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CONSERVATION OF WATER AND SOIL RESOURCES

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ABSTRACT

Water and soil are considered the vital essence of life on earth, and all life processes proceed with the participation of water. But today, overuse of water is causing an increase in demand for water. As a result, this leads to soil salinization. The article discusses the proper use of water and soil.

Water is the essence of life on earth. Water is a major ingredient for all living organisms, and it is estimated that most organisms make up 50 to 95 percent of their bodies. Photosynthesis, transpiration and all other life processes take place with the participation of water. Water reservoirs, rivers and lakes are used by people for domestic, business, agricultural and production purposes. However, the use of suvdpan is currently increasing. Humanity is also responsible for the lack of water for plants and animals. Because there is no austerity until it goes away. The dumping of agricultural fertilizers into the water or the growth of algae in lakes and ponds have negative consequences. Algae overgrowth in lakes and ponds creates a shortage of dissolved oxygen in the water and kills zooplankton. Human activities damage the freshwater environment. Farms and fields are filled with fertilizers, which are also poured into water, causing the growth of algae in ponds and lakes. It causes the growth and decay of organisms, reduces the amount of oxygen in the water, and makes it difficult for some organisms to survive. To avoid these problems, it is necessary to treat the wastewater before it is released. People should be educated about the problems related to pollution of lakes and ponds. Such controls should serve as a management method for the restoration of many freshwater ecosystems. Pollution in the air falls to the ground through rain. In the United States and many other countries, treatment of contaminated water before delivery is required by law to prevent pollution. But in many parts of the world it is not possible to recycle them. Another cause of pollution is human dumping of waste and used materials into seas, lakes and oceans. Some water pollutants poison fish and other living organisms, and can harm people who swim in and drink that water. For example, chemical pesticide residues from farmland are discharged into streams and lakes. These chemicals are harming insects that act as food for fish, turtles and frogs. The

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lack of food is leading to the death of animals living under water. Some pollutants, particularly mercury and other metals, are transferred to the fish through their feed. Contaminated fish and crustaceans can transfer these metals to humans, birds and other animals. In these affected areas, people are warned not to eat fish and shrimp from contaminated waterways. Algal blooms are another water pollution problem. Overfertilized and untreated runoff contains large amounts of nitrogen. If they are discharged into lakes or ponds, they cause rapid growth of seaweed. When algae die, they decompose bacteria that use a lot of oxygen in the water. Fish and other organisms die due to lack of oxygen in the water. Seas and streams carry the waste with them and eventually into the oceans. Water is the most valuable natural resource. It plays an important role in the process of metabolism of life-forming substances. Water is of great importance in industrial and agricultural production, and in household life. Water participates in the formation of the earth's surface, circulates in nature, and also has a great influence on the formation of climate and weather. Water is the world's greatest resource, but fresh water supplies are not infinite. Fresh water scarcity is an urgent problem in many regions of the globe. The main sources of water for irrigation in Uzbekistan are the Amudarya, Syrdarya, Zarafshan, Kashkadarya, Surkhandarya, Chirchik and Akhangaron rivers. Natural reserves of underground water in the republic are 66342 thousand m3. The sources of water pollution are mainly irrigation of agricultural crops, washing of mineral fertilizers and various pesticides together with water to form wastewater, pollution of open water bodies and underground water through livestock complexes, industrial production enterprises polluting water with heavy metal ions and various toxic substances. is the generation of waste water. Such waters contain heavy metals, phenol, chlorine, caprolactam, petroleum products, biological and chemical pollutants from industrial enterprises. Railways, aviation vehicles, as well as automobile companies also contribute to the pollution of water resources. Among the industrial wastes, oil and its products are the most dangerous in terms of pollution of rivers and lakes. Radioactive emissions from nuclear power plants pollute river waters. They accumulate in the organism of plankton and fish in the water and pass from them to other organisms. Household waste causes an increase in wastewater due to the growth of the population and the construction of new cities. The biological method also plays a major role in wastewater treatment. For this, several types of biological devices are used, namely biofilters, biological ponds and aerotanks. Through biofilters, wastewater is passed through a thin layer of bacteria on top of a layer of coarse granular material. In biological ponds, all the organisms in the ponds participate in wastewater treatment. Aerotanks are large tanks built of reinforced concrete. There, wastewater is treated in activated sludge, which consists of bacteria and small animals. Uzbekistan has adopted laws and regulatory documents to protect the natural environment and water in accordance with international standards. One of them is the Law on "Nature Protection" adopted on December 9, 1992. The Nature Protection Committee has participated in the

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development of more than 100 draft laws. One of them is the law on water use and water in the Republic of Uzbekistan. Currently, work is carried out on the basis of this law in the Republic of Uzbekistan. Soil consists of the surface fertile part of the earth's crust and is a natural historical body. Its thickness is on average 18-20 cm, and varies from a few mm to 1.5-2 meters in different places of the Earth's surface. The process of soil formation takes thousands of years. In this, water, air, temperature, plant and animal organisms, especially microorganisms, interact with soil-forming rock. The most important property of the soil is its fertility, that is, it has the property of providing plants with water, air and nutrients. The soil retains all the elements and protects them from being washed away by water. The humus of the soil determines its general fertility. The soil is extremely sensitive to many effects of the human factor. Soil is a rare natural resource. Only 10% of the total land fund in Uzbekistan is irrigated land. Irrigated agricultural areas make up 4.2%. 95% of our country's gross agricultural products are obtained from these irrigated lands. As a result of development and use of land, the level of salinity increased. Cotton fields are the majority, which has led to a decrease in soil fertility, changes in soil properties, and increased erosion. Therefore, when using the soil resource, it is necessary to improve its melioration condition, to systematically carry out complex measures against erosion. The effective use of arable land and the use of ecologically based crops in its protection are of great importance in maintaining the amount of soil humus. A rotation of forage and grain crops has been shown to be effective in restoring soil fertility and replanting crops widely. In our republic, cotton acreage is decreasing and grain acreage is increasing. Soil pollution is caused by improper use of pesticides. Pesticides are persistent substances that accumulate in soil and cause the death of soil organisms. The accumulation of pesticides in the soil and the death of organisms cause the process of soil formation and decrease in fertility. Soil pollution is also caused by excessive application of mineral fertilizers to agricultural crops. The condition of the soil should be taken into account. In addition, it is polluted during the storage and transportation of fuel oils. These substances reduce the biological activity of the soil. Oil drilling and exploration also cause soil pollution, resulting in the formation of bitumen on the surface of the soil, and drilling fluids cause soil salinization, which causes the death of vegetation on Earth. Various wastes from the air, which are considered industrial emissions, fall into the soil with atmospheric precipitation, changing its properties. The soil is also polluted by household waste. In addition, various types of garbage, polyethylene films and other packaging waste pollute the soil. The "Land Code" was introduced in the Republic of Uzbekistan in 1998. In addition, the correct use of land, its protection and the fact that land is the sole property of the state were noted, several decisions were made. In our country, the State Committee for Nature Protection and the State Committee for Land Protection (Goskomzem) deal with issues of land use, protection and control. Secondary soil salinization is a serious problem in irrigated agriculture. The main cause of secondary salinity is irrigation without draining the soil. In this case, groundwater rises and the process of

mineralization increases, and increasing the irrigation rate and not using water wisely leads to secondary salinity. Restoration of productivity of eroded lands. In this regard, it is necessary to maintain reclamation and forest reclamation measures, balance between the natural ecosystem and agroecosystem, recultivation of agro-landscapes. Restoration of degumidated (thinned) soil productivity. Preservation of the reserve of organic matter in the tilled layer of the soil requires processing it by biological methods (planting optimal grass plants in the areas), applying organic fertilizers, improving land processing, processing organic waste with California earthworms, and restoring the optimal state of humus. Carrying out phytomelioration works in pastures. It requires agrotechnical measures, as well as increasing the productivity of existing plants, using fertilizers, removing weeds, removing stones, and managing the water regime. Due to the application of these measures, the productivity of pastures and hay will increase 1.5-2.5 times. Directions for recultivation of abandoned lands:

1. Recreational direction - construction of landscaping, pools, sports fields, playgrounds, playgrounds;
2. Agricultural direction - creation of pastures, gardens, vineyards;
3. Sanitary-hygienic direction - conservation (making intact) of biologically or technically unsuitable lands in conditions that do not affect the environment;
4. Direction of forestry - establishment of different types of forests;
5. Fisheries direction - establishment of reservoirs in accordance with the conditions for the development of fisheries;

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