

Issues Of Enhancing The Role And Importance Of Tax Mechanisms In The Efficient Use Of Water Resources

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Abstract: This article analyzes the current state of water resource use in our country and the measures taken for its economical and efficient use, as well as their effectiveness, examines the importance of applying tax mechanisms in the efficient use of water resources, and provides proposals and recommendations for the effective use of water in the future.

Keywords: water resources, methods of efficient water use, groundwater, surface water, water bodies, irrigated lands, water supply pumping stations, smart water measurement and control devices, diving devices, water management automation, drip irrigation technology, devices for online monitoring of water quantity.

Introduction: In a market economy, the socio-economic development of any country, along with other factors, largely depends on the reserves of available natural resources and the efficiency of their use. Therefore, in the economic reforms being carried out in Uzbekistan, great attention is paid to the effective use of all natural resources of our country, in particular, water resources. Because water resources are limited and most of them are non-renewable, it will be possible to meet the unlimited needs of society through the effective and rational use of existing natural resources.

Water is the source of life not only for our country, but also for all living things on our planet. For this reason, the economical and rational use of water has long been one of the pressing problems of humanity, and now and in the future, water resources will remain a decisive factor in sustainable development.

The fact that our republic is located in the center of Central Asia in terms of its economic and geographical location, water resources play a special role in ensuring its economic development, and historical sources indicate that water has been valued as a source of life in our country since ancient times, and it has been considered one of the most important factors in economic management.

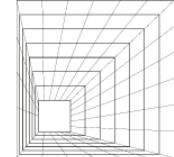
Even today, it is impossible to imagine the development of our country's economy, and especially its agricultural production, without water. This is because Uzbekistan's agricultural production is directly linked to water resources.

Literature review: In the effective use of water resources, the possibilities of their rational use, determined by the water resource potential of the region, the characteristics and functional structure of users, and existing problems in it were studied by well-known Russian economists Avakyan A.B., Balatsky O.F., Belichenko Yu.P., Gareev A.M., Shiklomanov I.A.

Also, the issues of forming economic relations in water use and ways to improve water use mechanisms are presented in the research of E.D. Aliev, S.D. Belyaev, A.D. Vyvarts.

In turn, the economic significance of water resources and issues of their economical and efficient use have been studied by domestic economists A.A. Abduganiev, A.S. Sultanov, Z.Ya. Khudoyberganov, S.A. Kuchkarova, I.L. Abdurakhimov, G. Safarov, D. Kurbanov.

Research methodology: In this article, comparative analysis and assessment methods of induction and deduction were used. Using the comparative method, data on the volume of water consumed and tax revenues collected from it, as well as the levels of their effectiveness



in the effective use of water resources in our country, and their analysis were carried out, and scientific conclusions were made.

Results of the analysis: Water is one of the main natural resources for life, it is necessary not only for maintaining health and life, but also for food production and other economic activities.

Fresh water is a very valuable and relatively rare source, and according to calculations, the share of fresh water in the total volume of world water resources does not exceed 0.35%. In turn, although the quality of safe drinking water is significantly lower, its consumption rate is rapidly increasing, becoming a scarce resource, and its shortage can significantly limit the economic growth of the state. Considering the transboundary nature of water resources in many countries, water scarcity can lead to economic and even political conflicts¹.

The European Union's "EU plus Eastern Partnership Water Initiative" project notes that the volume of water consumed in agriculture is increasing rapidly compared to the volume of water collected worldwide, and that the volume of water used in agriculture is likely to almost double by 2040 compared to 2014.

According to this analysis, 286 transboundary rivers and 592 transboundary water bodies are shared by 153 countries worldwide, and the growing level of local scarcity does not exclude the possibility of an increase in interstate conflicts over water in the future. Such conflicts are likely to arise due to several factors (territorial disputes, competition for water resources, the struggle for political strategic advantage).

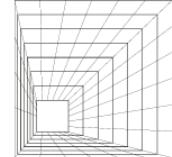
As noted in the United Nations World Water Report 2019, while 94 conflicts related to water resources were recorded in 2000-2009, the number of such conflicts reached 263 in 2010-2018. (In 123 cases - water as the main cause, in 22 cases - water as a weapon and in 133 cases - water as a victim of conflict). This overall increase in all positions was mainly due to two factors. This is explained by the increase in the number of armed conflicts in a number of regions of the world from 2010 to 2018, as well as an increase in the level of awareness (and reporting) of such incidents by the world community.

Even today, the development of the economy of Uzbekistan, especially its agricultural production, cannot be imagined without water. Because the country's agricultural production is directly and inextricably linked to water resources. However, with the rapid growth of the social economy and the acceleration of urbanization processes, the problem of regional water resources balance is becoming increasingly important. This can be seen from the data in the table below.

Table 1

t/r	Years	Total	Including			
			From the riverbeds	From inland streams and rivers	From groundwater	For industrial, municipal and technical needs
1.	2014	51794	32133	17849	476	1335
2.	2015	55138	33924	19087	539	1589
3.	2016	54556	32465	19810	553	1727
4.	2017	58943	36804	20101	495	1519
5.	2018	51003	31911	17531	481	1080

¹ Thematic material project "Water initiative ES plus for Eastern partnership"



6.	2019	53976	33698	18756	471	1052
7.	2020	51217	31174	18301	480	1263
8.	2021	43662	27174	14794	516	1177
9.	2022	44488	29629	12622	597	1640
10.	2023	45962	30764	12815	556	1826
11.	2024	45281	30963	12309	524	1485

**Information on the amount of water actually withdrawn in the Republic of Uzbekistan
in 2014-2024 (km3)²**

From the table data, it can be observed that over the past ten years, the volume of water entering the territory of our country has decreased by 6513 (51794-45281) km3. This decrease is mainly due to a decrease in water withdrawn from internal streams and rivers in our country by 5540 (17849-12309) km3, or 85 percent, and water withdrawal from riverbeds by 1170 (32133- 30963) km3, or 18 percent. In turn, it should be noted that the use of groundwater has increased by 48 (524-476) km3, and the volume of water withdrawn for industrial, municipal and technical needs by 150 (1485-1335) km3.

Therefore, in recent years, consistent reforms have been implemented in our country to effectively use water resources, improve their management system, and modernize water management facilities.

One of the main conditions for ensuring efficient water use is the payment of water usage fees, which mobilizes funds for water conservation and recycling measures, and encourages the rational use of water resources.

In turn, in order to regulate the efficient use of water resources and provide state support to businesses that use it economically, a “Tax for the Use of Water Resources” was introduced for business users of water.

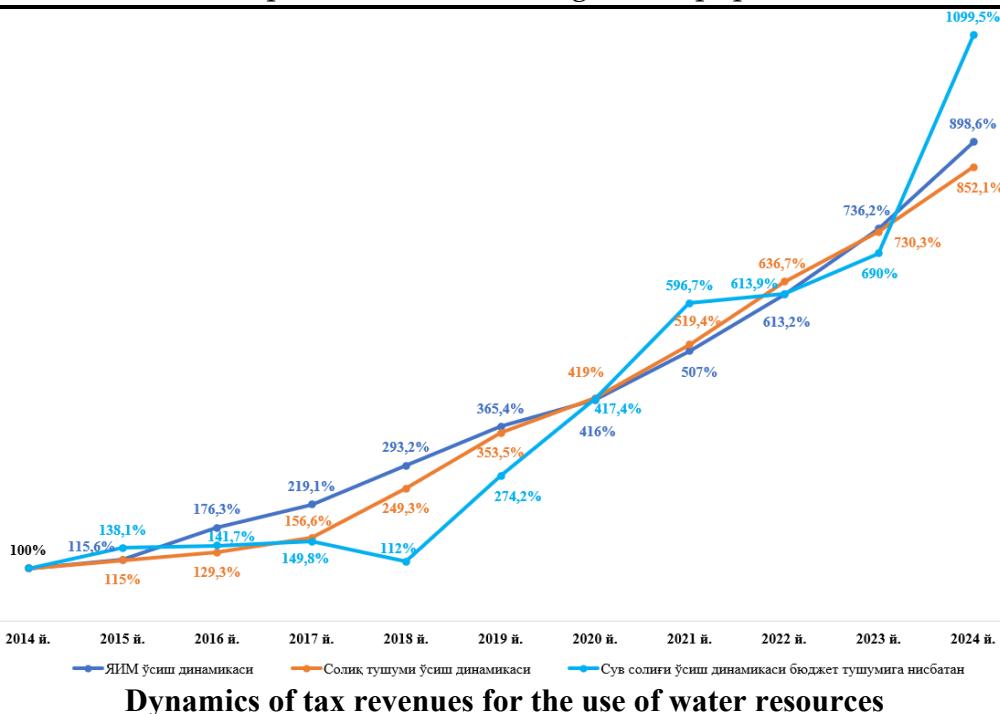
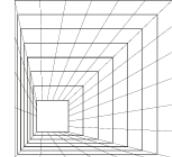
It is worth noting that from 1998 to 2019 (for more than twenty years), only large industrial producers and some service providers were payers of the tax for the use of water resources. However, the “Concept of Improving the Tax Policy of the Republic of Uzbekistan” adopted in 2018 stipulated that all business entities (small businesses and private entrepreneurs), as well as agricultural producers, must pay a tax for the use of water resources, and starting from 2020, small businesses, private entrepreneurs and agricultural enterprises were transferred to paying the tax.

To date, “all legal entities, non-resident legal entities operating through permanent establishments, individual entrepreneurs using water for entrepreneurial activities, and dekan farms that use water resources” are recognized as payers of the tax for the use of water resources.

The chart below shows the dynamics of the growth of the main indicator of the economy of the Republic of Uzbekistan, the growth of gross domestic product, its impact on state budget revenues, and the growth of taxes on the use of water resources in the budget revenues structure over the past ten years (2014-2024).

Diagram-1

² The table was prepared by the author based on data from the Tax Committee.


Dynamics of tax revenues for the use of water resources

From the data in the diagram, it can be seen that over the past ten years (2014-2024), the main growth indicator (GDP) of the economy of our country has increased by almost nine (9) times, while the amount of taxes and other fees to the state budget has increased by eight and a half (8.5) times, while the amount of taxes for the use of water resources has increased by eleven times (11.0).

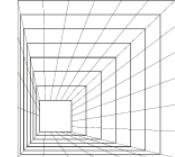
This situation indicates that tax reforms are being implemented in Uzbekistan for the effective and rational use of water resources and that taxes are being set in accordance with the measures taken to regulate the economy.

However, despite the decisive measures taken in Uzbekistan to ensure the economical and effective use of water resources, the problem of wasteful use of water remains relevant today, especially in the housing and communal services and agriculture.

Conclusion and suggestions: The state program established by the Resolution of the President of the Republic of Uzbekistan “On Approval of the Program for the Management of Water Resources and the Development of the Irrigation Sector in the Republic of Uzbekistan for 2025-2028” of August 15, 2025, stipulates the digitalization of the sector in order to increase the productive use of water resources and economic efficiency, in particular, the introduction of a unified online water accounting system at particularly important water management facilities, and the installation of a digital water metering device that allows real-time monitoring of the amount of water withdrawn within the state border and online monitoring of water consumption accounting through integration into a centralized database, the transfer of large water management facilities to automated management based on digital technologies, and measures to reduce costs at facilities transferred to private partnerships by transferring water management facilities to the management of the private sector under public-private partnerships. The following measures must be taken to ensure the implementation of these measures:

1. In order to save and effectively use water resources, the main attention should be paid to the digitalization of the sector, and in this regard, the main attention should be paid to:

- the introduction of a single information system that collects and analyzes data from “online” control devices and “smart water” devices at pumping stations;



the organization of a single digitalization center at the Ministry of Water Resources and the establishment of a single information system for water consumption and its accounting;

It will be necessary to integrate a single information center with the information resource centers and databases of relevant ministries and departments.

2. In order to eliminate large losses in water supply through canals and internal streams, accelerate the construction of main canals and organize the implementation of all processes until the completion of concreting on the basis of a scientific approach on the basis of "dual training" with educational organizations responsible for each canal.

3. Install water meters and video surveillance devices at water distribution points and establish an automated system for distributing water to whom and how much.

4. Review the procedures for setting water supply limits and strengthen financial accountability measures for water resources consumed in excess of the established limit.

5. It is appropriate to expand the procedures for applying tax incentives to farms that use modern water-saving technologies for irrigation of agricultural land.

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