

CREATION OF PROGRAMS FOR SUSTAINABLE ADMINISTRATION OF LOW-RISE HOUSING CONSTRUCTION PROGRAMS IN REMOTE AREAS WITH SPECIAL CLIMATIC CONDITIONS

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ABSTRACT

Objective: The research is aimed at creation of programs for development of low-rise housing construction which are suitable for remote territories with special climatic conditions. They allow intensifying low-rise housing construction and contribute to the development of a natural resource base from local building materials.

Methods: Authors used the methodology, which is based on the creation of regional programs for the development of low-rise housing construction (LRC) that aim to solve socio-economic problems through a new organizational and economic mechanism.

Results: The procedure for creation of regional programs for development of low-rise housing construction has been developed. At a fundamental level of the created programs there is an organizational and economic mechanism which includes subject-object relations regarding implementation of low-rise housing construction development programs and is aimed at achieving the key outcome – construction of low-rise energy-efficient block-type houses for certain categories of citizens living in remote territories with special climatic conditions. The organizational and economic mechanism is based on taking into account interests of individual groups of subjects which makes it possible to achieve the highest level of efficiency in implementation of regional programs for the development of low-rise housing construction in remote territories with special climatic conditions.

Suggestions: The proposed model of the Departmental special-purpose program offers solutions to the problem of providing low-rise housing with a high level of comfort and quality for certain categories of citizens employed in socially significant industries. The procedure developed in the article is recommended to be used by executive and state authorities for the creation of regional programs for the intensification of low-rise housing construction.

Keywords: Program of development of low-rise housing construction. State housing policy. Organizational and economic mechanism. Improvement of the level and quality of life.

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CRIAÇÃO DE PROGRAMAS DE ADMINISTRAÇÃO SUSTENTÁVEL DE PROGRAMAS DE CONSTRUÇÃO DE HABITAÇÃO BAIXA EM ÁREAS REMOTAS COM CONDIÇÕES CLIMÁTICAS ESPECIAIS

RESUMO

Objetivo: A pesquisa visa a criação de programas para o desenvolvimento da construção de moradias baixas que sejam adequadas para territórios remotos com condições climáticas especiais. Eles permitem intensificar a construção de moradias baixas e contribuem para o desenvolvimento de uma base de recursos naturais a partir de materiais de construção locais.

Métodos: Os autores utilizaram a metodologia, que se baseia na criação de programas regionais para o desenvolvimento da construção de moradias baixas (LRC) que visam resolver problemas socioeconômicos por meio de um novo mecanismo organizacional e econômico.

Resultados: Foi desenvolvido o procedimento para a criação de programas regionais de desenvolvimento da construção de moradias baixas. Em um nível fundamental dos programas criados, há um mecanismo organizacional e econômico que inclui relações sujeito-objeto em relação à implementação de programas de desenvolvimento de construção de moradias baixas e visa alcançar o resultado principal - construção de blocos de baixo consumo de energia - tipo casas para certas categorias de cidadãos que vivem em territórios remotos com condições climáticas especiais. O mecanismo organizacional e econômico baseia-se na consideração dos interesses de grupos individuais de sujeitos, o que permite alcançar o mais alto nível de eficiência na implementação de programas regionais para o desenvolvimento da construção de moradias baixas em territórios remotos com condições climáticas especiais.

Sugestões: O modelo proposto para o programa especial do Departamento oferece soluções para o problema de fornecer moradias baixas com alto nível de conforto e qualidade para certas categorias de cidadãos empregados em indústrias socialmente significativas. O procedimento desenvolvido no artigo é recomendado para ser utilizado pelos poderes executivo e estadual para a criação de programas regionais de intensificação da construção de moradias baixas.

Palavras-chave: Programa de desenvolvimento da construção de moradias baixas. Política habitacional do estado. Mecanismo organizacional e econômico. Melhoria do nível e qualidade de vida.



CREACIÓN DE PROGRAMAS PARA LA ADMINISTRACIÓN SOSTENIBLE DE PROGRAMAS DE CONSTRUCCIÓN DE VIVIENDAS BAJAS EN ZONAS REMOTAS CON CONDICIONES CLIMÁTICAS ESPECIALES

RESUMEN

Objetivo: La investigación está dirigida a la creación de programas para el desarrollo de la construcción de viviendas de baja altura que sean adecuadas para territorios remotos con condiciones climáticas especiales. Permiten intensificar la construcción de viviendas de baja altura y contribuyen al desarrollo de una base de recursos naturales a partir de materiales de construcción locales.

Métodos: los autores utilizaron la metodología, que se basa en la creación de programas regionales para el desarrollo de la construcción de viviendas de baja altura (CLR) que tienen como objetivo resolver problemas socioeconómicos a través de un nuevo mecanismo organizativo y económico.

Resultados: Se ha desarrollado el procedimiento para la creación de programas regionales para el desarrollo de la construcción de viviendas de baja altura. En un nivel fundamental de los programas creados, existe un mecanismo organizativo y económico que incluye relaciones sujeto-objeto con respecto a la implementación de programas de desarrollo de construcción de viviendas de baja altura y está dirigido a lograr el resultado clave: la construcción de bloques energéticamente eficientes de baja altura. casas tipo para ciertas categorías de ciudadanos que viven en territorios remotos con condiciones climáticas especiales. El mecanismo organizativo y económico se basa en tener en cuenta los intereses de grupos individuales de sujetos, lo que permite lograr el más alto nivel de eficiencia en la implementación de programas regionales para el desarrollo de la construcción de viviendas de baja altura en territorios remotos con condiciones climáticas especiales.

Sugerencias: El modelo propuesto del programa departamental de propósito especial ofrece soluciones al problema de proporcionar viviendas de baja altura con un alto nivel de comodidad y calidad para ciertas categorías de ciudadanos empleados en industrias socialmente significativas. Se recomienda que el procedimiento desarrollado en el artículo sea utilizado por las autoridades ejecutivas y estatales para la creación de programas regionales para la intensificación de la construcción de viviendas de baja altura.

Palabras clave: Programa de desarrollo de la construcción de viviendas de baja altura, Política estatal de Vivienda. Mecanismo organizativo y económico. Mejoramiento del nivel y calidad de vida.

1. INTRODUCTION



The key direction of the development of housing construction is currently the formation of state housing policy where the main principle is “attention to citizen, increasing his satisfaction with living conditions and activities” (Travush et al., 2022).

The main problem of housing provision in remote territories of special climatic conditions is low intensification of low-rise housing construction development (LRC). As a rule, settlements located in these territories are characterized by a cold climate, remoteness from large centers, and low construction rates (construction is carried out mainly by economic means) and represent non-urbanized territories with low population density. In remote territories with special climatic conditions there are large and small settlements, most often characterized by a low level of socio-economic development, and an acute issue of lacking personnel in socially significant industries (healthcare, education, sports, culture, etc.) (Gusakova et al., 2020).

The territory of Russia is distinguished by a variety of climatic conditions which are essential in the construction of residential buildings. Therefore, it is necessary to distinguish what exactly belongs to remote territories with special climatic conditions.

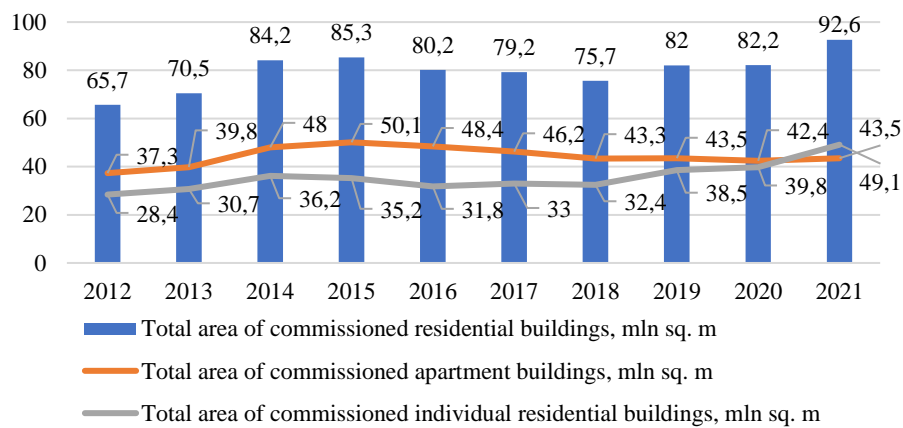
Regulatory documentation contains the following notions. Remote and hard-to-reach territories include areas that do not have regular transportation due to weather and climatic conditions. The inventory of remote territories is approved by the subject of the Russian Federation on its own. Thus, remote territories with special climatic conditions are the territories of districts that are far from large cities and district centers and most often do not have regular transportation system due to weather and climatic conditions.

Introduction of energy-efficient buildings in low-rise construction into construction practice is advisable due to their low energy intensity. Construction of such buildings will lead to a reduction in financial and labor costs during maintenance, to improvement in comfort indicator and environmental conditions, to a greater attractiveness of living in such a building (Oleinik, Graneva, 2021).

Fundamental provisions in investment and construction complex were formulated by such scientists as Artamonova et al. (2019), Asaul et al. (2021), V.V. Bredikhin et al. (2020), Buzyrev et al. (2018), Selyutina et al. (2020). The authors have studied current conditions, issues and opportunities for development of housing and utility services, including in rural areas, and also offered proven (including mathematically proven) ways of developing individual housing construction in rural settlements, among which is implementation of models for development of individual housing construction in order to attract qualified personnel to rural areas.

Formation of urban planning policy and improvement of comfort of urban environment have been studied by such scientists as Astafyev et al. (2021), Sarchenko et al. (2022), Muller et al. (2020). Khomkalov notes that the problem of providing affordable housing can be solved by allocating land plots for construction of houses in residential settlements where the cost of 1 m² of housing should be justified and not exceed the average salary of a specialist in this municipality (Astafyev, Khomkalov, 2022).

After analysis of the commissioning of housing, it is worth noting that active development of housing and utility services occurs mainly in the European part of the Russian Federation; the housing market is poorly developed in small towns and settlements in Central Russia and is practically absent in remote areas with special climatic conditions. The total floor area of commissioned residential buildings in the Russian Federation is given in Figure 1.



*compiled by the author based on Federal State Statistics Service (2023)

Figure 1. The total floor area of commissioned residential buildings in the Russian Federation

Development of housing and utility services in remote territories with special climatic conditions has great potential which will allow providing individual categories of citizens with affordable and comfortable housing. According to statistics, the share of the rural population in remote territories with special climatic conditions is 11.9%. The annual commissioning of housing in these territories is less than 1 m² per person, which is unsatisfactory and requires a comprehensive approach to this problem (Medyanik, Shagiakhmetova, 2022).

When developing regional programs for development of housing and utility services, implementation of low-rise block-type housing projects seems to be the most reasonable for this area based on utilization of local construction materials, comprehensive management and development of remote territories with special climatic conditions for low-rise construction which should provide for coordinated development of territories, necessary engineering, social and road infrastructure taking into account forecasts on placement of new production facilities



and creation of new jobs. They should also be aimed at creating comfortable environment for the population, improving children playgrounds, improving safety and creating conditions for implementation of cultural and leisure activities of the population (Filyushina et al., 2019).

However, special attention should be paid to the spontaneity of the development of low-rise construction. At present, no attention has been paid to the development of complex low-rise construction in remote territories with special climatic conditions. In poorly developed settlements, construction is usually carried out on its own; there is no housing market in such settlements. In addition, most of the housing commissioning is provided by highly socio-economically developed territories.

Thus, for systematic development of LRC in remote territories with special climatic conditions, it is necessary to create programs for the development of LRC which will include a new organizational and economic mechanism. Consequently, the development of the LRC can become an instrument of solving important socio-economic problems to provide housing in remote territories with special climatic conditions for certain categories of citizens engaged in socially significant industries (healthcare, education, sports, culture, etc.), when processes of LRC development from spontaneous become systemic (Shvydenko, Usatkina, 2018).

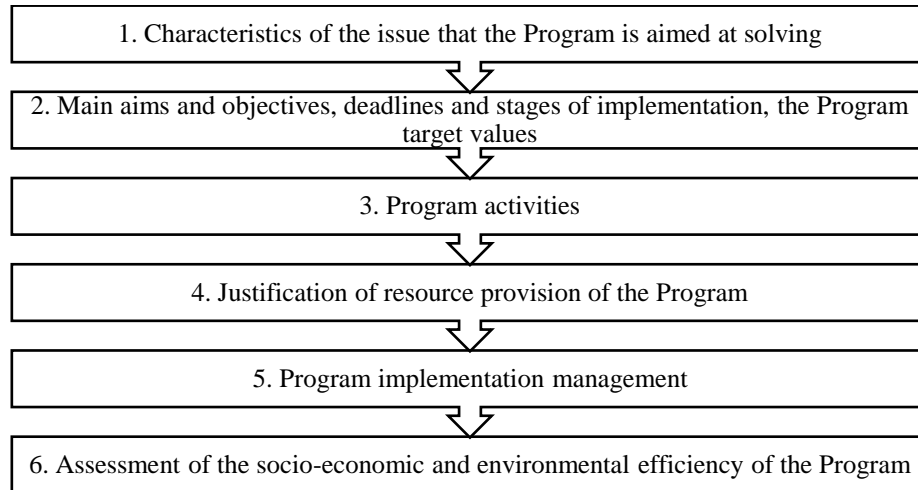
Thus, the practical significance of the research lies in creation of regional programs for the development of housing and utility services for certain categories of citizens who are engaged in socially significant industries (healthcare, education, culture, etc.) in order to solve important socio-economic problems in terms of providing housing in remote territories with special climatic conditions.

2. METHODS

The basis of the proposed research is the creation of regional programs for the development of LRC which include a new organizational and economic mechanism and are aimed at solving important socio-economic problems that are comprised of many elements and connections that have developed between them. On the one hand, these are scientific approaches in the investment and construction complex, on the other hand, these are scientific and practical issues of creating comfortable microclimate conditions for designed and maintained residential buildings (Gusakova, 2022).

In accordance with methodological recommendations for creation of regional programs for the development of housing and utility services, regional programs are recommended to be developed as a set of interrelated measures aimed at increasing availability of housing for the

population through large-scale construction of standard housing (economy class), low-rise in particular (Order No. 180/GS, May 22, 2013). The existing procedure for creation of regional housing development programs is given in Figure 2.

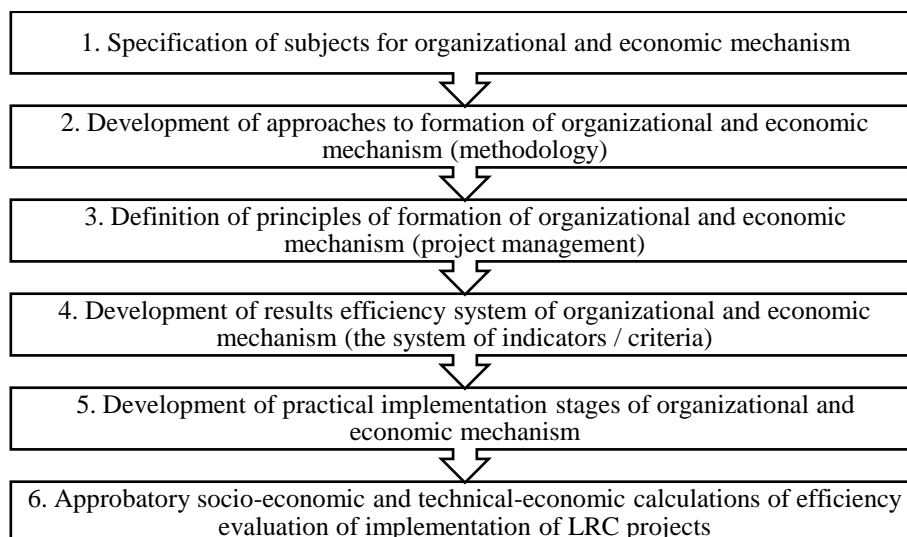


*compiled by the author based on the Order No. 180/GS (May 22, 2013)

Figure 2. Processual aspects of creation of regional housing development programs

As a separate matter, it should be noted that the presented order does not reflect the regional specifics of the development of LRC (climate, labor market, geology, construction materials market, etc.). The organizational and economic mechanism for managing the development of LRC is not always in the presented order.

It is proposed to adopt the following procedure for creation of regional programs for the development of housing and utility services in remote territories with special climatic conditions (Figure 3).



*compiled by the author



Figure 3. Procedure for creation of regional programs for the development of housing and utility services in remote territories with special climatic conditions

The procedure for creation of regional programs for the development of LRC based on utilization of systemic and functional approaches, methods of hierarchy analysis and expert assessments has been developed. The procedure includes 6 stages to be implemented sequentially: identification of subjects, definition and justification of approaches and principles, formation of performance system, practical implementation procedure and testing. The proposed approach makes it possible to increase efficiency of regional strategic planning for development of low-rise housing construction by streamlining the system of interaction between the subjects of the program implementation.

When analyzing the existing programs for the development of housing construction, it was discovered that today there is no systematic process for the development of territorial planning documentation; there is no reasonable organizational and economic mechanism for the development of housing and utility services for remote territories with special climatic conditions. Indicative planning can be one of the tools for solving these problems. Indicative planning is the process of forming a system of indicators which acts as a mechanism for regulating and coordinating interests of the state and a specific territory. The need to apply indicative planning in the process of managing the development of housing and utility services in remote territories with special climatic conditions is associated with the lack of a unified system of indicators of efficiency of housing development programs in the context of efficiency of each subject (Zhuravskaya et al., 2022).

The proposed system takes into account the features and peculiarities of settlements located in remote territories with special climatic conditions, and also includes utilization of a differentiated approach in the process of most effective technical solutions for low-rise block-type buildings.

3. RESULTS AND DISCUSSION

On the basis of the proposed procedure for creation of regional programs for the development of LRC in remote territories with special climatic conditions and a reasonable organizational and economic mechanism for the development of LRC, a draft of a government special-purpose program for the development of LRC in remote territories with special climatic conditions has been developed. The layout of the Departmental special-purpose program is presented in Table 1 (Gusakova et al., 2022).



Table 1. The draft of the Departmental special-purpose program “Development of low-rise housing construction in remote territories with special climatic conditions for 2022-2026”

Name	Regional program “Development of low-rise housing construction in remote territories with special climatic conditions for 2022-2026”
Basis for development of the Program	Decree of the President of the Russian Federation No. 600 as of May 7, 2012 “On measures to provide citizens of the Russian Federation with affordable and comfortable housing and to improve the quality of housing and communal services”
Customer	Municipal Administration
Developer	senior lecturer N.V. Gusakova
Aim	Development of low-rise housing construction in remote territories with special climatic conditions, providing inexpensive, comfortable and energy-efficient housing for certain categories of citizens employed in socially significant industries
Objectives	<ul style="list-style-type: none"> – increase the volume of low-rise housing construction in remote territories with special climatic conditions; – implement investment and construction projects of comprehensive development of remote territories with special climatic conditions; – improve housing conditions and the quality of life of certain categories of citizens engaged in socially significant industries (health, education, sports, culture, etc.); – comprehensively equip settlements with facilities of social and engineering infrastructure (introduction of gasification, water supply), including ensuring establishment of educational institutions in rural areas, medical and obstetric centers, sports and cultural and leisure institutions; – create conditions for retaining highly qualified labor resources in the region (young specialists in the field of healthcare, education, sports, culture, etc.); – substantiate space-planning and design solutions, systematize and substantiate efficient energy-saving equipment and technologies from the standpoint of energy efficiency requirements, economic feasibility and comfort of living in a low-rise block-type house in order to reduce the cost of housing maintenance during operation of the building; – reduce the share of dilapidated and hazardous housing in the system of the general housing stock; – increase the share of production of building materials from the local natural resources
Executors	<p>Local self-government bodies Construction companies Financial and credit organizations Private investors Research organizations</p>
Target indicators and Program indicators	<ul style="list-style-type: none"> – provision of citizens with (affordable, energy-efficient, comfortable, safe) housing in remote territories with special climatic conditions; – the cost of 1 m² of constructed housing; – the cost of housing maintenance during the period of operation of the building; – the number of specialists in the field of health care, education, sports, culture, etc.; - family coefficient; – the share of dilapidated and hazardous housing in the system of the general housing stock; – production of construction materials from the local natural resources; – energy efficiency class of constructed buildings; – the level of improvement of the settlement
Amount and sources of the Program financing	<p>The amount of funding for the Program is determined in accordance with the approved funding</p> <p>Sources of funding:</p> <ul style="list-style-type: none"> – federal budget funds; – funds of regional budget; – funds of local budgets; – extra-budgetary sources



Duration and stages of the Program implementation	2022–2026
Expected results of the Program implementation	<ul style="list-style-type: none"> – increase in the volume of low-rise housing construction in remote territories with special climatic conditions; – provision of citizens with (affordable, energy-efficient, comfortable, safe) housing in remote territories with special climatic conditions for certain categories of citizens engaged in socially significant industries (health, education, sports, culture, etc.); – reduction in the cost of housing maintenance during the period of building operation; – increase in the level of wealth of specialists in the field of healthcare, education, sports, culture, etc., formation of prerequisites for positive dynamics of demographic processes; – increase in the family coefficient; – reduction of the share of dilapidated and hazardous housing in the system of the general housing stock; – increase in the share of production of building materials from the local natural resources; – increase in the amount of well-maintained housing stock (equipped with central power supply, heating, water supply, hot water supply, sewerage) in relation to all constructed facilities.
Control and monitoring of the Program implementation	Tomsk City Administration Department of Architecture and Construction of Tomsk region

*compiled by the author

Evaluation of results of implementation of activities of the regional program is carried out by establishing quantitative and/or qualitative indicators characterizing the ratio of expected and achieved results.

4. CONCLUSIONS

The solution of the problem of developing the procedure for creation of regional programs for development of housing and utility services in remote areas with special climatic conditions allowed us to identify shortcomings of the existing system and propose an improved system, including the new organizational and economic mechanism.

The developed model of the Departmental special-purpose program “Development of low-rise housing construction in remote territories with special climatic conditions for 2022-2026” will simultaneously ensure sustainable development of housing in remote territories with special climatic conditions as well as offer solutions to the problem of providing low-rise housing with a high level of comfort and quality for certain categories of citizens employed in socially significant industries (healthcare, education, culture, sports, etc.).

This procedure is to be used by the executive and state authorities in order to develop common guidelines for creation of regional programs for development of low-rise housing



construction which will also ensure intensification of low-rise housing construction through the construction of low-rise block-type residential buildings.

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REFERENCES

Artamonova, I., Hrustalev, B., Grabovy, P. (2019). Main variants of regional construction complex development on the basis of increasing enterprise flexibility, In IOP Conference Series: Materials Science and Engineering, 471, 102002. <https://doi.org/10.1088/1757-899X/471/10/102002>.

Asaul, A., Asaul, M., Drozdova, I., Levin, Y., Trushkovskaya, E. (2021). Practical barriers to kickstarting innovation and investment in the sphere of construction in the Russian Federation, In E3S Web of Conferences 2nd International Scientific Conference on Socio-Technical Construction and Civil Engineering (pp. 1-9). EDP Sciences. <https://doi.org/10.1051/e3sconf/202127405006>

Astafyev, S. A., Khomkalov, G. V. (2022). The role of initiative budgeting and co-participating implementation in improvement of comfort of the urban environment. *Problems of socio-economic development of Siberia*, 2(48), 9-13. <https://doi.org/10.18324/2224-1833-2022-2-9-13>

Astafyev, S. A., Khomkalov, G. V., Tolstoukhov, I. S. (2021). Creative economy as a key element of sustainable development of territories. *Baikal Research Journal*, 12(3). [https://doi.org/10.17150/2411-6262.2021.12\(3\).16](https://doi.org/10.17150/2411-6262.2021.12(3).16)

Bredikhin, V. V., Bredikhina, N., Ezerskiy, V. (2020). Modeling of property management process at territorial level. *Journal of Applied Engineering Science*, 18(2), 257-261. <https://doi.org/10.5937/jaes18-26306>.

Buzyrev, V., Nuzhina, I., Zolotareva, M. (2018). Social-ecological priorities of town-planning activities on urbanized territories, In MATEC Web of Conferences, 193, 01007. <https://doi.org/10.1051/matecconf/201819301007>

Federal State Statistics Service. (2023). Retrieved from: <https://rosstat.gov.ru/folder/14458?print=1>



Gusakova, N., Gusakov, A., Prokhorova, Y., & Karakozova, I. (2023). Creation of programs for sustainable administration of low-rise housing construction programs in remote areas with special climatic conditions. *Journal of Law and Sustainable Development*, 11(1), e0264. <https://doi.org/10.37497/sdgs.v11i1.264>

Filyushina, K., Astafyev, S., Gusakova, N., Dobrynina, O., Yarlakabov, A. (2019). Management of Investment and Construction Projects of Low-Rise Building Construction with Account of Requirements of Energy Efficiency, In: Murgul, V., Pasetti, M. (eds) International Scientific Conference Energy Management of Municipal Facilities and Sustainable Energy Technologies EMMFT 2018. Springer, Cham. https://doi.org/10.1007/978-3-030-19868-8_17.

Gusakova, N. V. (2022). Analysis of effectiveness of implementation of regional programs in the field of improving housing construction. *Bulletin of the Tomsk State University of Architecture and Civil Engineering*, 24(1), 106-120. <https://doi.org/10.31675/1607-1859-2022-24-1-106-120>.

Gusakova, N., Gusakov, A., Prokhorova, Y., Karakozova, I. (2022). Development of organizational and economic mechanism of intensification of low-rise housing construction in remote territories with special climatic conditions, In E3S Web of Conferences 363 (pp. 1-8). INTERAGROMASH. <https://doi.org/10.1051/e3sconf/202236302035>

Gusakova, N., Minaev, N., Gusakov, A. (2020). Implementation of low-rise construction projects as factor of improvement of level and quality of life in depressed territories, In XVII International Conference of Students and Young Scientists "Prospects of Fundamental Sciences Development," SHS Web of Conferences, 80, 01006. <https://doi.org/https://doi.org/10.1051/shsconf/20208001006>

Medyanik, Y. V., Shagiakhmetova, E. I. (2022). Investment attractiveness of construction of social infrastructure facilities in the regions. *Regional problems of economic transformation*, 8, 32-40. <https://doi.org/10.26726/1812-7096-2022-8-32-40>

Muller, P., Chepeleva, K., Saenko, I., Shmeleva, Z. (2020). Development of methodological approaches to the residential real estate segmentation by affordability criterion, In E3S Web of Conferences 208, 04004. <https://doi.org/10.1051/e3sconf/202020804004>.

Oleinik, P. P., Graneva, A. V. (2021). Industrial-mobile methods of construction of buildings and structures in northern regions. *Industrial and Civil Construction*, 5, 53-59. <https://doi.org/10.33622/0869-7019.2021.05.53-59>.

Order No. 180/GS. (May 22, 2013). On approval of Methodological Recommendations for creation of regional programs for development of residential construction. Ministry of Regional Development of the Russian Federation. Retrieved from: <https://docs.cntd.ru/document/499027553>

Sarchenko, V. I., Khirevich, S. A., Sarchenko, M. V. (2022). Study of current composition and classification of housing in a large siberian city, In IOP Conference Series: Earth and Environmental Science 988 (pp. 1-7). IOP Publishing. <https://doi.org/10.1088/1755-1315/988/5/052037>.

Selyutina, L., Pesotskaya, E., Rybnov, E., Sitdikov, S. (2020). Risks accounting when building management system for innovative and investment projects in construction, In E3S Web of Conferences (pp. 1-8). <https://doi.org/10.1051/e3sconf/202021711010>

Shvydenko, N. V., Usatkina, O. I. (2018). Socio-ecological priorities of the development of modern housing construction. *Regional Problems of Economic Transformation*, (2), 58-65. <https://doi.org/10.26726/1812-7096-2018-2-58-65>.



Gusakova, N., Gusakov, A., Prokhorova, Y., & Karakozova, I. (2023). Creation of programs for sustainable administration of low-rise housing construction programs in remote areas with special climatic conditions. *Journal of Law and Sustainable Development*, 11(1), e0264. <https://doi.org/10.37497/sdgs.v11i1.264>

Travush, V. I., Kuzevanov, D. V., Volkov, Y. S. (2022). On development strategy of construction industry in the Russian Federation for 2030-2035. *Industrial and Civil Construction*, 8, 4-10. <https://doi.org/10.33622/0869-7019.2022.08.04-10>.

Zhuravskaya, T. N., Ryzhova, N. P. (2022). The program "Far Eastern Hectare": Ritualization of the development machine. *The World of Russia*, 31(4), 151-169. <https://doi.org/10.17323/1811-038X-2022-31-4-151-169>