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PROSPECTS FOR THE DEVELOPMENT OF MODERN MULTI-STORY HOUSING CONSTRUCTION AND INTERNATIONAL EXPERIENCES

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Abstract: This article analyzes the development prospects of modern high-rise housing, its role in the development of architecture and urban planning, and international experiences. Also, the role of innovative solutions such as energy-saving technologies, principles of ecological sustainability, "smart house" systems and vertical greening in the construction of modern houses was considered. Based on the experience of foreign countries, the advanced methods of design and construction of multi-storey houses were analyzed and the possibility of their application in the conditions of Uzbekistan was evaluated.

Keywords: urbanization, modern architecture, international experience, energy efficiency, sustainable development, smart home technologies,

Introduction

Today, the acceleration of the urbanization process, the increase in the population, and the limited land resources in urban areas require the development of modern multi-storey housing construction. In our country, providing the population with high-quality, comfortable and safe housing is one of the priorities of state policy. In this sense, the idea put forward by our President that “The first factor in human dignity is housing and the creation of decent living conditions” determines the main content of reforms in the field of housing construction. The construction of multi-storey housing arose as a result of the increase in the population and the expansion of cities. Initially, multi-storey residential buildings began to appear in large cities in the second half of the 19th century under the influence of industrialization processes. As a result of the development of industrial enterprises, a large number of labor forces flowed into cities and there was a need to provide them with housing.

Analysis and results: In the experience of developed countries, green architecture, vertical gardens, smart management systems, and residential complexes integrated with public spaces are widely used. These approaches not only increase the quality of the building, but also ensure the standard of living and environmental safety of the population.

Prospects for the formation of modern multi-storey housing construction

1. Energy-efficient buildings
2. Green architecture
3. Smart home technologies
4. Complex residential complexes

International experiences: In Singapore, high-rise residential complexes are widely developed due to the limited land area. Buildings are equipped with green facades, vertical gardens, and energy-saving technologies (Figure 1).

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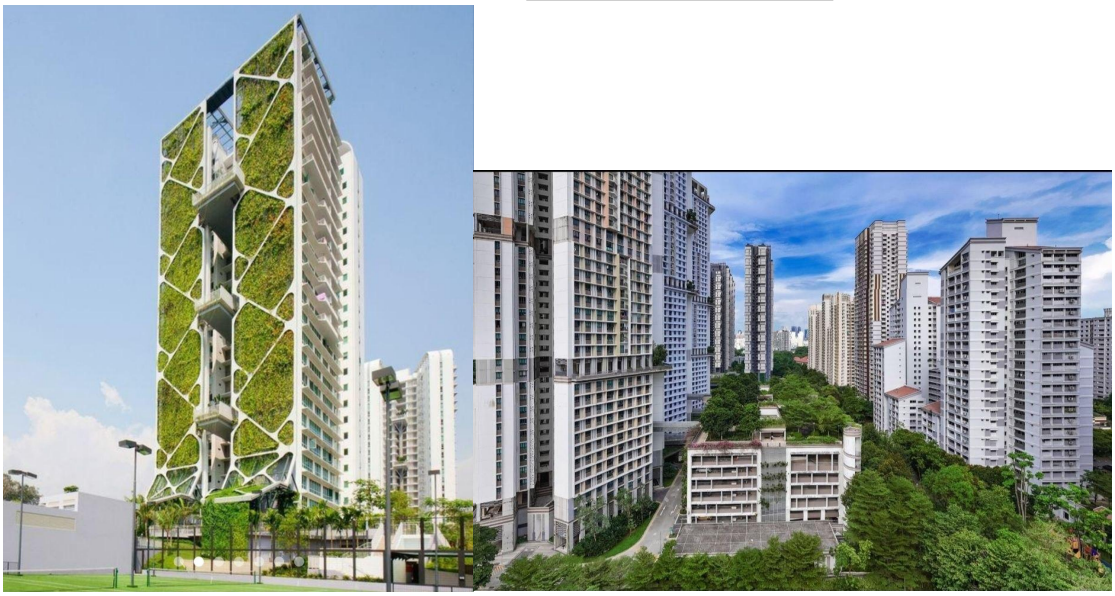

Figure 1. Smart and green city

Experience of the United Arab Emirates - Modern skyscrapers in Dubai are built on the basis of innovative construction technologies. The buildings are characterized by high comfort and modern infrastructure (Figure 2).

Figure 2. Multi-storey residential buildings built using innovative technologies

The German experience places great emphasis on the construction of environmentally friendly and energy-efficient housing. Many homes are designed based on passive house technologies (Figure 3).

Figure 3. Ecological and energy-efficient residential buildings.

Modern multi-storey housing construction is also rapidly developing in Uzbekistan. The use of energy-saving technologies, modern building materials and convenient infrastructure elements in new residential areas is one of the promising directions. By studying international experience and adapting it to local conditions, it is possible to build more high-quality and sustainable housing.

A smart home is a residential building controlled using modern information and communication technologies, in which lighting, heating, cooling, security, energy supply and household appliances are automatically controlled. Today, smart home systems are becoming an integral part of modern multi-storey residential buildings (Figure 4).

4-figure.Smart House.

The integration of smart home technologies into modern multi-storey residential buildings is an important direction of the architecture of the future. This approach allows for increased energy efficiency, increased security, and a high level of comfort for residents. As a result, smart residential complexes play an important role in creating a sustainable and modern urban environment.

In Uzbekistan, multi-storey housing construction has been rapidly developing in recent years. New residential complexes are being built based on modern architectural and engineering solutions. In the future, the widespread introduction of energy-saving technologies, increasing the share of green areas, using smart home systems, and adapting international experiences to local conditions are important tasks.

Conclusion: In the conditions of Uzbekistan, the introduction of modern construction technologies, the combination of international experiences with national architectural traditions, and the widespread implementation of energy-efficient projects are also important. As a result, modern multi-storey housing construction not only meets the housing needs of the population, but also contributes to the sustainable development of cities and the formation of a favorable urban environment.

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