring compliance (according to specific criteria) with social, economic, and natural processes for the full reproduction of the living forces of nature and society (Vypkhanova, 2004). At the same time, while in Russia and other post-Soviet republics, all these constructions are purely doctrinal in heart, in China, there are already more than 100 eco-cities at different stages of construction, carried out by consortiums that include interested parties from the state and private sectors. One of these eco-cities is Tianjin. The government of China and Singapore has implemented the project since 2007. Upon completion, the city should accommodate 350,000 people and become a socially harmonious, environmentally friendly, and resource-saving city. At the same time, there are also several economic contradictions between the project participants, which hinder its implementation (Abanina and Sukhova, 2022). Ecovillages (ecological villages) operate based on a standard set of environmental, social, and spiritual values, where sustainability is a common concern. They consciously strive to create and implement sustainable lifestyle models that work, coupled with social well-being and (in many cases) spiritual growth (Status Report, 2019). The review concludes that the concept of an ecological city (eco-polis, eco-village) is closely related to the goals of sustainable urban development. At the same time, we see a complete lack of specificity in the theoretical constructions of the supporters of the concept of eco-cities, which currently needs to be improved to implement in Russia with the help of legal means. Therefore, in practical terms, sustainable development and the concept of an eco-city are not competitors since the first has precise international and national regulations.

As a result of comparing the two concepts, an important practical question arises: is there a system of markers (criteria and indicators) at the national level (in Russia) that have legal significance and allow one to judge the degree of achievement of sustainable development goals of cities? Answering this question, we note that in its final form (concerning the entire concept of sustainable development), such





markers exist only for forests and wildlife. To determine the degree of sustainability of urban development, there needs to be a balanced system of criteria and indicators in Russia (Vyphanova, 2005). Nevertheless, specific normatively approved parameters of urban development allow us to talk about the partial achievement of the goals set. Thus, to assess the problems of urban development, the Ministry of Economic Development of Russia developed an integral index of urban development, which includes four main components: “economic development”, “human capital”, “quality of the urban environment” and “social development”.

The index is calculated for 1066 out of 1114 cities with a population of 100.2 million. It allows you to identify key factors for the sustainability of the city’s socio-economic development. Among the indicators of the index are tax and non-tax budget revenues, investments in fixed assets, average monthly wages of employees of organizations, the proportion of children aged 1 to 6 receiving preschool educational services, etc (Kondratyev and Tereshchenko, 2021).

To identify current problems and promising areas for the development of cities, competitive advantages, and restrictions that impede their development, by order of the Government of the Russian Federation of March 23, 2019, No. 510-r, the Methodology for the formation of the urban environment quality index determines the quality levels of the urban environment. In particular, a favorable urban environment is its condition, in which the number of points scored is more than 50% of the maximum possible number of city index points; unfavorable – the state of the urban environment, in which the number of points scored is less than 50% of the maximum possible number of points. The index is calculated based on the values of 36 indicators that characterize six city spaces: residential, public and business, social and leisure, citywide, landscaped, and street.

There are also several international criteria for the sustainable development of cities, which may interest the national legislator. Non-governmental associations and leading international organizations develop them: the UN, the World Bank, the Organization for Economic Co-operation and Development (OECD), the European Commission, the Scientific Committee of Problems of the Environment (SCOPE), and several others. And although sustainable development indicators still need to be developed, projects of indicators for systems of different scales have already been proposed: global, regional, national, local, and sectoral, for individual settlements and enterprises. The following projects for the development of sustainable development indicators should be noted: the system of sustainable development indicators proposed by the UN Commission on Sustainable Development, consisting of 132 indicators; the system of integrated environmental and economic national accounts (developer: United Nations Statistics Division);



“true savings” indicator, developed and calculated by the World Bank, etc. Developing sustainable development indicators is a complex and expensive procedure that requires a large amount of information, which is difficult to obtain, and sometimes simply impossible (Levanov, 2023). As applied to the national conditions of Russia, the following conclusions can be drawn from this. Adaptation to the national needs of the existing international indicators of sustainable development of cities will take some time, so the optimal strategy seems to be the selection of a group of priority indicators for achieving the SDGs in cities (which is partly already fixed by law), and this trend should be continued.

The second group should begin by examining the experience developed in various countries on using such indicators. We propose to allocate 3-5 indicators for each target of SDG No. 11, formulating them (as well as the stages of achieving the set goals, responsible management bodies, financing, etc.) in the Concept for the Transition of the Russian Federation to Sustainable Development, having approved it by the Decree of the President Russian Federation or a Resolution of the Government of the Russian Federation. Adopting such political and legal acts on various issues is entirely developed in Russia.<sup>3</sup> Along with this, it is necessary to start discussing the legal side of achieving or not achieving the system of indicators of sustainable development of cities provided for by federal regulations (up to the possibility of political responsibility (resignation) of heads of municipalities), as well as to divide the indicators into mandatory and having a recommendatory character. At the same time, it would hardly be expedient (considering the significant differences between regions) to limit ourselves to only federal indicators of sustainable urban development. Building a three-tier structure in the future seems more reasonable: the center – the subjects of the Russian Federation – municipalities.

## **1.2. The role of urban planning legislation in building a balance of economic, environmental, and social interests**

Since the city is a complex social organism, a mechanism is needed to balance the disparate social, economic, environmental, and other interests of citizens, businesses, and public authorities. For these purposes, urban planning legislation provides for the development of a master plan for an urban district or settlement, land use, and development regulations (LUDR), as well as territory planning documentation

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<sup>3</sup> In Russia, there are both concepts for the development of legislation approved by public authorities (representing an official plan for achieving an important goal for the state, including financing the necessary measures), as well as doctrinal concepts prepared by scientific teams and approved (or ignored) by public authorities. In the first case, the preparation of a phased plan for achieving the goal allows, at a minimum, drawing up a clear plan for legislative work.

that reflects the unique specifics of a particular city, which, as noted in the Aalborg Charter – European Sustainable Cities Platform of 27 May 1994, “Sustainable Cities and Towns Towards Sustainability”. In the general plan, the local authorities display the existing urban planning objects, the planned capital construction objects that the higher authorities want to build within the municipality’s boundaries to solve their public tasks, and the objects necessary for the city to carry out its functions. At the stage of town planning zoning, local governing bodies adopt the LUDR – a municipal legal act in which the territory of the urban district is divided into territorial zones (industrial, residential, public and business, etc.), and town planning regulations are established for each such zone, which determines what types of objects can be built here, and what are their parameters (number of floors, height, etc.). Accordingly, by selecting the possibilities for developing the territory, the local government can create both attractive conditions for investment and urban development of the region, and make it unprofitable, thereby reducing the economic interest in individual land plots of the city.

In territorial planning, the local governing body must consider higher economic decisions and their consequences (for example, on the development of the Far East and financing the construction of industrial or other facilities there). By allocating territorial zones (and land plots located within their boundaries) for the construction of social facilities (schools, hospitals), the local government ensures the implementation of social interests and also takes into account higher decisions (for example, Resolution of the Government of the Russian Federation of April 15, 2014 “On the approval of the state program of the Russian Federation “Promotion of employment of the population” – it provides for the creation of new jobs, which will require the construction of educational capital construction facilities). By allocating specially protected territorial zones (or zones of recreational use), the local government solves the problems of environmental protection, prohibiting, for example, their development. This allows you to create a favorable living environment in the city, ensure the preservation of public areas, including boulevards, squares, parks, and urban forests used for general recreational purposes,<sup>4</sup> take into account the provisions of legal acts of higher authorities regarding waste,<sup>5</sup> or the location and regime protection of specially protected natural areas (national parks, dendrological parks, natural monuments, etc.).

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<sup>4</sup> In this case, we can talk about a combination of environmental and social interests, because the use of these spaces allows you to create a recreation area, solve health, sports and other tasks

<sup>5</sup> For example, when planning activities in the field of municipal waste management, the local government must take into account the Decree of the Government of the Russian Federation of January 25, 2018 No. 84-D “On approval of the Industry Development Strategy for the processing, recycling and disposal of production and consumption waste for the period up to 2030” (contains the Target indicators of the industry development strategy for the processing, recycling and neutralization of production and consumption waste for the period up to 2030)

This construction can be concretized in several directions at once. First, urban development means balancing the city's territorial development, making it less sprawling in space and reducing transport costs. Second, by planning, for example, a bypass highway, public authorities can effectively deal with traffic jams and reduce vehicle emissions into the air. Third, when planning the construction of not individual residential buildings, but immediate blocks and micro districts, local authorities solve social and economic problems (quality of housing, resettlement of slums, stimulation of investments, and development of local businesses, etc.). Fourth, territorial planning documents should be closely linked with urban design standards (regional and local), which determine the number and walking distance of various social facilities based on the neighborhood's population (micro-district).

Finally, it should be noted that many tasks of sustainable urban development go beyond urban planning and are solved by other methods (for example, increasing the energy efficiency of buildings). And although the solution to all these problems by urban planning and legal means is not always successful, we cannot agree with the overly skeptical opinion of some authors that the norms of the Urban Planning Code of the Russian Federation on ensuring sustainable development (safe and comfortable) through territorial planning and urban zoning are just a tribute to fashion and a declaration, since the Code has a utilitarian and economic focus (Belyayev, 2014). Currently, master plans and LUDRs have been adopted in almost all municipalities, and the mechanism for balancing environmental, economic, and social interests in cities has been working for a long time. Another question is that there are several difficult moments and exciting proposals for further optimization. So, T.V. Yevdokimova (2011) proposes to include in the urban planning legislation the concept of "landscape plan" as a plan for the sustainable development of the territory to clarify its content and place in the system of urban planning documentation. One of the tasks of landscape planning should be the preservation of the natural environment's aesthetic qualities, which includes preserving the harmonious appearance of the landscape, including in cities.

Problematic factors include, for example, the problem of liquidating dilapidated housing (urban slums) or the need for taking into account, when developing a master plan, hundreds of parameters of the socio-economic, environmental, demographic, legal, cultural, and other development of the Russian Federation, its subject or municipality. At the same time, to develop an appropriate strategy for territorial expansion, it is necessary to use not only information about the current state of specific natural and human resources, but also the prospects for further development of the territory (population migration, climate change, growth/decrease in economic indicators, growth/decrease of birth/death rate of the population, etc.). However, building such complex forecasts is only sometimes within local authorities' and



experts' power. For example, it is difficult to calculate the types and number of capital construction objects under the influence of the population aging factor (older people do not need discos, but they need more clinics, health centers, and other similar real estate objects), gender changes in the structure of the population (increasing the numerical predominance of women over men), the need to build new facilities due to the development of science and globalization (space centers).

The issue of designing urban planning regulations not only in height, but also in the underground space also needs to be addressed (modern cities often use it to accommodate parking lots, warehouses, shops, etc.) since this significantly saves valuable urban land, conditions are created for the conservation and rehabilitation of natural and historical landscapes, reduction of building heights, improvement of other environmental parameters (accessibility, safety, energy intensity, microclimate stability, isolation from noise, etc.) (Belyayev and Belyayev, 2014). According to several experts, in Moscow, up to 70% of the total volume of garages, up to 80% of warehouses, up to 50% of archives and storage facilities, and up to 30% of service enterprises can be located below the ground level (Belyayev, 2011). It is necessary to discuss and resolve the issues of creating a comfortable urban environment for the disabled and overcoming social inequality in urban areas where people with different living standards live, using a different set of transport, ecosystem, social and other services (Bednyakova, 2014). The latter problem is often exacerbated by the fact that, under the guise of demolishing slums (solving a fundamental social issue), public authorities often decide to demolish average housing in an economically profitable place, with the subsequent construction of elite real estate objects on this site. Finally, the problem of the quality of planning decisions from the standpoint of environmental protection remains quite universal for Russia and many other countries of the world. In most cases, when pollution causes acute local problems, industrial facilities are close to residential buildings (shops or hospitals) due to decisions made many years ago when environmental planning was weak and had to consider other factors besides ecological pollution (Holder and Lee, 2007). Eliminating these shortcomings in urban planning of previous historical eras can present a difficult task today.



## 2. THE MODERN CONCEPT OF “SMART CITY”: AN ADDITION OR ALTERNATIVE TO SUSTAINABLE URBAN DEVELOPMENT?

Along with the concept of sustainable urban development, there are several other interdisciplinary approaches aimed at comprehensively improving the lives of citizens in cities. The most interesting of them is the concept of a “smart city”, within which the main focus is on the promotion of information and communication technologies (ICT), which help not only to digitize many routine procedures of city life, but also involve citizen and business in solving urban problems. There is no universally accepted definition of a smart city. However, some authors suggest that a “smart” city meets the needs of its current residents without compromising the ability to meet the needs of other people or future generations and without going beyond local or global environmental constraints, taking into account the use of ICT (Höjer and Wangel, 2015).

Other authors note that a smart city integrates technology into every aspect of its life, including public transport, ICT connectivity, water, electricity, sanitation, solid waste management, urban mobility, e-governance, and active citizen participation in city governance (Johnston, 2019).

A third group of researchers believes that smart cities are the result of the meaningful use of digital information (for example, in areas such as human health, mobility, energy use, education, and urban governance) (Trindade et al, 2017) and consider the possibilities of a smart city as an integral element in achieving sustainability (Kramersa et al, 2014). The European Union considers a smart city a city that seeks to solve social problems through ICT solutions based on partnerships between municipalities and other stakeholders. Such strategies and initiatives should include at least one of the following goals: Smart Governance, Smart People, Smart Life, Smart Mobility, Smart Economy, and Smart Environment. The creation of a digital twin of the city is also discussed – a copy of its socio-economic system, which is a springboard for virtual experiments on introducing new planning solutions, regulating migration, and calculating the consequences of the implementation of legislative initiatives (Dorofeyeva and Leontyeva, 2021). We already see separate attempts to develop such models in some Russian cities, for example, Saratov.

In this city, scientists developed the “Program for the Ecological Development of Urbanized Territories”, which overlaid several maps (layers, characteristics) of this settlement. The content of each map is built based on the data from official sources on the state of the environment on social and economic components. At least four maps are superimposed: 1) natural layer – the natural resource potential of the territory (graphically displays all natural resources) 2) social stratum – human potential (graphically displays areas of population density, morbidity, employment); 3) economic layer – a type of management,



types and level of development of all industries (industry zones are graphically displayed depending on their level of impact on the environment); 4) layer “state of the natural environment” – environmental problems (zones are graphically displayed with a ranking according to the level of pollution of all natural resources). Having received four layers (maps) with different content, authorities or public organizations can create a model for the sustainable development of their city (Abanina, 2017). It should be noted that, in contrast to the sustainable development of cities, concerning “smart” cities, the legal framework is presented in Russia much better – the national program “Digital Economy” (2018), the national project “Housing and Urban Environment” (2018), the domestic project “Digitalization of urban economy “Smart City” (2019), as well as the Concept of the project of digitalization of urban economy “Smart City” (2020). For example, the national program “Digital Economy of the Russian Federation” includes several activities to create a smart city – an urbanized environment where, based on the introduction of ICT, new opportunities open up for increasing the efficiency of using urban resources. Smart city projects combine the digital transformation of the city economy and municipal services with the communications of authorities, businesses, and citizens through digital platforms, the Internet, and mobile communications. Some technologically advanced cities (Moscow, Saint Petersburg, Kazan, Ekaterinburg) have already created the conditions necessary to digitalize city services. Still, most Russian municipalities are facing personnel, financial and technological barriers.

Within the framework of the national project “Housing and the urban environment” (2018), a tool was defined for assessing the quality of the material urban environment and the conditions for its formation – the index of the quality of the urban environment (Strigunov, 2021).

The Concept of the Urban Digitalization Project “Smart City” (approved by order of the Ministry of Construction, Housing and Communal Services of the Russian Federation of December 25, 2020) highlights the problems of urban infrastructure (for example, depreciation of urban life support systems), resource problems (deficiency of budgetary resources), public (transparency of city government), departmental (low culture of interdepartmental communication), ethical, regulatory (low quality of legislation), territorial (uneven climatic, resource and cultural conditions in the country). They are fully supporting the development of such plans. However, we note that they all have three essential flaws: they are not specific enough, their legal force is unclear, and there is no legal responsibility for their non-execution. The analysis of these documents also determines the relationship between the smart city concept and other related urban development strategies, which is the subject of scientific discussions. Some authors believe the smart city model should be considered a phased development of previous approaches (sustainable





development, green city, eco-policy, and others). They note that at first, the concept of a smart city described the ways of using ICT and its infrastructure to construct a virtual space in the information field of society. In the next stage, the concept of a smart city is already identified with an increase in the share of intelligent technologies in the effective development of the city (Romanovskaya and Romanovsky, 2019). Without objecting to this approach, we still note that the concept of a “green city” (ecopolis) does not have clear legal parameters (unlike a smart city), and to consider a smart city a new stage in the sustainable development of cities, there are still no sufficient grounds. In our opinion, the concept of a smart city is not focused on building complex balances between economic, environmental and social interests, since its goal is rather more utilitarian – improving the quality of the urban environment, comfort and improvement.

Other authors believe that a city that is not sustainable is not really “smart”, and the role of technology in smart cities should be to ensure the sustainable development of cities, not new technology as an end. Representatives of this approach believe that a “sustainable smart city” is defined as the goal of balanced development and relying on technology in solving social, economic, and environmental problems to improve the quality of life of the population, increase the efficiency of urban management and build up the economic, technological and intellectual potential of the city (Akimova et al, 2020). They also note that such a city involves building a complex structure of relationships between various synergistic clusters with the help of ICT, allowing the creation, application, and dissemination of solutions that help ensure a favorable living environment in the city and achieve the SDGs (Bibri and Krogstie, 2017). In terms of the fact that smart city technologies are only one of the means to achieve SDG No. 11, one should agree. The third group of authors raises the question of when are sustainable development and innovation-oriented sustainable development strategies to create a smart city and when the development of a smart city allows innovation-oriented sustainable development. The answer to this question they see in further implementing the design of a sustainable “smart city” (“smart, sustainable city”), which uses digital technologies to use the creative abilities of citizens, contributing to the improvement of the quality of life in urban areas through innovation. According to these definitions, a city cannot be “smart” if it does not set sustainable development goals (Matrizayev, 2022). This approach is indeed very innovative and should be further developed. Meanwhile, sustainable development goals and a smart city do not coincide, so these concepts should not be mixed. Let’s try to argue this judgment by analyzing the elements of a smart city.

Without claiming an exhaustive list, we will single out the most important among them: a smart city implies a high level of ICT development (including infrastructure facilities), which allow collecting,



summarizing and analyzing vast amounts of information about the life of the city and the state of the urban environment, contributing to the adoption of more competent management decisions (according to the current situation and forecast nature); a smart city is an environmentally friendly city with a well-established system for monitoring the state of the environment (for example, using sensors for monitoring the condition of atmospheric air and the fullness of garbage cans); a smart city has a smart transport infrastructure that allows you to quickly get to anywhere in the city; in such a city, an energy saving strategy has been implemented, the sector of renewable energy sources is developing, and carbon neutrality is being ensured (Hunter et al, 2018); certified “green” construction of eco-logically clean (smart) houses is underway; city residents are involved in the discussion and solution of city problems (Kenig-Witkowska, 2017); ICT is a means of preventing diseases, improving the quality of medicine; a smart city is safe for life, with a high rate of education, and practical work of law enforcement agencies; the level of comfort of its residents is ensured by the development of a system of information services that reduce the number of contacts with officials, which makes it possible to use a wide range of services, etc. It follows from this that ICT is not a goal, but a means (tool) to achieve the goals of a smart city (Semyachkov, 2021), develop human capital, and improve the quality of the living environment of citizens. Therefore, the purposes of sustainable urban development and the smart city of the natural overlap in many ways. At the same time, the concept of sustainable development (SDG No. 11) does not emphasize the development of the ICT sector to achieve this goal; it is assumed that the set of tools to achieve it is not limited. In this sense, the technical solutions of the smart city will undoubtedly contribute to the achievement of the goals of sustainable development, which, however, are broader and more diverse.

Thus, the smart city strategy has economic, environmental, and social factors. Still, this concept focuses on the information technology aspect of sustainable development, being only one of the means to achieve SDG No. 11. In turn, within the framework of the smart city concept, there is an important aspect – smart management (Manville et al., 2014; Suleymanova, 2022) which is not explicitly emphasized within the framework of the SDGs. From this, these concepts correlate like the Olympic rings, partly intersecting in their goals and means of achieving them. However, these concepts are quite autonomous and independent in several essential elements.

Despite all the apparent advantages of developing smart cities, this concept has its difficulties and partly side effects. Among the problems, we can include the fact that towns undoubtedly benefit from the development of ICT, the collection, analysis, and synthesis of a vast amount of data. Still, they would help even more if they had a system of interaction with other smart cities in different countries, which is yet to happen due to the incompatibility of information collection and processing systems. In addition,



municipalities may have policies that deliberately limit the collection and sharing of data, for example, due to privacy concerns and cybersecurity risks, counterproductively putting their momentary interests ahead of value, which could be created if all cities shared the collected data (New et al, 2017). The second side effect of the digitalization of urban space is the emergence of “digital waste” that occurs after the expiration of various digital devices’ service life, giving rise to the problem of their disposal (Kunkel and Matthes, 2020). Third, the massive introduction of digital technologies (in particular, within the framework of the Safe City hardware and software complex) (Balanovsky et al, 2015) will help improve the fight against crime (as well as the efficiency of the fire department or other emergency services) (Lawlor, 2019), but this complicates the control of civil society for law enforcement interference in civil liberties and private life (Joh, 2019). Fourth, the concept of a “smart” city, while solving several important urban problems, does not contribute to the solution of the social situation of inequality. Not all citizens can buy an expensive smartphone and have an education level that allows them to use the digital services of a big city effectively. This problem is even more evident in small, depressed cities if they switch to such standards.

### 3. THE MECHANISM OF GUARANTEES OF SUSTAINABLE DEVELOPMENT OF CITIES

In the legal science of Russia and other republics of the former USSR, the concept of guarantees for implementing citizens’ rights and freedoms and related state plans and programs has been recognized. The system of guarantees is made up of the general social conditions for the realization of such rights, as well as legal and other special means that give the rights and freedoms of the individual the character of actually embodied in practice, ensure their lawful and full use, and in cases of encroachment and violations – protection (Civil Rights of Man, 2004). Accordingly, for the concept of sustainable development of cities, we can single out a system of legal procedures (urban planning zoning, etc.) and guarantees for achieving the goals set.

At the same time, in the structure of guarantees, we will be interested not so much in the means of protecting the provisions of this concept (since it is not legally binding), but in the conditions for its implementation. The primary need is the practical work of all three branches of power. First, the timely development by the representative body of the required number of regulations to determine the goals of sustainable development of cities and the algorithm for achieving these goals. Second, it is developing and implementing anti-corruption standards of conduct for officials of executive authorities, establishing a dialogue with businesses and the public, and creating and using indicators for achieving the SDGs. Third,



this is the creation of specialized environmental courts (as has already been done in several countries), improving the quality of justice and enforcing court decisions. Let's talk about the more local (subjective) content of the conditions for the implementation of SDG No. 11. The importance of this factor is most clearly seen in two examples: the level of development of the general and legal culture, as well as the efficiency of social and environmental entrepreneurship in the city.

### 3.1. The level of culture of the population as a condition for achieving the SDGs

Despite the constant discussion at the international and national levels of the importance of achieving the SDGs to implement them, lower authorities, the public, and businesses should at least be aware of their existence and understand the content of the SDGs. In turn, this requires a certain level of general, legal (and even environmental and legal) culture, which will ensure the careful attitude of citizens to natural resources, infrastructure, cultural heritage of cities, etc. The presence/absence of unauthorized waste dumps, the degree of use of renewable energy sources, the participation of citizens in the discussion, and the solution of urban problems (using ICT) will depend on the level of culture of citizens and officials. In this case, legal, political, economic, household, and other forms of culture will be necessary. However, given the reflection in the law of all aspects of sustainable development, the main focus of the state should be on this.

As noted in the Resolution of the UN General Assembly of December 20, 2017, No. 72/229, "Culture and sustainable development", culture is one of the factors for ensuring sustainable development since it is an essential source of identity and creativity. It is an important factor in increasing employment, income growth, and poverty eradication, a condition for economic growth. Thanks to the cultural aspect, the solution to intersectoral problems of education, healthcare, and nature protection (including climate) is ensured, and public involvement in solving urban issues is growing. Meanwhile, it has long been known that the level of development of culture is associated with the quality of education, measures of education, and enlightenment. Such actions are well developed in one aspect of sustainable development – creating an ecological culture where the work on its formation bears fruit. For example, citizens refuse to use new plastic bags for groceries, install solar panels in their homes, and buy local products in the store, saving resources and electricity and reducing vehicle transport with exhaust emissions (Brown, 2010).

However, even in this area, there are many more examples of uneducated citizens, their passivity, the low level of their environmental knowledge, the instability of moral priorities, the technocratic style of thinking (Sabrekova, 2021; Chernobay, 2022), individualism, and consumer psychology, the belief in



the inexhaustibility of natural resources, which is due to the lack of a system of continuous environmental education, lack of awareness and trust in the authorities, the orientation of business entities to short-term profit (Kotova, 2008; Ryzhenkov, 2022). At the same time, the potential of Russian educational institutions and public organizations remains unclaimed, both in terms of explaining and protecting the environmental rights of citizens and in terms of enlightenment companies (for example, on separate waste collection and preventing unauthorized dumps, explaining measures of responsibility for ecological offenses).

The lack of educational work in terms of sustainable development entails the emergence of an interesting phenomenon that can be described as a spontaneous implementation of the concept of sustainable development in Russia. Thus, in 2013, the district court considered a case on the route of cattle driving in several villages, the residents of which complained about the destruction of landscaping elements, pollution of village lands with manure, etc. Having considered the case on its merits, the court found the decision of the Municipal Council of Deputies of April 29, 2013, regarding the approval of the cattle drive plan to be illegal.<sup>6</sup> This case is interesting in that the court applied the concept of sustainable development (although it is not mentioned in the text of the decision itself), having carried out a reasonable search for a balance of three groups of interests – economic (cattle breeding on the farm and milk production; livestock grazing), environmental (sanitary condition of the street) and social (the right of the residents of this village to health). Arguments in favor of the found compromise between these three interests are detailed in the court decision. In Russia, no laws require considering the provisions of sustainable development. There are many similar findings of the courts, which makes it possible to speak not about purposeful, but rather about the “spontaneous implementation” in Russia of the concept of sustainable development in judicial practice.

From this, the concept of ecological culture and its significance in Russia is well known. However, the “culture of sustainable development” category is not discussed even at the scientific doctrine level. And as long as there is neither its concept nor content, it is impossible to implement a systematic package of measures for education, upbringing, and enlightenment in sustainable development. There is still much rule-making work to be carried out at all levels of government.

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<sup>6</sup> The decision of the Torzhok city court of Tver region of August 1, 2013 on case No. 2-521/2013. The document was not published. In: Archive of Torzhok District Court of Tver Region for 2013.



### 3.2. The role and importance of entrepreneurship for sustainable development

For digital systems, wind turbines to work in the city, and waste to be collected and processed on time, it is necessary to have business structures that would deal with this. Commercial and social entrepreneurs can engage in this kind of activity. The latter is most consistent with sustainable development objectives, which will be discussed below.

The main feature of social entrepreneurship is that business, while solving its problems of making a profit, simultaneously mitigates the severity of the city's social issues. The scientific doctrine mentions various features of social entrepreneurship: innovative activities that do not set the primary goal of making a profit (Anokhina, 2016); use of unique methods for solving social problems (Vishnyakova, 2020); creativity and self-sufficiency (Shurdumova and Vindijeva, 2019) etc. Accordingly, the criterion for delimiting social entrepreneurship from traditional entrepreneurial activity (as well as non-commercial management) will not be profitability (which is not excluded, but not absolutized), but, first of all, the focus on meeting social and property needs with the help of social innovative entrepreneurial tools (Grishina, 2016). Traditional small and medium businesses can take part in the implementation of sustainable development goals through their core business, philanthropy, or public-private partnerships (Skivko et al, 2022). Social entrepreneurship involves a broader set of purposes related to sustainable development, including increasing the efficient use of resources, reducing the negative impact on the environment, improving working conditions, reducing unemployment and poverty, improving health, reducing inequality, and ensuring economic growth. Moreover, these goals are focused on the interests of not only present, but also future generations. Social entrepreneurship is essential not in large cities, but in remote and depressed rural areas, where providing support to people with disabilities or other low-income people is most significant. Social entrepreneurship entered the legal field of Russia only in 2019, when several additions were introduced to the Federal Law of July 24, 2007, No. 209-FL "On the Development of Small and Medium Enterprises in the Russian Federation". From this moment on, measures of state support for social business are specified (Article 24.1) when hiring specific categories of persons (for example, orphans, disabled people), as well as socially significant activities (socio-medical, pedagogical, etc.). Notably, the law does not directly classify environmental activity as a type of social entrepreneurship, and this, in our opinion, needs to be corrected.

The "environmental entrepreneurship" category, one of the varieties of social entrepreneurship in Russia, does not have official recognition and definition (Borodina, 2014). Nevertheless, this category is quite well developed doctrinally, and Article 17 of the Federal Law "On Environmental Protection" of



January 10, 2002, No. 7-FL lists measures of state support for businesses that carry out, for example, the introduction of the best available technologies or implementation of other measures to reduce the negative impact on the environment (in the form of tax incentives, etc.). Essentially similar measures are provided for in Article 33 of the Law of the Republic of Uzbekistan “On Nature Protection” of December 9, 1992, No. 754-XII, according to which tax and credit benefits can be provided to enterprises, institutions, organizations, and individuals when introducing low-waste and resource-saving technologies, the implementation of activities that have an environmental protection or nature restoration effect. In our opinion, environmental entrepreneurs can make a significant contribution to the sustainable development of cities by reducing energy consumption; reducing emissions and constructing waste processing plants; implementing green building; production of environmentally friendly goods and services (for example, new models of wind turbines and services for their installation and maintenance); creation of new green jobs and poverty reduction; development of green zones of cities and specially protected natural areas (for example, botanical gardens); participation in the result of environmental education and upbringing, providing the population with environmental information; providing urban residents with clean water and organic products, etc. Their participation in public-private partnerships can also become a separate guarantee for implementing the SDGs.

## CONCLUSION

The movement towards sustainable urban development within the framework of the overall strategy for achieving the SDGs is ensured by the activities of public authorities and the public to solve best the social, economic, and environmental problems of settlements, improve the comfort of citizens' lives through the rational use of urban resources, effective urban planning, exceeding the assimilation potential of urban ecosystems, in the interests of present and future generations. Currently, there is no definition of sustainable urban development in Russian law. Therefore, there is no mechanism for implementing the tasks set in SDG No. 11, including the lack of a system of indicators in the country (social, economic, environmental, and others) to assess the degree of achieving the SDGs. Today we see only separate doctrinal and normative indicators of sustainable development of cities, reflecting only some aspects of the transition of cities to sustainable development (in terms of comfortable housing, etc.). In the scientific doctrine, the correlation of sustainable urban development with other (related) interaction concepts between nature and society, including an eco-city and a “smart” city, is also poorly studied.





In this regard, the legal solution to this problem can be the development of the Concept for the Transition of the Russian Federation to Sustainable Development, which includes a clear plan of legislative work, one of the sections of which should consist of measures to ensure the sustainable development of cities. Taking into account that the UN assumes for each country an independent choice of terms, strategies, and means to achieve this goal, in such a legal act, it is necessary to divide the tasks of the transition to the sustainable development of cities into two groups – priority (for five years) and long-term (for 15 years). For example, addressing the waste problem can be classified as one of the former, and the fight against poverty and inequality can be attributed to the latter. Accordingly, the Concept should contain a clear list of tasks and indicators for achieving the goals of each of the stages of the plan for the transition to sustainable development. Considering the country's specifics, and the system of views that have developed in the legal doctrine, we propose to include in the Concept a separate section called guarantees (conditions for implementation and means of protection) of the transition to sustainable development. One of them (concerning the sustainable development of cities) should be the formation of a culture of sustainable development of citizens, the development of social and environmental entrepreneurship, and public-private partnerships. Taking into account that the Russian legal system has much in common with other republics of the former USSR, such a policy document could be taken as a basis for the development of their national plans and programs for the transition to sustainable development by such countries, taking into account their national specifics.

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