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Renovation of residential buildings in the regions: organizational and financial mechanisms and constraints

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The article deals with the problems of comprehensive renovation of residential development in the regions of the Russian Federation, which, despite the implementation of the national project and state programs, do not lose their relevance. Due to the heterogeneity of the socio-economic conditions in Russia, first of all, the existing territorial imbalances in distribution of housing investments and differences in the structure of the existing housing stock, the regions have different opportunities in solving the problem of residential development renovation. On the basis of the data of the Fund for Assistance to Reformation of Housing and Communal Services reform (at this time — Territorial Development Fund) of the Siberian Federal District were analyzed. The main factors acting as organizational and financial constraints in the implementation of programs for the elimination of emergency housing have been identified. It is shown that the existing organizational and financial mechanisms, based on the regional programs of capital repairs of the common property of apartment buildings and the federal project of liquidation of uninhabitable housing, do not provide a comprehensive renovation of housing stock and development of built-up areas. Implementation of projects of selective capital repairs and spot demolition of emergency buildings does not solve the problem of qualitative improvement of residential areas, as even the resettled emergency buildings remain in the structure of residential development due to the low urban development potential of the released land plots. It is shown that the new mechanism of complex development of territories, despite the established legal framework and institutional support, is not properly developed now, as there are also a number of organizational and financial constraints. The main constraints are the undeveloped regional regulatory framework, the lack of regional institutions and low marginality of the existing housing renovation projects, which makes such projects unattractive for potential investors. This demonstrates the need to develop regional mechanisms for integrated renovation of urban development and integrate financial resources of all stakeholders of renovation projects.

Keywords: *housing stock, renovation of residential developments, emergency housing, integrated territorial development, organizational and financial mechanisms of renovation*

INTRODUCTION

There is no denying that the state housing policy in recent years has significantly improved the living conditions of Russian citizens. The implementation of the national project, using new organizational and financial mechanisms, has expanded the opportunities for the population to improve their living conditions. Thus, according to the results of the survey of citizens' housing conditions carried out by Rosstat (Federal Service of State Statistics) in 2011, 10.4 % of the respondents described their housing conditions as "poor" and "very poor" while in 2020 the share of such households was only 3.6 %[1]. Preferential mortgages and project financing have enabled an increase in housing construction. However, the achieved rate of housing construction does not allow for a significant renewal of the housing stock in Russia. Thus, according to Rosstat[2, 3], by the end of 2020 Russia's housing stock amounted to 4044 million sq. m, with 92.6 million sq. m commissioned in 2021, i.e. the new housing stock amounted to 2.3 % of the existing one[4]. Although, according to the UN, there are no dwellings recognized as slums in Russia, there are 112,365 blocks of flats in which 1.61 million people live, have the status of emergency housing[5], 3.6 % of apartment buildings do not have a centralized sewage system, and 1.7 % of them do not have a toilet at all, 2.3 % of citizens living in the blocks of flats have bath or shower. Even in regional capitals, a significant part of residential development consists of residential buildings that have not yet been recognized as emergency, but are significantly dilapidated. They are wooden cinder block residential buildings of the first post-war years.

Therefore, the problem of housing renovation does not lose its relevance and the search for new mechanisms of realization of citizens' rights to affordable and adequate housing, the formation of a comfortable and safe living environment remains the most important scientific task and the subject of research for many scientists.

The search for new tools of effective housing policy continues in countries with developed

1 Results of comprehensive monitoring of living conditions of the population. *Rosstat*. URL: https://rosstat.gov.ru/itog_inspect

2 Housing conditions. *Rosstat*. URL: https://rosstat.gov.ru/folder/13706

3 Housing construction. Commissioning of residential buildings in the Russian Federation. URL: https://rosstat.gov.ru/folder/14458

4 Rosstat indicates the arrival of more than 125 million square meters of housing in the housing stock assets in 2021. Starting from 2021, residential buildings located on land plots intended for gardening are included in the total area of residential premises. In order to analyze renovation of the housing stock, we take into account only the commissioning of new housing.

5 Emergency Fund on the territory of the Russian Federation. *Housing and Utilities Fund*. URL: https://www.reformagkh.ru/relocation/programs/houses

economies as well[6, 7]. The study of foreign experience in urban redevelopment [1, 2], assessment of implementation conditions and consequences of such projects [3] are of considerable interest among experts in the field of housing policy.

CURRENT HOUSING RENOVATION MECHANISMS

The national project "Housing and Urban Environment" has made it possible to increase the rate of elimination of uninhabitable housing stock. However, due to the heterogeneity of Russia's the socio-economic conditions, differences in the level of income of the population and budgetary provision, differences in the structure of the existing housing stock and different investment attractiveness and capacity of regional housing markets, opportunities of the constituent entities of the Russian Federation to solving the problem of housing renovation are different.

Currently, there are two main mechanisms of large-scale renovation of the housing stock in the Russian regions: regional programs for capital repairs of the common property of apartment buildings and programs for liquidation of emergency housing. However, while capital repair programs are aimed at maintaining the technical condition of buildings and ensuring their maintainability, programs for the liquidation of emergency housing should contribute to the renovation of the existing residential development.

According to the Housing and Utilities Fund (currently the Territorial Development Fund)[8], as of 1st September 2022, 8 constituent entities of the Russian Federation had fully implemented plans to relocate citizens from emergency housing included in the 2019–2025 programs. However, the program has been completed by less than 50 % in 20 regions. Fig. 1 shows the results of program implementation in the regions of the Siberian Federal District. As can be seen from the graphs, almost all of the regions except for the Altai Territory are implementing the program later than planned. At the same time, it should be noted that in the Altai Territory the share of emergency housing is insignificant — 0.2 % of the existing housing stock, unlike in Irkutsk region or Kemerovo region (Kuzbass) where the share of emergency housing is0.7 and 0.74 % of the total housing stock respectively.

Of all the houses recognized as emergency in the Russian Federation less than 12 % were demolished and a just over 17 % were resettled. In the Novosibirsk region, 14.7 % of emergency houses were demolished and 14.7 % were resettled. In the Irkutsk region, 14.4 and 15.6 %, respectively. In the Tomsk and the Omsk regions, these figures are much worse: in the Tomsk region, only 7 % of emergency buildings was demolished, 9 % was resettled, while in the Omsk region, only 5.5 % of the housing stock recognized as emergency was demolished and 28 % was resettled.

The analysis of financial security of the programs for elimination of emergency housing shows that there are currently no financial constraints that would restrain implementation of these programs. All regions have sufficient financial resources, including those received from the Housing and Utilities Fund, the programs are funded with a large margin, but the allocated financial resources are not being mastered. What are the reasons for delays in the implementation of the national project programs? There are several main factors that act as organizational and financial constraints in implementation of programs to eliminate emergency housing:

1. The capacity of the housing market, especially the secondary housing market, is low in many regions. Therefore, providing citizens being resettled from emergency housing stock falling under demolition with equivalent housing becomes quite a challenge. As well as the actual task of providing equivalent housing which requires simultaneous compliance with several boundary conditions: the area of residence, the area of provided housing, the number of rooms, and the level of housing amenities. The analysis of the results of the implementation of programs for elimination of

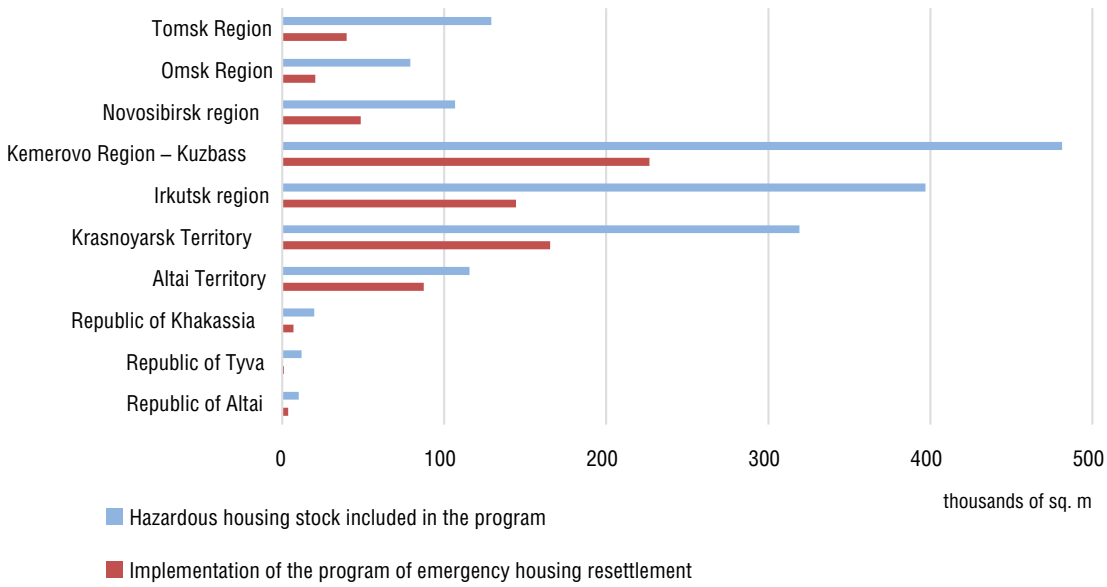

Fig. 1. Implementation of emergency housing resettlement programs 2019–2025 in Siberian regions as of September 2022 (source: compiled by the author according to the Territorial Development Fund)

6 Housing2030. Effective policies for affordable housing in the UNECE region. URL: ites/default/files/2021-10/Housing2030 %20study_E_web.pdf

7 Renovation in practice. Best practice examples of voluntary and mandatory initiatives across Europe. URL: ites/default/files/remourban_renovation_in_practice_-_best_practice_examples_of_voluntary_and_mandatory_initiatives_across_europe.pdf

8 Progress in implementation of resettlement programs on the territory of the Russian Federation. Housing and Utilities Fund. URL: https://www.reformagkh.ru/relocation/programs-realisation (rus.).

unsuitable housing presented on the website of the Housing and Utilities Fund by methods of resettlement of citizens, shows that the main way is the construction of new housing or purchasing of housing on the primary market (Fig. 2).

However, conducting procurement for the conclusion of state contracts (municipal contracts) for construction of housing for citizens being resettled from the emergency housing becomes a difficult problem. Developers do not want to participate in this program because, despite the new methodology for determining the standard cost per 1 sq. m of the total area of residential premises by Russian constituent entities, developed by Minstroy (the Ministry of construction of the Russian Federation)[10], this indicator remains significantly below the market price. The consequence of this is that the tenders have failed and not a single bidder has applied.

2. If it is impossible to provide absolutely equivalent housing to the resettled citizens, the resulting difference in the cost of the withdrawn and provided housing can be refunded to the citizens being resettled from the emergency building. It is obvious that for many households living in dilapidated buildings, even the cost of one extra square meter is unaffordable while municipalities do not have the financial capacity to subsidize households to compensate for the difference in the cost of housing.

3. According to the law, citizens who own premises in block of flats that have been declared dangerous can claim compensation for the cost of the withdrawn housing. However, often the purchase price of housing does not satisfy the owners, and the procedure of challenging this cost in court requires additional expenses and time, which significantly delays the process of evicting residents from the emergency housing.

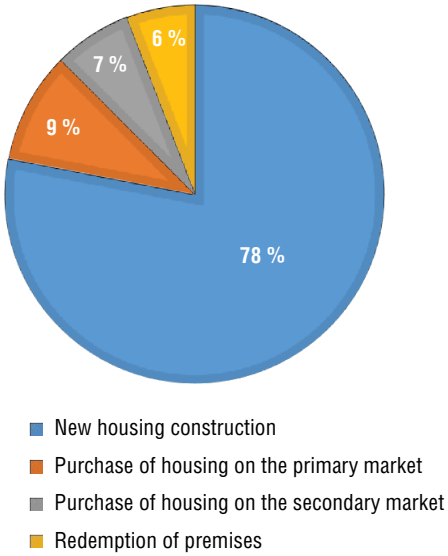

Fig. 2. Methods of resettlement of citizens in the framework of implementation of programs for elimination of hazardous housing (source: compiled by the author according to the Housing and Utilities Fund[9])

4. As it is shown above, even resettled dilapidated houses are often not demolished, which not only worsens urban appearance of the settlement, but also poses a threat to the life and health of citizens. However, the demolition of these buildings requires financial expenses, which are not feasible — land plots released as a result of the demolition of such houses due to their small size mostly have no urban development potential and are not of interest to potential developers.

DEVELOPMENT OF MECHANISMS FOR COMPREHENSIVE RENOVATION OF RESIDENTIAL BUILDINGS

Previously it has already been pointed out that the existing organizational and financial mechanisms based on regional programs of capital repairs of the common property of apartment buildings and the federal project of sustainable elimination of uninhabitable housing stock (emergency housing) do not solve the problems of renovation of residential buildings and development of built-up areas which require complex organizational and financial mechanisms [4].

In this respect, the mechanism of integrated development of the area introduced by the inclusion of the new Chapter 10 in the Urban Planning Code of the Russian Federation could be a big step towards comprehensive renovation of residential development[11]. However, despite the creation of a specialized institute (public not-for-profit organization "Territorial Development Fund") and the support of the new mechanism provided by a number of normative legal acts, methodological documents and even standards[12, 13], this mechanism is not yet fully operational though the potential for development of built-up areas in the country is huge. According to the experts [5], the potential of new housing construction in built-up areas in large cities with a population of more than 250 thousand people alone is about 260 million sq. m. Thus, Siberian regions have announced more than 100 land plots for implementation of comprehensive development projects, including 9 plots in the Altai Republic, 1 in Tyva, 1 in Altai Territory, 6 in Krasnoyarsk Territory, 22 in Kemerovo region, 42 in Novosibirsk region, 25 in Omsk region and 2 in Tomsk region.

According to the Ministry of construction of the Russian Federation[14] as of December 1, 2022 constituent entities of the Russian Federation are working on the application of the mechanism of comprehensive development of territories in relation to 799 land plots with a total area of about 26 thousand hectares. As part of the application of this mechanism, it is planned to erect capital construction facilities with a total area of about 153 million sq. m of which about 118 million sq. m of residential accommodation.

9 Resettlement of citizens from emergency housing. Housing and Utilities Fund. URL: https://www.reformagkh.ru/analytics?geo=reset (rus).

10 The Ministry of Construction of Russia for the first time determined the indicators of the average market value per square meter of housing according to the new methodology. Ministry of Construction of the Russian Federation. Official website. URL: https://www.minstroyrf.gov.ru/press/minstroy-rossii-vpervye-opredelil-pokazateli-sredney-rynochnoy-stoimosti-kvadratnogo-metra-zhilya-po/?sphrase_id=1719971 (rus.).

11 On Amendments to the Urban Development Code of the Russian Federation and Certain Legislative Acts of the Russian Federation in Order to Ensure the Integrated Development of Territories : Federal Law No. 494-FZ of December 30, 2020. (rus.).

12 Ministry of construction of the Russian Federation. Official website. Comprehensive development of territories. URL: https://www.minstroyrf.gov.ru/trades/kompleksnoe-razvitie-territoriy

13 Methodological recommendations for the comprehensive development of residential areas. The Institute for Urban Economics. Moscow, 2022; 466.

14 Monitoring the implementation of the mechanism for comprehensive development of the constituent entities of the Russian Federation. Ministry of construction of the Russia Federation. URL: https://www.minstroyrf.gov.ru/trades/kompleksnoe-razvitie-territoriy/1-monitoring-realizatsii-mekhanizma-kompleksnogo-razvitiya-territoriy-subektami-rossiyskoy-federatsii/ (rus.).

However, the analysis shows that developers prefer non-built-up areas for development and implementation of comprehensive development projects or land plots with non-residential buildings, mainly the territories of former industrial zones. As of the end of 2022 out of 173 signed agreements on comprehensive development of the area, only 39 are the agreements on comprehensive development of residential areas. This is also evidenced by experience of other countries[15].

Financial justifications made by the author of this article on the example of Tomsk show that projects of complex renovation of residential buildings with demolition of emergency houses and residential buildings with a high degree of dilapidation and relocation of citizens to equivalent housing have very low or even negative marginality. This leads to investment unattractiveness of such projects for potential developers. Similar conclusions are made by Novosibirsk Union of Builders: according to their calculations on the example of Novosibirsk, resettlement of houses of standard series with more than three floors at the expense of investors is not profitable [6].

The marginality of an integrated development project of the territory depends on the ratio of the amount and value of housing being withdrawn and the amount and value of new housing being built within the project. The latter directly depends on the number of floors of residential buildings in the area of comprehensive development of the territory. However, in many cities, primarily in cities with the status of the historical settlement, there are restrictions on the height of new buildings. Therefore, territories occupied by dilapidated residential buildings that do not belong to cultural heritage but fall within the boundaries of a historical settlement will continue to degrade, since the renovation project of such development cannot be feasible and, consequently, attractive for a potential developer in terms of investment. This is exactly the situation that is developing in Tomsk where a significant part of the emergency and dilapidated housing has fallen into the borders of the historical settlement. In addition, the standard for the development of built-up areas offered by the Ministry of construction of the Russian Federation together with Dom.RF and Strelka Development Laboratory[16] set the 9-floor limit for local buildings. Therefore, the financial outcome of such projects will not allow developer to reimburse the costs of project development, resettlement of citizens, demolition of existing buildings and construction of new ones.

Consequently, it becomes clear that it is not reasonable to consider private developers as main stakeholders and driving force of regional housing renovation programs.

The lower the marginality of urban residential renovation project is, the greater the financial participation of the state and municipality should be in its implementation. This is also confirmed by a comparative analysis of the first results of implementation of housing renovation programs in the cities of Moscow and St. Petersburg carried out by the authors of the article [7]. It was shown that one of the reasons for non-fulfillment of the housing renovation program in St. Petersburg is the reliance on extra-budgetary sources of financing i.e. funds of private developers.

It is obvious that, when choosing a comprehensive development territory, municipalities have the right to independently determine the number of floors and the nature of new development on the basis of urban planning analysis and a thorough feasibility study in order to maximize the investment attractiveness of the territory for a potential developer.

Experts name the lack of insufficient elaboration of the regional regulatory framework the development of which is provided by Urban Planning Code of the Russian Federation the most important factor constraining implementation of projects for the comprehensive development of territories. To ensure implementation of comprehensive development of territories mechanism at the level of the constituent entity of the Russian Federation, a regulatory framework is to be worked out. It will determine, among other things, the criteria for including apartment buildings in the project of comprehensive development of residential areas:

1) the level of physical dilapidation of main structural elements (roof, walls, foundation) of apartment building;

2) the amount of excess of the total cost of capital repair works of structural elements of apartment buildings and domestic utility systems that belong to the common property of apartment buildings in comparison with the marginal cost of capital repairs accepted in the region;

3) a series of standard projects according to which apartment buildings were built during the period of industrial housing construction or other types of residential construction that can be included in the project;

4) a list of utility systems within apartment buildings the absence of which is the basis for including the house into the project.

An important constraint in implementation of comprehensive territorial development projects is the lack of appropriate institutions in the regions. For implementation of regional comprehensive development projects appropriate regional development institutions should be created to ensure vertical integration with the federal institution called Territorial Development Fund. However, currently there is no such regional institution in most of the constituent entities of the Russian Federation. Functions of organizing and coordinating projects for comprehensive development of territories, conducting feasibility studies of the efficiency of such projects, and often functions of a technical client are assigned to municipalities that do not have appropriately trained personnel.

CONCLUSIONS

The solution of the problem of residential buildings' renovation is possible only on the basis of a comprehensive approach to development and implementation of regional housing renovation programs as the main organizational and financial mechanism of modern urban policy. Development of such programs will ensure integration of all methods of housing renovation on the territory of the settlement. First of all, it is necessary to develop a system of territorial planning documents defining potential areas for the comprehensive development of the territory. Restrictions on the issuance of permits for infill construction of both multi-apartment housing and individual housing should be established in these territories. Residential buildings located in such territories that do not meet the criteria for demolition are to be subject to major repairs as a priority. It is necessary to ensure vertical integration of federal and regional development institutions, which would ensure coordination of actions of all participants in comprehensive territorial development projects and consolidation of financial resources.

The most important condition for the implementation of comprehensive residential buildings' renovation programs should be guaranteed observance of citizens' rights to affordable and

15 Experience of redevelopment in foreign countries. *Dom.RF*. URL: https://www.xn--d1aqf.xn--p1ai/analytics/interesting-on-the-market

16 Standard of comprehensive development of territories. *Dom.RF. Strelka Design Laboratory*. URL: tandards/printsipy-kompleksnogo-razvitiya-territoriy/?ysclid=l94eo4xdsd229460234

adequate housing. Secure property rights for housing are one of the key drivers of economic development, environmental sustainability and social stability[17] and correspond to the fundamental goals of sustainable urban development.

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17 Sustainable development and security of property rights in the UNECE region. United Nations Economic Commission for Europe ODI and Global Land Alliance. URL: ites/default/files/2022-05/Prindex %20ECE %20web %20E.pdf

Реновация жилой застройки в регионах: организационно-финансовые механизмы и ограничения

В статье рассматриваются проблемы комплексной реновации жилой застройки в регионах Российской Федерации, которые, несмотря на реализацию национального проекта и государственных программ, не теряют своей актуальности. В силу неоднородности социально-экономического пространства России, прежде всего, сложившихся территориальных диспропорций в распределении жилищных инвестиций, различий в структуре существующего жилищного фонда возможности регионов в решении проблемы реновации жилой застройки разные. На основе данных Фонда содействия реформированию ЖКХ (ныне — Фонд развития территорий) выполнен анализ результатов выполнения региональных программ переселения граждан из аварийного жилья на примере регионов Сибирского федерального округа. Выявлены основные факторы, выступающие организационно-финансовыми ограничениями в реализации программ ликвидации аварийного жилья. Показано, что существующие организационно-финансовые механизмы, основанные на региональных программах капитального ремонта общего имущества многоквартирных домов и федеральном проекте ликвидации непригодного для проживания жилья, не обеспечивают комплексной реновации жилищного фонда и развития застроенных территорий. Реализация проектов выборочного капитального ремонта и точечного сноса аварийных зданий не решает проблемы качественного улучшения жилой застройки, поскольку даже расселенные аварийные дома остаются в структуре жилой застройки из-за низкого градостроительного потенциала освобождаемых земельных участков. Показано, что новый механизм комплексного развития территорий, несмотря на созданную нормативно-правовую базу и институциональное обеспечение, в настоящее время не получил должного развития, поскольку также существует ряд организационно-финансовых ограничений. Основными ограничениями являются неразработанность региональной нормативно-правовой базы, отсутствие региональных институтов и низкая маржинальность проектов реновации существующей жилой застройки, что делает такие проекты инвестиционно непривлекательными для потенциальных инвесторов. Это свидетельствует о необходимости развития региональных механизмов комплексной реновации городской застройки и интеграции финансовых ресурсов всех стейкхолдеров проектов реновации.

Ключевые слова: *жилищный фонд, реновация жилой застройки, аварийное жилье, комплексное развитие территорий, организационно-финансовые механизмы реновации*

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