# DEVELOPMENT OF FERROUS METALLURGY IN UZBEKISTAN IN THE CONTEXT OF MODERNIZATION OF THE NATIONAL ECONOMY

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## ANNOTATION

In article consider perspectives develop black metallurgies Uzbekistan in examples Uz metkombinat. Production produces black metallurgy in the Gase only for the second time raw material hisnot real perspective for growth and provide demand republic. For stable develops branch need to create own raw material base, to have location republic of Uzbekistan.

**Keywords:** branch of ferrous metallurgy, manufacture, development, economical safety, iron mine, forecast.

### INTRODUCTION

Metallurgy still firmly stands among the main basic industries of the modern world economic system. The state of other basic industries largely depends on the level of its development. Over the past 12 years, world steel consumption has increased from 771 to 955 million tons. in year. The high importance of metallurgy in its modern form enhances the role of its internal problems and takes their solution beyond the scope of an individual enterprise, region, and even country. Ferrous metallurgy is one of the leading sectors of the country's economy. Ferrous metals constitute the material basis for the development of industrial production, transport, construction, communications, trade and all other sectors of the country's economy. Therefore, the development of various sectors of the country's economy largely depends on the level of production of ferrous metals. A stable supply of the economic complex of Uzbekistan with ferrous metallurgy products is one of the most important factors for the successful implementation of economic and social transformations taking place in the country. The stable growth of demand for the products of this industry is predetermined by the economic development of the republic. The ferrous metallurgy of Uzbekistan is represented by the joint-stock production association Uzbek Metallurgical Plant - Uzmetkombinat JSC and small metallurgy - foundries of machine-building plants of the republic.

The ferrous metallurgy of Uzbekistan is represented by the joint-stock production association Uzbek Metallurgical Plant - Uzmetkombinat JSC and small metallurgy - foundries of machine-building plants of the republic. The main part of the republic's ferrous metallurgy products is produced in the Tashkent region, and the main producer of ferrous metals in the region is Uzmetkombinat JSC. The products of foundries of machine-building plants make up an insignificant part (0.1%) of the total volume of steel production. These products are used for the internal needs of the plants themselves and their volumes do not significantly affect the production of ferrous metals in the republic. Tashkent Pipe Plant produces small diameter pipes. This provision gives reason to believe that Uzmetkombinat JSC is practically the only enterprise in the territory of the Republic of Uzbekistan and Central Asia that produces steel and rolled ferrous metals. Joint stock company "Uzmetkombinat" is the leading iron and steel enterprise in Central Asia. The plant is the basic industry and is in close relationship with all industries. According to experts, at present, the total need of Uzbekistan for

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rolled ferrous metals is only 36.1% provided by the processing of scrap and waste of ferrous metals at Uzmetkombinat JSC, located in Bekabad, the rest (63.9%) is imported from CIS countries, primarily from Russia, Kazakhstan and Ukraine. Uzmetkombinat JSC is a monopoly manufacturer, on this basis, the distribution of its products on the domestic market is regulated in accordance with the law. The rolled metal produced at the joint-stock company is mainly used in the republic, and is also supplied to the countries of near and far abroad.

The presence in the republic of labor resources, natural gas, electricity, large reserves of iron ore natural raw materials, labor resources, favorable prospects for their use and the growing needs of the country's economy in metal products create the necessary prerequisites for the accelerated development of the iron and steel industry of the republic. However, the production of ferrous metallurgy products based only on secondary raw materials does not have real prospects for growth and meeting the needs of the republic. The analysis showed that the republic has sufficient potential of mineral resources to fully meet the needs of the industry. One of the possible ways to more fully satisfy the country's demand for rolled ferrous metals is the creation in the republic of production with a full metallurgical cycle through the development of reserves of its own mineral raw materials from the existing deposits of the republic. As you know, Uzbekistan has rich reserves of raw materials and resources, including iron ore reserves. Uzbekistan does not have its own developed iron ore base. According to the State Committee for Geology of the republic, three deposits have been explored to date: Syuren-Ata in Tashkent, Temirkan in Jizzakh regions and Tebinbulak in the Republic of Karakalpakstan. An additional raw material base for the ferrous metallurgy of Uzbekistan is the steelsmelting slags of Uzmetkombinat JSC. More than 3 thousand tons have accumulated in the dumps of the association. and 50 thousand tons of steel-smelting slags are produced annually. From these slags it is possible to extract and produce pig iron for steelmaking.

Secondary (technogenic) resources of the Almalyk Mining and Metallurgical Plant are suitable for the production of a carbon product. The main product of the beneficiation process - concentrates containing 16-18% copper, are processed according to traditional pyrometallurgical schemes. According to the adopted technological scheme, the following types of waste and intermediate products are formed in the production process: - slags of reflective melting; - oxygen slag - flare melting; - converter slags. Slags of reflective and oxygen-torch smelting contain valuable components in quantities exceeding their concentrations in the original ores

The separation of all valuable components from waste can bring great economic benefits comparable to the sale of the main product - copper and molybdenum. Currently, these slags are accumulated in special storages and are waiting for the emergence of new technologies for their processing. Every year, 400-500 thousand tons of magnetite, which is the most valuable raw material for ferrous metallurgy, are thrown into the dump with the tailings of the AGMK processing plant alone. Given the physicochemical properties of magnetite, it is not a big problem to isolate it from the total tailings flow. Only a small investment is needed to build a separator compartment. The copper smelter of these slags has accumulated about 20 million tons. With an average copper content of 0.6–0.8%, it can be calculated that about 140 thousand tons of copper, 7 million tons of iron and many other valuable components. The most important, both at present and in the future, for the development of ferrous metallurgy in the republic are the resources of scrap metal. Iron resources include cinders and scrap. In connection with the great demand for sulfuric acid in the Republic, the development of sulfuric acid production on a significant scale is planned. In the production of sulfuric acid on pyrites, cinders will be obtained in the form of waste, which can be used as iron ore raw materials. Therefore, an

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important problem facing the scrap processing organizations of the republic is to strengthen control over the accounting of existing scrap metal at enterprises and old equipment to be replaced, as well as the collection, delivery and procurement of scrap metal. It can be seen from the analysis that the republic has sufficient potential of mineral resources for the development of ferrous metallurgy for the prospective period. In increasing the efficiency of production, the introduction of the achievements of scientific and technological progress in the industry itself plays an important role - the improvement of technological processes, the improvement of product quality, etc.

The main directions of scientific and technological progress in the development of ferrous metallurgy are the improvement of quality, the expansion of the range and volume of products on the basis of increasing production efficiency. Achievements of scientific and technological progress that contribute to the effective development of ferrous metallurgy in Uzbekistan include the use of highperformance electric furnaces in pig metallurgy at large enterprises and mini-plants in the production of simple and complex alloyed steels, the organization of ferrous metallurgy with a steel-rolled production scheme, the development of deposits of low-grade iron ores, obtaining iron from ores by direct reduction. In order to achieve the goals set, it is necessary, rationally using these resources, to make efforts for a deeper processing of the available raw materials and the production of products that have a steady demand in the domestic and world markets. For the further development of the metallurgical industry, it is necessary to solve the following tasks: - increasing the level of raw material supply of the industry by involving new types of raw materials from new deposits in the circulation and expanding import supplies of scrap metal; - increase in the volume of production of finished rolled metal products; For the sustainable development of the industry, it is necessary: - the production of ferrous metallurgy products based only on secondary raw materials has no real prospects for further growth in production and full satisfaction of the needs of the republic; - the growing needs of the country require a significant development of ferrous metallurgy in Uzbekistan in the future; - the prospects for mastering the national potential in the development of the modern metallurgical industry, saturating the domestic market with long products, as well as increasing its export component create a general favorable background for the domestic market. The implementation of all these measures will allow expanding its raw material base, bringing the volume of production of metal products to volumes that fully meet the needs of the national economy in ferrous metals, exclude their import into the republic and expand the export potential.

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