

Economic Aspects of Natural Resources Use in Uzbekistan

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Abstract. *The republic owns a large reserve of natural resources. The high level of exploration of mineral deposits in Uzbekistan is associated with the extraction of fuel resources, precious, non-ferrous and rare metals, uranium ores, oil shale, and raw materials for construction materials. The article analyzes key ideas and related points shortly with examples.*

Keywords: *nature, natural resources, energy, ore minerals, fuel resources, economy.*

Introduction. The current stage of development of the world economy is characterized by the ever-increasing scale of consumption of natural resources, the sharp complication of the process of interaction between nature and society, the intensification and expansion of the scope of manifestation of specific natural-anthropogenic processes that arise as a result of man-made impacts on nature. The aggravation of raw materials, fuel, energy, water and environmental problems in general has crossed the boundaries of individual regions and acquired a global scale. In this regard, the following points are of great importance:

studying the natural resource potential of the world as a whole, individual continents and countries;

analysis of the systems of their economic use that have developed in various socio-economic structures of the modern world community;

development of ideas about regional and optimal development of natural resources;

creation of alternative raw materials;

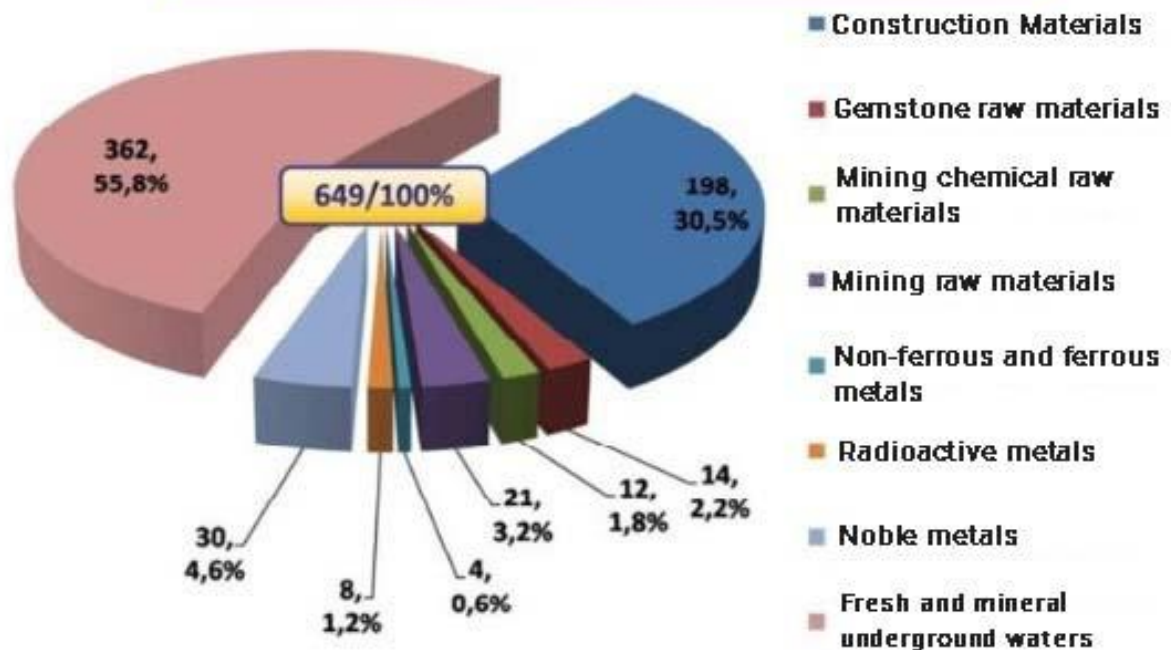
use of recycling technologies;

introduction of new and cost-effective technologies;

selection of services from manufacturers that make it possible to obtain energy-saving materials, etc.

Main body. The presence of such a rich raw material base allows us to occupy leading positions in the production and export of products from natural deposits in Uzbekistan. More than 60 types of minerals are concentrated in the depths of the republic, but less than half of the types of resources are mined. Not all are used in production. Only 20% of the subsoil has been studied in this territory. Explored reserves are estimated at \$1 trillion. So the potential is huge and amounts to approximately \$5.7 trillion.

**Mineral deposits discovered during the years of independence of the Republic of Uzbekistan
(number of deposits/% of the total volume)**



In leading positions. Uzbekistan ranks fourth in terms of total gold reserves, and seventh in terms of production. Every year the country extracts 80 tons of valuable metal from gold deposits. There are over 40 gold vault locations open, with nine in development. Mining is carried out in the Zeravshan River basin and in the Kyzylkum desert. Gold is used in the jewelry industry and also as a gold reserve.

Energy and fuel resources. The main energy raw material is gas. Its storage facilities are largely concentrated in the area of the cities of Gazli and Karshi. In terms of natural gas production, the Uzbek national gas company Uzbekneftegaz has taken a solid 11th place and the annual volume is 60 - 70 billion cubic meters.

There are oil reserves in the Fergana Valley and the Bukhara, Kashkadarya, Surkhandarya, Namangan, and Andijan regions. The largest storage facility, Kokdumalak, contains large volumes of oil. The map shows that half of it is located on the territory of neighboring Turkmenistan. An Agreement was concluded between the countries, signed in March 1997. Under the terms of the Agreement, part of the oil wealth is supplied to Turkmenistan at the Seydi Oil Refinery free of charge.

Work in the energy sector is concentrated in the hands of the China National Petroleum Corporation (CNPC), the Korean National Petroleum Corporation, Gazprom, Lukoil and Uzbekneftegaz. Under the terms of the Product Distribution Agreement, the opportunity to extract useful fuel resources is given to companies, in accordance with the Legislation of the Republic of Uzbekistan.

Coal mining is concentrated in the Surkhandarya region in two areas, Shargunsky and Baysunsky. All coal from the bowels of Uzbekistan goes to the needs of the local electric power industry.

According to experts, coal wealth amounts to 1882.8 million tons. Brown coal accounts for 1786.5 million tons, hard coal – 46.3 million tons.

Ore minerals of Uzbekistan. On the territory of the republic, according to maps, more than 100 ore deposits have been explored, more than 30 with mineral rocks, more than 40 with non-

ferrous and rare metals. Of these, copper, molybdenum, tin, aluminum, silver.

There are 4 known deposits of iron and manganese ores. Gushayskoye contains alunite ores and bauxites with aluminum, silicon and other useful rocks. Reserves are estimated at 130 million tons, which are processed into alumina.

Rich deposits of tungsten ores have been discovered in Kyzylkum, which are processed at the Uzbek plant of refractory and heat-resistant metals in Chirchik.

The natural subsoil of Uzbekistan stores wealth in the form of potassium, rock and sulfate salts, sulfur, phosphorites, and mineral pigments.

Natural minerals that are in demand in construction are concentrated in almost every region. Sand, gravel, crushed stone, wall stone, marble, limestone, expanded clay, gypsum have been discovered and are used in industry. 522 deposits produce valuable construction raw materials.

Precious stones (more than 50 deposits) have been identified on the territory: amethyst, turquoise, diamonds, jasper, marble onyx.

The mining, geological and industrial sectors of Uzbekistan are continuously developing and prospects for useful cooperation with international consulting companies will allow the introduction of modern technologies and advanced foreign experience in the development of mineral resources.

Reproduction of natural resources is a natural (regulated and unregulated) and artificial process of increasing reserves of natural resources, restoring their qualitative characteristics. This is an objective necessity due to their ever-increasing consumption, as well as some negative consequences of economic and other human activities.

Reproduction is an economic category. However, this activity also has a legal aspect, because a significant part of the relations for the reproduction of natural resources arises, changes and ends in the manner prescribed by law; its content is also of a legal nature. It is appropriate to give an economic description of natural resources; natural resources are components of nature that, at a given level of development of productive forces, are used or can be used as means of production (objects and means of labor) and consumer goods. In their material form, these are objects and forces of nature, the genesis, properties and placement of which are determined by natural laws; in terms of their economic content, these are consumer values, the usefulness of which is determined by the degree of knowledge, the level of scientific and technological progress, and the economic and social feasibility of use.

Due to the dual nature of the concept of “natural resources”, reflecting their natural origin, on the one hand, and economic significance, on the other, several classifications have been developed and widely used in the specialized and geographical literature. Having compared and roughly grouped them, we will try to give the basis of the classifications.

The main criterion for subdividing resources in their economic classification is their assignment to various sectors of material production. On this basis, natural resources are divided into resources of industrial and agricultural production.

1. Industrial production resources. This subgroup includes all types of natural raw materials used by industry. Due to the very large branching of industrial production, the presence of numerous industries that consume different types of natural resources and, accordingly, put forward different requirements for them. Types of industrial natural resources are differentiated as follows:

1) energy, which include various types of resources used at the present stage of development of science and technology for energy production:

a) fossil fuels (oil, coal, gas, uranium, bituminous shale, etc.);

b) hydropower resources - the energy of freely falling river waters, tidal wave energy of sea waters, etc.;

- c) sources of bioconversion energy - the use of fuel wood, the production of biogas from agricultural waste;
 - d) nuclear raw materials used to produce atomic energy;
- 2) non-energy, including a subgroup of natural resources that supply raw materials for various industries or participate in production due to technological necessity:
- a) minerals;
 - b) water used for industrial water supply;
 - c) lands occupied by industrial facilities;
 - d) forest resources supplying raw materials for the wood chemicals and construction industry;
 - e) fishery resources belong to this subgroup conditionally, since currently fish production and processing of the catch have become industrial in nature.

2. Agricultural production resources. They combine the types of resources involved in the creation of agricultural products:

- a) agroclimatic - resources of heat and moisture necessary for the production of cultivated plants or grazing;
- b) soil and land resources - land and its top layer - soil, which has the unique property of producing biomass (considered as a natural resource and a means of production in agriculture);
- c) plant feed resources - resources of biocenoses that serve as a feed base for livestock farming;
- d) water resources - water used in agriculture.

Quite often, natural resources of the non-productive sphere or direct consumption are also identified. First of all, these are resources taken from the natural environment (wild animals, wild medicinal plants), as well as recreational resources, resources of protected areas and a number of others.

From an economic point of view, it is useful to give a classical classification of resources, since when taking into account reserves of natural resources and the volume of their possible economic withdrawal, ideas about the quantity (exhaustibility) of reserves are used. All natural resources are divided into two groups according to their exhaustibility: exhaustible and inexhaustible.

1. Exhaustible resources. They form in the earth's crust or landscape, but the volumes and rates of their formation are measured on a geological time scale.

1) Non-renewable, which include:

a) all types of mineral resources or minerals. As is known, they are constantly formed in the depths of the earth's crust as a result of the continuously ongoing process of ore formation, but the scale of their accumulation is so insignificant, and the rates of formation are measured over many tens and hundreds of millions of years, that practically they cannot be taken into account in economic calculations.

2) Renewable resources, which include:

- a) plant resources;
- b) resources of the animal world, these resources are restored quite quickly and the volumes of natural renewal are well and accurately calculated.

3) Relatively (not completely) renewable. Although some resources are restored over historical periods of time, their renewable volumes are significantly less than the volumes of economic consumption. That is why these types of resources turn out to be very vulnerable and require especially careful control by humans. Relatively renewable resources also include very scarce natural resources.

2. Inexhaustible resources. Resources that are quantitatively greater than the quantities consumed or used.

Economic (or in a broader sense, economic) assessment of natural conditions and natural resources is one of the concepts that have occupied a prominent place in the problems of modern economics for quite a long time. Consideration of this issue led to the conclusion about the relevance of a more in-depth theoretical and methodological development of this problem. In this regard, the question arose about the possibility of determining the very content of the concept of economic assessment, clarifying the essence of the reality processes it reflects, and establishing criteria. In itself, the fact of natural differentiation of the geographical envelope, in terms of value, is neutral and cannot receive any assessment, regardless of the criterion used. When assessing, it is necessary to apply a criterion of value determined by the nature of the relationship between its subject and object. Economic assessment of natural resources involves the application of economic criteria, i.e. comparison of the properties of natural factors with the requirements arising from practical, economic activities of man.

Conclusion. The content of the economic assessment of natural resources considers taking into account the influence of natural territorial differences in the natural properties of these resources and their sources on the productivity of social labor. The uneven spatial distribution of resources makes it necessary to also take into account differences in volume. The evaluation criterion is proposed to be the comparative economic efficiency of using a given source of resources. It is clear that the value of a particular type of natural resource is determined by the economic effect achieved through its use. The magnitude of this effect, as well as the magnitude of the necessary costs for most types of resources, is territorially differentiated;

An extremely important property of resources from the point of view of economic assessment methodology is the universality of its use. A resource is a universal subject, a means of labor, a necessary condition for any type of material production.

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