



WATER IS THE SOURCE OF LIFE

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Annotation. This article talks about the source of water, which is becoming an urgent problem today. This article describes the importance of water for living beings, its biological, chemical and physical properties, the reasons for its becoming a global problem today, and its consequences.

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Enter. One of the most important resources is water. Water is of great importance for living organisms. Its presence is vital for all living organisms. People, plants, animals - all need water. Water is not only a source of drinking water, but also the main component of many industrial, agricultural and energy sectors. 50-98% of the body of plants and animals, and 70% of the human body consists of water. Water is not evenly distributed in tissues and organisms. It is abundant (70-90%) in active organs, for example, brain, liver, insula, heart, kidney, blood plasma, and less (20-40%) in passive tissues (bones, adipose tissue). A person weighing 70 kg corresponds to 42 liters of water. The most important water-soluble substance in the body is the Na⁺ ion, which provides 95% of the osmotic pressure in plasma and interstitial fluids. The importance of water in the human body

Water is very important for the human body, especially in the process of metabolism. For example, in the formation of protein from amino acids, the formation of polysaccharides from monosaccharides, energy consumption (ATF reacts with water to form ADF and phosphoric acid), bringing insoluble substances to a colloid state. ensures passage through membranes. Takes excess substances unnecessary for the body to the organs of excretion. Solution of water across the semipermeable membrane The movement of a solution from an environment with a low concentration to an environment with a high concentration is called osmosis. Water nourishes cells, regulates metabolism, helps regulate temperature, and helps eliminate waste from the body. The human body needs an average of 2-3 liters of water a day, and not taking this amount regularly leads to dehydration of the body. Water is a strong solvent. In nature, it usually contains dissolved substances (salts, gases). Water plays an important role in the history of the geological structure of the Earth and in the formation of life, physical and chemical environment, climate and weather. No living organism can survive without water. Water is a necessary part of all technological processes in agriculture and industry.

Chemical properties of water

Water (H₂O) is an odorless, colorless, tasteless, transparent, liquid chemical substance. The boiling point is 100o. Water can evaporate at any temperature. forms different isotopes.

Physical properties of water

Suv uchta asosiy agregat_holatida bo'lishi mumkin: qattiq, suyuq, gazsimon.Oddiy atmosfera bosimida suv 0 °C da qotib muz holatiga va 100 ° C da qaynab suv bug'iga aylanadi.

Water problem

The main factors affecting water scarcity

- climate change
- water pollution
- inefficient use of water. Especially in the field of agriculture.
- Excessive use of underground water. When groundwater is used, most of the water evaporates.
- Infrastructure. Inadequate sewage pipes for urban development and crop irrigation.
- The lack of qualified specialists and, of course, training courses on the rational use of water

It is known that 70% of our planet is covered with water, most of which is completely frozen or not suitable for consumption. Almost two-thirds of the fresh water on Earth is contained in Antarctic glaciers. About 85,000 cubic kilometers of water flow in lakes and rivers on Earth, and humans have a negative impact on these waters. According to some predictions, by 2025, the population of 52 countries will face the problem of freshwater shortage. Director-General of UNESCO, Audrey Azoulay, announced that by 2030, the global water shortage in the world will be 40 percent. There are many organizations that are involved in the protection of rivers in different parts of the planet.

Water problems in Uzbekistan

It should be noted that the current demand for water is greater than ever. There is a water shortage all over the world. The issue in Ushba has not bypassed the Central Asian region either. According to experts' calculations,

It is expected that the water resources of 2050 ha will be reduced by 5% in the Syrdarya and 15% in the Amudarya basin. On the other hand, due to population growth, the demand for water in Uzbekistan by 2030 will increase to 7 billion cubic meters, and by 2050, this figure may double.

Problem solving

A total of 1.2 million in 2017-2023. per hectare, i.e., about 31 percent of agricultural arable land, water-saving technology was launched. It includes technology such as drip, sprinkler, discrete irrigation, flexible production, film bed irrigation, 630 thousand hectares of land were laser leveled.

The tragedy of the island

Over the past 40-45 years, the level of the Aral Sea has dropped by 22 meters, the water area has decreased more than 4 times, the volume of water has decreased up to 10 times (from 1064 cubic km to 70 cubic km), the salt content of water has decreased to 112 g/l, and in the eastern part of the Island reached 280 g/l. The Aral Sea has become almost a "dead" sea. The area of the dry bottom is 4.2 million hectares, and it has become a source of dust, sand-salt aerosols spreading to the neighboring areas. Every year, 80 to 100 million tons of dust are released into the atmosphere. At the same time, the rates of land degradation and desertification are increasing in the Amudarya and Syrdarya deltas.

International Fund to Save the Island

On January 4, 1993, the five countries of Central Asia made a historic decision to establish the International Fund for Saving the Island (IFRC) in Tashkent, and this decision was approved on March 26, 1993 in Kyzylorda. In 2008, the ICRC gained observer status at the UN General Assembly, which prompted the international organization to adopt a number of resolutions on the Aral Sea region.

Water problems in the world

It measured and estimated water scarcity in 167 countries by 2030 and 2040. Chile, Estonia, Namibia, and Botswana were found to experience particularly significant increases in water stress by 2040. Businesses, farms, and communities in these countries may be more water-stressed in the future than they are today.

Central Asian countries, especially Uzbekistan, are among the 33 countries that are expected to experience the greatest water shortage in 2040.

In order to prevent this situation, a lot of work is being done by the government of Uzbekistan to provide the population with centralized drinking water. In particular, 527 facilities and nearly 7,000 kilometers of network were built this year. At the beginning of the year, the level of provision of drinking water to the population was 70%, and by the end of the year, it is planned to increase this figure to 74%.

Another 14 of the countries where drinking water is becoming an urgent problem are located in the Middle East, nine of them: Bahrain, Kuwait, Palestine, Qatar, United Arab Emirates, Israel, Saudi Arabia, Oman, and Lebanon may experience a shortage of 5 out of 5 points.

Drought and water shortages in Syria are directly related to the unrest that sparked the country's 2011 civil

war. Depleting water resources and chronic mismanagement have forced 1.5 million people, primarily farmers and herders, to lose their livelihoods and leave their land, move to cities, and add to Syria's overall instability.

The problem also applies to other countries. Water is an important part of the decades-long conflict between Palestine and Israel. The dependence of the population of Saudi Arabia on grain imports has increased. According to the US National Intelligence Council, water problems are in North Africa and the Middle East puts its core countries at risk of instability and state failure, and distracts them from foreign policy engagement with the United States.

Although not to the extent of Africa and the Middle East, global powers such as the US, China and India also face water-related risks. The situation in all three countries is projected to remain roughly unchanged until 2040. However, in individual regions of each of them, for example, the southwestern part of the United States and the Ningxia province of China, the water shortage may increase to 40-70 percent.

Amazon

This area is rich in a variety of amazing biological species. More than half (almost 60%) of the tropical forests on our planet grow here and are important in regulating the climate conditions of South and North America.. The Amazon was protected from human influence for a long time, but now the situation is changing. The Brazilian government plans to build about 60 dams.

Mississippi

The largest river in America, the Mississippi, begins in the US state of Minnesota. Due to human influence, it is now in need of help. Every year, 30 km of the Mississippi delta is disappearing: 10% of the previous flow is released into the river due to many dams, sluices, dams stretching for several kilometers. There are many organizations developing new projects each year to protect the Mississippi and solve water problems.

Danube

Starting from West Germany, the Danube River flows 2,800 kilometers through the territories of Austria, Hungary, Croatia, Serbia, Romania, Ukraine and flows into the Black River. The river crosses the territory of 19 countries and is therefore considered the most "multinational" river in the world. The Danube has a diverse ecological and biological system that has been used by humans for more than 150 years. Today, 80% of the Danube's wetlands have disappeared due to damming and burial. They are constantly working to restore and support this area.

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Congo

500,000 cubic meters of water flow per second in the Congo River, which is the richest river in the world. River pollution is caused by soil erosion, urban waste, waste, and human travel along the river in many cases. The Congo is the movement system of Africa. In the near future, the largest hydroelectric power plant on earth is planned to be built in the Democratic Republic of the Congo.

Melting of glaciers

Between 2011 and 2020, 3-5 trillion tons of ice melted in Greenland. This means that an average of 357 billion tons of ice melted in 1 year. A total of 1,700,000 kilometers of ice is covered in the region, and if all of them melt, the sea level in the world can rise by 6 meters. Ice melting has accelerated by 21 percent over the past 40 years

Water Conservation and Its Future

Saving water and using it efficiently is an urgent issue of every society. Depletion of water resources is

associated with global climate change, population growth, and development of agriculture and industry. Water conservation, rational use of water and development of recycling technologies are important in solving global problems.

Summary

Water is the source of life. It serves humanity and all living organisms as a natural resource. It is our task to ensure its stability, save it and protect it from pollution. Let's save water together for future generations!

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