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Environmental Conditionality of the Kalmyk Nomadic Economy

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Abstract

The development of the Kalmyk farming in the late 19th – early 20th centuries is analyzed in the present article. Special attention is paid to the problem of effective management in arid climate and marketization of the region. The article considers the indicators of Kalmyk nomadic farming development, estimates stocking level in the period under review and establishes the impact of market conditions on nomadic farming development. The article employs a wide range of sources and literature. The results demonstrate that the Kalmyk cattle-breeders ran their farms efficiently in arid climate taking market fluctuations into account. That was the indication of sufficient economic efficiency and ecological suitability of that type of economic management in the late 19th – early 20th centuries.

Keywords: Nomadic farming, Environmental conditionality, Kalmyks, Kalmyk uluses, Livestock farming, Market conditions.

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Introduction

The development of the Kalmyk farming in the late 19th – early 20th centuries has hardly ever been under research and has only been in the highlight of publicists. A number of authors focused on ecological significance of pastoral farming in several articles in periodicals. But their views lacked argumentation and hence the conclusions of those works, though being correct on the whole, sounded hypothetic. While in scientific literature, the problem was not investigated from this point of view despite the thorough research of the Kalmyk farming in the monographs by L.T. Badmakhalgaev (2003), A.N. Komandzhaev (1999) and some summary papers (History of Kalmykia from ancient times to the present, 2009). The same holds true for papers published in English (Bold, 1996; Martin, 2010; Vasjutin, 2003; Kradin, 2008; Zhang, Borjigin, & Zhang, 2007; Humphrey, 1978). Most of these research works are of great methodological and theoretical importance to us. It should be observed that in all the papers on the history of nomadic farming the authors note its extensive character which, according to them, is identified with absolute backwardness. At the same time, the conclusions of those works being true in form are absolutely incorrect in plot as nomadic farming could not have any alternative in its development in that case due to natural and climatic conditions. Nomadic farming functioned quite effectively in water-short arid zone with scanty vegetation. At the same time, cattle-breeders certainly took into account livestock limit as well as stocking level limit, water and vegetation resources availability.

Proceeding from the degree of scrutiny of the problem, the authors handle the following tasks: to reveal quantitative indicators of Kalmyk nomadic farming development, to establish stocking level limit and to find out the impact of market conditions on nomadic livestock farming development.

We took the period of the late 19th – early 20th centuries as chronological framework of the research as it was at that time that Kalmyk livestock farming reached optimal development parameters, both in livestock population and in its structure, and was able to adjust to market relations during the period of social turbulence and World War I. Later on during the Soviet period, Kalmyk livestock farming took an undesirable turn as there was a transition to a settled way of life performed by administrative means at short notice, neither natural nor climatic factors being taken into account, which resulted in vanishing of Kalmyk horse and camel breeding, Kalmyk breed sheep farming while crop production developed excessively in the arid zone. Thus, during the 20th century guidelines for the balance between management and natural and climatic factors were lost. At present scientists and agrarian specialists are trying to find the lost criteria to determine optimal plans for regional agro-industrial development. In this connection, we suppose that historic experience taken into account will help fill in this gap.

Discussion

The works on Kalmyk livestock farming development usually underreport livestock population in the early 20th century. One of the reasons for this is using heterogeneous sources in these works, because various departments set different goals quite often while collecting information from them. But more often the authors used figures of the Kalmyk uluses of the Astrakhan province only absolutely ignoring livestock population in the Bolshederbetovskiy ulus of the Stavropol province, on the farms of Russian and Ukrainian migrant peasants as well as the population of the cattle grazing on leased Kalmyk lands. In view of all these facts, the figures of Kalmyk livestock farming are as follows: 88 thousand horses, 454.6 thousand head of cattle, 1535.3 thousand sheep, 24.3 thousand camels (calculated by the authors according to the annual reports of the Astrakhan province administration of the Kalmyk people and the Stavropol province police superintendent of nomadic peoples). These figures demonstrate high quantitative level of Kalmyk nomadic farming, thus, we qualify the opinion current in literature about multiple Kalmyk livestock population development in the Soviet period as erroneous. In fact, the total

number of sheep increased 2.2 times, while cattle population decreased by 18%. It should be remembered that there are basically no camels and no more than 20 thousand horses in Kalmykia nowadays. If we make a calculation in standard units for cattle (four head of small cattle are equal to one head of cattle), quantitative increase of livestock in Kalmykia over the 20th century reached a modest level of 30%.

The stocking level was 0.15 head of cattle per desiatina (measure of land = 10,900 sq. meters or 2.7 acres) on the territory inhabited by the Kalmyks of the Astrakhan and Stavropol provinces and migrant peasants in settlements. Of course, this figure varied on the Kalmyk territory according to soil-climatic conditions, livestock population and availability of other sectors of economy. We can mention winter distant pastures which demonstrated nomads' adaptation to regional soil-climatic conditions as an example. The 'Black lands' (they were called 'black' because they were not covered with snow during winter months) were only used in winter as common nomads' camp for cattle-breeders of all Kalmyk uluses, while in summer they did not graze cattle on that territory. It did not mean though that those lands were completely unused during spring-summer period because local people lived there with their domestic animals. The Kalmyks constantly objected to overstocking that occurred in the period under investigation in Russian-Ukrainian settlers' villages. Stocking level in those settlements was six times as great as that of the Kalmyks.

During the 20th century that stocking level multiplied manifold (0.42-0.45 head of cattle per hectare), although there was only a slight increase in livestock farming. That was because vast grazing lands were given up for plant cultivation, the Kalmyks went over to a settled way of life. Besides, the Kalmyk territory decreased greatly due to transfer of some lands to neighbor regions.

The problem which is concerned with determination of cost of living of the Kalmyk nomads is of no small significance. Officials who carried out a statistical-economic survey of the Kalmyk steppe of the Astrakhan province in 1909 stated proceeding from soil-climatic conditions, availability of means of communication and supply of population with goods that an average Kalmyk family of 5.2 members could get by having 29.3 head of cattle (Materials of the statistical-economic and natural-historical research on the Kalmyk steppe of the Astrakhan province, 1910, pp.17-32). According to this survey, only inhabitants of the Kharakhusovskiy and Bolshederbetovskiy uluses and settlers could provide subsistence level. Statistics indicate that the population of the other seven uluses lived below the poverty line on average. The question arises how the Kalmyks provided subsistence level with lack of livestock population. First, due to decrease in needs, second, due to extra earnings. The Kalmyks who lived in the Caspian area engaged themselves in fisheries and salt-works. While most poor Kalmyks had to hire themselves out as farm laborers (mostly herders) in rich stock farms of Kalmykia. The ethnographer I. Zhitetskiy, an expert on Kalmyk lifestyle, noted that 'nowadays Kalmyk laborers can be found everywhere and in various jobs: as boatmen in rivers, coachmen in post-houses...' (1891, p.31). There was a dynamic development of agriculture in northern and south-western parts of Kalmykia at that period. According to archival data, ploughed lands and agricultural population of Kalmykia amounted to 17.6 desiatinas and 7.3% respectively (calculated by the authors). According to the annual reports of the Astrakhan province administration of the Kalmyk people and the Stavropol province police superintendent of nomadic peoples, there was a steady growth of ploughed lands and agricultural population. According to the annual reports of the Stavropol province police superintendent of nomadic peoples, profitability of crop-growing agriculture exceeded that of cattle-breeding by 18% in the Bolshederbetovskiy ulus. Some Kalmyks were also engaged in handicraft trade in all the uluses (wool, leather, wood and metal working, making clothes, pottery, jewelry). Therefore, the facts mentioned above confirm that the subsistence level indicator of 29.3 head of cattle which was deduced by the authors of the 1909 survey was not quite correct in some cases because the Kalmyks could provide that level by other occupations.

The problem of adaptation of nomadic farming to market conditions is important and insufficiently explored. The Kalmyk region had been actively involved in the Russian market since the end of 19th century (Table 1). We intentionally calculated average annual rate over five years because annual data do not give a clear picture of dynamics of development under instability of nomadic farming.

Table 1. Number of cattle sold in the Kalmyk steppe of the Astrakhan province (1892-1916). Average annual rate (thousand head)

Year	Horses	Cattle	Sheep	Camels
1892-1896	5,1	26,1	138,7	1,3
1897-1901	5,3	33,2	89,0	1,8
1902-1906	6,4	25,9	65,3	2,6
1912-1916	8,5	39,5	120,3	1,9

Source: Calculated according to the annual reports of the Astrakhan province administration of the Kalmyk people. The 1907-1911 reports were not found.

Breeding cattle of Kalmyk strain developed greatly at that period. Classified as beef, that strain was maximum adapted to arid conditions, therefore it became widespread in Kazakhstan, southern Russia and Ukraine. The table below demonstrates livestock population growth in Kalmykia in the period under consideration (Table 2).

Table 2. Livestock farming in the Kalmyk steppe of the Astrakhan province (1892-1916). Average annual rate (thousand head)

year	horses	cattle	sheep	camels
1892-1896	64,0	114,4	557,4	16,6
1897-1901	64,5	117,4	352,5	20,0
1902-1906	79,5	196,1	615,8	27,2
1907-1911	66,7	153,1	573,4	23,6
1912-1916	74,3	188,9	686,1	20,7

Source: Komandzhaev, A. N. (1999). Economy and social relations in Kalmykia in the late 19th – early 20th centuries. Elista.

It is surprising that even in the stern years of World War I quantitative and qualitative indicators of economic development of Kalmykia increased dynamically. That was due to the fact that the war caused enormous demand for livestock products and some enterprising Kalmyk cattle-breeders began boosting production. It should be noted that Kalmyk agriculture boosted production at that period as well. Both examples indicate that nomadic livestock farming can function quite successfully in market conditions.

All-Russian market also influenced horse breeding. Riding horses of Kalmyk breed were supplied to the Russian cavalry. Besides, horses of Kalmyk breed were sold in different fairs. One can also mention the fact that, according to the 1912 military-horse census, there were 35 residents of the Kalmyk steppe (34 Kalmyks and one migrant peasant) among 115 hosts in 50 provinces of European Russia each having more than 300 horses. A large number of horses of non-working age in Kalmykia draws our attention. In particular, according to the 1901 military-horse census conducted in the Kalmyk steppe, the number of horses of working age was only 52.3%, the smallest in the researched areas of European Russia, while in other regions percentage was overwhelming: e.g. 83.2% and 90.4% in the Moscow and Petersburg provinces respectively. In our opinion, that was due to the fact that Kalmykia supplied horses, in addition, mostly large commodity farms were engaged in local horse breeding. It can be derived from the fact that one horse owner possessed 8 horses in the Kalmyk steppe of the Astrakhan province, while the number ranged from 1.4 to 4 horses in European Russia. It is natural that running large stud farms required planned reproduction. That is why the ratio of horses of working to non-working age was approximately equal here.

Fine-fleece sheep breeding became widespread along with the sectors mentioned above. According to the archival data, there was a fivefold increase (over 110 thousand head) in their population in Kalmykia in the period under investigation. Besides, market conditions caused decrease in population of Kalmyk breed sheep which were classified as meat type and had low-grade wool. That is why Russian textile industry had no use for them which resulted in decrease in their population. It is only fair to say that during World War I it was meat conditions of Kalmyk breed sheep that played their part: their deliveries increased significantly at that period (166 thousand sheep in 1914) (Russian State Historical Archive of the Republic of Kalmykia, fund 1291, inventory 84, file 129, sheet 19). The increase in sheep population indicated in Table 2 occurred due to the growth of fine-fleece sheep breeding.

Quantitative indicators of camel breeding development in the period under review remained on the same level which indicated slack market demand for these animals, still negligible number of camels was enough to meet the requirements of nomadic life.

Thus, involvement of Kalmykia in the All-Russian market influenced the growth of horse, cattle and fine-fleece sheep population, while decreasing slightly the number of sheep of Kalmyk breed.

Information about loss of cattle in dynamics (it is optimal to show the number of perished cattle over each year percentage to the total number) presents important statistical data on degree of livestock farming stability. In the Kalmyk uluses that figure ranged within 4–5% and increased drastically three times – 17% in 1892, 8.3% in 1901 and 9% in 1906 (calculated by the authors according to the reports of the Administration of the Kalmyk people), which indicated predominance of extensive methods of economic management.

Intensification in seminomadic livestock farming that was only available to well-to-do people can be judged according to the information about breeds of cattle, improvement of pastures, enhanced steppe irrigation, laying-in of fodder, prices, etc.

It should be noted that cattle-breeders began active transition to the settled forms of economic management in the period under consideration. The researchers often regard it as the crisis of the Kalmyk nomadic farming. In our opinion, it is not quite correct because transition from nomadic to seminomadic and settled farming is not an indicator of crisis but transition to a different qualitative level of economic management.

There are several indicators to characterize this process. First, it is the ratio of cattle-breeders migrating outside their territories (uluses in Kalmykia) to the total number. Their number among the Kalmyk

population of the Astrakhan province was a miserable 1.5% (Materials of the statistical-economic and natural-historical research on the Kalmyk steppe of the Astrakhan province, 1910, p.695). But this figure alone cannot be the indicator of transition to a settled way of life. It is supplemented by the figures of provision of cattle with fodder (at 60-70%) and of people with permanent outbuildings (at 43%). Taking them into account, we can regard the stage of seminomadic livestock farming in Kalmykia as a transition to a settled way of life. It can be perfectly supported by the figures about people engaged in other sectors, first of all, in agriculture, etc.

Conclusion

Thus, the analysis of some specific material about environmental significance of Kalmyk nomadic farming demonstrates that the Kalmyk cattle-breeders ran their farms efficiently in arid climate taking market fluctuations into account. That was the indication of sufficient economic efficiency and ecological suitability of that type of economic management in the late 19th – early 20th centuries.

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