

Analyzing of Influential Factors for the Development of Livestock and their Significance in Navoi Region

Iroda Khudoyberdieva^{1*}

¹Department of Economic and Social Geography, Navoi State Pedagogical Institute, 210100, 45 Ibn Sino Str., Navoi, Republic of Uzbekistan

Email address: irodandpi@gmail.com

Abstract— Regional development of the livestock sector in the agricultural sector is one of the most important issues, however, there are many factors that affect the development of the livestock sector. First of all, the natural conditions of the region, the role of natural factors in the placement of karakul, the most lucrative sector of animal husbandry, is invaluable. Through the study and in-depth analysis of these factors, various problematic issues can be solved and high results can be achieved. This article analyzes the factors affecting the livestock sector: natural, socio-economic, organizational and legal. Through these analyzes, we can find solutions to various problems such as regional development of the livestock sector, growth in production and processing industries, provision of the population with environmentally friendly food products, prevention of unemployment.

Keywords— Agriculture; livestock; karakul; placement; specialization; regional development; factors.

I. INTRODUCTION

Agriculture is the basis of economic stability of any state, it is the main link of the national economy. From the most important sectors of agriculture, the livestock sector develops depending on the situation in the region, geographical factors [1].

Today, the issues of improving the social sphere in rural areas, creating new jobs and employment, efficient use of land resources through the cultivation, reproduction of quality, environmentally friendly products, the territorial aspects of the livestock sector.

Natural, economic and social factors play a special role in the territorial organization and improvement of the livestock sector, the development of farms specializing in animal husbandry, the expansion of the processing industry, as well as organizational and legal factors serve as a basis for the development of this sector. Natural factors also play a special role in the development of karakul farming in the livestock sector. This sector is the most lucrative type of income in agriculture, with low costs and high profits. A lot of work has been done to develop, increase and increase the efficiency of karakul farming and increase its export potential. At the same time, karakul leather not only satisfies the demand of the population for wool and meat products, but also has a position in the world market with its quality, value and competitiveness.

II. LITERATURE REVIEW

Many scientists have focused on the factors influencing the development of the livestock sector and their importance. Yu. Ahmadaliev gave the following definition of land resources: Land resources are the main component of the land fund, but

also include soil fertility, relief, climate, hydrogeological properties, which are used in the development of the population in a certain period of time to grow products for human needs. [2].

In the research work of scientists A.S Soliev and N.K Kamilova, the natural environment in the placement of promising agricultural production - air temperature, precipitation and their seasonality, the growing season, winds, groundwater, relief, pastures and emphasized the importance of a number of natural factors, such as crop productivity, arable land, arable land, soil composition, level of fertility [3]

In his doctoral dissertation on the types of livestock and the role of geographical location in their reproduction, the American scientist R.Small revealed the dependence of geographical location on livestock breeding. He points out that a high-yielding breed of animal born in one area does not produce the expected results when relocated to another area. The main reason for this is that livestock adapt to the weather, water, natural location and other natural resources of the first inhabited area and as a result cannot achieve the expected result in another area. For this reason, he noted that the concepts of animal husbandry and geographical location are interrelated [4].

U.S. scientists D. Park, A. Seidl, S. Davies in the development of livestock farms without increasing production costs, taking into account the geographical location of the region and the natural and economic factors, primarily in the location of livestock industries and livestock production. food and water supply should be improved. In general, the location of farms plays an important role in the development of the livestock industry [5]. Gracielle Johann, Angel Udias, Marco in their research and scientific articles have presented scientific problems related to the effective use of land and water resources in agriculture, and thus the formation of agriculture and animal husbandry, as well as increasing the use of land and water resources. [6].

Many scientists, in their scientific research and literature, have described the use of irrigated land, the scientific and practical basis for the reform of land-water relations in agriculture. [7].

III. RESULTS AND DISCUSSION

In the specialization, centralization and rational placement of the livestock sector in agriculture, attention is paid primarily to the natural conditions of the region. In the development of the livestock sector and specialization in the production of

livestock products, it is expedient to form the region primarily on the basis of factors. Livestock productivity is high in areas where natural conditions are favorable, and the livestock sector develops depending on the situation in the region, geographical factors. Livestock is divided into cattle, sheep and goats, poultry, horses, camels, bees, cocoons, rabbits, fisheries. Livestock provides products needed for human food, milk, meat, eggs, and in addition to industry, this industry supplies wool, leather, barra skin, horn, hoof products as raw materials and finished products.

The presence of pastures in the territory of the Republic is a favorable area for the development of animal husbandry, as well as karakul. Karakul farming is mainly practiced in the Republic of Karakalpakstan, Bukhara, Jizzakh, Kashkadarya, Navoi, Samarkand, Surkhandarya and Khorezm regions. By increasing the efficiency of karakul farming in agriculture and the main means of production of this sector - land (pastures), material and technical and fodder base, as well as the rational use of skilled labor resources that understand the industry well. Navoi region is the second largest producer of karakul leather after Bukhara region. Due to the large pasture resources in the region, the opportunities for the formation and development of karakul farming are wider than in other regions.

Factors of the natural environment and economic factors play a key role in the development of karakul farming and the production of karakul products in pastoral livestock. Livestock productivity is higher in areas where labor productivity is favorable under natural conditions.

Karakul farming itself is in fact more dependent on natural conditions than other branches of animal husbandry, ie pastures, and it is more convenient to develop in the deserts, semi-deserts, steppes, mountains and mountain pastures of our republic.

It is possible to feed and graze sheep in the four seasons of the year from the pastures of the region. Desert, semi-desert natural plants (ephemerals, shrubs and semi-shrubs, especially sorghum, wormwood) play a very important resource role in the national economy for the development of karakul.

The color of karakul sheep is divided into such colors as black, white, sur, shirrozi, kambar, guligaz. Further strengthening the needs and security of the food and industrial sector of the country through regular analysis of regional changes in the livestock sector in terms of quality, quantity, species and the development of effective management mechanisms for products grown in this area is an urgent task. The formation of livestock industries, the production of livestock products, the development of the population and settlements are inextricably linked. Accordingly, the correct territorial organization, specialization, formation of livestock production should be aimed primarily at meeting the needs of the population, based on the natural and economic conditions and environment of the region. It is a perfect process and it is necessary to organize the work process based on closely interrelated natural, socio-economic environment and factors [8].

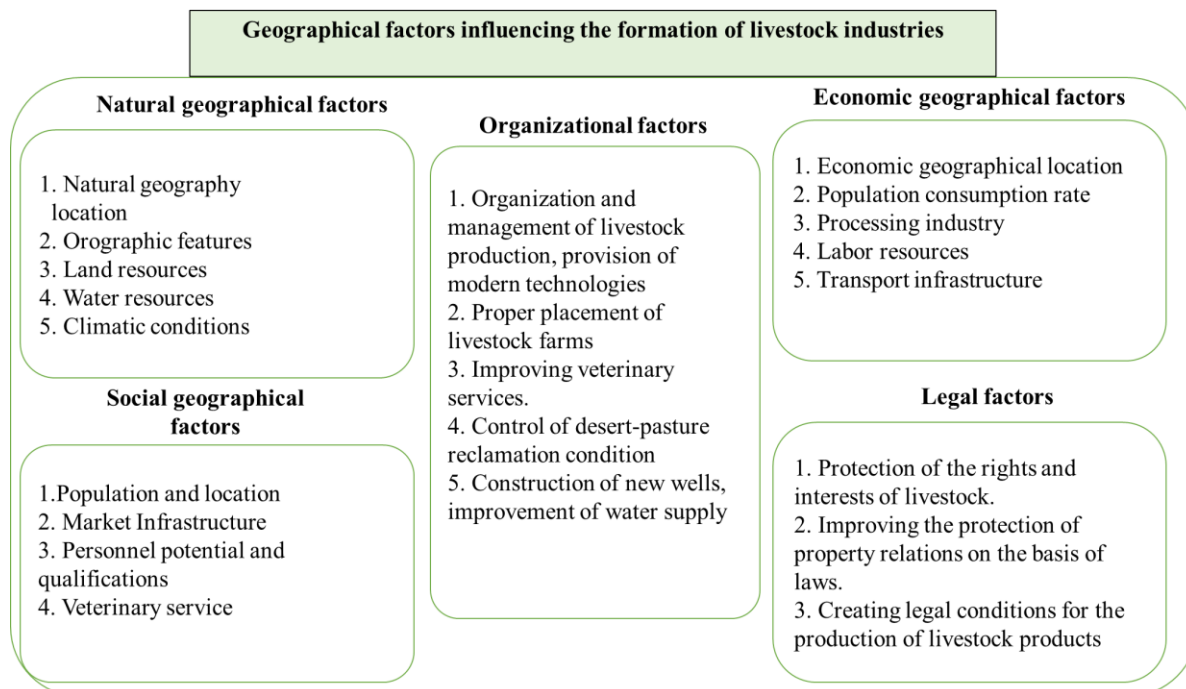


Fig. 1. Geographical factors influencing the formation of livestock industries

It is based on the natural and socio-economic environment in the formation of livestock industries, specialization and territorial organization of livestock production. Because, depending on the natural conditions of any region, it is possible to form, locate, develop a certain area of livestock industries

there. Figure 1 shows the factors influencing the development of animal husbandry, which play a key role in the reproduction of livestock, the proper placement and legal protection of specialized livestock farms, the establishment of livestock production and processing industry, the organization of the

process up to consumption. The formation of livestock industries requires us to take into account all of the natural environment and natural factors (natural geographical location, relief, climate, land, water resources, soil fertility).

Land is multifunctional and at the same time is the main means of production of agricultural products, as well as a leader in the territorial organization of other sectors for the population, such as industry and housing, recreation areas. [9].

F.F. Davitya (1964) thinks about climate resources as follows: climatic elements - moisture, precipitation, heat, wind, radiation, etc. create agroclimatic resources and emphasize that these elements are used in all areas of agriculture. Climatic factors in the formation and specialization of livestock industries, ie temperature, precipitation, winds, climatic natural disasters, have a positive and negative impact on this sector. Therefore, based on the above considerations, the natural environment, conditions and opportunities of the region will allow all sectors of agriculture, ie the cultivation of fodder crops for livestock, the use of pastures and hayfields, the digging of new wells and their future use. As a result of full use of the internal potential of the region, it will create conditions for improving the formation and development of the livestock sector and livestock production. Socio-economic environment and factors (economic geography, population consumption, labor resources, market and transport infrastructure, processing industry, human skills, etc.) have a significant impact on the formation and development of livestock sectors. It contributes not only to the formation of livestock industries, but also to the expansion of livestock production (processing industry). Because the transport conditions for the processing industry, the provision of modern technologies have a great impact on the development of our economy. Socio-economic factors are as closely intertwined as a chain and complement each other. These factors have a special place in the formation of all sectors of agriculture and in the production of any agricultural product and its delivery to the population. The population is not only the labor force, but mainly the consumer. In order to improve the living conditions and living standards of the people, it is necessary to produce food, clothing and other needs to meet the daily human needs[10].

The consumption factor is currently the most relevant among the socio-economic factors and serves to meet the demand for livestock products in the study area, depending on the population and their location.

Transport infrastructure, the level of transport development plays a key role in the rapid and fresh delivery of livestock

products to enterprises (processing) and consumption of the population. In addition, the transportation of fodder for intensively grazed livestock requires extensive use of transport networks. We know that dairy and meat products have a strong perishable property, so at the same time, trucks with modern refrigerators are used to ensure the quality of livestock products and their rapid delivery for human consumption. Together with the above natural and economic-social environment, organizational and legal conditions and factors play a special role in the formation of the livestock sector, the specialization of livestock production. Organizational factors in the formation of this sector are the organization of livestock production according to the needs of the population and market demand, the correct placement of all types of farms specializing in animal husbandry, taking into account the natural, economic and social conditions, providing livestock production enterprises with modern technological equipment. it is necessary to jointly control the reclamation of desert pastures, build new wells, organize the improvement of water supply for livestock feed.

Legal factors in the formation of the livestock sector have a significant impact on the development of the livestock sector by improving the legal interests of farms, protection of property relations in accordance with the law, creating legal conditions for the development of livestock production.

A large part of the territory of Navoi region consists of deserts, and 98.5% of the total agricultural land is pastures and hayfields. In Konimex, Tomdi, Uchkuduk districts this figure is almost one hundred percent. Specializes in karakul breeding of pastures in Tomdi, Konimex, Uchkuduk districts [11].

The reason for increasing and developing karakul breeding in these districts is that the air temperature in these desert districts is hot in summer and cold in winter, and karakul sheep is a breed that has been tested for cold and hot weather.

In addition, in the mountainous and foothill areas, ie in the mountain-pasture zone Khatirchi, Nurata, Kyzyltepa, Navbahor, Karmana districts, there are intensive farms specializing in karakul.

In the past, karakul farming in the region was formed only in an extensive way, but in recent years, intensive karakul farming has been introduced. Currently, all types of farms are engaged in karakul farming, the number of which is 652 in the region. We analyze the relative location of karakul sheep in specialized karakul farms in the region for the period 2000-2020 and the relative changes in their number through Table 1.

TABLE 1. Number of karakul sheep in Navoi region in 2000-2020 (thousand heads)

Administrative territorial units	Years					Phase index
	2000	2005	2010	2015	2020	
Karmana Area	39105	46171	66187	67950	80877	206.8
Konimeh Area	269374	347600	392803	417987	347486	129.0
Qiziltepa Area	54650	59380	97720	120048	150574	275.5
Navbahor Area	58320	72785	109338	140139	188120	322.6
Nurota Area	170380	202163	255039	272717	296671	174.1
Tomdi Area	221432	305452	346141	276838	96995	43.8
Uchquduq Area	98927	102947	100520	120228	102306	1034
Xatirchi Area	54200	61924	86074	78938	35120	64.8
Navoiy City	2718	2559	3029	967	699	25.7
Zarafshon City	810	1040	520	155	0	0

The figures in the table show that the ratio of changes between 2000 and 2020 has increased significantly in Navbahor, Kyzyltepa, Karmana and Nurata districts. Konimex and Uchkuduk districts, on the other hand, remained virtually unchanged from previous years as the number of sheep decreased over the next 5 years.

In Tomdi, Khatirchi and Navoi, the figure is much lower. Although the korakul industry is a source of products such as wool, fur, meat, milk, leather and felt, but korakul leather is the main product of korakul. The demand for korakul leather in the foreign and domestic markets is strong and is valued at a high price. Table 2 shows the location of karakul sheep specializing in karakul and the number of farms of all categories, the number of karakul sheep, the production and share of karakul skin in the districts as of January 2021.

There are 187 farms specializing in karakul farming in Konimex district, the number of sheep is 347486 heads. The production of leather is 89.4 thousand pieces, which is 31.5% of the region's production of korakul leather. The total land area

of Tomdi district is 42.4 thousand. sq. km and 46.6 thousand in Uchkuduk district. sq. km, ie 80.3% of the total land area of Navoi region [12].

Although the main part of the land area of these districts is pastures and hayfields, but due to the lack of water and wells, the problem of fodder for winter fodder, not enough karakul has been formed in these areas. In fact, we can use large pasture resources on the farm only through the formation and development of karakul. The specialization, proper placement and development of karakul farms in the region, along with the production of wool and meat products, increase export potential, will allow to make more profit at lower costs, to grow karakul products. Because in the economic and geographical development of karakul farming must be fully satisfied with a favorable climate, pasture resources and economic conditions.

In the region, karakul sheep were previously grazed only in pastures in the desert regions, but in recent years, due to the impact of agrostenosis, the breeding of karakul sheep in the foothills and processing of its products is widespread.

TABLE 2. Information on the location of karakul sheep specializing and the production of karakul leather (current status).

Districts of Navoi region:	Number of farms in all categories		Number of karakul sheep		Karakul leather production	
	amount	Sharing %	A thousand heads	sharing %	Thousand	share %
Karmana Area	33	5.1	80877	6	9,7	3.4
Konimeh Area	187	29	347486	27	89,4	31.5
Qiziltepa Area	52	8	150574	11.6	18,6	6.6
Navbahor Area	33	5.1	188120	14.4	32,8	11.6
Nurota Area	209	32	296671	22.8	44,4	15.7
Tomdi Area	47	7.5	96995	7.5	53,2	18.8
Uchquduq Area	36	5.5	102306	7.8	29,1	10
Xatirchi Area	47	7	35120	2.7	6,3	2.2
Navoiy City	5	0.8	699	0.1	0,1	0.04
Total	649	100	1298848	100	283.6	100

The geographical latitude of the area where most of the karakul farms are located in the region is far from each other. The grazing and breeding of herds is limited only by the fact that they are accessible to water, i.e. around wells, and have limited access to long-term pasture resources and meadows.

The main task of the karakul industry is the production of quality raw materials and their processing to supply products that meet the level of demand in the world market. In order to fulfill these tasks, to expand production and to wait for the export potential, we can give the following conclusions and recommendations.

IV. CONCLUSION

Farms specializing in animal husbandry, the establishment of a livestock processing industry through the placement, taking into account the natural, economic, social, organizational and legal factors that affect the development of the livestock sector. Improvement of fodder, water supply, veterinary services for livestock. provides the population with environmentally friendly food products and new jobs, increases the country's export potential. Based on these factors, we can make the following suggestions:

1. Strengthening and improving the food base, water supply.
2. Increase pasture productivity in the area, search for new water sources and dig new wells.

3. Training of qualified personnel with good knowledge of livestock and karakul industry.
4. Establishment of enterprises with modern technologies for the production of finished products for processing of livestock products.
5. Strengthen the fodder base for the winter.

Conflict of interests

The authors declare that there is no conflict of interest with any financial, personal, or other relationships with other people or organizations related to the material discussed in the article.

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