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USE OF NATURAL RESOURCES OF THE AKHANGARAN VALLEY AND ECOLOGICAL STATE

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ABSTRACT: Technological progress has exceeded the level of pollution resulting from the use of natural resources and environmental pollutants. As a result, the natural balance is disturbed. This article discusses the issues of pollution of geosystems with chemical elements that are several times higher than the established amount of harmful components.

KEYWORDS: Valley, mining zone, geoecological situation, soil, destroyed lands, human body.

INTRODUCTION

The Akhangaran valley is located between the Chotkol and Kurama ridges, in the southeast of the natural and geographical region of Chirchik-Akhangaran.

Depending on its geological, paleogeographic and orographic characteristics, the Akhangaran Valley is one of the most industrially developed regions of our Republic due to its richness in various mineral, fuel and energy, ore minerals, the presence of agro-climatic, land-water and, in particular, skilled labor resources.

The basis of the fuel and energy industry of the Akhangaran valley is the Angren brown coal deposit, located 15 km southeast of the city, with reserves of about 2 billion tons. Angren coal mine 1940 T.S. The discovery by Chikrizov marked a revolutionary stage in the study of the mineral resources of the Akhangaran valley and their extraction. The coal deposit is surrounded from the southeast and northwest by the ranges of the Tien Shan mountain system, occupying part of the mountain range of the Akhangaran river valley. The height of the area where the coal mine is located is from 850 to 1300 m above sea level. The mine has been in operation since 1948. Over the past 60 years, the mine has produced more than 150 million tons of coal, a large amount of kaolin raw materials, lime and other types of agricultural minerals. The main source of water in the area where the mine is located is the Akhangaran River, and the Akhangaran Reservoir was built into the river to regulate flood water flows in the upper part of the coal mine. Below the dam

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on the southeast side of the mine, a bypass tunnel was built through which the Akhangaron River flowed [5].

In the industrial area of Almalyk, where the mining industry of the basin has developed, you can see dumps and quarries. Throws occur under the influence of two different sources. Rocks Nokerak, mined in quarries and mines, mainly form embankments around the quarries. Discharges formed from the waste of the Olmalyk Mining and Metallurgical Plant are located in Kayir and Ozan of the Akhangaron River. These casts are located in the low-lying landscape of the valley. The total area of apple throws is 10-15 km2. Dumplings, which are made from waste products from the Olmali mining and smelting plant, contain substances that are toxic to plants. Therefore, plants do not grow in such conditions. They can only be restored after chemical reclamation [4,5].

The damage from the disturbance and deterioration of the state of the soil cover under the influence of anthropogenic factors is most reflected in land and soil degradation, land pollution with chemicals, occupation of land by unauthorized dumps, etc.

In the Akhangaron Valley, disturbed lands are mostly scattered over mountainous and upland undulating ranges. This is mainly due to the fact that on these lands the slope of the earth's surface is large, in spring and early summer it rains in the form of jala, people from early spring feed cattle on the slopes facing south, drive along the slopes without observing the rules of agricultural technology.

Analyzing and summarizing the existing ideas about "disturbed lands", Kh. Vakhobov (2001) proposes to express this concept for the regions of the mining industry as follows. Disturbed lands are lands that have become unusable and less suitable in the process of prospecting, extraction and processing of mineral raw materials. The reason for the formation of most of the degraded land in the Akhangaron Valley was the enterprises of the industrial region of Almalyk-Angren, mainly the mining industry. Lands in the basin, whose reclamation status has deteriorated and whose fertility has declined, can also be classified as disturbed lands. The direct impact of production on the soil makes the problem of protecting land resources relevant every day. Land conservation is achieved through reclamation with the preservation or restoration of their fertility [2].

As a result of the spread and accumulation of chemical compounds hazardous to human health in geosystems, residents of the area breathe dirty air, drink water with harmful impurities, consume foods enriched with nitrates, which leads to a deterioration in their health.

Solving environmental problems while ensuring the sustainable development of industrial territories is one of the urgent tasks of today. This is especially true for solid waste that accumulates in regions where there are regions of the mining industry, that is, enterprises for the extraction and processing of minerals. In regions with a developed mining industry, the change in the natural environment is associated with open-pit mining, in which the annual amount of mountain gin 2/3 is released at metal enrichment plants, and most of them are practically not used. As a result, geosystems are polluted with chemical elements that are several times higher than the established amount of harmful components.

Published: August 10, 2023 | Pages: 104-106

Soils are an integral part of the natural environment and in themselves contain information about the physical and chemical changes in the environment that occurred during the entire period of technogenesis. They require detailed ecological and geochemical studies and constant monitoring, unlike any other component of the natural environment. Various industrial enterprises are located, in particular enterprises of the chemical and metallurgical industries, and in the territories immediately adjacent to them, technogenic changes most often occur, heavy metals exceed the permissible norm, pollution, erosion and deflation of the soil layer due to the melting of heavy metal compounds into the soil under the influence of acid rain. And the return of such a technogenically affected soil layer to its proper state will require a huge amount of labor and costs [4].

Open storage of waste from mining and processing plants, metallurgical, chemical and other industrial enterprises on the territory of mining industrial regions negatively affects the state of the environment.

CONCLUSION

In conclusion, we note the high level of production in the Akhangaron Valley, in particular, the presence of the most industrialized Almalyk-Angren industrial region in our republic and the fact that the industries consist of mining, energy, chemical, metallurgical industries, which have a strong impact on the natural environment, as well as the rapid development of other types of anthropogenic impacts, population density and location, such indicators as the penetration and accumulation of chemical elements both from the slopes of the valley and from the upper reaches of the valley, have a significant negative impact on the geoecological situation in the Akhangaron Valley. Therefore, these cases should be taken into account when carrying out measures to improve the geoecological situation and optimize the natural environment.[1,2].

REFERENCES

1. Бекмухамедова М.Х. Геохимические условия геосистем средней части бассейна Охангарона и их влияние на здоровье населения. Диссертация написана для получения академической степени магистра. Ташкент, 2017.
2. Вахабов Х. Оценка и прогноз формирования горнопроммышленных ландшафтов и физико-географические основы их рекультивации // Авт. Дисс. На уч. Ст. д.г.н. – Т.: 2001. – 48 с.
3. Рафиқов В.А. Эколого-географические основы оптимизации взаимоотношений природы и общества. Ташкент. “Munis gesign group”. 2014.
4. Шукуров Н.Э. Распределение тяжелых металлов в почвах Алмалыкского горнопромышленного района и их влияние на почвенные микроорганизмы // Экология хабарномаси // №04/04/2013. 26-31 б.
5. Шукуров Ш. Оценка влияния антропогенных процессов на геоэкологическое состояние долины реки Ахангаран. Диссертация. Тошкент 2011.