

ENVIRONMENTAL IMPACTS OF MINING INDUSTRY**Okhunjonova Dildora Komiljon qizi**

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ANNOTATION

This article focuses on the mining industry and its impact on the environment. The article provides information on the development of the mining industry, types of mining and environmental damage during mining.

Keywords: *Mining industry, nature component, geocological problems, ecological problems, atmosphere, hydrosphere, terrikon, landscape disturbance*

In today's fast-paced world, the role and importance of a variety of natural resources, such as the extraction, processing and use of mineral resources as finished products, is incomparable. As the world's population grows, so does its impact on the environment. The scientific literature divides the growing influence of society on nature and its changing attitude towards it into five stages. The third stage is the "Industrial Revolution Period". It was at this stage that a human being began to use natural resources (minerals). With the development of industry, the influence of society on nature began to increase.

In general, the mining industry is a set of industries including the exploration of minerals, their underground mining, primary processing and improving.

All methods of field development are characterized by the impact on the biosphere, affecting almost all of its elements: water and air basins, land, subsoil, flora and fauna. This impact can be both direct (direct) and indirect, which is a consequence of the first. The dimensions of the zone of distribution of indirect impact significantly exceed the dimensions of the zone of localization of direct impact. The zone of distribution of indirect impact includes not only the element of the biosphere that is directly affected, but also other elements. In mining, the main types of activities in which there are certain environmental disturbances of varying intensity are:

- Mining workings for the extraction of minerals and maintenance of mining operations;
- transportation of rock mass by rail, conveyor, road transport or hydraulic method; – processing of minerals;
- storage of minerals and mineral waste and their subsequent disposal;
- ventilation of mine workings, neutralization and neutralization of harmful substances emitted into the atmosphere during the operation of machinery and equipment, dust suppression and dust collection;
- purposeful change in the properties of the rock mass, where the mine is located (freezing, plugging, thermal action, etc.);
- energy supply of mining enterprises;
- remediation and stowing works;
- drainage and drainage activities.

The main negative environmental impact factors include:

- use of natural and energy resources;
- subsidence of the earth's surface as a result of mining;
- generation of a significant amount of enrichment wastes with land acquisition for their storage;
- emissions and discharges of pollutants into the environment.

According to the data, the mining industry is divided into the following main groups:

- 1) **fuel** (oil, natural gas, coal, shale, peat) mining industry;
- 2) **metal ore** mining industry (iron, manganese, non-ferrous metals, rare-earth metals, radioactive elements);
- 3) **nonmetallic and local building materials** industry (mining of marble, fanite, asbestos, chalk, dolomite, quartzite, kaolin, gypsum, marl, feldspar, limestone, etc.);
- 4) **mining chemicals** industry (extraction of apatite, potassium salts, nepheline, nitrate, sulfur pyrite, boron ores, phosphate raw materials);
- 5) **mineral water intake** industry (mineral groundwater, for water supply and other purposes).

During the extraction of resources from each field, the components of nature are directly and indirectly affected. For example, as a result of the discovery of any pit, the relief of the area may change. In addition, the changes in the composition of the soil, flora and fauna, atmospheric air are observed.

According to statistics, dangerous tumors are more common in the population living near the mines. Its effects are also felt in areas close to the mines. In particular, it depends on the direction of the wind.

Today, it may be a little difficult to reduce mining. Because the growth of the planet's population leads to an increase in demand for natural resources. This requires an in-depth study of mineral reserves. In the scientific literature, the reserves of solid minerals are divided into categories A, B, C1 and C2 according to the degree of study. The first three categories of reserves are explored, and the C2 category is included in the initially estimated reserves. Mineral resources are also mined on the territory of Uzbekistan from a number of mining reserves. It is now possible to try to reduce environmental pollution only through mining.

My master's dissertation is entitled as "Impact of the mining industry on the environment (on the example of the Almalyk industrial region)", which consists of an introduction, three chapters and paragraphs for each chapter, a conclusion and a list of references. The first chapter is called "General concept of the mining industry." This chapter aims to study the factors that led to the formation of the mining industry, mining methods, mining waste and their types.

The second chapter is entitled "Geographical description of the Almalyk industrial region", which includes the natural geographical location, boundaries and area, geology and geomorphology, tectonic structure, climate and water of the Almalyk industrial region, soils, flora and fauna, population and economy.

Chapter Three is about "Environmental Impact of mines in the Almalyk Industrial Zone" that is dedicated to the air pollution, its impact on surface and groundwater, effects on soil cover, on living organisms.

During the writing of this master's dissertation, the object of study was to visit the fields in the Almalyk industrial area, to study and assess the impact of mines on the environment, to study the environmental and geo-ecological problems arising from mining. One of the main principles in this work is to take into account the geographical laws and the distribution of natural geographical processes.

In short, each mine has its own impact on nature. Therefore, the main tasks today are to use nature as wisely as possible, to further strengthen the processing of waste generated by mining, to make more efficient use of landfills, to expand the area of protected areas.

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