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Foreign Experiences in Using Water-Saving Technologies and Its Research to Agriculture of Our Country

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Abstract: *In this article, the experience of foreign countries in the use of water-saving technologies for the effective use of water resources in the context of global climate change has been studied , and proposals have been developed for the advantages and application of water-saving technologies .*

Key words: *global climate change, water scarcity, water management, digital technologies, water-saving technologies, drip irrigation, introduction of market principles to water management, irrigated land .*

INTRODUCTION

Last in years land and water resources efficient use , water resources manage system improvement , water farm objects modernization to do and development according to consistent reforms done is increasing . That's it with together global climate change , population number and economy ng networks their growth to water was demand year as increased to go because of water of resources shortagefrom year to year getting stronger is going Water shortage increased going and from water village from the farm except (household and industry) to use Demand increased going one in the circumstances of water network distribution again analysis to do and evaluation today's in the day especially from developing times in front current issues one be is standing

Developing of countries village farm in networks watering water and there is irrigation from the infrastructure in use high to efficiency reach for watering water distribution improve Demand will be done . Relocation also to reduce waterlogging and salinization of irrigated land, environmental impacts of irrigation and other externalities (resulting from over-extraction of groundwater and depletion and pollution of surface water) required.

The average annual amount of water used in our country is 51-53 billion cube meter, including 97.2 percentage the river and of streams, 1.9 percentage collector from networks,0.9 percentage while land from underneath using separated water get to the limit relatively 20 decreased by percent.

In the Republic 2020 - 2030 in years population and of the economy all networks water with stable to provide irrigated of lands ameliorative situation improve, water to the farm market principles and mechanisms and digital technologies wide current achieve water economy of objects reliable and to ensure its operation efficiency of use of land and water resources The development of the concept aimed at increasing water managementgoing is the result of reforms.

Especially present water deficiency conditions village economy crops in cultivation water

thrifty irrigation technologies to apply more expansion and state incentives, foreign investment in this areaand grants attraction to do issues done increase current from tasks is counted.

It is known that climate change in our country water shortage more droughts such as 2000, 2008, 2011, 2014 and 2018duration and periodicity to increase take to come and of the economy water causing serious difficulties in meeting the demand for resources shows that it is possible. Water supply per capita in the next 15 years 3 It decreased from 048 cubic meters to 1,589 cubic meters. At the same time, the population of the republic the number will increase by an average of 750-800 thousand people per year and reach 39 million people by 2030 reach their good quality to water has been demand 2.3 billion cube from the meter 2.7 - 3.0 billionper cubic meter (18 — 20 percent) to reach is expected.

That's it point of view from the point of view water efficient from technologies in use foreign significant aspects of experiences Let's look at the example of some countries and it suggestions and recommendations for use in irrigated lands of our country we give

METHODS

Research in the process comparative comparison, makes sense and abstract thinking methods were used.

MAIN PART

Village in the farm from water use about Turkey experience separately is important. In particular, Turkey's average annual water resources are 180-190 billion cubic meter, land under waters while 10-15 billion cubic meter, total water while its resources are 200 billion cubic meters, only 30-35 billion of it. m^3 (15 percent) is used. Of this, waste water resources are 25-26 billion. m^3 and underground water resources 5-6 billion m^3.

Turkey climate village economy for very a lot amenities creates and thisallows to grow all kinds of agricultural products. But the agricultural network is not well developed, for example, there are great opportunities has been in the circumstances main village household crop has been of grain average yield is 21 t centner and meat grown per capita the amount is average 18 kg organize does.

Planning, design, construction of all works related to water management, water to floods against struggle, village economy crops fields water with to provide water resources city and to the villages delivered to give their work State Department of Water Management (DSI) implements. Alternatively, with water the Prime Minister personally with related tasks to be performed and to be performed engages and controls leads

in Turkey village economy crops irrigation purposes used local conditions on water charges are taken into account mechanism is developed.Waterable of lands 55,8 _ percentage old irrigated and 44.2 percentage again to irrigate former irrigated land used to water right not available. In this plant fields irrigation and the waterdistribution, from water use facilities from long ago there is that it was attention received. Nowadays in Turkey 152 ta water working warehouse standing again 50 again from more water warehouses is being built. Important aspect is that state by water economy system activity for being spent common of funds 40 percent excess hydropower resources sell at the expense of will be covered. In the country irrigated get grounded important aspects very big being such lands to the population building a house or another goals for distribution works hardto control received.

China's arable land area is 100 mln. hectares , of which 50 million hectare irrigated lands is

considered Yearly precipitation quantity average is 1200 mm or 12 thousand cubic meters of water per hectare of land reserve is correct. An average of 400 billion per year for irrigation works here. 7.1 thousand cubic meters of water reserve per hectare on averageis correct. One of the largest water management systems in China is based on the Huanghe River activity host is a complex. of the complex length 252 kilometers being she is 460 tawater facilities, including 13 dukers. The water here is 40 meters from the river is raised to a height. Today, the Ministry of Water Resources of China is from water has great rights in terms of use and water management in the country A separate police system was also established and this process of water use controls. In the United States in the early 1960s, Richard Hapin by "Dewy hose" name (other name "spaghetti pipe") withDrop tape was developed and its first sample was put into practice in 1964 was introduced. Such hoses are mainly grown on trees and in greenhouses the flowers irrigation for widely applicable done.

Drop by drop irrigation from systems use 1980 from after especially increased, and by the year 2000 drip irrigation systems were introduced worldwide cultivated areas are 3.2 mln. exceeded hectare . in the Hawaiian Islands of the United States application of drip irrigation in sugarcane cultivation on sloping land because it was not possible, farmers used sprinkler irrigation and faced great difficulties. Drip irrigation works well from being identified after while In Hawaii 11 sugar cane plantation 1986 in in full drop by drop to water conducted .

Drop by drop irrigation systems in application Israel, Cyprus, USA, Italy,Australia and Jordan such as the world in countries very big to achievements has been achieved.

USA, Australia, Israel and another one series countries land from underneath drip irrigation systems are also widespread. These systems plant water another drip with adaptation to delivery from under the root layer drastically different from irrigation systems. Water resources in European countries the issue of their use and effective management is one of the most urgent topics enters. For example, in Spain in recent years it is caused by drought series problems as a result earlier to the body came heavy ecological situation improvement programs, interlinking of rivers have been implemented,near years precipitation and water floods due to long to the future intended strong state events on get work is going

Observations show that in all countries from the beginning of the 21st century humanity for global to the problem turning around going water resources shortage paying attention to the solution of the problem, their rational use, their economic indicators, internal and external of possibilities come came out without programs are preparing and programs known done at the level are increasing.

Another issue to pay attention to when analyzing the process of water use should be, that is, Uzbekistan in the agriculture of one of the countries in the world almost 100 percent of irrigated land areas are not used. Central Vegetation of plants in the summer in Asia, in particular in the territory of Uzbekistan retention of soil moisture due to the absence of precipitation during the period only through irrigation measures. This situation is not only responsible, it also requires spending a lot of money. Uzbekistan is irrigated land areas, this to the fields processing to give and high harvest cultivation in terms of the importance of the water management system in the processes, to this area from other countries according to the amount of funds allocated by the state a stark difference does.

It is known to improve irrigation technology in developed countries big importance is given. Watering of technology progressive methods initialsig water and labor , even if it requires more

capital investment gives the opportunity. This is especially important in countries where labor is expensive profession of importance is enough.

It is known that in the conditions of Uzbekistan, drip irrigation systems are mainly used since 1975 from starting from experience as garden and in the vineyards application be done started

In this period, that is, in 1975, the SANIIRI Institute, Jizzakh region, Zomin district experience in the farm first 10 to later on 200 to on the field vineyard, 1977 in Khorezm of the region Khiva in the district 1.5 to on the field garden, 2.0 of the scientific research institute of horticulture and viticulture named after Schroederto water the garden in the field, created in local conditions drip irrigation systems were introduced. Application of Drip Irrigation Systems 1990 years At the beginning of much expanded and their area 1993 per year come 1134 per hectare. Including in 1991-1992 based on Israeli technology 1,000 hectares of cotton at the farm "Savai" in Kurgantepa district of Andijan region in the area of 6.6 mln. A drip irrigation system worth USD current to do works take went and his 500 hectare part to work dropped.

In the same years, the use of drip irrigation systems in cotton cultivation possible was studied. in SANIIRI take went studies results in cotton cultivation drop by drop watering apply by the way to water relatively the water 1.5 -3.0 up to times reduce, from cotton per hectare 35-43 centner in the amount harvestconfirmed that it can be obtained. again in Uzbekistan in the second half of the 1990s Drip irrigation systems were introduced on the area of 600 ha. Including 1999- In 2001, in three 100-hectare areas in Tashkent, Jizzakh and Syrdarya regionsIsrael state Netafim of the firm each one 2.1 million USA dollar standing drip irrigation systems were implemented. These irrigation systems are built differently reasons according to the heart activity they didn't keep it.

in Uzbekistan 1975 - 2000 years between built drop by drop irrigation from systems one - Kashkadarya province "Varganza" in the farm the pomegranate tree drop by drop irrigation system (1990 in built) present in the day too activity is running Uzbekistan Republic President 2019 year 25 in October

"The village in the farm water thrifty technologies current to reach encourage in the decision PQ-4499 on measures to expand the mechanisms 300 billion soums from the state budget for the introduction of water-saving technologies allocation of subsidy was determined, and for drip irrigation systems - 8 mln soums, for sprinkler irrigation systems - 4 million soums, for discrete irrigation - 1 mln soum funds separation marked.

In 2013-2019, a total of 76.2 thousand hectares of agricultural crops were planted in the republic 52.5 thousand hectares of gardens and vineyards, 11.9 thousand hectares vegetable and policy products and 11.7 a thousand hectares cotton in the fields drip irrigation technology current done.

CONCLUSION

Summary who does if we foreign in the states irrigation technology to improve big importance given In the world many of countrieseach one reclamation and water economy according to own historical traditions, water the need for resources, the development path of the economy, the history of irrigation has and they are one - from one difference does. From water use directions them,mainly of the state development level looking defined.

Wide implementation of water-saving technologies in our country, in which the state by being created from amenities use village economy work release more development in order to the following suggestions we want to give:

❖ improvement of the water resource management system, water use and "Smart Water" ("Smart water") and similar digital in keeping water consumption account introduce technologies to do;

❖ village economy crops in cultivation water thrifty irrigation technologies current to do more expand and state by encouraging to go this to the field foreign investments and grants attraction to do;

❖ irrigated of lands ameliorative situation improve and stabilityto provide of lands productivity to increase to help of soil effective technologies for reducing and preventing salinity application;

❖ market economy principles in water management, including water delivery partial reimbursement of costs by water consumers implementation of the system, the received funds for water management facilities in a timely manner repair and restoration, introduction of digital technologies and effective management orientation;

❖ implementation of public-private partnerships and outsourcing in water management, separately for the use of water management facilities by farmers, clusters and other organizations giving and saving funds for modernization of water management facilities andemployees to work payment and to encourage orientation;

❖ water economy field for qualified personnel preparation, of employees qualification increase system improvement, education, science and work release development of mutual cooperation between fields and scientific achievements and know-work out hows current for issue to do

LIST OF REFERENCES USED

1. Uzbekistan Republic President "Uzbekistan Republic water the concept of economic development for 2020-2030 confirmation on" No. PF-6024 Decree. 2020 year 10 july
2. Safovna, S. Z., & Juraevna, M. N. (2021). Analysis of economic efficiency ofthe use of irrigated land in agriculture and factors on them. *Journal of Contemporary Issues in Business and Government* , *27* (2), 4055-4061.
3. Shokho'jayeva, ZS (2020). Problems and solutions in the water sector of the region. In *SCIENCE I TECHNIQUE. MIROVYE ISLANDOVANIA* (pp. 21-24).
4. Safovna, S. Z., & Sagdullaevna, T. F. (2021). Food provision of the populationof the republic of Uzbekistan in pandemic conditions: problems oath solutions. *ACADEMICIA: AN INTERNATIONAL MULTIDISCIPLINARY RESEARCH JOURNAL _ 11* (2), 1320-1325.
5. ZS Shokho'jayeva. Efficient use of water resources in the agricultural sector. Monograph. T .: - 2012
6. Kurbonov, AB, & Shokho'jaeva, ZS (2019). Sustainable development of the agrarian sector depends on the efficient use of water resources. *International Journalof Engineering oath Advanced Technology* , *8* (6), 5123-5126.
7. Shokho'jayeva, ZS, & Norqabilov, M. (2020). Problems of rational use of water resources in agriculture of the Republic of Uzbekistan. In *SCIENCE I TECHNIQUE. MIROVYE ISSLEDOVANIa* (pp. 25-28).
8. Shokhuzhaeva, Z. S. (2020). Zarubezhny opyt c celscom household pouse water resource.

Economics , (1 (44)).