

NATURAL RESOURCES AND THEIR RATIONAL USE

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Abstract: This article discusses the types of natural resources and their rational use, natural resources in Uzbekistan, and the impact of fossil fuel use on the environment.

Keywords: non-ore metals, oil, gas, coal, peat, groundwater

Renewable Resources: The sun is an inexhaustible resource that provides the earth with heat and light. Rain fills lakes and streams with water. When plants perform photosynthesis, they add oxygen to the air. Sunlight, water, and air are renewable resources.

Non-renewable resources are finite, and we use them when we paint a wall or travel by car. Plastics, paints, and gasoline are made from petroleum or oil, which are precious non-renewable resources.

Oil is formed as a result of the decomposition of the remains of microscopic marine organisms over hundreds of millions of years. Minerals such as iron, copper, gold, silver, and uranium are considered metals.

Fossil fuels: Coal, oil, and natural gas are non-renewable energy sources. Fossil fuels have been around for hundreds of millions of years. Gasoline, diesel fuel, and rocket fuel, which are used to power cars, buses, trains, and airplanes, are derived from petroleum. Coal is used in many power plants to generate electricity.

Natural gas is used for heating and engine propulsion, and sometimes as a transportation fuel. Conserving solid fuels now is important so that we can leave them as a reserve for future generations. Non-renewable resources are finite.

Their prices may increase in the future. The excessive burning of solid fuels releases exhaust gases into the atmosphere, causing atmospheric pollution. This leads to the destruction of the ecosystem. It is widely agreed that it is important to use other energy sources instead of solid fuels.

Fossil Fuel Connections: Almost every day, people around the world directly use fossil fuels. Because fossil fuels are non-renewable and their supply on Earth is limited, they may become more expensive and more difficult to find in the future. Fuel use is one of the most pressing environmental issues.

For example: while coal is an ecosystem-destroying fuel, we need to mine it. Burning fossil fuels pollutes the air, producing unwanted gases containing smog and acid.

For this reason, many people suggest reducing fuel consumption and finding other sources of energy, and we can also take other simple steps to reduce fuel use. Such as turning off the lights when you leave the room, and turning off the television when you are not watching it.

By doing these things, you will reduce the use of power plants that generate energy by burning fossil fuels. Millions of cars in the United States use fossil fuels. One good way to reduce fuel consumption is to ride a bike.

Alternative energy sources: Alternative energy sources are sunlight, water, wind and nuclear energy. These energy sources are inexhaustible.

Solar Energy: Solar water heater units use the energy of sunlight to increase water temperature through solar collectors.

An airtight enclosure with a transparent coating, painted black, an absorbent metal plate with water-conducting tubes, and insulated flat solar collectors on the rear and side walls of the enclosure to prevent heat loss are common.

Wind energy: Wind energy can be used to produce mechanical or electrical energy. This energy is directly related to the wind speed. A standard wind turbine consists of a three-bladed rotor mounted on a tubular steel pole.

The turning mechanism directs the rotor in the direction of the wind. The rotor drives the reducer and the asynchronous generator. The wind generator operates at a speed higher than 3-4 meters per second. Its maximum operating speed is 25-30 meters per second.

Mineral resources include ore and non-ore metals, oil, gas, coal, peat, and underground water. Minerals are a source of energy and crops for humanity and its economy and development, and its use is increasing year by year.

The development of science and technology is forcing scientists to discover new mineral deposits. For example, according to Japanese scientists, the metal concentrations at the bottom of the ocean could provide the world's industry with copper for 2,000 years, nickel for 70,000 years, and manganese for 14,000 years at the current consumption rate.

These resources are used for the needs of world industry from 1% to 20%. In addition, underground minerals are often mined for 1 or 2 metals, the rest of which is dumped into the environment. Waste is especially common in the extraction of oil, coal, potash, construction materials, ferrous and non-ferrous metals, and mining and chemical raw materials. In many oil fields around the world, 50-60% of the oil is extracted from the extracted part. Thus, currently, 150 billion tons of ore are extracted from the Earth's lithosphere every year, and 95-98% of it, after the necessary elements have been extracted, is released into the environment.

Wind turbines. Wind energy can be used to generate mechanical or electrical energy. This energy is directly related to the wind speed. A standard wind turbine consists of a three-bladed rotor mounted on a tubular steel pole. A slewing mechanism orients the rotor in the direction of the wind.

The rotor drives the gearbox and the asynchronous generator. The wind generator operates at a speed of more than 3-4 meters per second. Its maximum operating speed is 25-30 meters per second. Advantages of using wind generators:

1. The price of the generated electricity does not depend on changes in fuel prices.
2. Low operating costs.
3. Does not emit harmful waste.

According to the UN, 32 billion per year in the world. t. coal 2.6 bln. t. oil, 6 billion t. iron ore, 3.6 mln. t. chrome ore, 7.3 mln.t. copper ore, 3-4 mln.t. lead ore, 159 mln. t. salt, 120 mln. t. phosphates, 1.2 mln. t. Uranium, mercury, molybdenum, nickel, silver, gold, platinum ores are not mined.

According to experts' information, if fossil resources are used at the current rate, gold may run out in 30-35 years, zinc 36: antimony-70: potassium-40: uranium-47: copper-66: mercury-70: coal, oil, gas, in 150 years.

Therefore, due to the lack of raw materials and mineral resources in many developed countries: Japan, England, Germany, Italy, Holland, Belgium and others, secondary waste is being processed and the resources of other countries are being used.

The development of science and technology is forcing scientists to discover new mineral deposits. For example, according to Japanese scientists, the concentration of metals at the bottom of the ocean could provide the world's industry with copper for 2,000 years, nickel for 70,000 years, and manganese for 14,000 years at the current consumption rate. These resources are used for the needs of world industry by 1% to 20%.

Thus, currently, 150 billion tons of ore are extracted from the Earth's lithosphere every year, and 95-98% of the necessary elements are extracted from it and released into the environment. There are not many countries on the world map that possess the riches that exist on the soil of Uzbekistan. The power of these riches has not been used. This will certainly attract the attention of famous foreign companies and banks around the world.

Waste problem: Environmental protection from production and consumption waste, rational and integrated use of natural resources, and implementation of environmentally friendly technologies are urgent.

The energy, non-ferrous and ferrous metallurgy, chemical and construction industries are the main sources of waste generation and environmental pollution.

Solid household waste and large-sized garbage are accumulating in cities, which, if not removed and disposed of in a timely and proper manner, can seriously pollute the environment.

The accumulation of solid household waste in landfills leads to the formation of dust and the spread of unpleasant odors. In a number of countries, waste disposal is carried out using incineration, landfilling or collection, as well as composting technologies.

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