Co-funded by the Erasmus+ Programme of the European Union

BioEcUz

TIIAME NATIONAL RESEARCH UNIVERSITY

The project "New Master's Degree Curricula for Sustainable Bioeconomy in Uzbekistan" (BioEcUz)

No 619294-EPP-1-2020-1-LV-EPPKA2-CBHE-JP

THE SECOND BIOECONOMY FORUM IN UZBEKISTAN

WATER-SAVING IRRIGATION TECHNOLOGIES ARE KEY TO ECONOMIC EFFICIENCY IN AGRICULTURE OF UZBEKISTAN

Spiker: Khasanov Azizbek - 1st stage master's
"TIIAME" National Research University, Uzbekistan

Scientific supervisor: Khakimov Rashid - associate professor of
"TIIAME" National Research University, Uzbekistan

Tashkent, May 2023

Co-funded by the
Erasmus+ Programme
of the European Union

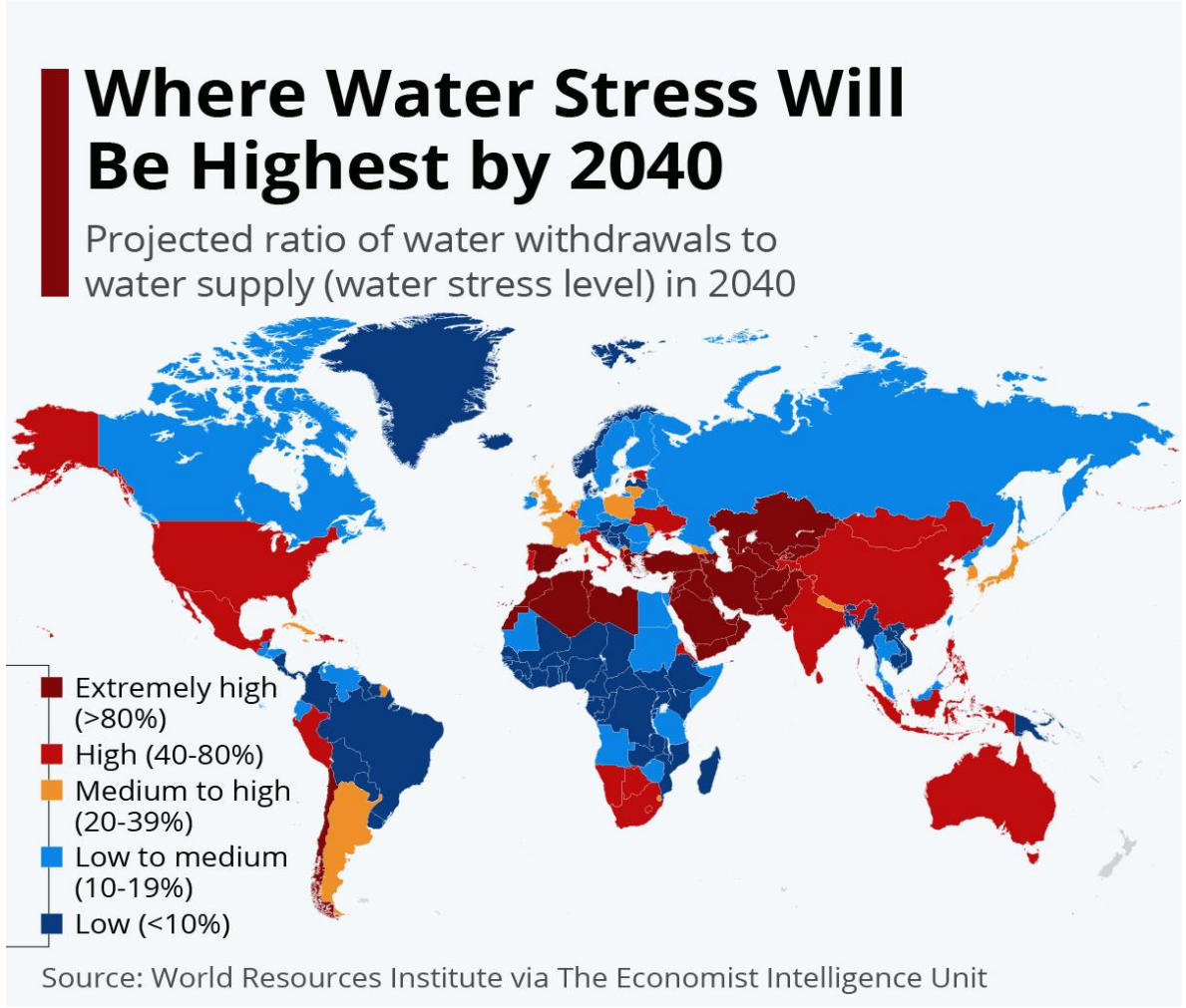
On December 2, 2022, President Shavkat Mirziyoyev signed the decision "On measures to increase the effectiveness of reforms aimed at the transition of the Republic of Uzbekistan to a green economy by 2030."

The President's decision approved plans to reduce greenhouse gases, increase green energy sources, increase energy efficiency, introduce water-saving technologies on an area of up to 1 million hectares, plant 200 million seedlings per year, expand forests, and recycle household waste. In the decision, special attention is paid to the issues of increasing scientific research on the **"Green" economy** and implementing innovative projects.

https://lex.uz/ru/docs/6303230

Co-funded by the Erasmus+ Programme of the European Union

According to estimates of the World Resources Institute (www.wri.org), by 2040, 33 countries of the world will face the problem of extreme water scarcity. Among these 33 countries, there are all Central Asian countries. Uzbekistan is certainly among them.

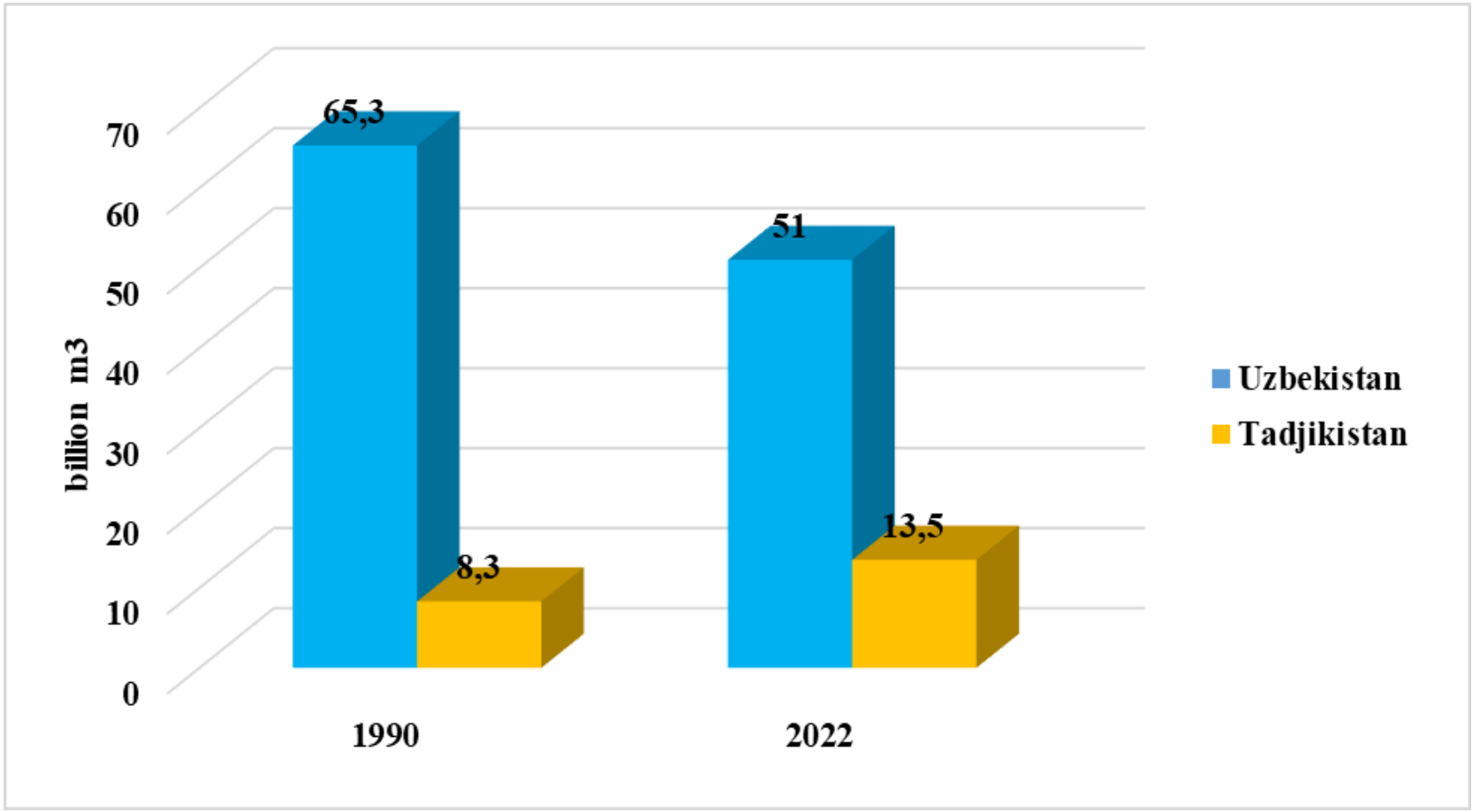


The extent to which the world's countries will face the problem of water scarcity in 2040

https://www.statista.com/chart/26140/water-stress-projections-global/

Co-funded by the
Erasmus+ Programme
of the European Union

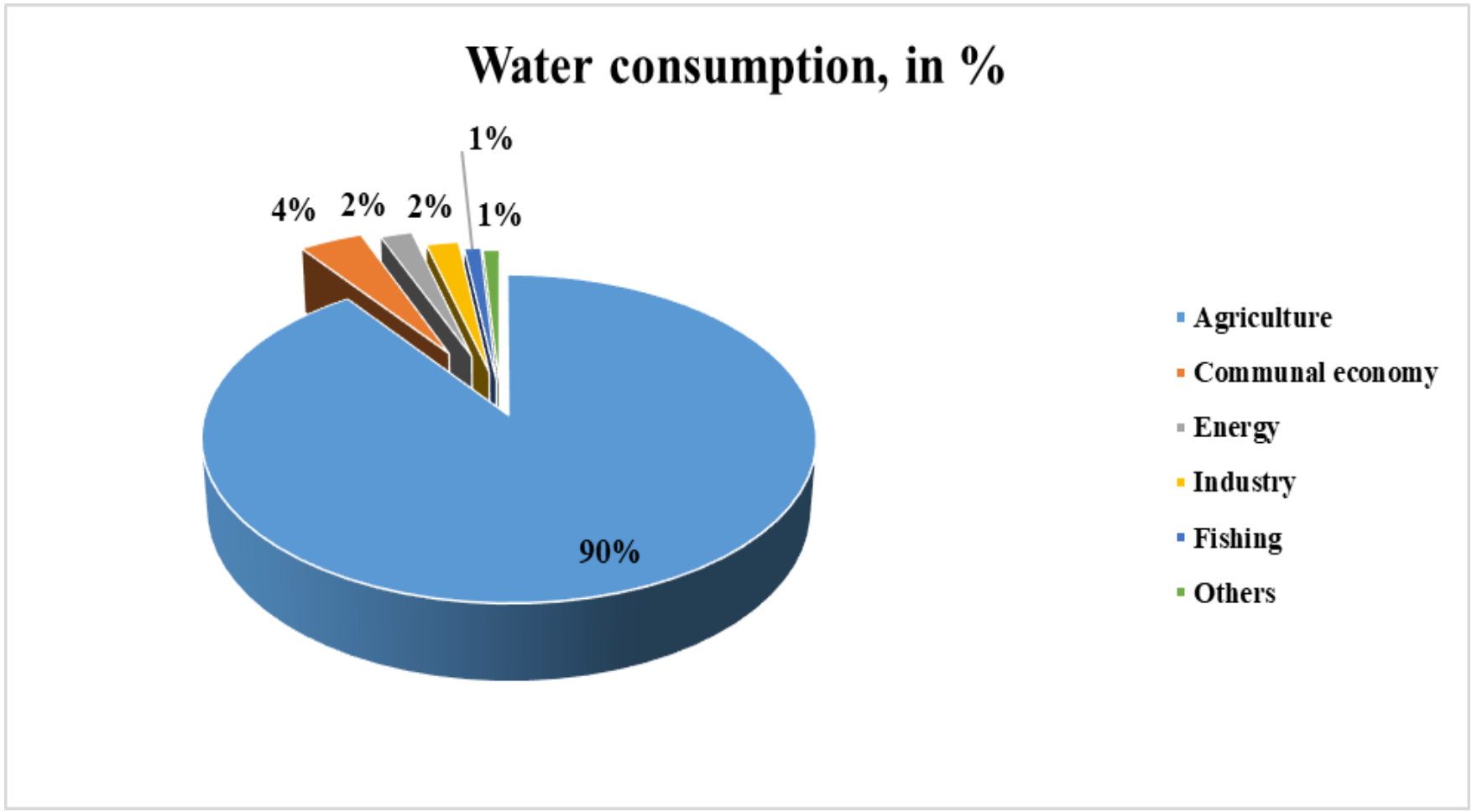
According to statistics, the total amount of water used in the Republic in 2022 decreased from 64 billion m^3 per year to an average of 51 billion m^3 per year compared to the 80s of the last century.



Dynamics of water consumption in the Republic of Uzbekistan and the Republic of Tajikistan

www.uza.uz/uz/press/4/1280/

Co-funded by the
Erasmus+ Programme
of the European Union

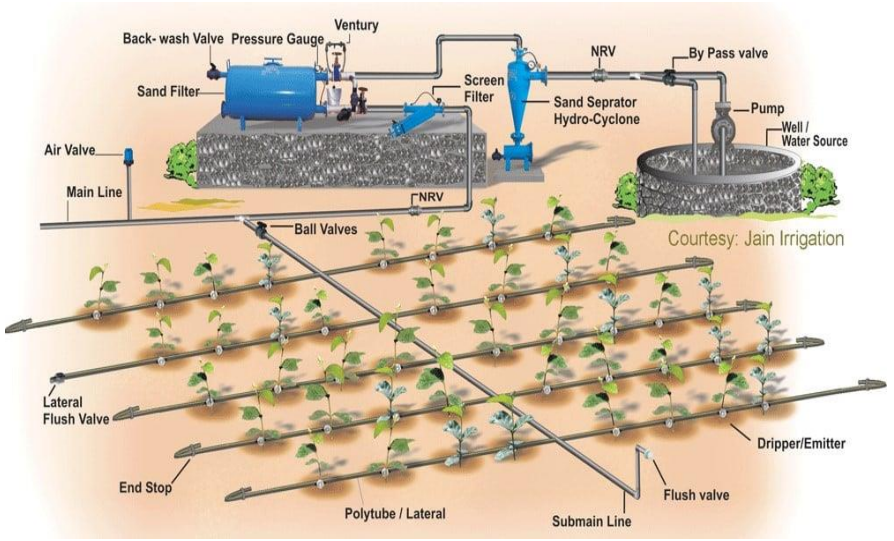


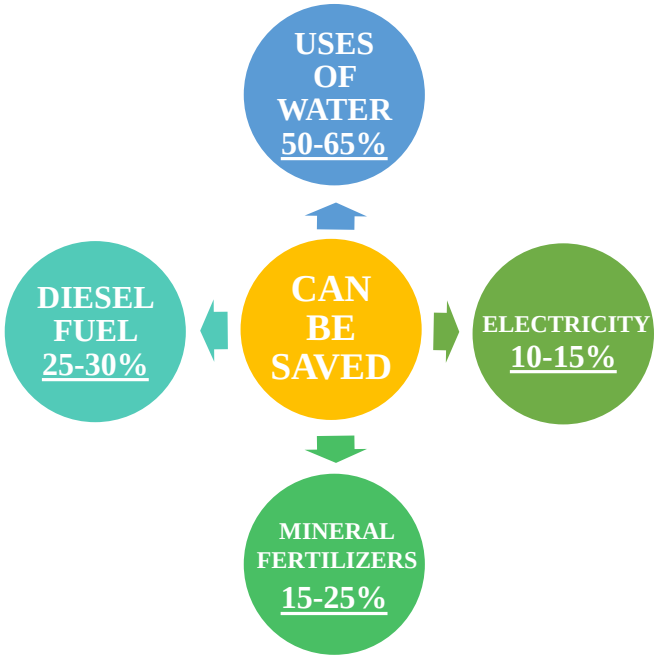
Today, most of the water in our country is directed to the agricultural sector. This, in turn, necessitated the use of water resources in the cultivation of agricultural crops, using modern water-saving technologies.

Water use in the Republic of Uzbekistan

Co-funded by the Erasmus+ Programme of the European Union

There is a total of 4,3 million hectares of irrigated land in Uzbekistan, and it is planned to introduce modern water-saving technologies to 2 million hectares by 2025. In 2022, water-saving technologies were introduced on 463,800 hectares of land in our Republic.





As a result, 37 billion 584 million m^3 of water during the growing season due to effective management of water resources. Introduction of water-saving and digital technologies, a total of 7 billion m^3 of water saving has been achieved.

The drip irrigation method is distinguished among the irrigation methods by its high efficiency, that is, it is an irrigation method that allows obtaining a stable high yield with low water consumption in conditions of lack of water resources.

When cotton is irrigated in a simple way, water consumption per hectare is on average 5500 m^3, and when drip irrigation is 2750 m^3. By introducing drip irrigation technology in the farm, the yield of cotton will increase from 27 to 35-45 centners.

"TOMCHI" mobile application information

Co-funded by the
Erasmus+ Programme
of the European Union

Suggestions

Based on the above analysis and data, it is appropriate to make the following suggestions. Including

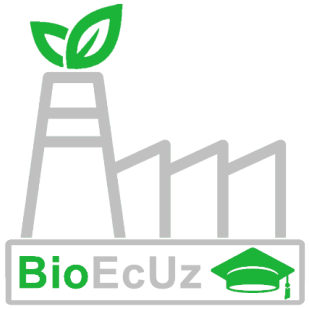
- in the use of water-saving technologies in agriculture, choosing the optimal irrigation system and method, taking into account the type of crop, natural climatic conditions, soil composition, conditions of application of agrotechnical measures and other factors;
- before the implementation of the water-saving irrigation system, which is being introduced to cultivated fields, to calculate the level of efficiency from a technical and economic point of view;
- depending on the type of crop, use of chances given by the state for the land area where the water-saving irrigation system is introduced, use of the opportunities created for (local) producers of the technologies necessary for the installation of these systems.

Co-funded by the
Erasmus+ Programme
of the European Union

Conclusion

In conclusion, it can be said that the radical improvement of water resources management in economic sectors, the further development of the system of using water-saving technologies in increasing the efficiency of water use, the positive direction of the attitude towards water resources requires the implementation of measures aimed at adapting to water shortages and providing consumers with guaranteed water. The widespread introduction of modern technologies in water management in our country, the use of facilities created by the state for this purpose will serve to develop production and further increase the well-being of our people.

Co-funded by the
Erasmus+ Programme
of the European Union



TIIAME
NATIONAL RESEARCH UNIVERSITY

THANK YOU FOR YOUR ATTENTION!!!