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Land Fund And Ecological Aspects Of Improvement Of Land Circumstance

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Abstract: This article provides information on the soil and environmental conditions of Namangan region and measures to prevent them. as well as the dynamics of soil salinization and the impact of natural and anthropogenic factors on it were determined using statistical data.
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1. Introduction

Fertile, porous rocks on the surface of the earth are called soils. Soil is a unique product of nature, which has the property of productivity, in the words of VV Dokuchaev, the soil is more valuable than coal, oil and even gold [1].

Today it is an irrigated area in Namangan region 282759 hectares. The reclamation status of these 282,759 hectares of irrigated land is constantly monitored. “Karakalpak” reclamation system in Mingbulak district, “Kosonsoy-Syrdarya” reclamation system in Kosonsoy, Turakurgan and Chust districts, “Karakalpak-Syrdarya” reclamation system in Pop district, Naryn and Uchkurgan districts. Karadarya ”reclamation system,“ Namangansoy-Chartaksay ”reclamation system covering Chartak and Yangikurgan districts, and“ Norin-Syrdarya ”reclamation systems covering Namangan city, Namangan district and Uychi districts.

Recommendations to all farms to determine the salinity of irrigated arable lands and timely and quality saline leaching, quality control of saline leaching, identification of lands with poor reclamation and their causes One of the most pressing issues today is the study, organization of land improvement, participation in design, increasing the yield of cotton and grain on the contours of lands with unsatisfactory reclamation status.

The lands of the region on the right banks of the rivers are intersected by streams formed from riverbeds (Chadaksay, Uygursay, Govasay, Kukshereksay, Kosonsoy, Chortaksay, etc.). The hilly areas are joined by depressions and plains. It is obvious that the relief has changed due to human activities, ie the development of new lands.

Namangan region consists of three types of reliefs, which are divided into the following groups according to their geomorphological features.

— is the area between the mountain and the foothills, ie the area formed by erosion, erosion, ground fractures and landslides:

— foothills and hills, ie areas with natural streams.

— plains and oases, ie accumulative areas.

The lands of Namangan region are irrigated by rivers flowing from the southern slopes of the Kurama and Chatkal ridges. There are 10 streams on these cliffs, two of which are formed by the sum of spring waters.

Salts that are harmful to agricultural crops are found in our region, as well as in all other regions. Permanent soil samples were taken from 282,759 hectares of irrigated land in the province, and according to the analysis, 18,444 hectares of low-salinity area, 5,144 hectares of medium-salinity area, and 755 hectares of high-salinity area were found in the region.

The most saline lands in our region are located in Mingbulak, Chust and Pop districts. The results of chemical laboratory analysis showed that the salinity of the soil is mainly sulfate type.

In terms of salt washing, mainly Mingbulak, Pop and Turakurgan districts require salt washing on farms on the left bank of the Syrdarya. The following amount of saline leaching was determined, taking into account the estimated mechanical composition of the soil and the collector of the saline wash areas.

The following water norms have been established, taking into account that the areas where

salt washing is required are mainly of medium and light mechanical composition;

— weakly saline areas - 2500 m3 / ha
— average salinity areas - 4500 m3 / ha
— strongly saline areas - 6000 m3 / ha

According to the guidelines, it is recommended to wash weakly saline areas once, moderately saline areas twice, and strongly saline areas three times.

Control of salt washing works will be organized, and during the inspections special attention will be paid to land leveling and floor removal. This is because the flatness of the ground and the size of the checks are very important in salt washing. In addition, great care must be taken to avoid discharges in order to ensure that the water supplied to the fields is completely absorbed and dissolves the salts in the soil and flows with them into the ditches. The saline soils are washed two or three times, and after each saline wash, soil samples are taken and analyzed.

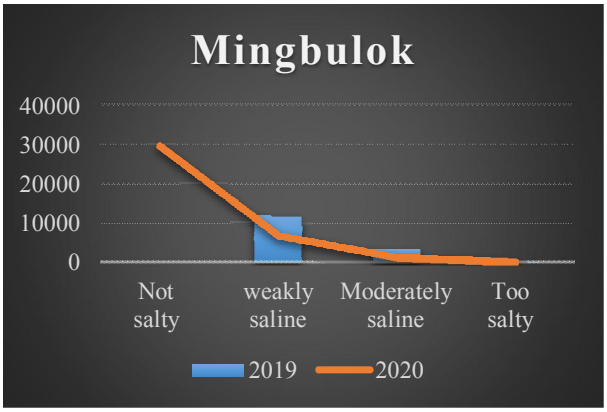
2. Material and Methods

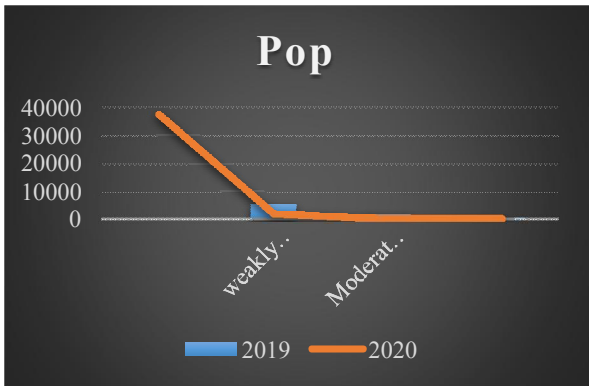
When salinity is washed away, the salinity of the soil in the area should decrease. In fact, the salinity level can be clearly seen in the saline washed areas, with the average salinity area being found partially in Mingbulak and Pop district farms. This situation leads to a decrease in soil salinity during the irrigation season and as a result of rainfall, if irrigation ditches are not used for irrigation of salt water.

Table 1 Decreased salinity as of 2019-2020

№	Name of districts	Duration	Area in thousand			
			Not salty	weakly saline	Moderately saline	Too salty
1	Mingbulok	2019	22468.8	11999,2	3161,6	107,4
		2020	29628	6756	1105	13
2	Pop	2019	31776.9	5245,4	1949,1	570,6
		2020	37413	1880	211	6
3	Turakurgan	2019	18625	275		
		2020	18900			

The table was compiled by the authors.





In order to maintain the reclamation status of irrigated lands and the level of groundwater, the existing ditches are cleaned annually by means of mechanisms, the total length of ditches is 11.42 pm / ha relative to the irrigated area. 23.73 pm / ha compared to the estimated area with. As 146,690 ha of irrigated land consists of hills and hillside slopes, it is necessary to build drainage ditches, where natural drainage is expected, ie groundwater infiltration into streams and ravines.

Our main task is to determine the salinity of irrigated arable lands in the region and to make recommendations to all farmers for timely and quality saline leaching, control of saline leaching and identification of lands with poor reclamation. This is due to the fact that samples are taken from the control and vertical wells, streams and streams located in the irrigated areas of the region and analyzed by bringing soil samples from the fixed points and contours in the crop areas.

3. Results

According to the analysis of soil salinity in the region, 24,343 hectares of land with varying degrees of salinity were identified, of which 18,444 hectares were slightly saline, 5,144 hectares were moderately saline, and 755 hectares were highly saline. detected. Saline areas in 3 districts of the province, including;

In Mingbulak district 12137 hectares out of 15227 hectares are slightly saline, 2988 hectares are moderately saline, 102 hectares are strongly saline, in Pop district 5325 hectares out of 7747 hectares are slightly saline, 1861 hectares are moderately saline, 561 hectares In Turakurgan district, 275 hectares of land were lightly saline, and saline washing was carried out in these areas. In the remaining areas where salinity has been identified, the slope of the land has taken over the floor and it is not possible to carry out saline washing in the boundaries.

Improving the reclamation of lands, maintaining the level of groundwater, the organization of washing of saline areas on the basis of recommendations. In carrying out this work, the heads of all farms in the region should ensure the regular cleaning of internal ditches, water intake on the basis of the specified limit for irrigation, irrigation if the salinity of the collector-drainage water is high. Improper use of soil, leveling and preparing the ground for washing the soil salinity, plowing the soil to a depth of 40-45 cm, leveling, quality saline washing, local and mineral fertilizers to increase productivity The implementation of agro-technical measures will give the expected result.

Continuous monitoring of the reclamation of existing irrigated lands in Namangan region and the implementation of the following proposals and recommendations to improve the environmental situation will yield the expected results. Selection of agricultural crops depending on the mechanical composition of the land, the use of high-salinity irrigation water or mixed water, the use of drip irrigation in the foothills and pumped irrigation, attention should be paid to agrotechnics, cultivating, raking and other work should be done correctly and in a timely manner.

4. Discussions

Consideration and consultation with experts in the construction and cleaning of drainage networks in the timely cleaning of existing ditches and canals in residential areas and the allocation of land for housing.

Irrigated areas should be plowed and leveled to a depth of 40-45 cm, attention should be paid to crop rotation, regular supply of mineral and local fertilizers, purchase of new excavators and equipment. As a result of the above reclamation measures, the reclamation of irrigated lands will be improved, and the yield will be ecologically competitive and high.

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