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Cluster as an element of the strategy for the implementation of investment and construction projects in the sphere of individual housing construction

This article describes one of the ways of solving the problem of housing affordability for regions where individual housing construction prevails. According to the National Project “Housing and Urban Environment” by 2030, the annual commissioning of housing in the country should be up to 120 million square metres, of which more than a third should be for individual housing construction. Statistics show that 68 % of Russian families consider an individual house the most preferable type of housing. The transition to the cluster system of territorial development is aimed at improving the efficiency and competitiveness of projects in the field of individual housing construction. The ideology of cluster development projects implies the creation of a common social environment for all residents of the settlement, the main goal of which is: the development of commercial and social infrastructure within the cluster. The main example of this approach is an infrastructure node located within a low-rise development. Within this approach, several small settlements are gathered around one infrastructural core, within which commercial and social infrastructure is located. The concept of cluster development of territories will allow optimizing the costs of infrastructure development not only for one single settlement, but will also contribute to the development of the entire territory. It is assumed that in the future the scheme of cluster development of territories will become the main principle of suburban real estate development. Another indirect advantage of cluster development of territories is the opportunity for the developer to apply additional methods to increase the profitability of their projects. The most popular of them is the sale of ready-made houses with finishing, landscaping, furniture and additional options. As a result of the formation of a cluster, common property is formed, for the management of which a management company is needed, a specialized management company can be attracted to manage the cluster of individual housing construction, which, in addition to the main services, will provide additional services for the maintenance of personal plots. Transition to the cluster scheme for the development of territories will significantly improve the quality of life of people who consider individual housing construction as a place for permanent residence.

Keywords: *individual housing construction, cluster of individual housing construction, countryside real estate, comprehensive development, strategies for the implementation of investment and construction projects in the field of individual housing construction*

Modern economic conditions created through the reforms carried out in the country have led to significant regionalization, which to a large extent predetermined the problems existing at the regional level. In this regard, it should be noted that the region is a social and economic complex, which is aimed at establishing a relationship between business, regional authorities and public organizations. This format of interaction stimulates a more complete use of industrial, natural and labour resources aimed at satisfying all possible needs of the population.

Structural development of the country's economy is impossible without a comprehensive study and resolution of the most acute problems in the social sphere. One of the most important social problems of each region is the problem of housing affordability, the solution of which is impossible without structural changes in the industry and coordinated actions of state authorities, public organizations and businesses [1–3].

One of the possible methods of solving this problem in regions where individual housing construction (IHC) prevails is the transition to a cluster model of territorial development.

According to the National Project “Housing and Urban Environment” by 2030, the annual commissioning of housing in the country should be up to

120 million square metres, of which more than a third should be for individual housing construction.

According to the statistics of the Financial Development Institute in the housing sector of Russia “Dom.rf” and the All-Russian Center for the Study of Public Opinion, which are shown in Fig. 1, the interest in the format of individual housing construction is quite high among Russians. According to data provided by “Dom.rf” in its analytical report, approximately 68 % of 61.8 million Russian families consider an individual house the most preferable type of housing.

Country housing formats have become especially in demand among buyers due to the pandemic and the transition to a remote work scheme. In 10 regions of the Russian Federation, at the end of 2022, half of all new housing turned out to be commissioned in the format of individual housing construction. As for the top three, they have remained unchanged for a long time, these are: Moscow, Krasnodar Territory and Moscow Region.

For quite a long time, the cautious attitude of many banks regarding the potential liquidity of private houses hindered the development of mortgages in this segment of the real estate market. At the moment, the situation has changed for the better. As shown in Table, in 2021, individual housing

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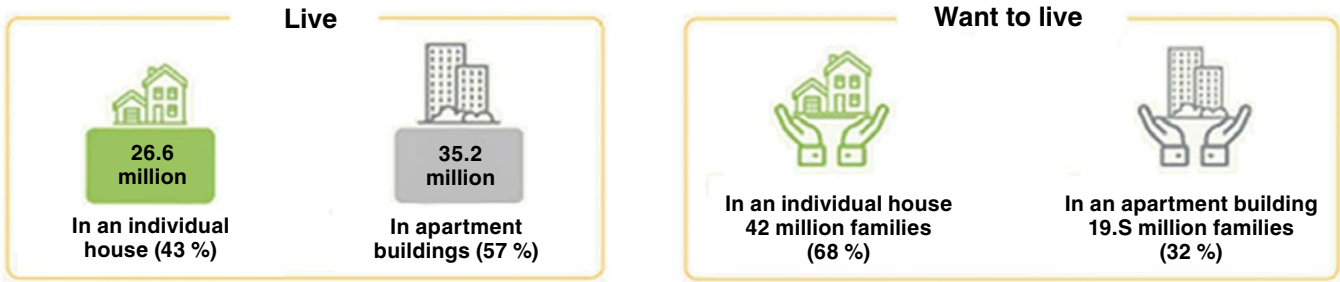


Fig. 1. Share of Russians who want to live in an individual house as of 2022

construction became eligible for most preferential mortgage programmes, such as “Preferential Mortgage”, “Family Mortgage”, “Far East Mortgage” and “IT Mortgage”.

With the help of these programmes, the demand for individual housing construction in 2021 increased by 4 times, and the share of housing loans issued for the construction or purchase of individual housing construction objects increased by 3 times compared to 2020 [4–6].

Despite the increase in demand for preferential programmes, the penetration of mortgages into the sphere of individual housing construction remains low at the moment, in 2022 only every tenth individual house was built using a mortgage, while in multi-apartment buildings 8 out of 10 apartments are purchased with a mortgage. In the current situation, the main constraint to the development of lending for individual housing construction is the lack of a market for standard, liquid private houses, which has a significant impact on the mortgage rate.

The cluster as an element of the strategy in low-rise construction is primarily aimed at improving the efficiency and competitiveness of projects in the field of individual housing construction.

A cluster of individual housing construction (hereinafter referred to as the IHC Cluster) is a certain territory or group of territories that can be distant from each other by a distance not exceeding 30 km.

The territory of the cluster has many common features of urban planning use of territories, these include a total area of at least 100 hectares, location outside the boundaries of urban settlements, and so on. As a rule, cluster development occurs takes place within the framework of the mechanism of integrated development of the territory, within which the territory is built up with individual or blocked residential buildings. During such development, the developer is obliged to provide the population with transport, road, engineering and social infrastructure facilities. The project should also create common areas and places of employment. The main goal of the cluster development of the territory is to create a comfortable

Dates of expansion of preferential mortgage programmes to the segment of individual housing construction

Programme	Mortgage rate	Date of extension to individual housing construction
Preferential mortgage	Up to 7 % in 2022, up to 8 % from 2023	10.18.2021
Family Mortgage	up to 6 %	06.01.2022
Far East Mortgage	up to 2 %	05.01.2021
IT Mortgage	up to 5 %	12.01.2019
Rural mortgage	up to 3%	05.12.2022

and safe living environment for the population. An example of a conceptual plan for the development of territories within the IHC cluster is shown in Fig. 2.

The main principles for the formation of an individual housing cluster follow from its definition and are primarily aimed at meeting the needs of the population living in the territory of the cluster. Among the most significant are:

- good transport accessibility to all social and commercial infrastructure (formation of a network of public transport running through the cluster territory);
- synchronization of schedules for the commissioning of residential buildings with schedules for the construction of infrastructure (when the building area increases, infrastructure facilities increase with it);
- a large number of public spaces located on the territory of the cluster (at least 10 % of the total building area);
- provision of the population with jobs (at least 20 % of the total population should work in the cluster);
- creation of an engineering network, where priority is given to centralized engineering systems;
- arrangement of permanent car storage places within the boundaries of land plots or in the adjacent territory (no further than 800 meters);
- development of recreational and entertainment infrastructure within the cluster (sports grounds, boulevards, parks, cafes).

The ideology of cluster development projects implies the creation of a common social environment for all residents of the settlement. The basis of this concept is a variety of infrastructure facilities within the cluster, aimed at providing a high level of comfort for the owners. In this case, the construction of social infrastructure is carried out in separate blocks, after the completion of the construction of each stage, the population within the cluster will increase,



Fig. 2. Conceptual plan for the development of territories within the cluster of individual housing construction in Dmitrov city

and the emerging need will be covered by commissioning an additional block, so the developer will not have to bear the cost of building a large social facility at one time. Thus, the developer provides a guaranteed volume of potential demand for all social infrastructure facilities [7, 8].

The main criterion for the demand for commercial infrastructure within the cluster is its availability for the surrounding residents. This approach provides the possibility of the functioning of various businesses that cannot function in modern cottage settlements due to the lack of the proper amount of demand.

The main example of this approach is an infrastructure node located inside a low-rise building. As can be seen from Fig. 3, when applying this approach, several small settlements are gathered around one infrastructural core, inside which commercial and social infrastructure is located, as well as landscaping and recreational areas. A unified architectural environment is created inside the infrastructure node and residential development is completely excluded. This location can accommodate both modern schools and kindergartens, as well as shopping centres, gyms and retail areas.

An analysis of transactions with IHC objects shows that only a small part of buyers of suburban real estate objects live in it on a permanent basis, since in the current realities, most high-level settlements do not have sufficiently developed infrastructure. More than half of the population would like to live permanently in the countryside, but not everyone decides to do so due to the lack of critical social and commercial infrastructure. In this regard, potential buyers make a choice in favour of country houses for seasonal residence [9, 10].

At the moment, only 30 % of all settlements in the "business" and "elite" segments can offer buyers at least one type of infrastructure of the proper level, and only 5 % of all projects assume the presence of a full range of educational, social, commercial, leisure and other conditions necessary for permanent residence in the countryside.

The concept of cluster development of territories will optimize the costs of infrastructure development not only for one single settlement, but also contributes to the development of the entire territory. It is assumed that in the future the scheme of cluster development of territories will become the main principle of suburban real estate development. This approach will not only significantly increase the capitalization of land plots and improve the liquidity of investment and construction projects in the field of individual housing construction, but also optimize part of the costs allocated from the municipal, regional and federal budget for the infrastructure development of territories.

The next advantage of cluster development of territories is the opportunity for the developer to apply additional methods to increase the profitability of their projects. The most common of them is the sale of finished houses with finishing, landscaping, furniture and additional options [11, 12].

Such methods are beneficial both for the builder-developer, since they can be used to increase marginality, and to the end buyers.

The main advantages of finished objects include:

1. Savings that occur due to a decrease in the number of transactions and economies of scale, since in order to prepare a house for life, many operations must be done: order design projects for houses, select contractors, purchase furniture, and so on. Since the developer orders this for everyone at once, it costs less.

2. You can move straight into a finished house, rather than waiting for the repair to be completed. The sooner all objects are sold,



Fig. 3. An example of an infrastructure node located inside the designed building

the better for developers and residents, since in this case it is assumed that there will be no stranger in the settlement.

3. When a developer can offer a whole range of services, it widens the target audience, since the buyer can take out a mortgage for the whole cost at once. For potential buyers, paying off the loan and doing the finishing is much more difficult than paying the original mortgage payment. The payment will be higher, but the amount of the payment will be known in advance.

Another competitive advantage that appears with the cluster method of territory development is the ability to attract a full-fledged management company. As a result of cluster formation the common property is formed, it must be managed by someone.

In the current situation, if there is a good management company in the settlement, this is a huge competitive advantage. The market of management companies in individual housing construction in our country is not developed, while the demand for quality services among wealthy buyers is very high.

At the same time, requests from residents show that the services offered by management companies in apartment buildings are not sufficient for individual housing construction. Many residents are ready to pay for additional services such as snow removal, grass cutting, house cleaning, dog walking and other minor work on a regular basis [13–15].

Considering the transition from the current scheme of construction in the field of individual housing construction to the scheme of cluster development of territories, we can conclude that the transition to the new model will increase the availability of social and commercial infrastructure by placing it simultaneously for several settlements within the cluster (now such infrastructure is not actually built). Builders-developers, due to the economies of scale, will be able to sell IHC objects with ready-made finishes and furniture, which will increase their marginality and potential buyers will be able to purchase an object equipped with everything necessary for life. There will be an opportunity to manage the common property

of the cluster, to attract specialized management companies that provide services not only for managing the common property of the cluster, but also additional services aimed at improving the living standards of people within the cluster.

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Кластер как элемент стратегии реализации инвестиционно-строительных проектов в сфере индивидуального жилищного строительства

В статье описан один из путей решения проблемы доступности жилья для регионов, где преобладает индивидуальное жилищное строительство. Согласно Национальному проекту «Жилье и городская среда», к 2030 г. ежегодный ввод жилья в стране должен составлять до 120 млн м², из которых больше трети должно приходиться на индивидуальное жилищное строительство. Статистика показывает, что 68 % российских семей считают индивидуальный дом наиболее предпочтительным видом жилья. Переход на кластерную систему освоения территорий направлен на повышение эффективности и конкурентоспособности проектов в сфере индивидуального жилищного строительства. Идеология проектов кластерного освоения территорий предполагает создание общей социальной среды для всех жителей поселка, основной целью которой является: развитие коммерческой и социальной инфраструктуры внутри кластера. Основным примером такого подхода является инфраструктурный узел, расположенный внутри малоэтажной застройки. В рамках этого подхода несколько небольших поселков собраны вокруг одного ядра, внутри которого расположена коммерческая и социальная инфраструктура. Концепция кластерного освоения территорий позволит оптимизировать расходы на развитие инфраструктуры не только одного отдельно взятого поселения, но и будет способствовать развитию всей территории. Предполагается, что в будущем схема кластерного освоения территорий станет основным принципом деvelopeмента загородной недвижимости. Еще одним косвенным преимуществом кластерного освоения территорий является возможность для застройщика применять дополнительные методы по повыше-

нию рентабельности своих проектов. Наиболее распространенные из них — продажа готовых домов с отделкой, благоустройством, мебелью и дополнительными опциями. Так как в результате образования кластера формируется общее имущество, для управления которым нужна управляющая компания, для управления кластером индивидуального жилищного строительства (ИЖС) можно привлечь специализированную управляющую компанию, которая помимо основных услуг будет оказывать дополнительные услуги по содержанию приусадебных участков. Переход на кластерную схему освоения территорий позволит значительно повысить качество жизни людей, рассматривающих ИЖС как место для постоянного проживания.

Ключевые слова: индивидуальное жилищное строительство, кластер ИЖС, загородная недвижимость, комплексная застройка, стратегии реализации инвестиционно-строительных проектов в сфере ИЖС

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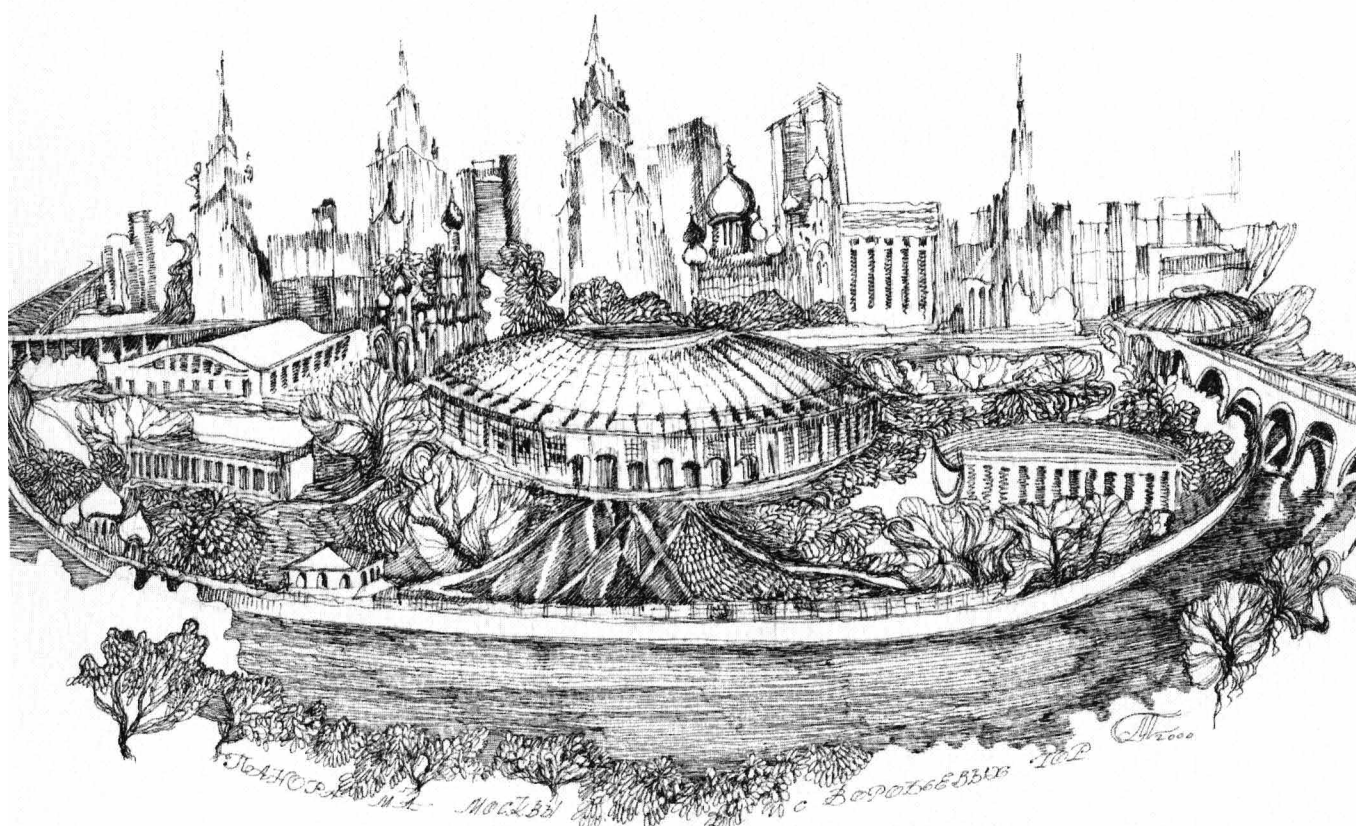
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