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Research on the use of construction materials and economic advantage of Karabakh

N.R.Abasova

Azerbaijan Architecture and Construction University, Baku, Azerbaijan

Nubarrehimli7@gmail.com

Abstract: Only 10 months have passed since the historical Victory achieved in the 44-day Patriotic War of Azerbaijan. It is truly amazing that a country that has come out of war, and is also struggling with a pandemic, is taking part in the restoration work in the liberated areas. The Karabakh administration is being reconstructed, modern infrastructure is being built from scratch, new roads, airports, power plants, villages, settlements are being built. It goes without saying that the construction work in Karabakh is an indicator of the strength and potential of the Azerbaijani state.

Key words: The Fuzuli International Airport, The Victory Road, Construction materials.

1. INTRODUCTION

These days, the first operation and landing of cargo at Fuzuli International Airport is an event that every citizen of Azerbaijan is proud of and is proud of. Because building such a large international airport in just a few months, driving hundreds of kilometers, and facilitating the most modern infrastructure is not easy. But Azerbaijan is able to do it, it copes with this huge task with determination. The formula of this great success, unique achievement is obvious. Muzaffar, President Ilham Ali Komandan, President Ilham Aliyev's determination and unique leadership, support for the strengthening of our state, Azerbaijan's reputation in the world, high construction of airports is one of the priority issues among the fast-paced works. Not least because the creation of transport and logistics facilities is important for the rapid recovery and further development of the liberated territories. In fact, Azerbaijan has achieved great things in a very short time, the Fuzuli International Airport, which Mr. President laid the foundation on January 14, 2021, will be put into operation in a short time, even ahead of schedule. The commissioning of Fuzuli airport is of great importance for our country from both political and economic point of view. First of all, this shows the strong will of the Azerbaijani state, paying special attention to the restoration and reconstruction works carried out in Karabakh. Thus, commissioning of Fuzuli International Airport will enable faster and easier transportation of goods

necessary for the restoration and reconstruction of those areas. The future benefits of the airport are huge. First of all, Fuzuli International Airport will turn the region into a transport and logistics center. In the future, this port will open wide opportunities for cargo transportation, especially international cargo transportation, will facilitate the arrival of both local and foreign tourists to the region, and will give a great impetus to the development of tourism in the region. At the same time, taking into account the great industrial, agricultural and other production potential of the liberated territories, the international airports built in those territories will allow the rapid export of manufactured products to the world market. All this will give a great impetus to the development of the region and will significantly increase investment attractiveness and confidence in our country, special voice and power in the field allow this.

As Azerbaijan freed its territories from occupation, it has set itself the goal of rebuilding those territories and turning them into one of the most beautiful corners of the world, and it is confidently advancing towards this goal.

Today, every project implemented by Azerbaijan is met with special interest in the world. Because Azerbaijan does not postpone any project against the backdrop of economic downturns in the world in recent years, all planned plans are implemented. Construction works and infrastructure projects are

carried out not only in Karabakh, but in parallel throughout the country. These are the factors that distinguish Azerbaijan and make it stand out in the world [1-3].

2.EXPERIMENTAL DETAILS

The Victory Road, which is a symbol of our great Victory over the enemy, will be fully operational in the near future. The successful completion of such a huge project in just 10 months is also an admirable event. In general, the restoration works carried out in our liberated historical lands, the direct supervision of this process by the President of Azerbaijan Ilham Aliyev, the First Vice-President Mehriban Aliyeva, and the fact that they personally participate in the opening of each project create a special sympathy, distinct satisfaction, pride and pride in the Azerbaijani public.

During the reporting period, 2 million 222.5 thousand tons of cement were produced in the republic, which is 1.5% more than the corresponding period of last year.

In January-August, 17.1 thousand tons (increase by 32.6%) of construction plaster, 57.7 thousand tons (increase by 98.3%) of cement bricks and building blocks, 1 million 730.9 thousand tons (increase by 38.5%) ready concrete mix, 24.2 thousand tons (16.3% increase) of construction lime, 391.8 thousand cubic meters (15.6% increase) of construction bricks, 27,151 tons (65.9% increase) of processed marble, limestone, alabaster and products made from them, 48.4 thousand tons of precast concrete structures (increase by 2.2 times) were produced. During the reporting period, a 20.2% (88.7 thousand tons) decrease in asphalt production was recorded.



As reported, the Azerbaijani government is currently implementing large-scale projects for the restoration of the liberated territories in Karabakh and East

Zangezur. These works stimulate the increase in the production of construction materials.

Urban Planning and Architecture Committee Preparation of projects related to the restoration of buildings in regions freed from occupation, as well as

destroyed in Mingachevir city, Agdam and Barda regions, Ganja city, Tarter region, Fuzuli, Jabrayil and Tarter regions, Naftalan city, Aghjabedi, Goranboy, and Beylagan regions. announced the results of the tender related to the repair, restoration and construction of individual residential houses and non-residential objects that have fallen into disrepair and need repair and restoration.

In the tenders, "Azerdovlatlayiha" State Chief Design Institute (1,162 thousand manats), "Rabiteinshaat" OJSC (4,579 thousand manats), "Conco" JSC (4,895 thousand manats), "Real-Inshaat" (5,671 thousand manats), "Az Graft Construction" (3,388 thousand manats) and "Parlaq-N" LLCs (2,116 thousand manats).

Tenders were announced for 6 lots. These are

- 1) development of project-estimate documents for individual residential houses and non-residential objects destroyed by enemy aggression, in a state of emergency, in need of repair and restoration, and implementation of author control during the construction period,
- 2) in Mingachevir city, Agdam and Barda regions,
- 3) in the city of Ganja,
- 4) in Tarter district,
- 5) in Fuzuli, Jabrayil and Tartar districts,
- 6) It was related to the repair, restoration and construction of individual residential houses and non-residential objects that were destroyed, in a state of emergency, and in need of repair and restoration in the city of Naftalan, Agjabadi, Goranboy, and Beylagan districts.

The winners of the tenders were respectively the Committee's "Azerdovlatlayiha" State Chief Project Institute (1,162 thousand manats), as well as "Rabitinshaat" OJSC (4,579 thousand manats), "Conco" JSC (4,895 thousand manats), "Real-Inshaat" (5 671 thousand manats), "Az Graft Construction" (3,388 thousand manats) and "Parlaq-N" MMCs (2,116 thousand manats).

It is interesting that the State Urban Planning and Architecture Committee made the procurement of such a large amount of construction projects - not through an open tender, but through a request for proposals. Moreover, participants were given only 4 days to prepare proposals.

Thus, the tender announcement for the mentioned works was announced on March 29. The

announcement states that "Documents to participate in the request for proposals are accepted until 30.03.2021 09:00 - 02.04.2021 12:00". In other words, research and preparation of proposals for all these construction works had to be completed in 4 days.

The State Urban Planning and Architecture Committee did not disclose the number of participants and proposals in the request for proposals. Only the names of the winners and the amount of work to be done have been announced.

In other words, the total amount of tenders is 21.8 million manats.

The head of Ganja City Executive Authority, Niyazi Bayramov, together with the representatives of the State Urban Planning and Architecture Committee, visited the areas where the repair and construction process is underway, and got acquainted with the progress of the works on the spot.

The head of the city was informed that the repair of 253 partially damaged houses has already been completed, and work is ongoing in 893 houses. At the same time, construction of 10 out of 24 dilapidated houses is being carried out, and individual projects of 14 houses are being prepared.

Niyazi Bayramov also met with residents here and listened to their appeals and proposals. Citizens expressed their satisfaction that the damage caused will be quickly removed, and expressed their gratitude to the head of the country, President Ilham Aliyev and First Vice-President Mehriban Aliyeva, for the attention and care shown.

In 2021, construction materials in the amount of 871.8 million manats were produced in Azerbaijan, which is 80.6% more than the indicator of 2020. The "Interfax-Azerbaijan" agency was informed about this by the State Statistics Committee.



In the reporting year, 3 million 440 thousand tons of cement (increase of 6.3%) were produced in the republic. 35.8 thousand tons (increase by 47.9%) of construction plaster, 88.7 thousand tons (increase by 74.3%) of cement building blocks and bricks, 2

million 769.5 thousand tons (decrease by 3.9%) of ready-mixed concrete, 35.8 thousand tons (49.2% increase) of construction lime, 784.9 thousand cubic meters (57.3% increase) of construction bricks, 40.184 thousand tons (56.8% increase) of processed marble, travertine, alabaster and products, 81.2 thousand cubic meters (increase of 69.2%) of concrete construction structures, 208 thousand tons of asphalt (increase of 11.6%) were produced.

Azerbaijan creates new realities in the region. The leader of Azerbaijan is determined to turn Karabakh into a modern, mysterious and safe region not only of the region, but of the whole world. The President of Azerbaijan, Ilham Aliyev, has successfully achieved all the goals he set himself during his activity and has constantly raised his country to the top. Therefore, no one has the slightest doubt that Karabakh will soon become a paradise.

The road construction materials that will be used for the construction of the runway, platform and diversion roads of Lachin International Airport are analyzed in the central laboratory of "AzVirt" LLC in Baku. Mais Ahmadov, the head of the company's quality control and materials testing department, said that currently earthworks are being carried out in the mentioned area in Lachin (Gorchu village), and later construction of the road surface construction is planned. Therefore, most of the test works have already started. "Recently, we brought gravel-sand mixture from there. After chopping them in a stone crusher, we check the suitability of the crushed stone for use in asphalt and concrete.

M. Ahmadov says that the imported raw material is obtained by chopping mountain and rock pieces. For this, new devices produced by the German company "Kleemann" were brought. They are currently used in the Karabakh region. It should be noted that President Ilham Aliyev repeatedly drew attention to the consideration of the use of local materials during the introduction to the construction projects implemented in Karabakh. It is "AzVirt" LLC that constantly monitors this point and continues its regular investigations. In modern times, increasing the quality, safety, and efficiency of services provided in cities and villages, applying information technologies in their provision, as well as ensuring the effective use and management of existing resources for those services are among the main priorities of sustainable development in residential areas. The use of innovative telecommunications, Big Data, other digital and artificial intelligence technologies, as well as innovation and knowledge makes socio-economic relations more productive and efficient, and creates new income opportunities in the overall value chain of the economy. These possibilities determine the transition to functional, large-scale "Smart City" and

"Smart Village" services at the next stage of development of services provided in cities and villages. President Ilham Aliyev, taking into account such factors, on April 19 signed an Order on the establishment of a working group on the preparation of the concept of "Smart City" and "Smart Village" of the Republic of Azerbaijan.

The foundation of the first such project was laid in the liberated Zangilan region. Leading companies from Turkey, Israel, Italy and China are participating in the "Smart Village" project, which was founded on April 26 with the participation of President Ilham Aliyev.

Taking into account the relevance of the topic, AZERTAC presents notes on the advantages of the "Smart Village" concept.

President Ilham Aliyev has a unique view on the restoration of liberated territories. The head of state has repeatedly stated that our cities and villages destroyed by the Armenian invaders will be restored based on the concepts of "Smart Village" and "Smart City" based on the most modern technologies.

The main goal of implementing "Smart Village" projects around the world is to prevent rural-to-urban migration. In other words, conditions should be created for people in rural areas so that all the services that people can get in the city can be easily accessed in the villages. At the same time, more income and employment opportunities should be created for people in the village. The third point is the formation of full conditions for providing access to state services for rural residents. In other words, in the "Smart Village" concept, the difference between rural and urban areas in terms of service, profit, and benefiting from government services is virtually eliminated.

It is clear from the presentation made by Minister of Agriculture Inam Karimov on April 26 in Agali village of Zangilan district that the first "Smart village" pilot project will be implemented mainly on 5 components. They are residential, manufacturing, social services, "smart agriculture" and alternative energy sectors. In the area, it is planned to build 200 individual houses, using fully insulated and innovative building materials. Indoor engineering communication and heating systems will also be built on the basis of smart technologies. Modern schools,

kindergartens, polyclinics and electronic management centers will be built in these villages, tourism infrastructure will be formed. All residences, social facilities, administrative and public catering buildings, processing and production of agricultural products will be provided with alternative energy sources. Experts from Turkish, Chinese, Italian and Israeli companies will also participate in the implementation of the project. "Smart agriculture" includes a cooperative management system, fields, gardens and farms built on the basis of modern technologies, management and control through drones. "Smart" farms allow to increase the production of fruits, vegetables, meat and dairy products in the villages, to establish the processing process in accordance with modern requirements.

3.CONCLUSION

"Smart village" is not only about agriculture. Application of modern urban planning standards, "smart" street lighting, construction of warm and cold-resistant ecological houses, domestic waste management, installation of hydroelectric power stations, solar panel stations, use of biogas energy are among the main components of this concept. If we take into account the construction of modern schools, kindergartens, polyclinics and electronic management centers, and the formation of tourism infrastructure in these villages, the picture will be clear. The provision of all residential houses, social facilities, processing and production of agricultural products with alternative energy sources shows the extent to which the "Smart Village" has advantages.

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