

Geographical Analysis of Livestock in Kazakhstan: A Case Study of Sheep and Cattle Sector

¹Atiqullah Malik & ² Dr. Abdul Rauf Shah

¹Research Scholar ²Associate Professor

University of Kashmir, India

Email - ¹ malikatiqullah@gmail.com ² dr.raufshah@gmail.com

Abstract: Sheep and Cattle are reared in large numbers in Kazakhstan. They have lion's share in total livestock population of the country. Although state policies in Kazakhstan are encouraging the growth and development in crop production but livestock still remains the favorite livelihood option in the rural areas. Both cattle and sheep were raised in large numbers before the 1990s but the numbers decreased significantly after the independence of the country in 1990. The prices of the wool, mutton and beef decreased sharply due to low demand and lack of markets. The livestock sector suffered losses as it couldn't survive under the new market conditions. After independence, Kazakhstan carried out several reforms in agricultural and livestock sector. Due to abolition of subsidies and privatization, the production of mutton, milk, beef and wool declined to its all-time lows. An attempt is made in the present study to discuss the impacts of soviet disintegration on the livestock of Cattle and Sheep in the Republic of Kazakhstan.

Keywords: Agriculture, Livestock, Disintegration, Livestock Products, Wool, Industry, Economy.

1. INTRODUCTION:

Area wise Kazakhstan is among the ten largest countries of the world. Sheep and cattle are the part and parcel of the country's long nomadic history and have proven to be viable economic activity. The Soviet occupation which started in 19th century impacted Kazakhstan's nomadic character. The Russians reorganized the farming sector through various agricultural and settlement policies like the Virgin Lands Campaign of the 1950s, (Kerven, C, Alimaev, L.L, et al., 2006) ¹. The livestock sector of the country showed remarkable progress under the Russian rule and Kazakhstan became the major exporter of the livestock products among the former Soviet states. Along with livestock commodities such as beef, mutton, wool and dairy, major crops like Wheat, cotton, rice and barley were also grown in large parts of the country, (Pomfret, R. (2013) ². Under Russian rule, the Kazakh wool industry was recognized for its quality and used to provide large wool production that would often find markets in former Soviet States, (Ellis, F. and Lee, R, 2003) ³. Large part of this production was used in other Soviet states. The favorite woolen made products of the time were blankets, army uniforms and other better quality products, (Kerven, C. 2003) ⁴. Under diverse agro-climatic conditions of the country a large number of sheep and cattle breeds were reared.

Kazakhstan has vast land area. More than 70 percent of the territory is considered as permanent pasture land and livestock plays an important role in the economy and is considered an important source of food and employment in the rural areas. Sheep and cattle rearing has been a key economic activity for centuries and continues to be a major source of food and income in remote and far off areas of the Republic. Mutton, Beef and Dairy are an important part of the daily diet. The livestock products can play a great role in poverty reduction and food security in the country. Kazakhstan was exporting large production of these livestock products during 1980s.

2. METHODOLOGY:

The present study is based on secondary data. The data was collected from the Food and Agriculture Organization, Agency of Statistics of the Republic of Kazakhstan, World Bank and the Ministry of Agriculture of Kazakhstan. The data has been analyzed by applying simple statistical methods and the resulted have been shown by tables and diagrams.

3. RESULTS AND DISCUSSION:

The total cattle and sheep population in 1990 was 9757 and 35660 thousand, (Agency of Statistics of the Republic of Kazakhstan, 2005) ⁵. However, after 1990, the livestock of cattle and sheep declined sharply. Due to decline in stock numbers, the production of major livestock products such as wool, beef, mutton, milk etc. also declined, (Pomfret, R. (2013) ⁶. The production declined mainly due to privatization and reforms in agriculture and livestock sector of the country. However, after 2000, the production of all livestock products is increasing.

Unlike all the livestock species, Cattle and Sheep also recorded a negative growth after the break-up of the Former Soviet Union, (World Bank, 2004) ⁷. The population of sheep and cattle declined sharply which impacted the production of mutton, beef, wool and milk. By 1999, all the livestock products have decreased to their all-time lows.

The cattle and sheep numbers start recovering after 2000 by showing positive growth. The increase in cattle and sheep numbers after 2000 led to the growth in milk, wool, beef and mutton to some extent but their production levels are yet to reach the 1990s level, (Kerven, C. 2003)⁸. The growth in cattle and sheep are slow as against a drastic decline, (FAO, 2010)⁹. The growth in livestock of cattle and sheep after 1999 have not affected the production of livestock goods much. Presently the livestock sector of Kazakhstan especially sheep and cattle are growing slowly. The lack of markets and poor quality of the products has decreased the economic importance of the sector.

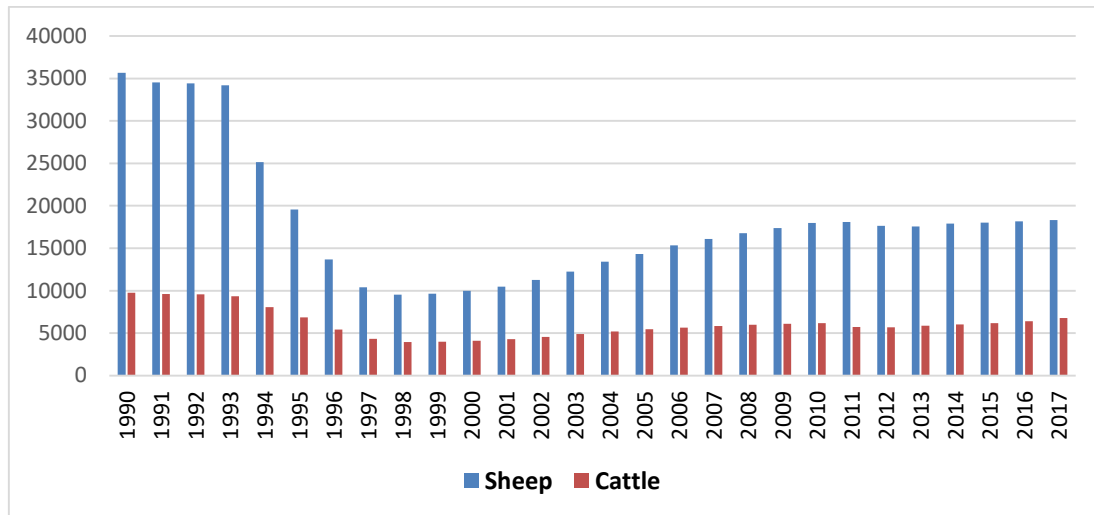


Figure 1: Sheep and Cattle numbers

Table 1: Sheep & Goat and Cattle Population 1990 – 2017

Year	Sheep and Goats (Thousands)	Percentage Change (%)	Cattle (Thousands)	Percentage Change (%)
1990	35660.5	---	9757.2	---
1991	34555.7	-3.01	9592.4	-1.7
1992	34419.8	-0.39	9576.3	-0.2
1993	34208.1	-0.61	9346.6	-2.4
1994	25132.1	-26.53	8072.9	-13.6
1995	19583.9	-22.07	6859.9	-15.0
1996	13679.4	-30.14	5424.6	-20.9
1997	10384.3	-24.08	4307.1	-20.6
1998	9526.5	-8.26	3957.9	-8.1
1999	9656.7	1.36	3998.2	1.0
2000	9981.1	3.35	4106.6	2.7
2001	10478.6	4.98	4293.5	4.6
2002	11273.0	7.58	4559.5	6.2
2003	12247.1	8.64	4871.0	6.8
2004	13409.1	9.48	5203.9	6.8
2005	14334.5	6.90	5457.4	4.9
2006	15350.3	7.08	5660.4	3.7
2007	16080.0	4.75	5840.9	3.2
2008	16770.4	4.29	5991.6	2.6
2009	17369.7	3.57	6095.2	1.7
2010	17988.1	3.56	6175.3	1.3
2011	18091.9	0.57	5702.4	-7.7
2012	17633.3	-2.53	5690.0	-0.2
2013	17560.6	-0.41	5851.2	2.8
2014	17914.6	2.01	6032.7	3.1
2015	18015.5	0.56	6183.9	2.5
2016	18184.2	0.93	6413.2	3.7
2017	18329.0	0.79	6764.2	5.5
	Total Change: 1990-2017	-48.60		-30.6

Source: FAO and Committee on Statistical of the Republic of Kazakhstan

There has been a gradual decline in the livestock of sheep and cattle between 1990 to 1999. The cattle numbers decreased at a negative rate of -13, -15, -20 and -20 and sheep numbers at a rate of -26, -22, -30 and -24 during the years of 1994, 1995, 1996 and 1997. The high negative growth in cattle and sheep population led to gradual decline in livestock products. The livestock of sheep and cattle start recovering after 2000 but the population of both species are low then what was in 1990. A large numbers of factors are contributing currently towards the positive growth of the livestock especially the favorable economic conditions due to revenues from the oil sector and increase in GDP, (Flake. L, 2011)¹⁰. The government of the Kazakhstan should invest heavily in the sector to revive this age old economic and livelihood option of the farmers.

4. SPATIAL ANALYSIS:

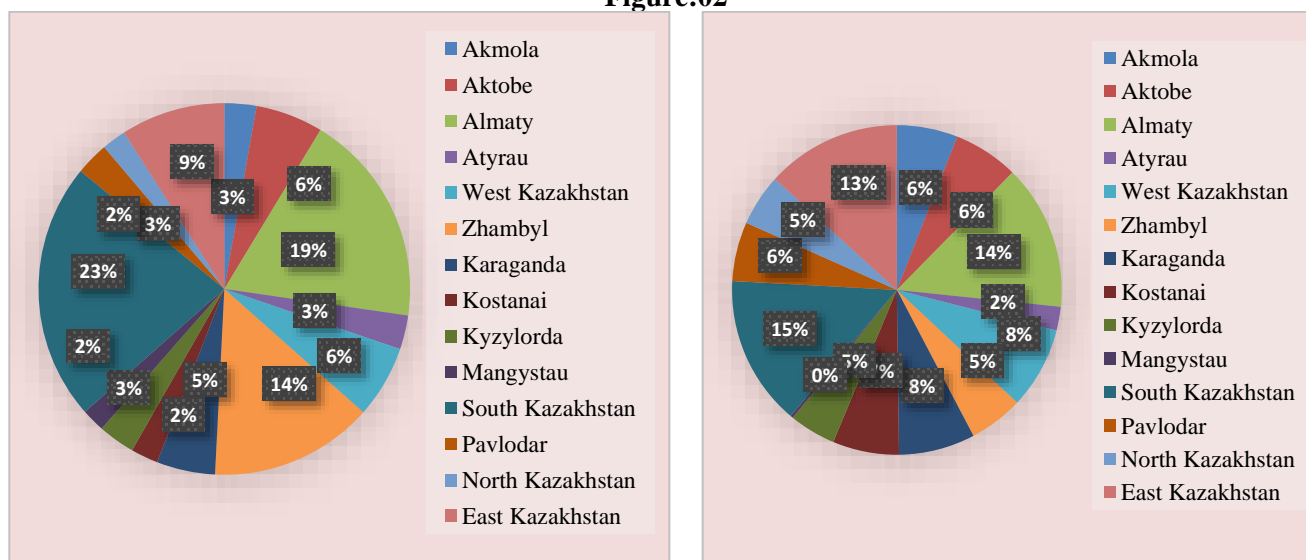
Growth and spatial distribution of different livestock species in different oblasts of the Kazakhstan is very uneven. Bulk of the livestock numbers are found in the south and south-east of the country. The livestock of cattle, sheep & goats, horse and poultry have high density in the south and south-east oblasts. The desert oblasts of the west and south-west have large population of camels while northern oblasts have large pig numbers as compared to other areas of the country. Overall the south and south-eastern parts of the Kazakhstan are considered the most productive regions in livestock. Here annual rainfall is abundant and mountains and hills have green and nutritious alpine pastures. Deserts have lowest livestock due to extremes of the climate. The small livestock population in the rest of the Kazakhstan are not due to lack of feed and pastures resources but due to the underutilization of rangeland resources. The low watering infrastructure and inadequate shelter homes have also halted the growth in livestock farming.

Table 2: Oblast wise Sheep Numbers and Wool Production 2017

Administrative Oblast	Sheep & Goats		Cattle	
	Numbers (000's)	Percentage to Total	Numbers (000's)	Percentage to Total
Akmola	511.2	2.78 %	404.2	5.97%
Aktobe	1077	5.87 %	432.6	6.39%
Almaty	3413.5	18.62 %	963.9	14.25%
Atyrau	542.7	2.96 %	157.2	2.32%
West Kazakhstan	1155.6	6.30 %	542.5	8.02%
Zhambyl	2610.5	14.24 %	359.3	5.31%
Karaganda	933.1	5.09 %	506.2	7.48%
Kostanai	436.6	2.38 %	440.7	6.51%
Kyzylorda	586.7	3.20 %	309.6	4.57%
Mangystau	373.2	2.03 %	17.8	0.26%
South Kazakhstan	4112.0	22.43 %	994.8	14.71%
Pavlodar	526.8	2.87 %	392.9	5.81%
North Kazakhstan	386.6	2.10 %	343.5	5.08%
East Kazakhstan	1663.5	9.07 %	895.4	13.24%

Source: Committee on Statistics of the Republic of Kazakhstan

Figure:02



Sheep and Goats Cattle

Oblast wise, South Kazakhstan has the highest sheep numbers contributing 22.43% of the total sheep population. After South Kazakhstan, Almaty 18.62%, Zhambyl 14.24%, East Kazakhstan 9.07% and West Kazakhstan 6.30% has the high sheep numbers. Other oblasts of Akmola, Aktobe, Karaganda, North Kazakhstan etc. are having low sheep and goat population. In Cattle, South Kazakhstan has the highest population of 14.71%, followed by 14.25% in Almaty, 13.24% in East Kazakhstan, 8.02% in West Kazakhstan and 7.48% in Karaganda. The other oblasts having significant share in cattle population are Aktobe, Akmola, Kostanai, Zhambyl, Pavlodar and Kyzylorda oblasts of the country.

5. CONCLUSION:

The Sheep and Cattle livestock numbers in Kazakhstan declined significantly after 1991. Agriculture and livestock sector of Kazakhstan after the Soviet disintegration couldn't survive under the new market conditions. Cattle and Sheep population in general and wool, mutton, beef and milk in particular declined sharply. Currently sheep & goats and Cattle are recovering at a very slow rate. The livestock sector of Kazakhstan has tremendous potential to turn into a full-fledged industry given there is proper planning and investment in the sector.

REFERENCES :

1. Kerven. C, Alimaev. L.L, *et al.*, (2006), "Fragmenting Pastoral Mobility: A Changing Grazing Pattern in Post-Soviet Kazakhstan", USDA *Forest service proceedings*, RMRS-P-39.
2. Pomfret. R. (2013), *Kazakhstan's Agriculture after two decades of Independence*, Elliott School of International Affairs, the George Washington University.
3. Ellis, F and Lee, R, Y. (2003), "Collapse of Kazakhstan Livestock sector": A Catastrophic Convergence of Ecological Degradation, Economic Transition and Climatic Change.
4. Kerven, C, (edited). (2003), *Prospects for Pastoralism in Kazakhstan and Turkmenistan, From State Farms to Private Flocks*, *Central Asian Research Forum*
5. "Agency of Statistics of the Republic of Kazakhstan (ASRK). 2005. *Main Demographic Indicators*". *Stat.kz*. Accessed on 04-12-2018.
6. *Op.cit.* 02.
7. World Bank., (2004), *Kazakhstan's Livestock Sector Supporting its Revival*, Country Report, Washington DC, USA.
8. *Op.cit.* 03.
9. FAO, (2010), *Highlights on Four Livestock Sub – Sectors in Kazakhstan*, Country Report, Rome Italy.
10. Flake. L., (2011), *Kazakhstan's Cattle Sector Beginning to Expand*, USDA Foreign Agricultural Service, Astana, Kazakhstan.