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INTERNATIONAL JOURNAL
EIJMRMS
Next Scientists
European International Journal of Multidisciplinary Research and Management Studies
SJIF 5.954 2022

EUROPEAN INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH AND MANAGEMENT STUDIES
ISSN: 2750-8587
DOI: https://doi.org/10.55640/eijmrms-02-11-56
https://eipublication.com/index.php/eijmrms
Volume: 02 Issue: 11 November 2022
Published Date: - 25-11-2022

Page No.-249-254

THE ROLE OF THE STRUCTURE OF THE STRUCTURE OF ERODED LANDS IN KASHKADARYA REGION

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ABSTRACT: - Today, in various regions of our country, in the areas affected by erosion as a result of these studies, researches on improving the technology of the land construction project based on the research of the design of irrigation plots taking into account the wind speed, soil salinity, and the characteristics of the slopes have not been sufficiently studied. For this reason, there is a need to improve land formation in eroded areas. Based on this, the main task of today's region is the wide use of modern economical technologies and the possibilities of their application to production, analysis of problem solving, and elimination of excess costs.

KEYWORDS: Slope, terrain, wind speed, salinity level, land formation, resource efficient, innovative technology.

INTRODUCTION

Today, the use of resource-efficient technologies for the effective use of existing land resources in eroded areas is taking a leading place. Organization of effective land use in globally eroded areas requires implementation of new methods of land development projects. In this regard, in developed foreign countries, special attention is paid to the implementation of land preparation works, taking into account the methods of effective use of land resources and protection of eroded lands. In this regard, effective use of land resources, introduction of advanced modern methods of designing irrigation plots in eroded lands is considered important. Effective use of existing land resources, development of new scientific and technical solutions for organizing optimal use of agricultural land in areas subject to erosion and at risk of erosion in land development projects are being carried out. In this direction, among other things, reducing the harmful

effects of the environment in areas with the risk of water and wind erosion, improving the methods of effective use of each plot of land, taking into account the natural and economic conditions and the requirements for the protection of land from erosion, geosystem complexes that allow to prevent erosion in land formation. development, efficient use of land, protection of soils from erosion, creation of technologies that allow to increase the productivity of land is considered urgent. In this regard, special attention is paid to studies aimed at improving the efficiency of work in determining the composition of land types attached to land users and methods aimed at their optimization.

In our republic, comprehensive measures are being taken to improve land preparation works in the areas affected by erosion, and certain results are being achieved. In the Strategy of Actions for the further development of the Republic of Uzbekistan in 2017-2021, including "...modernization and rapid development of agriculture, consistent development of agricultural production, further strengthening of food safety, expansion of production of environmentally friendly products, agricultural sector important tasks for significantly increasing the export potential... In the implementation of these tasks, among other things, in order to organize the effective use of land resources, to further improve the meliorization of irrigated lands, to prevent the development of erosion processes in agricultural lands by introducing intensive methods, first of all, modern agro-technologies that save water resources into the field of agricultural production. it is important to carry out scientific research on the improvement of methods of obtaining.

The success of the agrarian reforms carried out in our republic depends to a large extent on the study and generalization of the world experience of the use of eroded lands, and the socio-economic development of our republic. A rich experience has been gained in the world on increasing the soil fertility of the lands used in agriculture. Scientific work on soil erosion and the fight against it is currently being carried out in many developed countries of the world.

Westarp S., H. Schreier, T.G. Mueller, F.J. Pierce, I.A. Nalder, R.W. Wein, Z. Bai, H. Yang, and J.K. Sayers, A.E. In their monographs and articles, scientists such as Johnson identified and assessed the causes of erosion processes and developed countermeasures.

In the history of its development, the society has spent 2 bln. fired the land. 6-7 mln. ha land is falling out of use. This situation rightfully worries experts.

The results of summarizing the measures implemented to increase the productivity of agricultural land show that the combined use of market mechanisms and administrative methods has a priority in increasing the productivity of land in China. This is showing its results and in recent years China has made significant progress in the production of agricultural products.

In the Russian Federation, 17.8% of agricultural land is eroded, including 8.4% of wind erosion. Water and wind erosion affect 2.4% of agricultural land. Water erosion is mostly common in Volga (50.0%), South (24.3%) and Central (12.4%) federal districts, while wind erosion is more common in Siberia, South and Volga federal districts.

The State Soil Service operates within the US Department of Agriculture. Its main task is to monitor soil fertility. This organization has developed specific technologies for specific plots of land, which prevent soil fertility from decreasing. A clear mechanism for increasing land productivity has been developed in the USA.

25% - 30% of all cultivated land in India is severely eroded land. According to FAO experts, if effective measures for soil protection are not implemented, the area of degraded land in developing countries in Asia, Africa and Latin America alone may exceed 500 million in the future.

In Great Britain in March 1968, a 6-day storm caused soil erosion on an area of approximately 9,000 hectares (total damage £1 million).

Soil erosion is considered one of the most urgent problems in Uzbekistan's agriculture, and a number of mature scientists have conducted their scientific research on its spread, causes, types, and methods of elimination. In particular, V.B. Hussak, M.A. Pankov, Z.N. Antoshina, F.K. Kocherga, M.B. Doshanov, R.G. Murodova, K. Mirzajonov, K. Usmonov, M. Khamidov, S.Meylibaev, O.Haqberdiev, V.N.Li, B.Ahmedov and many other scientists have sufficiently studied the process of erosion in the regions of our republic and developed the scientific basis for eliminating this process.

2021 As of January 1, the total land fund of Kashkadarya region is 2856,799 thousand. The area of the regional land fund in categories is presented in Table 1.

Placement of land types begins with the placement of trees. First of all, gardens, vineyards and orchards are placed. The good development of fruit trees and vines largely depends on the correct allocation of land, the correct selection and placement of varieties and species, the quality of seedlings, their correct planting and subsequent care.

Table 1

Distribution of land fund by categories in Kashkadarya region

T/p	Categories of land fund	Total land area (per thousand)		Including irrigated land (thousand ha)	
		Total	% at the expense of	Total	% at the expense of
1	2	3	4	5	6
1	Agricultural lands	2324,6	81,4	415.73	17,9
2	Lands of settlements	11,5	0,4	3,92	0,54
3	Land intended for industry, transport, communication, defense and other purposes	67,0	2,3	0,23	0,05
4	Land intended for nature protection, health and recreation purposes	0,03	0,001	-	-
5	Lands of historical and cultural importance	2,6	0,1	0,004	
6	Forest fund lands	410,2	14,4	3,2	0,78
7	Water fund lands	37,1	1,3	0,2	0,54

8	Reserve lands	3,8	0,1		
	Total lands:	**2856,8**	**100**	**490,1**	**19,81**

*** It was calculated on the basis of land resources and state cadastre data of the province.**

In the creation of a system of anti-erosion measures, the lands at risk of erosion in the Kashkadarya region and the current state of their use, the issues of improving the efficiency of land use by developing measures of land formation are determined. The main factors causing the erosion process in the mountainous, mountainous and plain areas of the region are the complex relief structure, spring and autumn rains falling in the form of hail, unfavorable water-physical properties and mechanical composition of soils, easy destruction and erosion of soil-forming rocks, improper plowing and plowing, the low percentage of perennial grasses in crop rotation is the timely and insufficient application of the complex of anti-erosion measures.

The main goal of land types placement is to ensure full and effective use of massif lands, to create conditions for nature and land protection. When placing land types, it is necessary to take into account the climate, topography, soil and geographical conditions of the area, the location of massif centers and production units. In order to reduce the cost of transportation, it is necessary to place the types of land where a lot of load is generated near the places of residence of the population.

It is known from the results of many scientific researches carried out by a number of scientists in the world and in the republic that irrigation erosion is one of the factors that cause a decrease in soil fertility. The total area of lands affected by irrigation erosion in the region is 159,766 ha, its indicators in the districts are presented in Table 2.

Table 2

Description of irrigated lands in the section of districts of Kashkadarya region according to soil erosion*

№	Name of districts	Lands affected by irrigation erosion, ha	Including ha		
			Lightly washed	Medium washed	Strongly washed
1	2	3	4	5	6
1	Mirishkor	36366	200,0	-	-
2	G‘uзor	2097	100,0	-	-
3	Деҳқонобод	967	24,7	49,0	26,3
4	Qamashi	6378	67,6	31,1	1,3
5	Qarshi	18694	91,5	8,5	-
6	Koson	16383	86,1	13,9	-
7	Kasbi	20969	100,0	-	-
8	Kitob	2477	54,7	29,2	16,1
9	Muborak	11911	68,0	30,4	1,6
10	Nishon	19702	84,2	11,5	4,3

11	Chiroqchi	8995	62,8	27,2	10,0
12	Shahrisabz	4756	90,6	7,8	1,6
13	Yakkabog‘	10071	97,7	2,1	0,2
	By province	**159766**	**1127,9**	**210,7**	**61,4**

***Viloяt yer resurslari va davlat kadastri boshqarmasi ma’lumotlari asosida tuzilgan**

The size of irrigated areas in erosion-prone areas is affected by the erosion protection conditions of this area. In the case of wind erosion, the distances between forest strips protecting the field have a limiting effect, and in the case of irrigation erosion, the permissible length of irrigation furrows and flow rates have a limiting effect.

The width of the irrigation plots depends on the mechanical composition of the soil, the level of salinity and the location of the protection areas of the forest strips. The recommended width of the protected areas is 300-400 m.

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