

Sustainable development of territories as a basis for the integrated management of urban development for the effective use of the territory of municipalities

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Abstract. The relevance of the research work is primarily determined by the necessity to avoid the consequences that were clearly exposed by the urban planning policy of the past years, associated with the solution of current problems without taking into account the acceptance of interest from the population. Currently, the Russian Federation adheres to a strategic social document, which is a territorial scheme, covered by all the necessary conditions for life, which include not only passive prediction of the future, but also active assistance in its formation in a positive and optimistic manner, as well as for real goals and in reachable direction. The creation of an effective tool for managing the development of the territory, in accordance with the Federal Law and the legislation of the constituent entity of the Russian Federation, is the goal of sustainable development of territories. After the adoption of the design decisions of the master plans, the basis for resolving issues in a comprehensive manner is identified, including the organization of planning structures, territorial and infrastructural development of settlements, socio-economic development, and also includes the development of rules for land use and development and the establishment of a legal regime for the use of territorial zones, determining future areas of investment development, taking into account high-quality software based on all modern requirements for the formation of a high-quality information system to meet all the needs of urban development. **Keywords:** Sustainable development of territories, urban zoning, territorial planning, territory management, information system, software, territory development management.

1 Introduction

The phrase "sustainable development" is the ideological setting of territorial planning documents, not only on the territory of the Russian Federation, but throughout the world.

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Sustainable development is aimed at changes that not only do not interfere with the solution of current problems, but also contribute to the positive long-term development of territories.

This concept was generated by many consequences, which are challenging to correct, and which are, first of all, were dictated by departmental or corporate interests.

To achieve sustainable development of the territory of the municipality, the priority goals of territorial planning are:

- the need for effective management tools for the development of the territory in accordance with the Federal Law and the legislation of the subject of the Russian Federation;;
- development of territorial planning tools and ensuring the integrity of the municipality;
- formation of favorable decisions on the planning organization and functional zoning of the territory, development of effective conditions for the further implementation of urban zoning, which would correspond to the disclosure of the maximum potential in the socio-economic and recreational terms of the municipality;
- identification of all initial conditions for development by increasing the area of land, as well as improving the territorial organization, which occupy the main competitive uses.

2 Materials and Methods

The principles of sustainable development of territories are based on solving the problems of their rational use, namely [1-7]:

- innovative and effective methods of development of the municipality;
- increase in resource volumes, as well as their build-up in the industrial sector, the tourist sector of services and the housing and utilities complex;
- effective development of the economy in the development of two main areas: port-industrial-logistics and agricultural-resort-recreational;
- rational nature management, as well as the protection of natural resources in the interests of the future and present generation, using the sustainable development of the territory;
- the need for thorough care and preservation of architectural and cultural monuments, restoration of natural complexes of territories and care for the natural and geographical features of territories;
- rational and efficient use and placement of capital construction facilities, as well as the development of social, engineering and transport infrastructure.

To solve the problems of territorial planning, it is necessary to implement the above goals. The main objectives of the master plan are:

- search, solution and elimination of problems associated with the urban development of the territory of the municipality, through the analysis of the parameters of the municipal environment and the analysis of viability resources;
- creation of an electronic version of the master plan based on advanced computer technologies. To create it, you also need high-quality software, taking into account all modern requirements for the formation of a high-quality information system to meet all the needs of urban planning (ISCAS);
- the need for effective direction for territorial development;
- with the help of functional zoning of the territory, there is a need to determine the zones where the vital activity of the population is carried out;
- search for new solutions for an effective functional and planning structure of the urban district, which could contribute to the sustainable development of the territory,

followed by the development of urban zoning and rules of land use and development (PZZ);

- solution of effective tasks for determining the parameters of the development of the municipality, ensuring the balance and mutual agreement of the dynamics of urban planning, infrastructural, natural, social and health-improving components of development;
- preparation of a list for solving priority works and actions to ensure the investment attractiveness of the territory of rural settlements with due and careful preservation of the environment;
- identification of zones for the planned placement of capital construction facilities, as well as for existing or planned boundaries of transport and communication, industry and energy lands.

Currently to solve the above problems, detailed analyzes of the existing used territories of the municipality have been carried out, in which restrictions on its use have been identified, including the boundaries of zones with special conditions for the use of territories, the boundaries of cultural heritage sites, and the boundaries of zones with a negative impact, capital construction projects of local importance.

The planned functional zones of the urban district are determined by the general plan, with the help of indications of all the parameters of their planned development, and the necessary sequence and order for the implementation of proposals for territorial planning is also established.

In modern realities, we can conclude that territorial planning is necessary for innovative and effective development of territories, improvements in resource volumes, and effective development of the economics. It also allows the use of environmental management and resource protection for the benefit of future generations.

3 Results

A comprehensive project for the management of urban development of the territory is the most developed and effective mechanism for the preparation of urban planning documentation, which consists of [8-15]:

- information base containing information about the objects of urban planning activities;
- system analysis of problems in the development of the municipality;
- preparation of urban planning documentation;
- programs for the development of urban planning solutions;
- engineering;
- other documentation that ensures stable development and investment development of the territories of the municipality;

A comprehensive project of the management system for the development of the territory of the municipality, shown in Figure 1, contains the following sections:

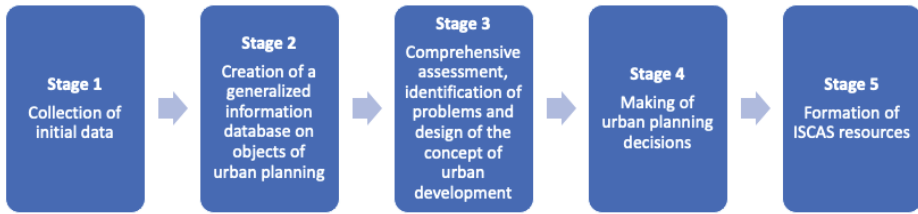


Fig. 1. Stages of implementation of a comprehensive project of the urban development management system of the territory of the municipality.

- analysis of programs of the municipality and regulatory legal acts in the field of land and property relations and urban planning decisions.
- preparation of all necessary documents that ensure the effective implementation of legislation and increase the efficiency of the workforce, aimed at the well-being of the working capacity of citizens and their activities, is also aimed at creating a comfortable living environment for the population of the municipality.
- preparation of an electronic information base containing information about the objects of urban planning, which includes a classifier and a reference book, comments of the relevant users for all created objects.
- preparation of such town-planning initial data as: the right of registered real estate objects, technical characteristics, transport and engineering infrastructure, etc.
- calculation of the main configurations of territorial development, creation of tasks and concepts of urban development, as well as coordination with local governments.
- formation of an urban planning passport for the urban district and settlements;
- master plan consisting of text and graphic materials, which is approved and corrected.
- development of projects for planning and land surveying of built-up areas and areas subject to development. Projects for planning and surveying of territorial entities are developed in accordance with the elements of the planning structure defined by the master plan.
- development of land use and development rules, depicted in Figure 2.

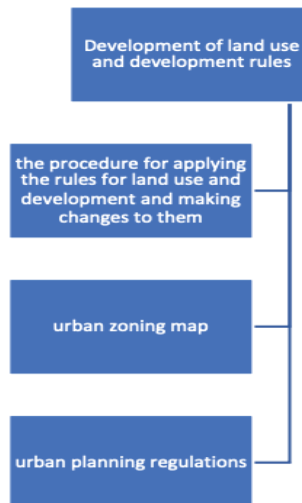


Fig. 2. Development of land use and development rules.

– development of a draft plan for the implementation of the master plan and the creation of an electronic model for the phased implementation of the urban development program of the municipality. The plan for the implementation of the master plan is being developed in the areas shown in Figure 3:

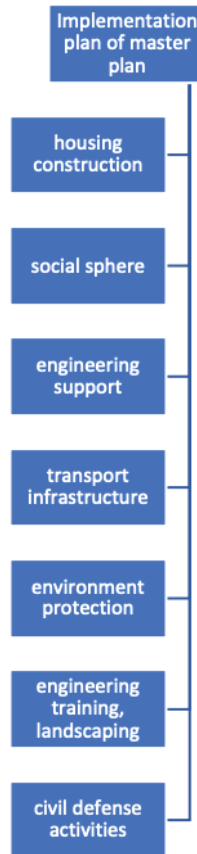


Fig. 3. Implementation plan of master plan.

– in accordance with the PZZ, an electronic model for the development of territories is formed on a financial and economic basis during the implementation of the master plan. The electronic model has the function of effectively and quickly making changes to the execution of the master plan, and also displays the planned changes at any stage of implementation.

– development of an effective payment calculation system using the estimated territory zoning model (EZOT). EZOT is necessary to improve the efficiency of land use, taking into account the planned urban development changes that directly affect the market value of a particular site. The EZOT is created on the basis of the zoning scheme of the territory, which is developed in the master plan. The EZOT is intended to establish all types of payments for land plots and is necessary for the evaluation of investment activities. The sites for which the assessment has been made are necessary to establish the state cadastral assessment and must comply with the unified EZOT assessment scheme. The EZOT is developed on the basis of the urban zoning scheme and takes into account the results of the state cadastral valuation of land. For the effective operation of the payment calculation, it is necessary to develop appropriate software and provide a variable approach to the estimated zoning scheme for the most effective choice of option for various characteristics.

– when developing urban planning documentation, the potential for the development of the city (in accordance with the rules of land use and development) is revealed, which is based on financial indicators in the implementation of the master plan. This is necessary to develop a scheme for the investment development of the city's territories.

– the program of investment development of the city territory is developed in order to create a favorable investment climate and should contain a set of measures to increase investment potential and minimize investment risks.

When developing the program, the main targets of the municipal investment policy, presented in Figure 4, are taken into account.

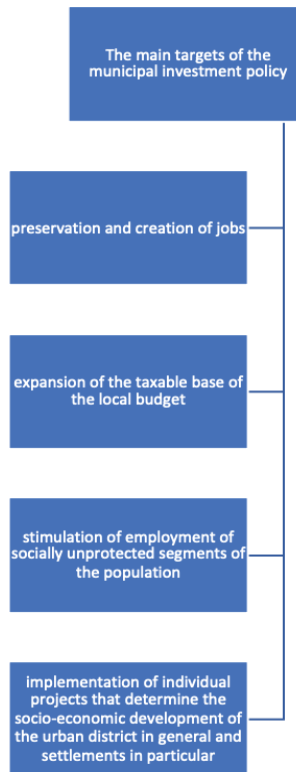


Fig. 4. Urban planning activities.

– the program of activities for the organization of public hearings is necessary to achieve the goals of the joint projects with the determination of the timing.

The program of activities for the organization of public hearings includes two points presented in Figure 5:

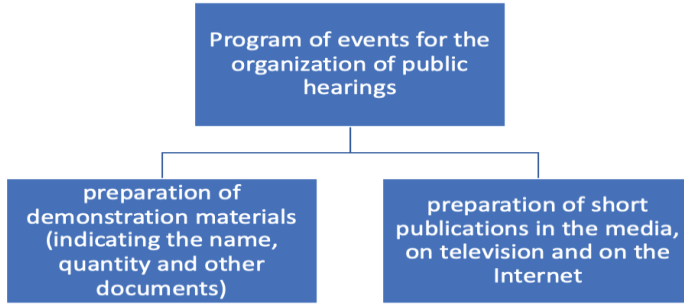


Fig. 5. Arrangements for organizing public hearings.

Materials to be published contain the following objectives:

- complete information and illustrative support;
- fulfillment of Federal Law;
- introduce and acquaint residents of the population with the strategy of planning development and rational use of the territory.

Thus, the creation of an information support service for urban planning activities (ISCAS) and training in working with electronic resources for employees of the ISCAS service and all interested structural units of the administration of the municipality are important, which will subsequently be aimed at the effective use of the territory of municipalities.

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