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PRINCIPLES OF PROTECTION AND CONSERVATION OF WATER RESOLUTIONS IN UZBEKISTAN

Narmirzayeva N. B.
"Astrakhan State Technical University" in the Tashkent region of the Republic of Uzbekistan

Abstract. This article talks about the skills of conservation and protection of water, which is an invaluable gift of nature, its role and importance in human life, as well as the measures implemented by our government to protect water resources in our country.
Key words: Water resources, Legal basis, Use, distribution, protection, International agreements, Domestic regulations, Sustainable development.

Water, an indispensable resource, is the lifeblood of ecosystems, societies and economies around the world. Its ubiquity masks the complex legal tapestry that governs its use, distribution and storage. This article explores the complex legal framework underpinning water management, shedding light on the complex web of international treaties, regional agreements and domestic regulations that seek to balance competing interests while protecting this vital element.

Water is more important than just sustenance; it is an integral part of agriculture, industry, sanitation and environmental sustainability. However, its availability is not uniform across regions, and the growing specter of climate change exacerbates existing problems, leading to conflicts over scarcity, pollution and access. Understanding the legal mechanisms of water resource use is important in solving these problems and paving the way for sustainable management.

At the heart of this complex legal landscape are the principles of equity, efficiency and ecological integrity. International treaties such as the Helsinki Rules on the Use of International Rivers and the Convention on the Right to Use International Watercourses provide guidelines for the management of transboundary water resources, emphasizing cooperation and fair use [8 10]. At the same time, regional agreements, exemplified by the Mekong River Commission's regulatory framework, aim to balance the needs of multiple stakeholders and harmonize water use among riparian states.

Within the country, states include water rights systems, regulatory frameworks such as the Clean Water Act in the United States, and innovative market-based mechanisms to manage water distribution, quality, and conservation. they use many legal instruments. These diverse approaches reflect each region's unique socio-economic and environmental contexts, addressing specific challenges that align with broader global goals of sustainability and conservation.

As the world grapples with the effects of climate change, population growth and increasing urbanization, the legal framework governing water resources is facing unprecedented pressures. Ensuring access to clean water for all, protecting ecosystems, and developing sustainable water systems require a strong legal framework that not only addresses existing challenges, but also adapts to emerging complexities.

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At the international level, treaties such as the United Nations Watercourses Convention and the Ramsar Convention establish frameworks for transboundary water management and wetland conservation, respectively. At the regional level, treaties such as the European Water Framework Directive set water quality and conservation standards. The country has various legal mechanisms governing water rights, distribution and pollution control. These legal instruments aim to balance competing interests, ensure equitable access, and promote sustainable water use. International perspectives on the use of water resources:

Various agreements and conventions serve as guiding principles in the field of international water resources management. For example, in Central Asia, the Amudarya and Syrdarya rivers play an important role in providing water for agriculture and life support in countries such as Uzbekistan, Tajikistan and Kyrgyzstan. The region faces challenges stemming from historical water allocation practices exacerbated by climate change impacts and competing demands. The use of these transboundary water resources requires a delicate balance between national interests and regional cooperation.

A study of the legal framework regulating water resources in Uzbekistan shows a number of regulatory measures. The country's Water Code regulates water use, allocates rights for water users, emphasizes efficiency, and addresses issues of environmental protection and pollution control. However, challenges remain in terms of equitable distribution, infrastructure development and water quality management.

Comparative analysis of legal frameworks: A comparison of the approach of Uzbekistan with other countries shows the diversity of legal mechanisms for regulating water resources. Countries such as the Netherlands demonstrate innovative strategies for managing water resources using sophisticated infrastructure and flexible management models. Similarly, Australia operates water trading schemes and a strong regulatory framework that encourages efficient water use and conservation. In contrast, countries with acute water stress, such as parts of sub-Saharan Africa, struggle with inadequate infrastructure, water scarcity, and competing demands between different sectors. Legal frameworks in these regions often prioritize water use for basic needs as they struggle to balance industrial, agricultural, and environmental demands.

Challenges and future directions: Despite the existence of legal frameworks, challenges remain throughout the world. Climate change-induced changes in precipitation, increasing population demand for water, and pollution threaten the sustainability of water resources on a global scale. Furthermore, ensuring equitable access and balancing competing interests among different stakeholders remain ongoing challenges. Paying attention to the historical legacy of irrigation practices in the Soviet era, modernizing the infrastructure and increasing the efficiency of water use are especially important tasks for Uzbekistan. Cooperation between coastal states in the region and compliance with international agreements can pave the way for sustainable management of water resources in Central Asia.

The analysis of the use of water resources in Uzbekistan and comparative studies with other countries show a complex interrelationship between legal frameworks, socio-economic realities and environmental requirements [24-26]. Although legal mechanisms exist, their effectiveness depends on effective implementation, flexible governance and international cooperation. Addressing current challenges and preparing for future water-related risks requires a holistic approach that integrates legal, technological and socio-economic strategies for sustainable water resource management.

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The legal framework for the use of water resources is a complex mosaic that includes international agreements, regional agreements and domestic regulations. Designed to address the complexities of water governance, these frameworks face ongoing challenges in implementation, application, and adaptation to evolving environmental dynamics. A holistic approach combining legal harmonisation, technological innovation and strong enforcement mechanisms is needed to support sustainable water management. Addressing current challenges and preparing for future water-related risks requires a concerted effort to cross boundaries and integrate legal, technological, and socio-economic strategies for sustainable water management. In this pursuit lies the key to ensuring equitable access, protecting ecosystems, and ensuring the longevity of this indispensable resource for future generations.

In irrigated areas, water is a priceless gift of nature. All life is connected with water. After all, where water ends, life also ends. However, water resources in Central Asia are very limited. Amudarya, which brings 78 cubic kilometers of water per year, and Syrdarya, which brings 36 cubic kilometers of water, are the main sources of water. The ecological basis of protection of water resources from pollution, contamination and depletion is that water is an integral component of the ecological system, that is, it is a factor that ensures the existence of life on earth. Pollution, pollution, even poisoning and decrease in the amount of water, which is an integral part of the natural system, causes negative processes in this system, disrupts the biological balance and exchange of substances and energy in it, and is harmful to the flora and fauna, including human health. causes the impact. Prevention of such a situation prevents the disruption of optimal natural conditions in the ecosystem and ensures the evolutionary development of the biosphere. Therefore, it is important to protect the ecological basis of water resources from pollution, pollution and depletion, to ensure its optimal natural balance.

All phenomena and species in nature are interconnected and interrelated, and are in a constantly changing (dynamic) state of balance. This law of dialectical materialism is also directly related to water resources, because all water in nature (water vapor in the air, river, lake, sea, ocean water and underground water) is the only reciprocal is connected and in dynamic (dynamic) equilibrium. This objective law of nature was defined by the great Russian scientist Academician V.I. Vernadsky discovered in 1920-1930 in his work "This balance in nature cannot be disturbed, and the rule of using water resources should be based on the concept based on the law of unity of all waters in nature and taking into account it, because from the source "The use of any amount of water affects the balance in nature and leads to a change in quantity and quality."

Protection of water resources should be carried out continuously in the process of its rational use for various purposes. The issue of doing this is not only to record the pollution and decrease of water resources and to punish the culprits with legal measures, but also to use nature, including the use of water resources, on the basis of determining the laws of natural phenomena, which lead to the pollution, decrease and waste of water resources. It is implemented based on the establishment of natural and artificial causes and factors. Based on this, the protection of water resources, starting from the process of its formation, should consist of the development of technical measures to protect the quantity and quality of water in the formed object (underground and surface).

That is why today the head of state attaches great importance to this issue at the level of state policy. In order to properly organize systematic work in this regard, a number of laws and decisions are being developed and put into practice. As for the legislative documents adopted

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within this direction, the President of the Republic of Uzbekistan on July 10, 2020 "Approval of the concept of development of the water industry of the Republic of Uzbekistan for 2020-2030 on" was adopted. In accordance with this legal document, the concept of water management development of the Republic of Uzbekistan for 2020-2030 is approved by the Republic of Uzbekistan every three years based on its priorities and target parameters and indicators for the relevant period. It is determined that it will be implemented step by step through water management development strategies. In order to ensure the implementation of this decree, on February 24, 2021, the decision of the President of the Republic of Uzbekistan "On approval of the strategy of water resources management and development of the irrigation sector in the Republic of Uzbekistan for 2021-2023" was adopted. This Strategy includes a number of infrastructural, political, institutional and capacity development measures covering sustainable management of the country's water resources and improvement of the irrigation sector. Within the framework of the strategy, the concrete coating of the irrigation system channels will be increased from 35 percent to 38 percent, the useful work coefficient of the irrigation system and irrigation networks will be increased from 0.63 to 0.66, the irrigated areas with low water supply level will be increased from 526 thousand hectares Reduction to 424 thousand hectares, introduction of water-saving irrigation technologies from 308 thousand hectares to 1.1 million hectares, including drip irrigation technology from 121 thousand hectares to 822 thousand hectares, saline areas from 1 926 thousand hectares to 1 888 thousand hectares, including reducing moderately and strongly saline lands from 581 thousand hectares to 532 thousand hectares, reducing the size of irrigated land areas with problematic groundwater levels (0-2 meters) from 988 thousand hectares to 900 thousand hectares, rural putting a total of 232,000 hectares of irrigated land out of use in the economy back into use, increasing the number of water management facilities with water accounting to 18,576 based on the "Smart Water" digital technology, 60 large water Tasks such as transfer of economic objects to automated management based on digital technologies, monitoring of 2,100 existing reclamation monitoring wells through digital technologies have been set.

Also, according to the decision, in order to increase the legal awareness and culture of the population regarding water protection, the organization of efficient and economical use of water resources, through the mass media, preschool educational organizations, general secondary schools and among the population It is also planned to organize wide-ranging propaganda activities. The strategy includes a number of infrastructural, political, institutional and capacity development measures covering the sustainable management of the country's water resources and the improvement of the irrigation sector, as well as programs and complex measures aimed at the development of the country's water resources management and irrigation sector in 2021-2023. takes

Use of water resources and their protection. Water is of great importance in processes in the biosphere and in human society. Water contains 11.11% hydrogen and 88.89% oxygen by weight. This complex mineral exists in nature in different states (gas, liquid and solid) and plays a major role in the circulation of matter and energy. The presence of water in three different aggregate states is important in the formation of weather and climate conditions in different regions of the globe. Water resources include rivers, lakes, reservoirs, canals, swamps, seas and oceans, underground waters, soil moisture, polar and mountain glaciers, and even atmospheric moisture. All water on Earth's surface makes up the hydrosphere. The total area of oceans and seas is 2.5 times more than the land surface. Ocean waters occupy 3/4 of the

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earth's surface, and the average thickness is 4000 m. 93.96 percent of the hydrosphere is ocean water, 4.39 percent is river, lake and underground water on land, 1.65 percent is polar and mountain glaciers. Water is one of the main factors in creating different climates on the earth's surface, and water vapor is of particular importance. It is impossible to imagine the weather of a place without atmospheric water. The amount of water vapor in the air depends on the surface of the earth and the seasons: water vapor is the most in the equatorial air, and the least in the polar regions.

525,100 thousand km of water evaporates from the earth's surface per year. Steam rising from the surface of oceans and seas is the main source of moisture in atmospheric air. Moisture in the atmosphere creates clouds. Some clouds contain hundreds of tons of water. Moist air currents, consisting of huge water masses, move from one place to another on the surface of the earth, bring humidity to places, and affect the air temperature of the place. Evaporated moisture from the surface of the oceans and seas turns into water droplets during the process of condensation and falls directly into the oceans and seas, creating a small circulation of water. Various precipitations of the atmosphere fall on the land surface and turn into soil moisture, streams, lakes and swamps, glaciers. The moisture evaporates again, and some of the broken and unbroken parts of the earth create water flow, fall back into the seas and oceans, and create a great circulation of water on the globe. In the process of water circulation, the complete exchange of ocean water takes 3000 years.

Precipitation falls on the surface of land and oceans in different amounts and evaporates. For example, the average amount of rain that falls on the surface of the ocean is 107-114 cm, and its evaporation is 116-124 cm. On the land, an average of 71 cm of rain falls and 47 cm of water is re-evaporated. The remaining 24 cm of water flows from land to seas and oceans through rivers.

In addition to the active participation of atmospheric moisture in the exchange of water and energy, it carries particles of different weights with it. Soil particles raised in the air, salt particles from the foam of the sea waves are carried to long distances under the influence of the wind. According to the calculations, 520 kg of dust and salt particles per hectare fall on the Aral Sea region, 260-800 kg on the shores of the Aral Sea, and up to 1000 kg per hectare on dry lands.

Water has a powerful force. the current orographic feature and relief of the land was formed as a result of continuous water activity and became more complicated. Water erodes mountain ranges made of hard rocks. When the water gets into the rocks, when it freezes, it widens the cracks and cracks even the solid granite and basalt. Water is a strong solvent, and it is not found in nature in a chemically pure state. Water erodes and dissolves the minerals that form the hard rocks and deposits them in the valleys. For example, only one tributary of Amudare, Vakhsh, washes 2680 tons of muddy sediments and rocks per 1 km2 of the catchment area per year. Nowadays, there is probably no more bathing place in Central Asia. It is difficult to imagine the organic world and human society without water. Water is of special importance in biophysical and biochemical processes in organisms and as their living environment. There is no life without water. Because 80-85% of plant bodies, 60-75% of animal organisms, 99.7% of jellyfish bodies consist of water. 70% of the body of a newborn baby, 65% of the body of an adult is water. 45 kg of a middle-aged person weighing 70 kg consists of water. Water is found in all parts of the human body, even 20% of bones are water. Vegetables consumed by

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humans contain 80-90 percent water, milk contains 89 percent, and meat contains 50 percent water.

A person tries to maintain the same level of moisture in his body, because a person who loses 12 percent of moisture from his body will die. A person can live without water for only a few days, his daily physiological requirement for water is 2.5 ml. This number may vary depending on operating conditions, external environment and air temperature.

Plants also require a lot of water. Water protects plants from heat and drying up on hot days. From the time of sprouting, the plant's demand for water increases. For example, it takes 40 liters of water to grow a single sunflower, and 500 grams of water to prepare 1 gram of dry alfalfa. 1,500 tons of water are used for wheat, 4,000 tons for rice, and 10,000 tons for cotton. One head of cabbage absorbs one kilogram of water per day.

Soil properties are of particular importance in providing plants with water, because the plant receives moisture from the soil. Plants deliver moisture to their bodies, then to their leaves, and evaporate it. The amount of moisture in the soil depends on the mechanical composition of the soil, location and terrain, for example, 100 kg of sand is 25 kg. 100 kg of mud contains 70 kg of moisture. Moisture in the soil is renewed in a year, water in the river is completely changed in 12 days (30 times a year), steam in the atmosphere - in 9 days (40 times a year).

Currently, the need for clean water is increasing very rapidly, because human economic activity cannot be imagined without clean water. Human society spends more and more water for its own needs (in providing water to the population, in industry, obtaining electricity, irrigation and development, transport, fishing, etc.). There is no sector of the economy that can develop without using water.

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