Proceedings of International Conference on Modern Science and Scientific Studies
Hosted online from Paris, France.
Date: 19th December, 2023
ISSN: 2835-3730 **Website:** econferenceseries.com

PROTECTION OF WATER RESOURCES AND EFFECTIVE USE OF THEM

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Abstract

In the body of people from 18 to 50 years old 61% of body weight is water. In women, obese people and the elderly, this indicator is slightly lower. 70% of the water in the human body is cell protoplasm, 23% it forms interstitial fluid, and the remaining 7% forms blood plasma. A 10% reduction of water in the body puts a person in a difficult situation, and a 20-25% reduction kills a person. Water is especially abundant in the bodies of aquatic animals. For example, it makes up 99.7% of the body weight in jellyfish. In this article, we will discuss the incomparable role of water in our life, its conservation and proper distribution.

Key words: drinking water, green plants, water protection, losses, preventing, water resources, liquid environment, groundwater, ecological ecosystems, climate change, keep water, water conservation.

This information alone shows how truthful the saying "water is the source of life". The human body needs an average of 2.5 liters per day to carry out its vital processes. receives water and passes it through its tissues and expels it. Among them, 400 m liters of water are released in the form of water vapor during exhalation. Most of the water in the body (about 1.5 liters) is excreted with urine and feces, and the rest is excreted through sweat glands. Human and animal bodies produce a part of water endogenously.

For example, 100g in the body. 107 ml, 100 g in fat breakdown. 55 ml of water is released during carbohydrate decomposition. The ability of animals adapted to drought conditions to tolerate dehydration is based on the release of these endogenous waters. That is why animals in the desert - camels, gerbils, gerbils live without drinking water for a long time, and Australian mice live without drinking water all their lives at the expense of endogenous water. All life processes in living organisms take place in a liquid environment with the participation of water. For example, complex biochemical and biophysical processes, such as the breakdown of nutrients and oxygen and their delivery to tissues, as well as the removal of tissue

waste to the environment, are carried out with the help of water. The basis of life on earth is the process of photosynthesis in green plants. In this process, water is the main raw material. Water under the influence of sunlight in photosynthesis dissociates into hydrogen and oxygen. Separated oxygen is released into nature as a free molecule, and hydrogen combines with carbon dioxide to form organic compounds with a large internal energy reserve. In this way, conditions for nutrition and breathing are created for living beings. Another important characteristic of water is its high heat capacity. The heat capacity of water is 2 times that of wood, 5 times that of sand, 10 times that of iron and 3200 times that of air. So, when 1 m3 of water cools by 10, 3200 m3 of air cools by 10 warms According to this feature, water moderates the temperature in the biosphere, including the human body. Water vapors in the atmosphere filter the solar radiation and its absorbs 80% of its temperature and spends this temperature during the days when there is no sun. On this basis, the difference between day and night, summer and winter temperature is reduced. In addition, land surface water bodies and water vapor rising from them create climate on the ground and ensure interrelationship between the climates of the regions. Another important feature of water is the occurrence of photochemical processes in it. During these processes, various chemical elements are formed in water. 62 out of 107 different chemical elements distributed in nature were found in water. These elements are constantly moving and interacting in water. Therefore, it can be said that water actively participates in geological processes. It breaks down solid rocks and forms soil, washes it from one place to another, and thereby participates in the formation of relief.

According to the data, the running water on the Earth carries 10 billion to the lakes, seas and oceans every year. discharge tons of deposits. Without this property of water, our planet would be just a round stone, there would be no soil and no life. In addition to the mentioned, there are a number of other useful properties of water, which also play an important role in the development of human society. The development of agriculture and animal husbandry, the production of cheap electricity, the organization of industrial production and the use of means of transport, health care and similar important sectors of the national economy, as well as the daily life of people, cannot be imagined without water. There are several ways to keep water clean and use it wisely. These are the technical method, the hydrological-geographical method, the method of complex use of water and the method of carrying out organizational measures. The technical method consists of the following works:

1) to reduce as much as possible the discharge of wastewater into rivers and lakes in order to avoid depletion of water resources, and then to stop it completely. This method is based on the transition to a new technology of water supply to industrial enterprises, the introduction of a closed cycle system in water use. This task is more complicated, however it is a task that can be done. At present, some industrial enterprises in the USA and Germany, the Chelyabinsk metallurgical plant in Russia, the Almalyk chemical plant in Uzbekistan, and several similar industrial giants have switched to a closed cycle system of water use. In these enterprises, only the part of water that is lost during the technological process is replenished with clean water. This amount does not exceed 10% of the used water, the rest is returned to the cycle after purification;

2) to increase the productivity of treatment facilities and increase their capacity based on the improvement of wastewater treatment methods. This method is currently used in many places. It is possible to use the water purified in the treatment facilities in some sectors of the national economy. For example, after passing the sanitary inspection, they can use the land for farming, garden can be used for irrigation of fields or in industrial enterprises that do not require high-quality water.

Conclusion

Wastewater treatment is performed in special water treatment facilities in 3 different ways:

a) In the mechanical cleaning method, water-insoluble compounds are kept in special grids, simturs, oil traps, oil traps and oil traps. Then the water is cooled in the cooling ponds, where the heavy mechanical particles that are not captured sink to the bottom of the water, and the light ones float to the surface of the water. In the mechanical cleaning method, up to 60% of the particles that are not dissolved in water in daily household effluents, and up to 95% of the particles in industrial effluents are cleaned;

b) in the chemical treatment method, such chemical substances are added to the water that these substances bind to the impurities in the wastewater and cause them to settle. Some non-precipitating substances are chemically neutralized. In the chemical cleaning method, up to 25% of dissolved impurities in water are removed, and up to 95% of undissolved impurities;

c) biological treatment method is based on the cleaning of organic impurities in wastewater as a result of aerobic biochemical processes, and this process can be carried out under natural and artificial conditions. Purification in natural conditions is based on filtering dirty water through the soil in special areas. In this case, the

thickness of water treatment A soil layer of 80 cm is enough. In artificial conditions, sewage is treated in a bioprude. Biofilters or (aero tanks) are used in bioproducts, and this method is also based on filtering water. In this case, the bottom of the biodust is a biofilter layer made of granular porous material, and aerobic microorganisms form a film on the surface of this layer. This film is sometimes called "Living Clay". Here, the impurities in the water are decomposed by biochemical means, and the dirty water is cleaned after passing through the granular layer. As a biofilter, expanded clay, gravel, slag and granular sand can be used. Experiments carried out at the "Vodgeo" Tashkent Scientific Research Institute show that water filtered through expanded clay is cleaned of ammonium nitrogen by 86.7% in half an hour, and by 95.6% in one hour.

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