THE SITUATION OF THE USE OF WATER RESOURCES IN THE CONDITIONS OF CURRENT GLOBAL CLIMATE CHANGE

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Abstract. Water is the source of life and a necessary source of energy for all living organisms. 3/2 of the Earth's surface is water. But the part that is useful for mankind is very little. The rational use of water is in the hands of man. This article sheds light on the extent to which water and its benefits are carried out today. The ever-increasing threats to the environment demand more information about the world's water resources. Water is one of the main resources on earth. Water is necessary for other life. Water plays a very important role in human life.

Key words: hydrology, geology, meteorology, global environmental condition, greenhouse effect.

Introduction. Water is the most precious gift of mother nature. Hydrology is the scientific study of the origin, occurrence, properties, and distribution of water on the Earth's surface, in the soil, and the subject of hydrology is central to several concepts. Based on physical, chemical and biological sciences and engineering applications. Sciences such as meteorology, geology, agricultural physics and chemistry and botany. The ever-increasing threats to the environment demand more information about the world's water resources. Water is one of the main resources on earth. Water is necessary for other life. Water plays a very important role in human life. Even drinking water is used for domestic purposes for cooking, washing, gardening and cleaning. At the same time, it is widely used in operations, industrial processes and agriculture. Today, water has become a valuable commodity. appeared. Water is economically important. There is no life without water. It is essentially the only substance found in solid, liquid, and gaseous states. Perhaps earth is the only planet with water. Water has many interesting properties. These make it an ideal life support tool. Water is known as

the universal solvent due to its ability to dissolve large quantities. Natural and artificial substances. The melting and boiling points of water allow this. All three aggregate states of water exist on our planet earth. Water also becomes lighter when it freezes, so it floats. If the water had sunk, then the bottom of our oceans would be solid. In such conditions, we would have only a thin layer on the surface. Global ocean currents would be lower and many of our nutrients would be locked away. If water did not have these properties, global life would be much more difficult to survive.

The water molecule is also a mineral substance that allows for the dissolution and transport of various chemicals. Water is a liquid that has the ability to dissolve many organic and inorganic substances in greater quantities than others. It has the highest heat of vaporization than other liquids. Energy is required to evaporate even a large amount of heat. This is due to the high heat capacity and the presence of water in all parts of the earth, preventing sudden changes in local temperature. Global climate is controlled by the properties of both water and air:

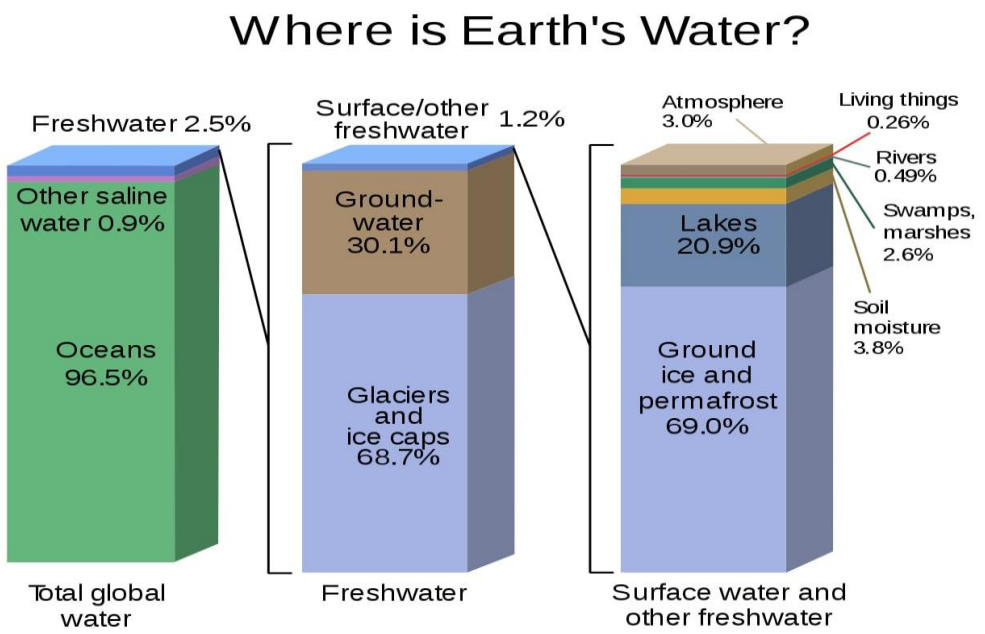

Figure 1. World water distribution (wikipedia.com)

1) quantity saving and quality protection of water resources;

2) to study the laws of their change under the influence of natural and anthropogenic factors;

3) the implemented water management activities include land reclamation, irrigation, hydropower, distribution of water resources by region and water resources.

Research results. In the 70s of the last century, an important step was taken in the world to solve the problems of global climate change. In 1972, the

Stockholm Declaration of the heads of states was adopted, and it became the basis of today's nature protection policy. However, until now, humanity has been using water incorrectly, and there are even cases of drinking water being used for sewage purposes. Of course, this is a sad situation because while African countries are suffering from water shortage, we are not using water wisely. Today, the rapid development of industry and the increase of harmful gases in the air lead to climate change. This, in turn, leads to the destruction of water and the environment. We can see this phenomenon as an example of the greenhouse effect [1].

The increase in the concentration of greenhouse gases has led to an increase in the natural greenhouse effect and warming of the Earth's surface. If no action is taken, the temperature will increase by 0.3 °C every decade of the next century. Warming, in turn, will lead to the melting of polar ice caps and the rise of the world ocean level by an average of 20 cm by 2030 [2].

At the end of the 21st century, it will increase to 65 cm. Data obtained as a result of measurements indicate that the average air temperature has increased by 0.6 ± 0.2 °C since the end of the 19th century. These observations are consistent with the forecasts made on the basis of the models used in forecasting the level of climate warming to date. In general, the following can be noted as the most unfavorable consequences of global climate changes in the future:

• in many tropical and subtropical regions there is a gross decrease in the yield of agricultural crops;

• in many regions of moderate latitudes, the gross reduction of productivity is observed with certain fluctuations, the main reason for this is the increase of the average annual temperature by several degrees;

• soil erosion increases;

• in many water-scarce regions, especially in the subtropics, the amount of water per capita will further decrease;

• the quality and quantity of water resources decreases;

• the scale and extent of floods and droughts

• Increases damage to temperate and tropical regions of Asia;

• damage caused by floods, landslides, avalanches and floods will increase;

• the risk of forest rains increases;

• Coastal erosion and damage to coastal buildings and infrastructure will increase;

• causes great damage to the coastal ecosystem, including Marjorie Islands and the color-barang forests on them;

• the increase in summer temperature increases the demand for energy used for air cooling;

• increases pressure on state and private insurance systems to provide assistance in cases of floods and natural disasters;

The consequences of climate change in Uzbekistan and its neighboring regions include, first of all, changes in agro-climatic and water resources. Changes in them are negatively reflected in the productivity of agricultural crops and the ecological condition of the Aral Sea, especially in the Aral Sea [3]. At the current stage of development, water resources consist of all fresh and moderately mineralized, naturally or artificially sweetened, purified waters, and are currently used in all sectors of the national economy and may be used in the future. is index. Water resources have been used on a large scale until now, at the same time, underground water is also used in agriculture and health. Groundwater refers to solid, liquid, gaseous water located between rocks in the earth's crust. Underground in nature. The appearance of water depends on the types of rocks, their composition and properties. In addition, water basins are either formed by natural or artificial accumulation of water on the surface of the earth, or there are slow-flowing or non-flowing water bodies that are created by blocking waterways and building dams. People have started collecting and managing water since ancient times. In recent years, as a result of the negative consequences of global climate change, there are cases of low annual rainfall in our region compared to the standard indicators. This directly requires the use of specific water and resource-saving technologies in the care of agricultural crops. Therefore, it is necessary to distribute the amount of water to the irrigated lands. In the irrigated fields, it is necessary to carry out cultivation and weeding immediately after the soil has recovered.

In the state of high water consumption, that is, when the amount of water entering or leaving each joint is equal, the system is in a stable state. If the working order of any link changes, their output values change or the new set value of the link is reached. Irrigation of irrigation water through resource-saving technologies and reuse of wastewater bioremediation using existing domestic possibilities is considered an urgent problem of today. In this regard, the scientists of our republic have conducted a number of scientific works. Their scientific works are devoted to biological treatment by selecting algae and aquatic plants for biological treatment of wastewater based on the study of the hydrochemical composition of wastewater. Water is the main resource necessary for living, food production, health care, decent life and human development. The volume of fresh water use in the world is increasing year by year, at the same time, many countries are experiencing difficulties in water supply at the level necessary to meet the basic needs of the population for food products and maintain the stability of ecosystems [4-10].

Conclusion. Water is the source of life and development on our planet. Assessment of groundwater reliability is difficult due to the dynamic nature of water and hydrological variability in time and space. Internationally, there are problems in predicting annual renewable freshwater availability in allied countries. Assessment of the water problem is the main topic of research. This includes a reliable assessment. Water availability, water quality, and water demand and water scarcity. A thorough knowledge of the physical distribution of water is necessary to solve many problems in the world of water management. For example, water-saving technologies are gradually becoming more common, helping to reduce water use. The hydrosphere is an important ecological segment of the earth. This is an important segment to save all life. Water is a renewable natural resource. But for this, first of all, the reserves of rivers, glaciers and underground water must be unchanged for centuries. Secondly, due to the level of pollution of natural water under the influence of human economic activity, it should not be greater than the possibility of self-regeneration in quality. The main sources of water resources in our country are natural clean water in rivers, streams, springs, reservoirs, lakes, and fresh and moderately mineralized underground water. At the same time, as a result of climate change and a sharp increase in air temperature, the need for drinking water will increase. In addition, the demand for water in agriculture and irrigated lands will increase. In order to prevent this problem, it is advisable to use water wisely, recycle the wastes released into the air in industry and production, and use ecologically clean raw materials as much as possible [1-14].

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