WEB OF SCIENTIST: INTERNATIONAL SCIENTIFIC RESEARCH JOURNAL
ISSN: 2776-0979, Volume 5, Issue 2, February, 2024

REASONABLE USE OF AVAILABLE WATER RESOURCES IN UZBEKISTAN ABOVE GLOBALIZATION

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Abstract
This article deals with the issues of water resources conservation, preservation and rational use. It is known that water is the most important and at the same time the cheapest natural resource in the world. Unfortunately, water sources are not unlimited. If we do not save water now, if drastic measures are not taken to protect this resource, it is clear that the situation will lead to economic, social and political problems. In order to save and conserve water, most of the developed countries are trying to drastically reduce drinking water sources.

Keywords: river, resource, climate, environmental conditions, water quality, clean water, irrigation, water level, water consumption, water saving, water saver, soil erosion, water shortage.

INTRODUCTION

Today, about 20 percent of the water used in the country is formed on the territory of the republic, and the remaining 80 percent is taken from transboundary rivers - Amudarya, Syrdarya and Zarafshan rivers. On average, 44-48 billion cubic meters of water are used in the country per year, and the main part of water resources, or more than 85 percent, is used for irrigation purposes in agriculture.

As our experts know, 46 billion cubic meters of water is used on 3,200,000 hectares of land, and 60% of it reaches cultivated fields. 23 percent of the total 180,000 kilometers of irrigation networks are covered with concrete, and they have not been updated for 30-35 years. This requires the efficient use of water, the introduction of water-saving irrigation technologies, especially the widespread use of irrigation technologies such as drip irrigation, sprinkler irrigation, subsoil irrigation, film laying on egates, and portable flexible plastic pipes. Due to the complex and rational use of water resources, their management and protection, as well as the provision of water to farmers and farms at the expense of the state, the responsibility of farms to save water is insufficient. In particular, economical irrigation technologies have been introduced in 328,000 hectares of irrigated land in our country, or only 7% of the total cultivated area. However, one of the most economical technologies in agriculture is the drip irrigation technology. Its advantage is that 40-50% of the amount of water used in the traditional method is saved, labor and resource consumption is reduced by 30%. In addition, this method allows reducing fertilizer by 37% and increasing productivity by 15-20 centners, reducing soil erosion, groundwater level rise and salinity.

40-50 years ago, water consumption in Tashkent city was almost 5 times less, and it was able to fully satisfy the needs of the population. In the mid-60s of the 20th century, the population of Tashkent was 1 million was around but as mentioned above, the amount of water used was 5 times less. Now the population of Tashkent is 3 million more than 2.5 million people per day m. cubic meters of clean drinking water are being consumed. According to the UN statement, it is appropriate to determine the daily need of clean drinking water for each person in the amount of 50 liters. The total population of the earth in 2000 was 2.1 billion 61 countries have water consumption below this standard. By 2050, 45 percent of the world's population (that is, 4.2 billion people) will have to live in a country that cannot provide its population with 50 liters of water per day. The increasing trend of the need for clean drinking water in the city of Tashkent is not actually due to the increase in the population, but, firstly, if it is measured by the increasing need for clean drinking water in the industry, and secondly, as a result of the decrease in the level of rational use of clean drinking water is giving. If we consider water consumption in large cities in developed countries, we can see the opposite picture. For example, in Tokyo, the capital of Japan, in the 1950s, the need for clean drinking water was about 400 liters per person per day, but in 2000, they managed to reduce this figure to 160 liters. Today, rational use of water is a necessity of life. The per capita water consumption of Tashkent city residents is increasing year by year. If in the middle of the 20th century, 550 - 600 liters of clean

drinking water were consumed per capita per day in Tashkent, today this figure has increased to 1136 liters. It follows from this that the level of socio-economic development of the country becomes a factor determining the need for clean drinking water, that is, the higher the level of socio-economic development of the country, the higher the level of methods of rational use of water. Advanced technologies of water use will be developed and opportunities for its implementation will also open up. The decline of the culture of using clean drinking water remains an obstacle to the development of industrial production, at the same time, it causes the fertile lands that have been cultivated to become unusable since the time when the farming culture was established. This unfortunate situation is showing its negative result in the Aral region. Due to the lack of fresh water, several tens of thousands of hectares of land have become saline, and the productivity has decreased several times due to the fact that most of the cultivated areas have been saturated with toxic chemicals. One of the methods of rational use of clean drinking water, especially in the city of Tashkent, is to expand the irrigation fountains for homesteads, parks, roadsides, trees and greenery, and to increase interest in saving clean drinking water.

The issue of providing the population with clean drinking water is more urgent than ever, and certain measures are being implemented in this regard. As a result of the investments made in the programs adopted in this direction, the volume of production and supply of clean drinking water is increasing year by year. For example, in 2018, 1553 million cubs. on average, 4,254,000 cubic meters of drinking water were produced per day per year, and in 2022, its volume was 1,728 million cubic meters, or an average of 47,000 cubic meters per day.

Water has become the scarcest and expensive resource in the world. Everyone on earth is struggling to use this wealth in some way, especially in agriculture. In this case, irrigation is carried out along the edges covered with a polyethylene film. In conventional cotton irrigation, 25-30 percent of the furrow water is lost through surface and deep seepage and evaporation. In addition, when the seepage water is close to the ground, the amount of evaporation increases, and the accumulation of toxic salts occurs in the part of the soil where the roots develop. This situation affects the normal development and growth of cotton. The new method of irrigation of agricultural plants proposed by the institute helps to save water and obtain high yields. An experiment on the benefit of the technology of watering fertilized cotton fields with polyethylene films was conducted at the Jizzakh branch of the institute. Employees of the Institute of Scientific Inspection say that the increase in cotton yield is clearly visible when irrigation is done sparingly. As a result of the five-year experience, the yield increased from 10 centners per hectare to 47 centners per hectare, an increase of

27%. In this case, additional water was saved by 35% and more. Last year, extensive testing of new resource saving technology was carried out in Syrdaryo, Jizzakh, Kashkadarya, Andijan and Tashkent regions. Based on the results of testing the irrigation technology in the fields screened with polyethylene films, the yield increased by 50.2% and the amount of irrigation water decreased by 52.7% in the test area of Sirdarya region, this indicator was 20.9-48.5% in Kashkadarya region, 21.9-40% in Andijan region. percent, it was 19.5-10.8 percent in Tashkent region. According to experts, when the indicators are summarized across these five objects, the productivity increased by 27.5%, water was saved by 35.6%. At the same time, the use of this technology creates a number of conveniences. This method creates the basis for uniform moisture throughout the seedling, reduces the number of intercropping operations, thus saves fuel, reduces the amount of moisture evaporation and evaporation emissions, improves the nutrition of the plant, accelerates the ripening of the crop, and increases its quality. In the future, it is planned to widely apply this technology of irrigation in the country's agriculture.

When experts study how the water shortage in Uzbekistan affects the agricultural sector of arid regions, a water shortage of 7 billion cubic meters may be observed in the country by 2030. As a result, Uzbekistan has 33 water-scarce regions. there is a possibility of falling into the ranks of the state.

"In such conditions, the agricultural sector, which consumes the most water (85 percent of the total water) in the areas located in the lower reaches of the Amudarya, Syrdarya and Zarafshan river basins, will suffer a lot. Therefore, it is appropriate to develop measures to gradually replace water-intensive crops with low-water crops in the Republic of Karakalpakstan, Khorezm, Jizzakh, Syrdarya and Navoi and Bukhara regions.

Water resources management, factors affecting the constant balance between water resources and water demands:

•natural water resources (rainfalls, surface and underground water flows) and return waters formed under the anthropogenic influence of mankind.

These resources may change as a result and impact of climate change;

• requirements of economic sectors for water (taking into account their irreversible water consumption);

• environmental conditions and requirements;

• social environment and economic development;

• political environment.

• At the same time, the following should be considered:

• available water resources do not match water requirements;

• water consumption periods of different consumers are different and do not match each other (for example, irrigation and energy; recreation and fishing, etc.);
• deterioration of water quality. In practice, this situation drastically reduces the amount of clean water resources available to society

Water resources management is carried out in two directions:
• management of the amount of water resources;
• water resources quality management.

CONCLUSION

In conclusion, at present, all possibilities are being used in the effective and rational use of water resources in our country. Special attention is being paid to water-related systems such as rivers, lakes and wetlands, and ecological balance is important. In Uzbekistan, water resources are directed to three different purposes, including irrigation of agricultural lands, supply of production enterprises and provision of clean drinking water for the population. All these areas of recovery are important and necessary.

After all, reducing water consumption, increasing the efficiency of irrigation systems and production enterprises, introducing modernization and technological innovations, rational planning and careful treatment of water resources lead to improvement of water quality. At the same time, we will be able to conclude that we should not waste drinking water and not throw all kinds of waste into ordinary sewage. Because we can only survive for 3 days without drinking water. Because we must not forget that "Water is the source of life."

REFERENCES

1. Christiansen J. E. Uniformity of application of water by sprinkler systems. Agricultural Engineering March.1941, pp. 89-92
2. Egamberdiev R., Eshchanov R. - Ekologiya asoslari T., - Zar qalam, 2000
3. Huang Y., Zhao H., Jiang Y., et al. “Comparison and analysis of different discrete methods and entropy-based methods in rain gauge network design” Water Switzerland 2019;
4. Michael Begon – Ecology from individuals to ecosystems fourth edition published 2006 Printed and bound in the United Kingdom by CPI Bath Press
5. Simon A. Levin editor –The Princeton guide to Ecology 2009 by Princeton University Press Published by Princeton University Press, 41 New Jersey 08540William Street;
6. Winward T., Hill R. “Catch-can performance under a line-source sprinkler Transactions of the ASABE (2007) 50(4) 1167-1175.