# The Main Directions of the Solution of the Problems of Providing the Houses at Affordable Prices in the Azerbaijan Republic by Effective Project Management of Housing Construction



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**Abstract** It is very important to Providing of housing to the population at affordable prices in the developing countries. It should be noted that the concept of "reasonable price" is differently stated in the experience of different countries of the world. However, the fact that the cost of obtaining housing should not exceed 40–50% of family income is a standard adopted in most countries. The Studies show that today about 330 million families in developing and also in developed countries are faced with the problem of obtaining quality housing at affordable prices, and this figure is gradually increasing. Despite the fact that the number of apartments built in the Azerbaijan Republic, which is rapidly developing in the residential real estate market, is quite large, it is impossible to purchase housing for the low-income population, since the prices are very high. It also plays a role the high price of land in cities and low mortgage lending. In investments in housing construction, the proportion invested in land purchases is very high.

Taking into account the above, the Strategic Road Map was developed and adopted to increase the affordability of housing in the Republic of Azerbaijan. To achieve the nominated goals established the State Agency for Housing Construction (abbreviation in Azeri-MIDA) and started construction of two large residential complexes. This article touches upon the task of providing the population of Azerbaijan with housing at affordable prices.

**Keywords** Construction  $\cdot$  Road map  $\cdot$  Affordable housing  $\cdot$  Project management  $\cdot$  The plot of land  $\cdot$  Mortgage lending  $\cdot$  Population income  $\cdot$  Cost of housing  $\cdot$  Residential complexes

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## 1 Introduction

Providing the population with affordable housing is one of the key issues for any country. All countries are trying to resolve this issue in accordance with the socio-economic situation in the country. Some countries are trying to solve this problem through low-interest mortgage lending. World practice shows that one of the most effective ways to do this is to apply the project management method to the organization of work on the implementation of housing construction projects.

It should be noted that the project is characterized by limitations and requirements for its duration, cost and quality. Analysis of international experience shows that effective project management reduces the duration of their implementation by an average of 20–30% and costs 10–15% [2]. In this article, we will examine the issues of providing the population with "affordable" housing through the creation of an effective organizational mechanism for the management of housing construction projects in Azerbaijan. These houses are called social houses because they are accessible to low-income families in Azerbaijan.

## 2 Main Part

# 2.1 Purpose of the Article

The main purpose of the article is to study the activities of the State Agency for Housing Construction (Azeri MIDA), established by the relevant decree of the President of the Republic of Azerbaijan, to provide the population with "affordable" housing and to make recommendations for further expansion.

# 2.2 Research Methodology

Methodology is a system of principles and methods of organization and construction of theoretical and practical activities, as well as the study of this system [4].

During the research, I am successfully implementing "affordable" housing construction projects in Azerbaijan. Actual materials of the State Agency for Housing Construction, as well as a number of construction contractors performing large-scale monolithic reinforced concrete works were used.

The research is based on a systematic approach, statistical methods, statistical grouping, comparative analysis, business process theory, principles and design methods.

#### 2.3 Results

It is very important Providing affordable housing to the population in developing countries at affordable prices. It should be noted that the term "affordable prices" is interpreted differently in the experience of different countries of the world. However, the fact that the cost of obtaining housing should not exceed 40–50% of family income is a standard adopted in most countries. According to statistics, today about 330 million families in developing and developed countries of the world are faced with the problem of obtaining quality housing at affordable prices and this figure is gradually increasing.

To obtain affordable prices for apartments under construction, it is especially important to use the mechanism of rational management at all stages, starting with the purchase of land, the design and implementation of construction. This fact was taken into consideration when was established the State Agency for Housing Construction under the President of the Republic of Azerbaijan by the order No. 858 dated April 11, 2016. The State agency for housing Construction for the development of the housing fund of Azerbaijan is designing housing supply projects at affordable prices, organizing the formation and implementation of the main mechanisms that create conditions for the efficient operation of the housing market (state support, pooling project resources, participation of private sectors and ensuring mortgage market productivity).

In the international practice, the following four areas are taken into account to reduce the cost of housing and provide the population with housing that meets the standards:

- Identification and allocation of suitable land for housing at an affordable price;
- The application of the mechanism of state support in the provision of engineering and communication systems and lines;
- Ensuring efficiency in the construction process;
- Selection of financing mechanisms and beneficiaries.

Since the cost of land constitutes a significant part of the cost of housing, and the territory where the housing is located are the most influential factors for the quality of housing and the standard of living, for housing agencies, the acquisition of land in the territories at an affordable price is of exceptional importance. This problem is solved by the executive on the most favorable terms. For the residential complex in the Yasamal district, whose construction was completed, a land plot was allocated in the most picturesque part of the city.

The new Residential Complex consists of 40 buildings, including 22 nine-storey and 18 twelve-storey. In total, these buildings will consist of 2202 apartments, of which 160 are one-room, 114 are studio-type, 674 are two-room, 1128 are three-room, 126 are four-room. The area of the apartments will be 33–96 m<sup>2</sup>. All apartments will be offered to residents completely renovated and equipped with kitchen furniture. [5]. Prices for these apartments are shown below in the table (Table 1).

Number of rooms in the apartment	Type of repair	The area around the outer perimeter (M <sup>2</sup> )	The area around the inner perimeter (M <sup>2</sup> )	Selling price, AZN
1	1	40,52	33,1	31455
2	1	66,92	54,8	52060
3	1	81,64	69,51	66082
1	2	40,52	33,1	31455
2	2	66,92	54,65	51918
3	2	81,64	69,51	66035

 Table 1
 Prices for fully renovated and furnished apartments in a residential complex in the Yasamal district of Baku

The residential complex in the Hovsan settlement of Surakhani region of the Baku, also under construction, is located in the rapidly developing eastern part of Baku, just 2 km from the coast of the Caspian Sea, in a very convenient place for living and recreation. In the western part of the complex with an area of 20 ha there is a large green area with pines and olive trees [5].

These zones have been allocated by the executive authority. It should be noted that for this purpose, special attention should be paid to vacant and improperly used land plots.

One of the essential factors necessary for determining the areas for construction is the quality of the infrastructure in these areas, especially the transport lines. I should note that both of the above complexes are very close to the main communications and transport lines. Basically, in developed countries due to energy savings, housing costs are reduced. In the United States and in the UK, 20–30% of energy costs were saved due to housing requirements [2].

Since the cost of land is a significant part of the cost of housing and the area in which it is located is the most influential factor for housing quality and living standards, land acquisition in areas at a reasonable price is of exceptional importance for housing agencies. This problem is solved by the executive power on the most favorable terms.

One of the important aspects of the management of housing construction projects in Azerbaijan is characterized by the near and far external environment of projects. Thus, the country has achieved full macroeconomic stability. There is financial stability and very low inflation.

By the rational management of housing projects and optimization of the construction process, significant cost reduction can be achieved. The most important innovation proposed in this direction is the industrialization of the construction process. According to international experience, it is possible to reduce costs up to 30%, and the project completion time - up to 50% [2]. For this purpose was established entity LLC State Agency for Housing Construction (abbreviation in Azeri - MİDA) under the State Agency for Housing Construction. The entity State Agency for Housing Construction (abbr. In Azeri - MIDA) LLC has created an extensive material

base, a transparent mechanism for selecting subcontractors, design and procurement organizations.

The houses built by the MIDA LLC are designed for socially poorly endowed unprotected groups of the population - workers of science and education, young scientists, young families. Sale of apartments for the specified layer of the population is made online. The focus should be on families in need of housing. The main goal here is to eliminate by 2025 the shortcomings in the provision of housing at an affordable price through the measures taken by MİDA LLC. [6]

Affordable housing projects and apartments under construction each year will serve to meet the housing needs of young and low-income families and certain social groups.

It should be noted that «MİDA» realizes its activities with the Mortgage Fund of Azerbaijan, through which it can issue mortgage loans with very low and long-term interest rates. This will serve the development of mortgage lending in the country. It is worth noting that over the past 15 years, the average living area in Azerbaijan has gradually increased from 9.3 to 12 m<sup>2</sup>. This indicator is a criterion for the MİDA when developing a project [6–8].

Project monitoring is given special attention and is carried out at all levels of project management, where independent experts can also be involved. Processes of procurement and spending of funds and the compliance of the planned goals of the project with the current situation are subject to especially strict control. Various criteria are used during the assessment. For example, EU organizations use criteria such as adequacy, cost-effectiveness, productivity, efficiency, impact, economic and financial viability [4].

In determining the pricing policy MIDA takes as a basis the average monthly income of the population (Table 2).

The financial stability of MİDA is ensured by the state budget, the State Oil Fund and the Azerbaijan Mortgage Fund.

In the future, MIDA will be able to rationalize its activities in the regions and provide affordable housing for residents of the regions. Thus, in 2020, MIDA is

Tubic = Topulation of	Table 2 Topulation size, fiving space per person, average monary sulary by region [6]				
Cities and regions with high density	Number of the population (thousand)	Living space per person (m <sup>2</sup> ) (2015)	Average monthly salary (2015)		
Baku	2225,8	11,6	666,8		
Absheron	168,7	14,5	336,0		
Sumgayit	336,2	9,3	378,5		
Ganja	330,1	11,8	321,0		
Sheki	67,3	11,8	255,6		
Khachmaz	87,2	14,2	267,2		
Lenkoran	68,0	12,1	266		
Nakhichevan	80,9	20,8	424,6		

**Table 2** Population size, living space per person, average monthly salary by region [6]

building a new residential complex in Ganja, the second largest city in the country. The residential complex consists of 18 residential buildings with 12 nine-storey and 6 twelve-storey buildings. Also, as in other MIDA projects, large yards, green areas and children's playgrounds will be put into operation in the territory of the Complex, which will be built in Ganja [5].

According to estimates, as a result of the implementation of housing affordability in Azerbaijan, according to forecasts, in 2021 Azerbaijan's real GDP will reach a total of 83 billion 224 million and create 18,000 jobs in the construction sector [7].

MIDA LLC will provide land plots, infrastructure and other privileges to private construction companies to encourage their participation in this sector. On the other hand, private contractors can transfer their resources and methods to MIDA and assume some of the risks associated with housing construction.

The Distribution of projects among private contractors, as well as tenders will lead to the provision of the highest quality to the beneficiaries.

It should be noted that the sale of apartments is carried out electronically.

## 2.4 Scientific Novelty

For the first time, the article comprehensively examines the activities of the State Agency for Housing, which was established by the state by adopting a Roadmap to increase the affordability of the housing market in a market economy, confirms the effectiveness of the organization of the implementation of housing construction projects in providing the socially vulnerable with affordable housing by applying the project method, also proves that such state intervention in the housing market has led to a significant drop in prices in the housing market.

# 2.5 Practical Importance

The results of the study and MIDA's experience can be used to provide affordable housing for vulnerable groups in developing countries, as well as in the Commonwealth of Independent States.

#### 3 Conclusions

The study of the activities of the State Agency for Housing of the Republic of Azerbaijan and its results shows that by developing and implementing the right state policy, it can be used to provide socially vulnerable groups with housing at affordable prices.

## References

- Strategic Development Roadmap for affordable housing in the Republic of Azerbaijan, 2016, 44 p
- Kovalskiy MI (2014) Upravlenie stroitelstvom: opyit SShA, Yaponii, Velikobritanii, FRG, Kanadyi. M: Stroyizdat, 427
- Upravlenie proektami (2013) fundamentalnyiy kurs. Kollektiv avtorov: Vyisshaya shkola ekonomiki, Moskva, 529
- 4. https://mida.gov.az/
- 5. https://www.stat.gov.az
- 6. www.economy.gov.az
- Drobyazko S, Bondarevska O, Klymenko D, Pletenetska S, Pylypenko O (2019) Model for forming of optimal credit portfolio of commercial bank. J Manag Inf Decis Sci 22(4):501–506
- Iasechko S, Haliantych MK, Skomorovskyi VB, Zadorozhnyi V, Obryvkina O, Pohrebniak O (2020) Contractual relations in the information sphere. Syst Rev Pharm 11(8):301–303. https://doi.org/10.31838/srp.2020.8.46