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THE IMPACT OF THE MULTI-YEAR WATER REGIME ON THE POPULATION OF THE SHAHIMARDONSOY RIVER BASIN LANDSCAPES IN THE CONDITIONS OF GLOBAL CLIMATE CHANGE

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Abstract

Ameliorative state and condition of the Shohimardon River Basin work on the improvement of the territory in the system of "nature-population-oxen" stratification and use for the purpose of socio-economic development of the territory issues such as methods are covered.

Introduction. In the world, the limitation of Natural Resources and the expansion of the area of anthropogenic landscapes, the rational use of climate and underground and surface water, climatic indicators, the assessment of quality changes of the river water regime, the integrated impact on landscapes are among the most pressing issues of the present day. International organizations to prevent and combat these problems, including the UN Sustainable Development Program paragraph 15 of 2030, set tasks to "protect and restore terrestrial ecosystems, promote and reverse their rational use, and stop the process of biodiversity loss". When solving these tasks, the assessment of the geoecological and reclamation state of the river is of urgent importance.

The decree of the president of the Republic of Uzbekistan on approval of the concept of Environmental Protection of the Republic of Uzbekistan dated October 30, 2019 PF-5863 until 2030, the decree of the Cabinet of Ministers of the Republic of Uzbekistan dated October 20, 2018 No. 841 "on measures to implement national goals and objectives in the field of sustainable development – In the period of 2028, this scientific research will serve to a certain extent in the implementation of the tasks set out in the" on the preservation of biological homogeneity conservation strategy in the Republic of Uzbekistan " and other regulatory legal acts related to this activity.

Relevance of the topic. As a result of the interaction of nature and society, and due to the influence of mankind on nature, various changes occur in landscape components. In order to analyze issues relevant to the field of nature management and Environmental Protection, the need for a scientific analysis of the internal and external changes taking place in the landscape, the processes of their interdependence is felt. To do this, first of all, it is necessary to study the causes and sources of origin of qualitative changes that occur in landscapes.

The purpose of the study. Shahimardonsoy consists in improving the reclamation and geoeconomic status of river basin landscapes, assessing the impact of river basin water on human health.

Tasks of research. Analysis of various scientific, historical and cosmic pictures and cartographic

sources dedicated to the landscapes of the Shahimardonsoy river basin;

- mathematical modeling and statistical comparison of the links between the ecological situation and anthropogenic repression of the river basin landscape type;
- consists of researching the effects of river waters in the formation and transformation of landscapes.

Analysis and results. The SHohimardonsoy River (mainly in the Oqsuv and Koqsuv Rivers) has 16 left tributaries with a length of 130 km and 28 right tributaries with a length of 198 km. The length of all tributaries of the river is 328 km. After the village of hamzaabad, there are almost no permanent tributaries of the river. Only, dry otters, which temporarily drain, pour water into the river, forming an underground stream. (Draw 1).

The total length of the SHohimardonsoy River is about 112 km, the basin area is 1420 km2 . The SHohimardonsoy River is divided into 4 branches in the https://ya.ru/village of Vodil. They are Margilonsoy, Fayzabodsoy, Sixarigsoy and Mindon canals.

V.L.SHuls (1965) according to the saturation character of rivers in the Fergana Valley, the following types can be classified:

1. Feeding rivers from glacial and snow water;

2. Saturated rivers from snow-ice waters;

3. Snow-saturated rivers from rainwater;

4. Snow-saturated rivers from rainwater.[2]

In this classification, the criteria that determine which type of rivers belong to are the months in which the water is most abundant, the amount of flow during the summer full-time period (WVII-IX) generated from snow-glacial waters, as well as the amount of flow during the spring full-water period (WIII-IV) GI ratio δ=(WVII-IX)/(WIII-IV).

Groundwater is central to the saturation of the Shohimardon River.

The flow regime of the river is represented by the annual flow as follows (diagram 5:

Spring flow (March-June) - 19.9 percent;

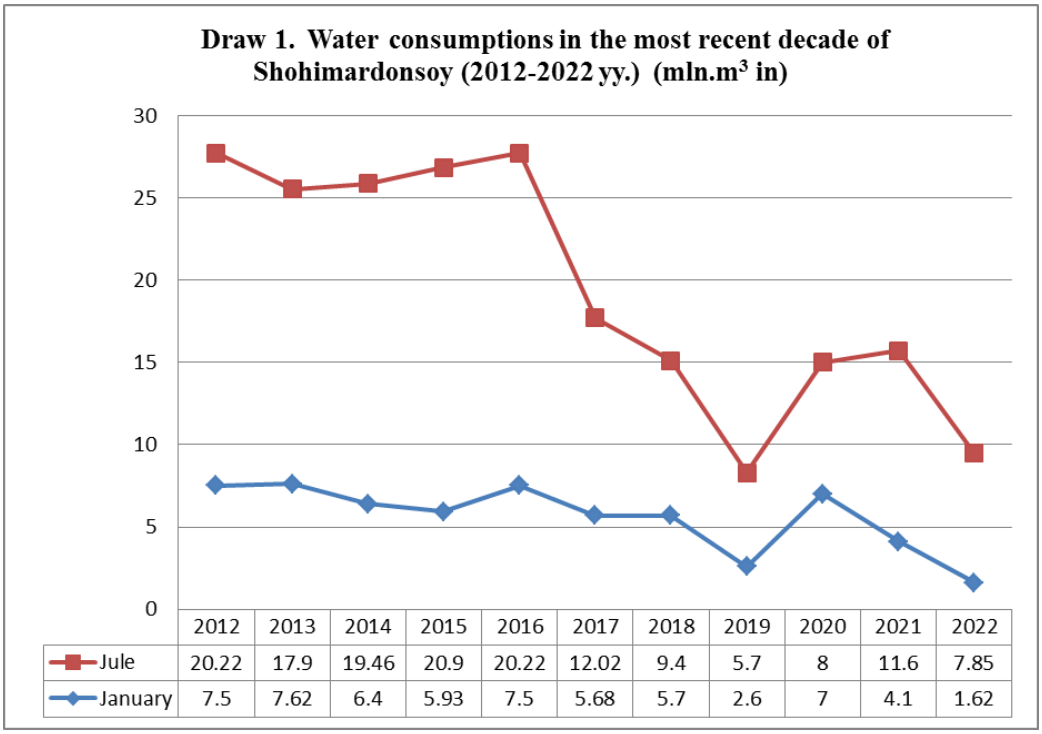
Summer stream (July-September) - 45.1 percent;

Winter Flow-35 percent.

So, V.L.Under the Schulz classification, the Shohimardon River is of the ice-snow-fed river type.[1]

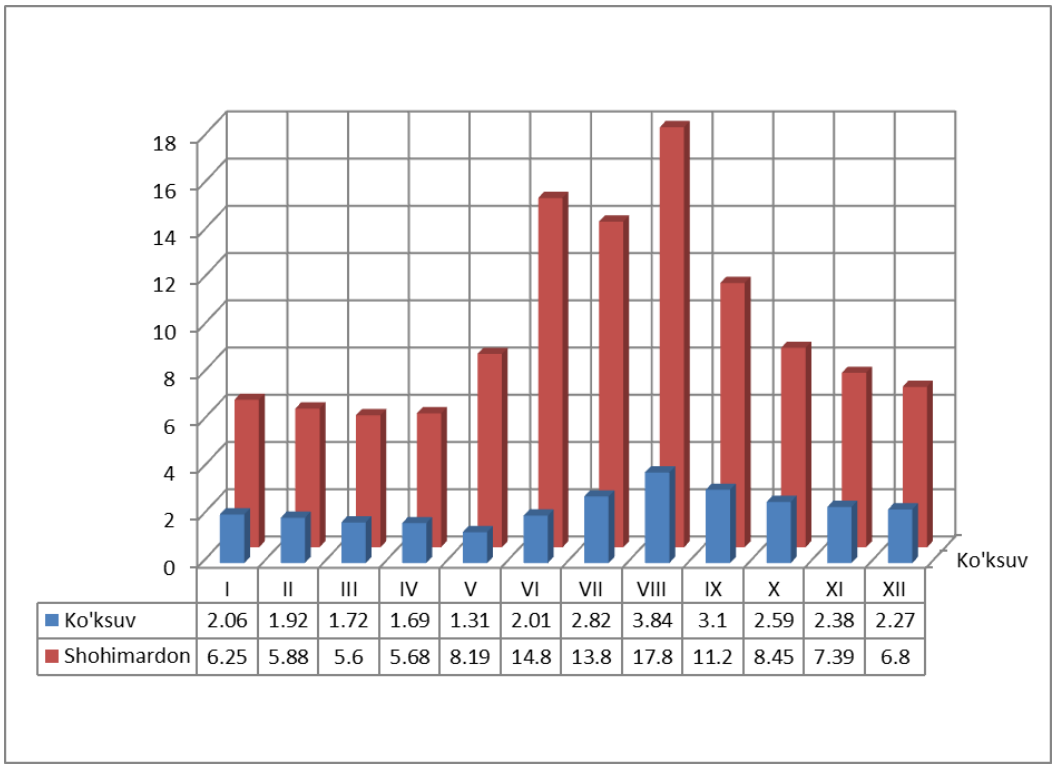
The flow regime of the river is divided into the spring-summer (may-September) full period and the autumn-winter (October-March) mezhen periods. During the full period, 65% of the annual flow flows, and during the mejen period, 35% of the annual flow flows. The saturation of the river in practice involves all types, such as rain, groundwater, snow, glaciers and grunt water. [4]. The maximum water consumption of the river was observed on 16 May 1969, at 138 m3.

The annual hydrographic analysis of the river revealed that the water consumption of the river was 14.8 M3/s in June, 13.8 M3/s in July, 17.8 M3/s in August and 11.2 M3/s in September. There is also a decrease in the water consumption of the river from 8.45 M3/s to 8.19 M3/s from October to may. Depending on the source of saturation of the river, the full summer months, and the mejen period falls on autumn, winter and early spring . (Draw 2)



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Jule	20.22	17.9	19.46	20.9	20.22	12.02	9.4	5.7	8	11.6	7.85
January	7.5	7.62	6.4	5.93	7.5	5.68	5.7	2.6	7	4.1	1.62

The table shows that the Shohimardonsoy River Basin had a total water consumption of 7.5 million.m^3 in January 2012 and 7.62 million. m^3 in 2013, 6.4 million.m^3 in 2014, 5.93 m^3 crore in 2015. That is, no significant change was observed. Water consumption in 2016 was 7.5 million.m^3. 5.68 crore in 2017, compared to 5.7 million.m^3 in 2017. Water consumption in 2018 was 5.7 million.m^3, which fell in 2019 to 2.6 million. m^3. In 2020, water consumption increased to 7 million.m^3, 4.1 million.m^3 in 2021, and 1.62 million.m^3 in 2022. In 2022, a significant drop in water consumption can be seen.



	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Ko'ksuv	2.06	1.92	1.72	1.69	1.31	2.01	2.82	3.84	3.1	2.59	2.38	2.27
Shohimardon	6.25	5.88	5.6	5.68	8.19	14.8	13.8	17.8	11.2	8.45	7.39	6.8

Draw II. The Shohimardonsoy River and its tributaries have an average monthly water consumption of. (m 3 / sec)

The differences in the water consumption of the territory are not affected by natural geographical processes, problems with atmospheric air, the policies of the states. Humans have long been engaged in irrigation farming in the rivers and areas of their basins. [5] the area is undergoing intensive measures to address its annual spending and related problems. The failure of irrigation ropes is being eliminated, all necessary measures are being taken to reduce the level of land in the area, where there is a lack of water. It is necessary to save from soil salinity of the territory, a shortage of biological factors. [3].

Conclusions and suggestions. During the development of guidelines for the elimination of landscape-ecological, reclamation problems and their rational use in the development of our economy, the following works should be carried out:

- Establishing the appropriation of reserve lands based on various scientifically based sources on the territories;
- Deep study of soils and landscape components of the arid regions of the Fergana Valley and the adaptation of agricultural crops to landscapes;

In order to prevent groundwater pollution, it is necessary to carry out such works as maintaining irrigation agriculture, taking into account the geological-geomorphological and soil-grunt conditions of the rocks, the construction of an industrial enterprise with low water pollution.

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