CLUSTER APPROACH IN CREATION AND DEVELOPMENT OF METALLURGY IN UZBEKISTAN

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ABSTRACT

The article explains that the metallurgical development strategy in Tashkent and Navoi regions should be determined based on the cluster approach, both in terms of industry and territory, based on the NKMK and NKMK.

KEYWORDS: *Cluster Approach, Metallurgy, Copper Industry Cluster, Innovation Cluster, Non-Ferrous Metals, Consumer Demand.*

INTRODUCTION

In the conditions of increasing globalization and competition, the development of the economy of Uzbekistan largely depends on the stable and effective development of each sector.

Stated in the first chapter of the dissertation, the metallurgical industry is the basis of the development of the economy of the country and its regions. The unstable situation in the metallurgy of Uzbekistan due to the decrease of the domestic iron ore base is causing problems in the industry and requires the development of a new strategy for its development, taking into account the current state of the country's mineral-raw material base.

The strategic task of the metallurgical industry of Uzbekistan today is to attract the explored iron ore resources of the North-Eastern region, which is sufficiently provided with relevant resources and fuel- energy capacities, to the circulation of the national economy, and to create new capacities in its undeveloped areas, which will spread the industry throughout the country, allows to realize the concept of development, concept of socio-economic development of Uzbekistan until 2030, clusters should be the main object ¹ of the state policy to stimulate innovations.

The use of the cluster approach is considered as an effective form of complex economic systems and one of the most effective ways of developing sectors and regions. At the same time, many methodological and methodological aspects of the formation of clusters, in particular mining and metallurgical clusters have not yet been sufficiently studied.

For example, the following questions: justification of the strategy for the creation and development of a specific mining-metallurgical cluster; development of a mechanism for the formation of a mining-metallurgical cluster , taking into account the characteristics of the industry and allowing the formation of the most promising directions of the development of the region; organization of mutual cooperation of participants within the mining-metallurgical

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cluster; it is urgent to develop measures and mechanism of state support for the cluster development of the mining and metallurgical industry of our country. The scientific and practical importance of the above issues predetermines the need to continue relevant scientific research.

In our opinion, the metallurgical development strategy in Tashkent and Navoi regions should be determined based on a cluster approach, both in terms of industry and territory.

The formation of world-class metallurgical clusters has already begun in Uzbekistan, the basis of which is the large vertically integrated holdings located in the Tashkent region.

In accordance with the decision of the President of the Republic of Uzbekistan dated June 24, 2021 "On additional measures for the development of the mining and metallurgical industry and related industries" No. A scientific-technological cluster is being created for the production of copper products and finished products with high added value.

Cathodic copper produced in "Almalik KMK" joint-stock company serves as raw material for manufacturers of finished products - participants of the Copper industry cluster. Currently, the annual production volume of cathode copper is 148,000 tons. It is planned to increase the volume of copper production several times in the coming years.

Within the framework of the cluster, the task was set to increase the volume of deep processing of copper to 80%, to produce a final product with high added value.

The priority areas of cluster development are as follows:

- production of finished copper products with high added value (cable and wire products, pipes, fittings, copper powder, spare parts and chargers for electric cars, elements of renewable energy sources, etc.);

Providing cluster participants with chemical reagents and substances, as well as equipment and mechanisms produced in the Republic of Uzbekistan;

- Training, retraining and improving the skills of personnel for the cluster, as well as expanding the scope of experimental design and scientific research in these areas.

to coordinate the ongoing activities, to develop proposals on the strategy and main directions of the cluster's activities.

One of the most promising regions in terms of prospects for the development of the metallurgical industry and the creation of a mining-metallurgical innovation cluster is Tashkent region. The region is one of the most attractive investment regions of Uzbekistan. As an example of this, we can cite the successfully operating investment project for the development of the Yoshlik-1 mine with a total cost of 4.9 billion US dollars, which in many ways involves the development of processing industries in the region, not just the mining industry.

The establishment of the mining and metallurgical innovation cluster in the Tashkent region of Uzbekistan is also related to the fact that the Tashkent region ranks 3rd among the regions in terms of industrial potential and is the locomotive of industrial growth in Uzbekistan.

According to the level of specialization of the industry of Tashkent region, the metallurgical industry ranks 1.

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Figure 1. Assessment of the degree of specialization of industry in Tashkent region².

A metallurgical innovation cluster in the Tashkent region, such as "Almaliq KMK" JSC, "Angren Pipeline Plant" JSC, "Uzmetkombinat" joint-stock company ,"Hard Alloys and Resistant Metals Combine" LLC, large-scale production of the Tashkent Metallurgical Combine base, it is possible due to the presence of industrial relations with Ingichka, Koytash and Almalyk complexes for mining and production of non-ferrous metals.

"Almaliq KMK" JSC, "Angren Pipe Plant" JSC, "Uzmetkombinat" JSC, "Hard Alloys and Resistant Metals Combine" LLC, Uzbekistan scrap preparation and processing plant, non - ferrous metal waste plant, Tashkent metallurgical combine. Uzbekistan scrap preparation and processing, non-ferrous metal waste plant.

The advantages of establishing a metallurgical innovation cluster in Tashkent region are as follows:

- Proximity to the capital, increasing influence of agglomeration;

-Convenient transportation position, the location of the transport-logistics center that marks the region as the largest industrial and transport center;

- A densely populated area, which is a factor of increasing the importance of the labor potential and the size of the consumer market;

-Personnel capacity, regular improvement of their qualifications and training in basic enterprises;

-The presence of production facilities that are not similar in other regions of the republic;

- Increase in domestic demand for goods and services, which are driving factors of economic development.

It is assumed that the development of non-ferrous metallurgy in the long-term perspective will be characterized by the attraction to development of mining reserves in the Tashkent region, etc.

The presence of large deposits of non-ferrous metals determines this opinion.

TABLE 1 LARGE DEPOSIT OF NON-FERROUS METALS IN THE TASHKENTREGION³

No	The name of the	The name of	Amount, t	Production	Reserve
	mine	the metal		quantity, t	processing
					period, year
1	Kalmakir	Copper	6 1500 000	148,000	41
2	Kalmakir	Gold	1 300	15	86
3	Youth-1	Copper	45,000,000	148,000	305
4	Youth-1	Gold	5 384	15	360
5	Sary-Cheku	Copper	856,000,000	4,000,000	214
6	Uch-Kuloch	Copper	51,500,000	500,000	103
7	Kicked out	Gold-copper	15,525,000	345,000	45
8	Koch Bulak	Gold-copper	240,000	40,000	6
9	Red Apple	Gold-copper	620,000	100,000	62

The most important factors determining the creation of a mining-metallurgical innovation cluster in the Tashkent region, as noted earlier, are the consumer demand for various types of metal products and difficulties in interregional cooperation.

The mining and metallurgical innovation cluster in Tashkent region should be formed on the basis of the copper industry cluster to be established in 2021 and existing metallurgical enterprises.⁴

JSC (Almaliqcity) currently operating in this region, which in the future has more than 19 billion tons of mineral reserves as a result of the development of the Yoshlik 1 mine and the transition to iron ore raw materials due to the supply of ore from the Kalmokir mine, and later the merger of these mines. will become the world's largest ore mine.

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