

Formation of a comfortable urban environment as a factor of sustainable development of the territory

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Abstract. In modern conditions, a comfortable urban environment is an important component of improving the population life quality. The creation of conditions for the implementation and effective realization of the directions of state programs, national projects, and municipal programs related to the formation of a comfortable urban environment makes it possible to rationally use the advantages of the territory and neutralize the negative impact of internal and external factors. The article presents an analysis of the municipal program "Formation of a comfortable urban environment for the period up to 2030". Attention is focused on the key elements of the subprograms, as well as on the problems hindering their effective implementation. In the course of the research, the authors systematized the conditions and opportunities for the development of the city of Surgut, and also formulated conclusions about the importance and necessity of forming a comfortable urban environment.

1 Introduction

The urban environment is a single space formed from a complex of interrelated elements: inner-city territories, forest and park territories, recreation areas, and infrastructure facilities, as well as objects of artistic and architectural design of the city, etc. That is, it can be represented as a set of conditions of a natural, man-made, socio-economic, informational nature that affect citizens living within the boundaries of the territories to which these conditions apply.

In the course of the study, the authors set a goal to identify the content of the created conditions for the formation of a comfortable urban environment of the city of Surgut.

Within the framework of achieving this goal, the authors have identified the key tasks that are the vector of the study:

1. To analyze the list of conditions and opportunities for the development of the urban environment of the city of Surgut;

2. To identify the key elements of the municipal program "Formation of a comfortable urban environment for the period up to 2030";

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3. To analyze the "Rules of the city territory improvement".

The hypothesis of the study is formulated under the assumption that the development of the urban environment, the formation of comfortable living conditions for citizens, ensuring an improvement in the life quality throughout the city, is one of the priority vectors of the socio-economic development of the city of Surgut.

Within the framework of the Socio-Economic Development Strategy for the period up to 2030 [1], two flagship projects in this area are highlighted: "Formation of a comfortable urban environment" and "Transport framework and urban roads", where the first project is dedicated directly to the development of urban areas.

2 Material and Methods

In the course of the study, the authors apply methods that allow analyzing and systematizing information.

The use of content analysis is conditioned by the need to study the municipal program, its subprograms and identify the main problems hindering its effective implementation.

The analysis of the "Rules for the improvement of the city territory" allows the author to consider not only the prospects for creating a comfortable urban environment, but also to analyze the key features and possibilities of maintaining it according to the established requirements.

A comparative analysis of the goals and objectives of the subprograms allows to identify the key differences and their linguistic interpretation in terms of significance for the comfortable environment of the municipality. Based on a systematic analysis of the municipal program subprograms, it becomes possible to comprehensively consider the key elements of the study and identify growth points for the implementation of measures.

The study is based on the materials of the Socio-Economic Development Strategy for the period up to 2030 and the data of the municipal program "Formation of a comfortable urban environment for the period up to 2030" and its subprograms and key provisions.

3 Results and Discussion

To create the necessary and sufficient conditions for the development of the urban environment of city of Surgut, the city administration identified key factors that pose risks of comfortable environment formation. Among the most significant there are the following:

1. The natural and geographical location of the territory of the city of Surgut, entailing severe climatic conditions, a long winter period and a short daylight, respectively.

2. The assignment of the city's territory to the risky farming zone entails difficulties in landscaping and creating a "green" urban environment.

At the same time, the Strategy identified key points that should be implemented by 2030 (with clarification on the first stage of work, 2015-2018), which have a direct impact on the comfortable urban environment formation (Figure 1).

Thus, the Strategy defines and sets the main tasks, the solution of which is aimed at the development of the urban environment of the city of Surgut in the long term and the achievement of the main goal – the creation of a comfortable urban environment in the city. At the same time, it should be borne in mind that the strategy defines the general conditions for the comfortable urban environment formation, clarifying them in specific measures, some of which, as a rule, are aimed at the direct development of the urban environment within the framework of already created conditions.

In addition to the Socio-Economic Development Strategy of the city, Surgut also has a municipal program "Formation of a comfortable urban environment for the period up to

2030", developed as part of the implementation of the federal project of the same name in the Khanty-Mansiysk Autonomous District – Yugra (included in the project portfolio of the national project "Housing and Urban Environment"). Thus, the goal of the project is "improvement of public spaces included in state (municipal) programs for the formation of a modern urban environment." The key goal of the Surgut program is to create a comfortable urban environment in the city. The municipal program is aimed at creating comfortable living conditions for the population, improving the ecology of the urban environment, as well as solving the tasks defined by the Socio-Economic Development Strategy of the city of the vector "Urban Environment" – "Landscaping and environmental protection". At the same time, there are three main directions – subprograms – focused on creating conditions for the formation of a modern, comfortable urban environment: "Improvement of public territories" (Table 1), "Provision of landscaping of courtyards of apartment buildings" (Table 2), and "Decorative, artistic, and festive decoration of the city" (Table 3).

Table 1. Brief description of the subprogram "Improvement of public territories"

Purpose	- creation of comfortable living conditions for the population; - increasing aesthetic appeal of public territories of the municipality.
Task	improving the level of improvement of public areas
Problems	- high density of the city territory development; - lack of landscaping or insufficient level of landscaping of recreation areas and territories along water bodies (reservoir of the Saimaa river); - incomplete execution of landscaping works in certain territories in previous years; - terrain features (high groundwater level, presence of peat zones); - low level of social culture and responsibility of the city's population for the state of a well-maintained urban environment

* Note: compiled on the basis of [1].

The activities of the subprogram will improve the quality of urban public areas, at the same time, having a positive impact on the image of the city as a whole, the quality of the environment and, accordingly, the standard of living. Moreover, it is assumed that their implementation will also contribute to increasing the interest and involvement of the population in the improvement and development of the urban environment through initiative projects and actions of individual citizens expressed in participation in public events for cleaning and landscaping, as well as raising the level of culture in the field of waste management (in particular, organic and inorganic waste, including hazardous waste, such as used batteries, accumulators, etc.).

Table 2. Brief description of the subprogram "Provision of landscaping of courtyard territories of apartment buildings".

Purpose	ensuring the long-term and safe functioning of residential buildings and housing improvement facilities
Task	improving the level of yard territory improvement
Problems	- low level of involvement of citizens in the development of intra-block and adjacent territories; - insufficient level of security of intra-block and adjacent territories; - low level of aesthetic, ecological aspects of the improvement of intra-block and adjacent territories in view of the peculiarities of the Surgut city location.

* Note: compiled on the basis of [1]

The implementation of this subprogram will make it possible to form ecologically and aesthetically well-maintained residential and house territories, while paying special attention to their safety. The formation of the proper quality of the adjacent and intra-block territories will contribute to increasing the involvement of the population of such territories in the issues of improvement and preservation of the quality of the objects located on them.

Table 3. Brief description of the subprogram "Decorative, artistic, and festive decoration of the city".

Purpose	<ul style="list-style-type: none"> - creating comfortable urban environment; - improving the leisure time of citizens; - creating a festive mood during the all-Russian and state holidays, as well as coverage of other significant public, national, professional holidays, events, and anniversaries; - informing and educating the population about social projects and phenomena in society through the placement of social advertising in the urban environment.
Task	execution of works on festive, New Year, lighting, decorative, and artistic design of the city
Problems	<ul style="list-style-type: none"> - insufficient funds allocated for the restoration of monumental and sculptural-decorative objects with high demands for implementation by the population; - increasing demand of the population for objects of decorative, artistic, and festive decoration of the city

* Note: compiled on the basis of [1]

The implementation of the subprogram will allow to form a memorable, positive image of the city. At the same time, it will contribute to the prompt informing of the population about projects and phenomena in the city public environment, which will also have an impact on the degree of involvement of citizens in the municipality development and functioning.

The implementation of the program began in 2018, where two events were implemented. In 2019, in comparison with 2018, the list of implemented measures significantly expanded, at the same time, individual activities under the federal project "Formation of a comfortable urban environment" were financed from three sources: federal, regional, local, respectively; the largest amount of funds came from transfers from the district budget. Part of the activities directly related to green spaces was implemented jointly with the Department for Nature Management and Ecology (reorganized in 2020), which also received funding.

The analysis made it possible to conclude that the planned and actual financial support for the activities of the Department of Architecture and Urban Planning, in particular, under the priority program "Formation of a comfortable urban environment" for the entire period under review, was largely carried out at the expense of revenues from the local budget; the exception was 2019, where the funds actually received 664672.11 rubles from transfers from the regional budget. The smallest amount of money came in the form of inter-budgetary transfers from the federal budget. The smallest amount of funding actually received was in 2018, at the start of the program, and amounted to 5126400, and the largest – in 2019, amounting to 178042996.11 rubles.

For the period of the municipal program, the implementation of the measures developed and included in the plan is expected at the expense of inter-budgetary transfers from the district budget, as well as at the expense of the local budget. It is planned to finance the implementation of certain events at the expense of inter-budgetary transfers from the federal budget. At the same time, for 2022, 35 urban territories are included in the list of yard territories in need of improvement and subject to improvement (in the period from 2022 to 2026); for 2023 – 20 urban territories; for 2024 – 21 urban territories; for 2025 – 16 urban territories; for 2026 – 13 urban territories. "The current program management and operational control over the progress of its implementation is provided by the program administrator - the Department of Architecture and Urban Planning together with the co-administrators of the program - the Department of Urban Economy and the Department of Property and Land Relations, within the established scope of activity" [3].

It is worth noting that the municipal program, in addition to determining the directions of the development of the urban environment of the city of Surgut, including sources of financing for events (with distribution by levels of inter-budget transfers), also contains "Regulations on the organization and conduct of work on the improvement of the courtyards

of apartment buildings", including the necessary applications and templates. This makes it possible to unify the legal framework of the municipality in this area, to make it more accessible to persons who are possible participants in the implementation of measures.

Thus, the municipal program "Formation of a comfortable urban environment for the period up to 2030" creates the necessary conditions for the implementation of projects and activities in the directions established by it. The structuring of the program into several subprograms makes it possible to make the process of urban environment development more open and accessible to residents, form certain expectations and predict possible effects from implementation.

At the same time, the formation of a comfortable urban environment is impossible without well-founded and defined methods and rules of improvement that meet both the existing regulatory and methodological foundations and the municipality needs. Thus, in the city of Surgut there are "Rules of the city territory improvement". "The rules establish general parameters and a combination of landscaping elements to create a safe, convenient, and attractive environment for territories included in the municipality boundaries" [4].

The document contains 41 articles and several appendices, including illustrations of individual provisions covering the entire complex of spheres and elements and affecting the development of the municipality urban environment. Thus, the provisions of the Rules supplement and clarify the points of the Surgut municipal program, as well as the Socio-Economic Development Strategy for the period up to 2030. At the same time, the "Rules for the improvement of the territory of the city of Surgut" are focused on creating conditions for harmonious, eco-friendly, and aesthetic development and the formation of a comfortable urban environment of the municipality both from the perspective of ordinary citizens, and from the perspective of legal entities, commercial organizations, and from the position of local governments - they are equivalent to the application by all participants of interaction within the municipal formation territory.

It is worth noting that the Rules are also aimed at involving the Surgut public in the formation and improvement of the urban environment, in particular through the implementation of public control (Article 7), at the same time, in accordance with the authority to address issues of local importance, the Administration also monitors compliance with the rules.

Emphasizing the involvement of the population directly in the urban environment development, it is necessary to highlight the "Provision on the regulation of individual issues of the implementation of initiative projects in the city of Surgut" [**Error! Reference source not found.**]. The Provision establishes a list of persons who have the opportunity to propose an initiative for landscaping, as well as the procedure and forms for passing the procedures for approving or rejecting proposed initiatives, starting from the moment the initiative project is put forward and up to the stages of determining the winners of the competitive selection and project implementation inclusive. Thus, conditions have been created for the participation of interested persons in the initiative improvement of the urban environment.

At the same time, within the framework of the municipal program "Formation of a comfortable environment for the period up to 2030", according to the existing "Rules of improvement of the territory of the city of Surgut", the Department of Municipal Economy compiled an "Address list of apartment buildings for the performance of complex landscaping of yard territories (according to the applications of the MC / CP / POA) for 2018-2024." [6]. At the same time, address lists are also compiled separately for each year, where the list of houses for the accomplishment of yard improvement works can be expanded (for example, in 2022, in comparison with the consolidated list, 11 additional objects were added). To determine the priority of selecting territories for inclusion in the address list of courtyard territories of apartment buildings for landscaping, the criteria developed for the municipal program "Formation of a comfortable environment for the period up to 2030" were

determined. This makes the selection process more "transparent" and open, and allows interested parties to independently determine the possible priority of the object for which the application is submitted.

The involvement of the population directly in solving the issue of improving the urban environment comfort should begin with conducting surveys of citizens affecting aspects of the urban environment perception by the population, since the perception of the city by both its residents and guests, tourists has a significant impact on determining the vector of development of urban areas. Thus, according to the author's research conducted among the residents of the city aged 16 and older (111 people were interviewed), Surgut is mainly perceived as a territory suitable only for work – due to the possibility of selling in the oil sector and receiving benefits and preferences due to its equivalence to the conditions of the far north (68.5% of respondents). At the same time, the issue of positioning the city is an important factor in the urban environment development. Nevertheless, it is worth noting that the results of the study can only be considered approximate, since the sample is quite limited and in quantitative terms is significantly less than the officially registered city population. Nevertheless, even with the current number of respondents, the positioning of Surgut as a convenient city only for work leads by about 50%.

Thus, it is worth singling out the factor "positioning of territories" as one of the factors that have a significant impact on its degree of comfort for permanent residents and visitors (tourist). As noted, urban space is the territory where the interaction between space and a person takes place, where the spatial behavior of a person is formed, and this largely depends on how a person relates to this place, whether it is emotionally attractive to him. Accordingly, an important aspect in the work of municipal authorities is not only direct work with space, but also interaction with citizens. The existing gaps in the relationship between urban policy and management from the point of view of sustainable development should also be noted [7]. But urban policy and infrastructure are in direct relationship with the main elements of the ESG approach [8], including the number of green spaces [9], with the agro-industrial sector development [10], regional management and territorial planning [11], and improving the population life quality [12] considering the environmental situation [13]. "The locality in which the relevant subject is located has its own characteristics, advantages, and disadvantages, on the basis of which individual indicators of the system "social orientation – environmental safety – economic policy" are adjusted [14]. In a separate block, the authors [15, 16] consider the sustainable development of single-industry towns, the main elements of which are characteristic of Surgut.

For example, in the municipal program "Formation of a comfortable urban environment for the period up to 2030", special attention is paid to the aspect of citizens' involvement in the process of forming a comfortable urban environment, reflected in the indicator "the proportion of citizens participated in solving issues of urban environment development from the total number of citizens aged 14 years and older living in municipal entities on the territory of which projects are being implemented to create a comfortable urban environment up to 30% by 31.12.2024."

It is calculated using the following formula:

$$D \text{ cit.} = K \text{ pat.} / K \text{ res.} \times 100,$$

where:

D cit. – the share of citizens who took part in solving issues of urban environment development from the total number of citizens aged 14 years and older living in municipalities where projects to create a comfortable urban environment are being implemented;

K pat. – the number of residents of the city of Surgut aged 14 and over who took part in solving urban environment development issues;

K res. – the number of citizens aged 14 and older living in the city of Surgut, on the territory of which projects are being implemented to create a comfortable urban environment.

According to data collected from open sources, the results of calculations for 2022 and their comparison with the reporting indicator for 2020 can be presented as follows (Table 4).

Table 4. The result of calculating the target indicator of the municipal program "Formation of a comfortable urban environment" in Surgut and data for 2020.

Indicator K pat., persons	Indicator K res., persons	Calculation result, % (for Q1 and Q2 2022)	General data for 2020 from the report,%	Target result by 2024, %	
Total:	8612	299694	3	12	30
"Ecopark "Za Saimoi". Sports ground No. 1"	4500				
"Park area in the microdistrict 20A. Dog walking area with pathway network (stage 1)"	1645				
"Square adjacent to the territory of the MPI "Palace of Celebrations". Photo zone with pathway network"	861				
"Landscaping of the square at the intersection of Svobody Boulevard and Lenina Avenue in the city of Surgut. Stage 2 of construction. Construction of sidewalks"	1606				

*Note: compiled on the basis of [2]

The calculation of the indicator as of May 01, 2022 was carried out in this form:

$$D \text{ cit.} = 8612/299694 \times 100,$$

$$D \text{ cit.} = 2.87 = 3\%,$$

where:

K pat. – the number of residents of Surgut aged 14 and older who took part in solving urban environment development issues – in 2022 amounted to 8612 people;

K res. – the number of citizens aged 14 and older living in the city of Surgut, on the territory of which projects are being implemented to create a comfortable urban environment – in 2022 amounted to 299,694 people.

Thus, the calculations made it possible to conclude that on May 1, 2022, only 3% of Surgut residents aged 14 and older took part in voting on the selection of projects to create a comfortable urban environment, which is significantly less than the results of 2020 and far from the values of the target for 2024. At the same time, the data obtained is also significantly less than the planned indicator for 2022 in the amount of 17%. The results of the calculations can be considered only approximate, since the numerical data were obtained from open sources due to the lack of a single center for collecting statistical data on the issue of interest in the Ugra.

4 Conclusions

Despite a significant period of sustainable development implementation, the formation of a comfortable urban environment within the framework of this concept is at the formation level [17], including the coherence of a smart city and sustainable development of territories is not

indicated [18]. The authors note a high level of interdisciplinarity and the intersectoral nature of sustainable development of territories [19]. Thus, conditions have been created in the city of Surgut for the urban environment development, in which special attention is paid to the interaction of the territory population with the Administration and services of the city. There is a program for the implementation of initiative projects of individuals or legal entities, the acceptance of applications for the improvement of individual house territories is open. Thus, the municipal program for creating a comfortable urban environment, which operates within the framework of the national project and the federal project, is also connected with the strategy of socio-economic development of the city of Surgut for the period up to 2030. These normative legal acts contain key strategic directions, as well as vectors of development urban environment development, tasks and problematic aspects are defined. This, in turn, makes it possible to address the issues of improvement of individual objects and territories within the city, to spend budget funds more efficiently in the field of creating a comfortable urban environment. At the same time, the urban improvement rules have been defined, which make it possible to unify activities for the development of urban areas, monitor it, and also provide explanations on certain issues directly related to the actions of the population, the social culture formation. Nevertheless, it is worth paying attention to the lack of qualified information from official sources, including statistical and analytical data due to the absence of separate centers or bodies performing this functionality, as well as regional interests that should be considered when landscaping the territory [20].

The created conditions contribute to improving the efficiency of spending budget funds; increase the involvement of citizens in the improvement issues; allow interested parties to influence the formation of a comfortable urban environment; organize activities for the development of the urban environment of the city of Surgut more openly for citizens, as well as provide targeted support for the improvement of house and intra-block territories and solve the identified problems in a structured manner by groups of issues and tasks.

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