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EFFECTS OF PASTURE LIVESTOCK ON AGRICULTURAL LAND

(ON THE EXAMPLE OF SAMARKAND REGION)

Namozov Jurabek Abduazizovich - Associate Professor of Chirchik state pedagogical institute, doctor of philosophy (PhD) of Geographical Sciences. E-mail: jurabek.n.a@gmail.com

Rajabov Furkat Turakulovich – Head of the department of Chirchik state pedagogical institute, doctor of philosophy (PhD) of Geographical Sciences. f.rajabov@cspi.uz

Abstract: The article provides information about the changes in the agricultural lands of Samarkand region as a result of anthropogenic impacts and their consequences. The pastoral livestock state in the region, the number of cattle per 1 hectare of land and its impact degree are given in areas.



Introduction. Currently, the demand for food products is growing. Meeting this demand is the primary task of agriculture. Agriculture and animal breeding have a special place in this regard. However, these agriculture sectors also have a significant impact on the environment, especially on the irrigated land resources reclamation, desertification, and water resources pollution. Although the agro-economic sectors related to agriculture are more active in the negative impact on the environment, the negative impact of animal breeding in this regard is also increasing. In particular, the poor pastoralism organization leads to a decrease in the food crops productivity for animals from year to year, resulting in a certain reduction in pasture area. It should also be noted that there is no strict requirement for the pasture use season. As a result of pasture crops (mainly cereals) being fed to livestock before ripening, the forage crops productivity in pastures is still declining. After all, it is well known that this plant will not grow next season after the seeds have matured and did not fall to the ground. This process is observed in almost all regions of the country, including Samarkand region.

Samarkand region is one of the most well-supplied areas of agricultural land in the country. Of particular importance in this region is the protection and rational use of irrigated lands. This is because the land resources area used in agriculture is limited, and their quality levels also create some limitations. These are the fertile lands transfer, first of all, to agriculture, processing and return to use of lands damaged by mining, construction and other works, compensation for losses caused by some agricultural lands withdrawal from agricultural use, steadily increasing land productivity requires going. [4]. In Samarkand region, pastures occupy a large area in the agricultural lands structure.

Materials and Methods. According to the pastures area, the mountainous and desert and semi-desert districts are in the forefront. They have developed livestock and sheep breeding. However, pastures overgrazing in the same place every year in spring and summer, the season neglect of pasture use leads to the complete destruction of the vegetation layer in the area, the destruction of weak humus cover and excessive decomposition of sandy soil. This accelerates the processes of erosion and desertification.

This process continues, especially in the mountainous and foothill and desert areas, where the industry is developed. Pastures form the basis of the fodder base of livestock and provide them with fodder throughout the year. It is important to know the productivity of different field pastures when

grazing in pastures where grasses are scarce and there are shrubs with grasses. The main condition for proper grazing of livestock on natural pastures is that the pasture load must correspond to the normal capacity. Livestock capacity is the average number of livestock per hectare of land. In areas with high livestock capacity, the topsoil and plant roots are damaged. As a result, the efficiency of grassland areas decreases. Therefore, the coefficient of their use (C) in desert natural grasslands should not exceed 60–65% according to the existing norms. [3; 80 p.].

The productivity of pastures is increased by 15–20% of the calculated area, taking into account the variability of weather conditions and the season of the year. Pasture livestock breeding is carried out in almost all regions of the region. Within the districts, the area of pasture lands and the number of livestock are distributed as follows (see Table 1). Pastdargom and Urgut districts differ in the number of livestock. In addition, Kattakurgan district is one of the leaders in the number of cattle [2]. In contrast, in Akdarya, Nurabad and Samarkand districts, this sector is less organized.

The number of sheep and goats in the region is about 2.5 million and varies by district. They are mainly abundant in desert and semi-desert areas, but the capacity is not high due to the size of pasture areas. On the contrary, in districts with intensive agricultural development, the conditions for the organization of this sector are not favorable. Due to the high population density in the suburbs, the area of fertile lands is declining.

The number of cattle fed on pasture lands should not exceed 3–4 in order for them to recover [1; 10 p.]. There is no high capacity within the region and there is diversity in this regard. It can be seen that mainly in suburban areas, livestock capacity is high, which affects agricultural lands (see Figure 1).

Conclusion. In general, a large number of livestock is observed mainly in densely populated areas (Aqdaryo, Taylok). The reason is, firstly, the large number of livestock in these districts, and secondly, the lack of pasture land. Although a predominantly intensive form of animal husbandry is developed in suburban areas, high capacity has a negative impact on agricultural land. At the same time, the situation in the desert areas (Pakhtachi, Nurabad, Koshrobat) cannot be assessed positively. This is because it is difficult for the pastures to recover on their own.

Pastures occupy the largest area in the structure of agriculture of the region. Therefore, any negative changes

in them will have a significant impact on the reserves of the agricultural sector of the region. It is now known that extensive organization of agriculture or animal breeding is not sufficiently effective. But not everywhere can it be put on an intensive path. It is desirable to organize it mainly in the suburban areas (Taylak, Aqdarya, Jamboy) in a fully intensive form, in the mountains and foothills (Urgut,

Payariq, Bulungur, Kattakurgan) and in the desert, semi-desert (Pastdargom, Pakhtachi, Nurabad, Koshrobat). It is also necessary not to increase the capacity of livestock when using pastures, to pay attention to seasonal aspects for the restoration of pastures.

Table 1

Level of livestock (sheep, goats) capacity impact in pastures of Samarkand region

№	Districts	Pasture lands (thousand ha)	Number of livestock (thousand heads)		Capacity		Level of impact
			cattle	sheep and goats	cattle	sheep and goats	
1	Bulungur	17,2	107,2	151,2	6,2	8,8	average
2	Jomboy	6,3	107,5	135,3	17,1	21,5	strong
3	Ishtikhon	11,3	134,4	103,1	11,9	9,1	strong
4	Kattakurgan	49,9	158,0	167,4	3,2	3,4	average
5	Narpay	4,8	106,1	81,2	22,1	16,9	strong
6	Nurbod	352,5	66,7	586,0	0,2	1,7	weak
7	Okdaryo	1,1	79,0	36,2	71,8	32,9	very strong
8	Payarik	42,1	105,6	116,4	2,5	2,8	weak
9	Pastdargom	7,6	185,6	167,9	24,4	22,1	very strong
10	Pakhtachi	90,1	92,8	204,4	1,0	2,3	weak
11	Samarkand	10,7	48,4	143,4	4,5	13,4	average
12	Taylok	3,1	96,6	64,8	31,2	20,9	very strong
13	Urgut	46,1	184,3	113,2	4,0	2,5	average
14	Kushrabot	150,5	106,1	395,3	0,7	2,6	weak
Жами		793,3	1606,0	2465,8	2,0	3,1	

The table was compiled by the authors on the basis of data of the Samarkand regional department of statistics for 2020.

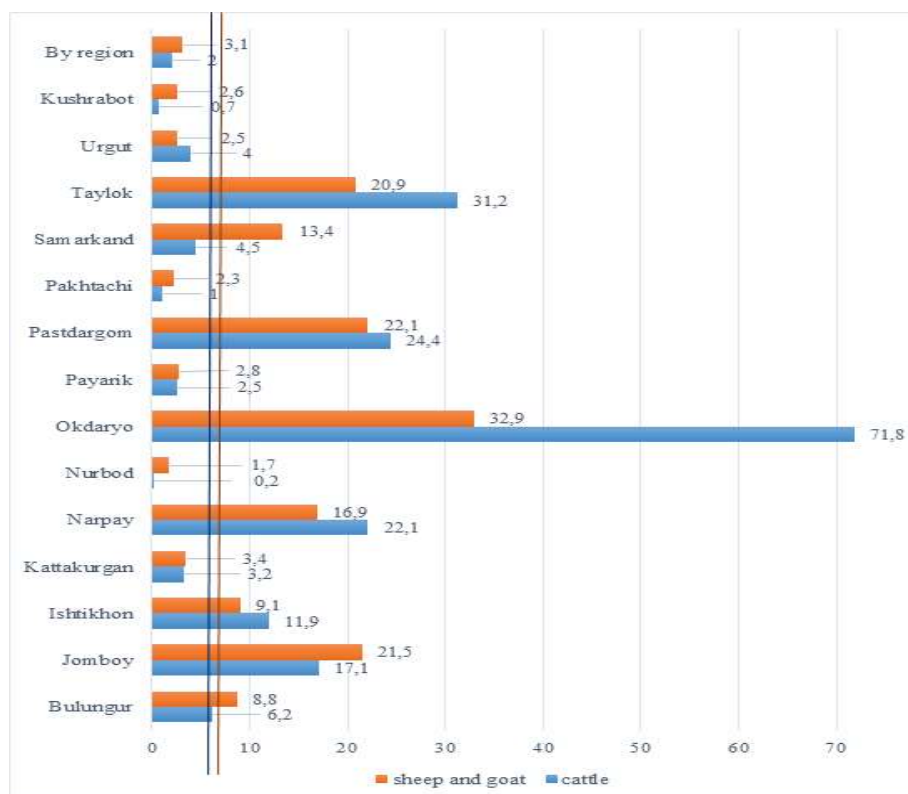


Figure 1. Number of cattle per pasture in Samarkand region

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