

## Development of the Building Materials Industry in Uzbekistan



Muhtorali Abdurahmonov<sup>1</sup>, Abduvoxidov Suxrob Muxtorali ugli<sup>2</sup>

<sup>1</sup>Lecturer at Namangan Institute of Engineering and Technology, Namangan, Uzbekistan

<sup>2</sup>Student of the Namangan Institute of Engineering and Technology Namangan, Uzbekistan

**ANNOTATION:** the article talks about the territories of Uzbekistan, which are rich in ore and nonmetallic minerals, lists the measures for the rational use of the available mineral and raw materials in the Fergana Valley, in particular in the Namangan region, and the development on this basis in the regions of the construction industry.

**KEYWORDS:** ore and non-metallic minerals, construction material, production location, mineral and raw materials, investment projects, long-term loans, production volume of construction materials.

The territory of Uzbekistan is rich in ore and non-metallic minerals, including those that serve as raw materials for the production of building materials. There are reserves of more than 70 types of mineral resources. The Chatkal-Kuramin zone contains deposits of fluorospar of industrial importance. In the Andijan region, the Shirmonbulak-P fluxed limestone deposit is well studied. The reserves of kaolin in Angren are 50 million tons. Deposits of quartz and quartzite (Aktash, Karankul, Sarikul, Tuzbulak), talc (Zaribulak), graphite (Tashkazgan), marble (Kumushota, Surenota), gypsum-magnesite rocks (Uzunkuduk, Saylakuduk) and others are of great importance.

More than 500 deposits of raw materials for the production of bricks, cement, expanded clay, gypsum, limestone and other building materials have been discovered in Uzbekistan. Uzbekistan granite, gabbro, marble are widely known abroad. The country has ruby, sapphire, topaz, tourmaline, beryl, aquamarine, amethyst, rock crystal, rahutopaz, citrine, morion, rose quartz, various granites [1].

In Uzbekistan, 236 deposits of building materials are being developed, or less than 45 percent of their total, that is, there are ample opportunities to increase the production of building materials. Of particular note is the presence of deposits for the production of bricks (200), sand and gravel materials (75), finishing stones (72), building stones (44), cement raw materials (27), limestone for the production of lime (25), sand for the production of silicate products.

A. A. Abdujabbarov notes that there is a significant territorial unevenness in the location of the production of basic building materials. 27 percent of the capacities of enterprises in the construction materials industry falls on the Tashkent region, 23.9 percent - in the Navoi region, 16.0 percent - in the Fergana region and 15.0 percent in the city of Tashkent [2].

For the rational use of the available mineral and raw materials and development on this basis in the regions of the construction industry, it is necessary to pay attention to the implementation of the following measures:

! wider use of the capabilities of the banking system in the accelerated implementation of investment projects at enterprises for the production of building materials in the regions, attracting long-term loans to the sphere;

- accelerated development of the construction system in the regions based on the development and implementation of targeted programs to expand the production of building materials;

!meeting the needs of the population in wall building materials based on the processing of local raw materials;

!ensuring employment of the population and through the development of small business and private entrepreneurship in the production of materials for the construction industry;

!further creation and enhancement of the role in the areas of market infrastructure to serve the construction industry.

The program within the framework of the Action Strategy for the priority areas of development of the Republic of Uzbekistan in 2017-2021 provides for the implementation of 29 large investment projects. In 2017, 24 projects worth 510 billion soums were implemented and 1.1 thousand new jobs were created. Under the program of modernization and diversification, funds in the amount of 13.7 million dollars were spent on 3 projects.

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In 2017, the enterprises of the "Ozqurilishmaterialari" system of society produced 7.7 million tons of cement, 12.8 million square meters of building glass, 2.9 million square meters. m of ceramic slabs, 73.4 thousand tons of dry mixtures, 7.1 million pieces of slate, 88 thousand tons of gypsum, 74 million pieces of burnt bricks or products for a total amount of 3.1 trillion. soums (an increase of 7.4% compared to 2016).

In Uzbekistan, at the beginning of 2018, there were about 8000 enterprises for the production of building materials and they produced more than 100 types of building materials.

In 2019, the enterprises of the system of the society "Ozqurilishmaterialari" produced 10.5 million tons of cement, 10.5 million m<sup>3</sup> of building glass, 6162.0 thousand m<sup>3</sup> of tinted ceramic slabs, soft roofing materials and izola for 10.0 million m<sup>3</sup>, asbestos-cement slate in 352.7 million conventional slabs, 1.3 billion conventional bricks, 24.6 million m<sup>3</sup> of nonmetallic construction products, 16.7 million m<sup>3</sup>, crushed stone and gravel, 1.7 million m<sup>3</sup> of prefabricated reinforced concrete structures and products, 29.6 million m<sup>3</sup> of sawn timber, 1017.7 m<sup>3</sup> of prefabricated window and door blocks [table 1].

In 2018, products were manufactured for 3.25 trillion. soums, which is 9.9 percent more than in 2017. Efforts were aimed at producing from local raw materials based on innovative technologies from local raw materials based on innovative technologies of modern energy-efficient products with low costs. The number of types of produced building materials from 105 has reached 120.

**Table 1. Production in Uzbekistan of the main types of industrial products for construction.3**

Types of products	2015	2016	2017	2018	2019
Cement million tons	8,5	8,6	9,1	9,1	10,5
Wall materials (excluding reinforced concrete wall panels) billions of conventional bricks	1,6	2,1	1,6	1,8	1,3
Non-metallic building materials, mln.m <sup>3</sup>	10,7	9,3	10,7	11,3	24,6
Prefabricated reinforced concrete structures and products, mln.m <sup>3</sup>	1,4	1,7	1,7	1,8	1,7
Asbestos-cement slate, mln. Conventional slabs	356,6	405,5	461,6	546,0	352,7
Soft roofing materials and insulation, mln.m <sup>3</sup>	9,3	10,4	6,6	6,0	10,0
Tinted ceramic plates, thousand m <sup>3</sup>	6832,6	9351,2	9256,6	14102,6	6162,0
Crushed stone and gravel, mln.m <sup>3</sup>	8,0	6,4	7,5	6,7	16,7
Window glass from natural raw materials, mln.m <sup>3</sup>	7,2	7,3	7,3	9,3	10,5
Lumber, mln. m <sup>3</sup>	34,3	18,0	38,9	72,7	29,6
Prefabricated window and door blocks, thousand m <sup>3</sup>	462,3	592,4	763,3	1323,5	1017,7

Large-scale ceramic slabs, glazed ceramic slabs, porcelain stoneware, glass-crystalline, basalt fiber materials, composite rebar, basalt sandwich panels, grade 500 cement, seamless metal pipes, rebar, rolled metal and others were produced. In 2018, the

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needs for 440 thousand pieces of sanitary ware were fully satisfied by the enterprises of the city of Tashkent and the Tashkent region. The Decree of the President of the Republic of Uzbekistan dated February 21, 2019 "On measures for the radical improvement and comprehensive development of the building materials industry" was of great importance for the development of the industry. This resolution was adopted in order to reduce the participation of the state in the economy, increase the efficiency of management of the building materials industry, stimulate deep processing of local raw materials, introduce advanced technologies, diversify manufactured products and expand export volumes, attract investment into the industry, as well as consistently implement the tasks identified in the Strategy for Action on Priority Areas of Development of the Republic of Uzbekistan in 2017 - 2021 and in the Concept of Administrative Reforms in the Republic of Uzbekistan (3). By its content, the resolution is aimed at expanding the competitive environment in the industry, at increasing its investment attractiveness. In its execution, an association of enterprises of the building materials industry was organized in Uzbekistan. The shares of "Kazqurilishmateriallari" JSC in the authorized capital of the respective business entities were transferred to the Agency of the Republic of Uzbekistan for State Assets Management. The members of the association "Ozqurilishmateriallari" will be enterprises of the building materials industry that voluntarily joined it. The main tasks of the association and the directions of activity of "Ozqurilish materiallari" are defined:

representing and protecting the interests of the members of the association in government and administrative bodies, as well as making proposals for the development of the building materials industry;

production of construction products with high added value, modernization, technical and technological re-equipment of enterprises, organization of joint ventures with leading specialized foreign companies, interaction with the Ministry of Economy and Industry of the Republic of Uzbekistan, the Ministry of Investment and Foreign Trade in attracting foreign direct investment; expanding the production of high-quality products in demand, filling the domestic market with import-substituting and competitive building materials and products of local production, as well as supporting the activities of the members of the association to increase the export potential of the industry;

assistance in the location of enterprises based on the prospects for the development of other resources and sales markets.

The following tasks are determined by the decree of the President of the Republic of Uzbekistan:

implementation in 2019-2021 of 67 investment projects for technical and technological renovation of existing and creation of new enterprises totaling \$ 1.3 billion, including \$ 692 million by attracting foreign direct investment;

to increase the production of building materials and to bring in 2021 the volume of production capacity for the production of cement to 17 million tons, architectural glass - 32 million square meters, chipboard (chipboard) - 380 thousand cubic meters, aerated concrete blocks - 700 thousand cubic meters, color paper - 4.5 million rolls, large-panel reinforced concrete products for the construction of multi-storey buildings - 180 thousand square meters.

In Uzbekistan, in the total volume of production of building materials, the share of the Tashkent region is 20.8 percent, the city of Tashkent - 18.4 percent, Navoi region - 15.7 percent, Fergana region - 13.0 percent, and in other regions this figure is below 5 percent [table 2]

**Table 2. The share of individual regions in the total production of the building materials industry in Uzbekistan, in percent**

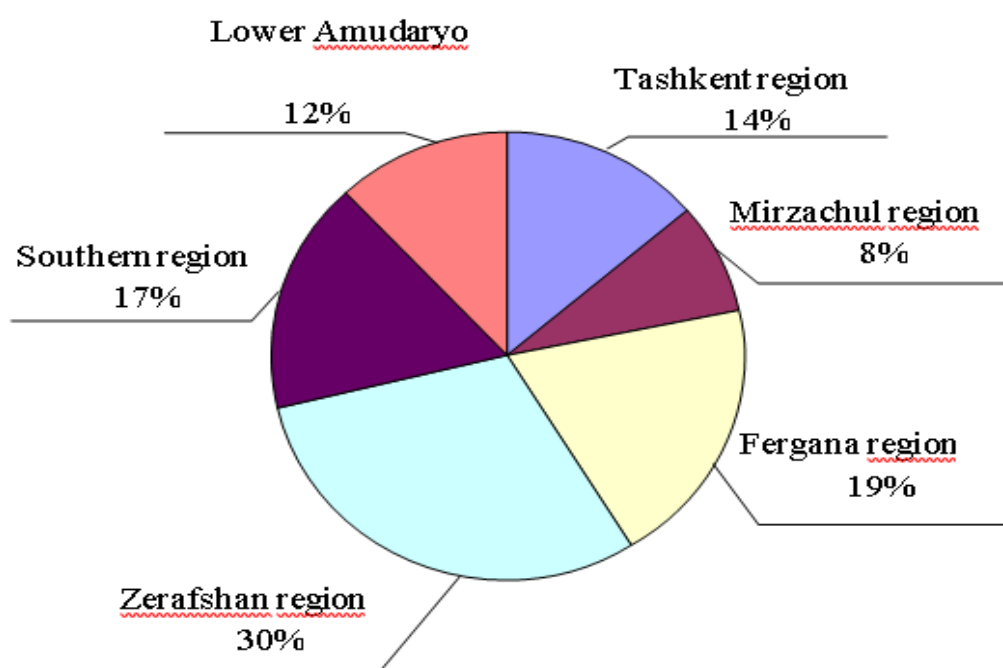
Regions	2014	2015	2016	2017	2018	2019
Republic of Uzbekistan	100,0	100,0	100,0	100,0	100,0	100,0
Republic of Karakalpakstan	3,1	3,2	2,2	3,1	3,7	3,3
Andijan	2,0	2,0	2,2	2,8	2,8	2,3
Bukhara	5,1	5,3	5,3	5,5	5,0	5,3
Jizakh	1,8	2,1	1,5	1,8	3,0	4,6
Kashkadarya	2,6	3,2	4,3	3,8	2,9	2,9
Navoi	20,1	16,9	17,3	16,0	15,7	13,4
Namangan	1,8	2,4	2,3	2,3	2,3	2,8

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Samarkand	4,4	4,6	4,4	4,0	4,7	5,8
Surkhandarya	2,2	2,3	2,2	2,6	2,5	2,4
Sirdarya	2,1	2,7	3,0	2,9	3,1	3,9
Tashkent	22,3	21,4	21,9	20,8	20,8	20,6
Fergana	15,1	14,7	13,9	14,0	13,0	12,4
Khorezm	1,8	1,8	1,7	1,9	2,0	1,3
Tashkent city	15,4	17,2	17,7	18,3	18,4	18,6

According to the table, it can be seen that in the southern regions of the country, in the Zeravshan oasis and the Fergana Valley, in comparison with the capital region, the construction materials industry developed relatively slowly and there was a clear imbalance. In recent years, there has been a tendency to overcome it. For example, in 2018, 13 new cement plants were accelerated in the regions to meet demand with production based on local raw materials. And the regions have quite large reserves of the latter.

There are reserves of mineral construction raw materials in all regions of Uzbekistan [Figure 1].



**Figure 1. The structure of the location of deposits of mineral construction raw materials on the territory of the Republic of Uzbekistan**

The Fergana region is the smallest in the country in terms of its area. However, the population density is the highest here. Here 17.4 percent of the gross domestic product of Uzbekistan is created and 97 deposits of construction importance are located. Currently, only 41 deposits are involved in production. Therefore, in the region, along with other industries, the construction materials industry should be rapidly developed.

Uzbekistan has the necessary mineral resources for the development of the construction materials industry. Geological surveys confirm that there are 37 deposits and areas of reserves for the production of cement, such deposits for the production of aerated concrete - 14, glass - 7, lime - 24, areas of natural stones - 93, sand and gravel mixtures - 92, gypsum - 19. In the republic

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there are 19 cement plants with a total capacity of 11 million tons per year. The bulk of the capacity (91%) is for 6 large enterprises. Note that for the main types of materials, local production does not cover the needs. Demand is satisfied for cement by 74.8%, glass - 50.6%, linolium - 86.6%, sanitary products - 33%, and the rest is covered by imports.

The development of the building materials industry will contribute to a more complete satisfaction of the needs of the economy, ensure the accelerated construction of individual and multi-storey housing, infrastructure and social facilities. Of course, this is a very energy-intensive industry, in which more than 70 percent of the consumed energy comes from natural gas. However, it should be borne in mind that this industry helps to maintain a balanced demand for male and female labor with all the ensuing positive social consequences.

Analysis of the dynamics of the volume of construction and production of building materials shows that the production of these products lags significantly behind the growth of market demand. For example, in 2017-2018, the volume of construction work in comparable terms increased by 16 percent, and the production of cement - 8.7 percent. This imbalance has led to significant increases in market prices. Taking into account the fact that by 2020 an annual increase in construction volumes of about 10 percent is expected, appropriate measures should be taken.

Taking into account the social and economic importance of the industry, the government has developed and is implementing the Concept for the development of the industry in 2019 - 2025. It provides for an increase in the production of wall wallpaper by more than 47 times during this period, parquet panels and slabs - 19 times, chipboards - 15 times, aerated concrete blocks - 7 times, varnish-and-paint and varnish-glass materials for energy and heat-saving technologies - 4 times. The production of environmentally friendly composite rebar will be launched. The release of products from igneous rocks will increase 3 times, and others [4].

On the whole, a course has been taken for the complex development of raw materials deposits. Taking into account the uneven location of raw materials deposits, in order to reduce non-productive costs, in particular, to reduce transport costs, a cluster approach and the creation of production complexes when placing enterprises in regions are envisaged.

And in the Namangan region, the building materials industry should develop on the basis of the introduction of innovative technologies, ensure the production of high-quality, marketable, as well as import-substituting products. To this end, projects are being implemented for the production of 1.0 million tons of high-quality cement, 50 thousand cubic meters of natural facing slabs, 1.7 million square meters of finishing ceramic plates, 200 thousand cubic meters of autoclaved aerated concrete, 1.2 thousand tons of paints and varnishes. and also sanitary products of various types and sizes, composite materials and PVC-based products, agglomerate plates, energy-saving large panels and others.

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