

A STUDY ON PRIORITY OF REARING LIVESTOCK SPECIES WITH SPECIAL REFERENCE TO  
HIMACHAL PRADESH

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ABSTRACT

In India it has been an integral part of agriculture and large chunk of population is engaged and dependent on it. The livestock biodiversity has developed abundance of specific breeds in the different climatic conditions. Livestock breeding supports economy of the farmers in different ways by providing food, employment, income and social security. They provide food items like milk, meat and eggs and India is known at top position for production of milk. They contribute in production of wool, hides etc thereby generating employment. Livestock leather has a very high export potential. Livestock being a key component of major economic contributing agricultural sector of Himachal Pradesh, has been taken in priority by the Government to grow in terms of its productivity, health, products and marketing. Though involvement and interest of people in livestock rearing and breeding has declined over the years in the State, yet schemes have been launched strengthen and motivate people towards this sector for employability and development. In line with the initiatives taken by the Government of India, Himachal Pradesh Government has implemented schemes to strengthen this sector. In this study a modest attempt has been made to study the priority of rearing livestock species by people in Himachal Pradesh.

Key Words: Livestock, Employability, Export Potential.

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**Prelude and Rationale:**

Livestock which refers to rearing of different varieties of livestock by the peasants or farmers has a key role in agriculture and farming. It is generally understood by animal husbandry. In India it has been an integral part of agriculture and large chunk of population is engaged and dependent on it. The livestock biodiversity has developed abundance of specific breeds in the different climatic conditions. This sector of livestock has grown on an average by 7.9 percent during 2014-15 to 2020-21 and has contributed to the Gross Value Addition in the agriculture growth by 24.3 percent during the same time period. Dairy alone is the single largest agri-commodity in India which contributes nearly 5 percent to the national economy and directly employs more than 80 million dairy farmers. Cattle, buffalo, goat, pig, sheep, donkey, horse etc. are the major

livestock species. Indian Council of Agriculture Research (ICAR) has registered 10 new breeds of livestock species and the total number of indigenous breeds has been 212 till 2023. Livestock breeding supports economy of the farmers in different ways by providing food, employment, income and social security. They provide food items like milk, meat and eggs and India is known at top position for production of milk. They contribute in production of wool, hides etc thereby generating employment. Livestock leather has a very high export potential. As per 2017-18, India produced about 41.5 million kg. of wool per annum<sup>5</sup>. The bullocks are used for cultivation thereby saving fuel on tractors, combine harvesters etc. Pack animals including camels, donkeys, horses, ponies and mules etc. are used for transportation. Dung and animal wastes are used in farms as manures. Livestock is also used as assets by villagers in emergencies, as recreational sources and companions.

Livestock being a key component of major economic contributing agricultural sector of Himachal Pradesh, has been taken in priority by the Government to grow in terms of its productivity, health, products and marketing. Though involvement and interest of people in livestock rearing and breeding has declined over the years in the State, yet schemes have been launched strengthen and motivate people towards this sector for employability and development. In line with the initiatives taken by the Government of India, Himachal Pradesh Government has implemented schemes to strengthen this sector. As per the statistical record of the Government of Himachal Pradesh, under Animal Health and Disease Control, 1 State level Veterinary Hospital, 2 Zonal Hospital, 10 Polyclinics, 60 Sub-Divisional Veterinary Hospitals, 356 Veterinary Hospitals, 30 Central Veterinary Dispensaries and 1,765 Veterinary Dispensaries are functioning in the State as on December, 2019. Besides this 6 Veterinary Check posts are also operating to provide immediate veterinary aid to the livestock. Under Mukhyamantri Arogya Pashudhan Yojna, 1,251 veterinary dispensaries have been opened up to December, 2019. For improving the quality of sheep and wool, Government Sheep Breeding Farms at Jeori (Shimla), Tal (Hamirpur), and Karachham (Kinnaur) are supplying improved sheep to the breeders of the State. One Ram centre at Nagwain in district Mandi is also functioning where improved Rams are reared and supplied to breeders for cross breeding. The flock strength of these farms is 1,111 till December,2019 and 219 Rams were distributed to the breeders. In view of the increasing demand for pure Hoggets and the established popularity of the Soviet Marino and American Ram bouillet, the State has switched over to pure breeding at the existing government farms in the State and 9 Sheep and wool Extension Centres continue functioning. Angora rabbit farms are functioning at Kandwari (Kangra) and Nagwain (Mandi) for distribution of rabbits to the breeders.

## **Review of Literature**

Gupta (2016)<sup>54</sup> opined in “Livestock Revolution in India: Issues and Impacts on Small Scale Producers” that the production of livestock products in developed countries is growing at a very slow rate while in the developing countries it is very high. According to her, in this direction India experienced a structural shift, with an increasing share of livestock in the agricultural value of output, from 20.57% in 1980-81 to about 30% in 2011-12 while the share of agriculture in country’s total GDP declined from 38.21% to 16.42% during the same period. The author suggests that livestock revolution can raise farm income dramatically, but smallholders and landless farmers who need development need to be strengthened. She suggests that the small land holding farmers should be linked up with the exporting agencies so that they can be able to take advantage of the increasing globalization of livestock sector.

Paljor, (2017)<sup>55</sup> stated in her research, “Livestock Economics and its Impact on the Environment of North Sikkim” that a great majority of farmers depend on livestock for their economic sustenance despite of the fact that they are not aware about modern technology through scientific training programmers and proper breeding and yielding techniques. She suggests that there must be infrastructural development in terms of improved accessibility with the help of better transport and communications and financial institutions. Further, the scholar recommends to provide target based training programmes to farmers and that corrective measures should be taken to improve the fertility status of the soil in ecologically vulnerable areas. Moreover, she stresses for fodder production both in the farmers and pasture land which must be stepped up.

Bera, et. al.(2017)<sup>58</sup> have reiterated in their study, ‘Role of Dairy Farming in Irrigated Ecosystem: A Village Level Case Study’ that from Eastern India total cost of maintenance of livestock is highest from medium farmers whereas in case of marginal and landless farmers it is lower because they employ more family labor. They suggest that there should be implementation of proper management practices and emphasis should be drawn upon awareness programme catering to the needs of the farmers.

Balaji et. al. (2023)<sup>74</sup> revealed in their scholarly work titled ‘Assessment of Economic Efficiency and its Determinants for Mixed Crop Livestock Production under Dryland Agriculture System in the Western Zone of Tamil Nadu’ that in order to accomplish economic, social, and environmental objectives, farm diversification is a significant feature in India’s agricultural systems and rural development. It is crucial to examine factors impacting farm productivity, such as socio, structural, and Circular Economy (CE) factors, in order to ensure the sustainability of varied farms. A decision to follow a farm circularity approach is required to increase agricultural production, return on investment, and achieve sustainability. They find that age of the farmer, total farm area, and dryland area as socio-structural variables, and reduce, recycle, and redesign as CE variables, affect the farm’s efficiencies significantly and CE is the strategy over which the farmer has complete control and has a more significant impact on farm efficiency. Social structural deterrents are second in terms of their impact. Farmers have cushy access to inputs;

however, they are not utilized to their maximum effect. Therefore, they conclude that inefficient dryland farmers could increase their production by concentrating on a circular economy strategy.

In 'Evaluation of the Economic and Environmental Sustainability of Livestock Farms in Inland Areas,' Cerrato et. al. (2023)<sup>75</sup> to evaluate the economic and environmental sustainability of livestock farms in inland areas involving three types of grazing husbandries: one with only sheep and goats; one with only cattle; and one mixed, namely with cattle, sheep and goats, have asserted that the survival of the analyzed farms is essentially linked to public subsidies, which in some cases represent more than 75% of the total output. Family enterprise plays a fundamental role in management decisions, in the size of animal breeding, and in investment decisions. Referring to environmental impacts, they analyzed a lower sustainability of cattle farming, mainly due to the higher methane emissions during enteric fermentation. Despite all this, the ecosystem services provided by these semi-extensive farms in inland areas are significant, and therefore economic and environmental analyses should take them into account to enhance them and encourage farmers to remain in these often marginal areas as per the findings of their study.

### **Objectives:**

Following are the objectives of the present research:

- **To study the livestock Population in India by Species**
- **To assert the trend of Different Livestock in Himachal Pradesh**

### **Scope and Methodology:**

The research has been carried-out by using secondary data analyzed by applying percentages and trend analysis. Data since 2013-14 to 2019 has been taken from Statistical Outline of Himachal Pradesh and Manual of Land Records, Govt. of Himachal Pradesh as well as Annual Season Crop Report, Directorate of Land Records, Kasumpti, Shimla -9. The research is backed with the literature review also. Further, the trends have also been diagrammatically depicted.

### **Analysis and Discussion:**

The results of the study are analyzed and discussed as under:

#### **1 Livestock Population in India by Species**

In India different species of livestock and poultry have recorded a fluctuating trend of growth since 1951. The following table is endowed to depict the figures of different livestock and poultry in India since 1951 to 2019 as per the data collected from livestock censuses of Govt. of India showing figures of every one quin-quennium.

**Table 1 Livestock Population in India by Species (Million Number)**

Species	Period													
	1951	1956	1961	1966	1972	1977	1982	1987	1992	1997	2003	2007	2012	2019
Cattle	155.3	158.7	175.6	176.2	178.3	180.0	192.5	199.7	204.6	198.9	185.2	199.1	190.9	192.5
Adult Female Cattle	54.4	47.3	51.0	51.8	53.4	54.6	59.2	62.1	64.4	64.4	64.5	73.0	76.7	81.4
Buffalo	43.4	44.9	51.2	53.0	57.4	62.0	69.8	76.0	84.2	89.9	97.9	105.3	108.7	109.9
Adult Female Buffalo	21.0	21.7	24.3	25.4	28.6	31.3	32.5	39.1	43.8	46.8	51.0	54.5	56.6	55.0
Total Bovines	198.7	203.6	226.8	229.2	235.7	242.0	262.2	275.7	288.8	288.8	283.1	304.4	299.6	302.3
Sheep	39.1	39.3	40.2	42.4	40.0	41.0	48.8	45.7	50.8	57.5	61.5	71.6	65.1	74.3
Goat	47.2	55.4	60.9	64.6	67.5	75.6	95.3	110.2	115.3	122.7	124.4	140.5	135.2	148.9
Horses and Ponies	1.5	1.5	1.3	1.1	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.6	0.6	0.3
Camels	0.6	0.8	0.9	1.0	1.1	1.1	1.1	1.0	1.0	0.9	0.6	0.5	0.4	0.3
Pigs	4.4	4.9	5.2	5.0	6.9	7.6	10.1	10.6	12.8	13.3	13.5	11.1	10.3	9.1
Mules	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.1
Donkeys	1.3	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.0	0.9	0.7	0.4	0.3	0.1
Yak	NC	NC	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1
Mithun	NA	NA	NA	NA	NA	NA	NA	NA	0.2	0.2	0.3	0.3	0.3	0.4
Total Livestock	292.9	306.6	336.5	344.5	353.2	369.4	419.6	445.2	470.9	485.4	485.0	529.7	512.1	535.8
Poultry *	73.5	94.8	114.2	115.4	138.5	159.2	207.7	275.3	307.1	347.6	489.0	648.8	729.2	851.8

Source: Statistical Outline of Himachal Pradesh and Department of Animal Husbandry, Govt. of Himachal Pradesh.

NC: Not Collected; NA: Not Available \* Includes Chicken, ducks, turkey & other birds

Source : Livestock Censuses, Department of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture & Farmers' Welfare, GoI

As shown in the table 1, the number of cattle in India in 1951 was 155.3 million which has reached to 192.5 million in 2019. Data shows that there has been a double growth in different species of cattle over the mentioned time period. The species which have recorded around double growth (40 to 60%) are; adult female cattle, buffalo, adult female buffalo, sheep and pigs. Needless to mention that the growth in the number of these species during 2003 to 2019 is admirable. The growth in goat has registered three times growth during the period and is good enough from 124.4 million to 148.9 million during 2003 to 2019. On the other hand the number of horses & ponies, camels and donkeys has drastically declined. Further the number of poultry has recorded an unbeatable growth. This analyzes that livestock in India has almost grown by double in the Country.

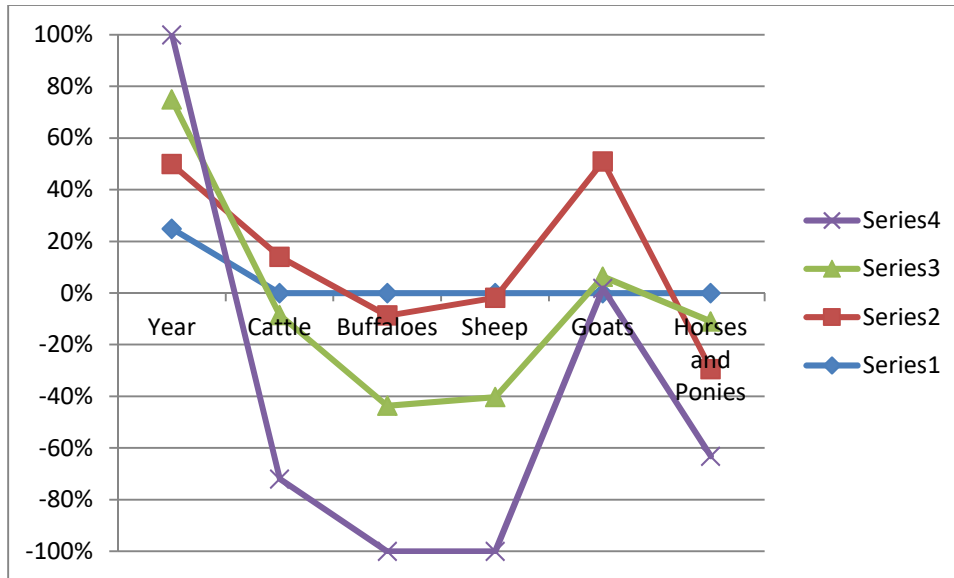
## 2 Trend of Different Livestock in Himachal Pradesh

As stated in the preceding table, the different species of cattle have recorded double growth in India during the period of 1951 to 2019. Similarly, the following table shows the trend of the number of different species of cattle etc. in Himachal Pradesh during 2003 to 2019.

**Table 2 Trend of Different Livestock in Himachal Pradesh**

Year	Cattle	% G	Buffaloes	% G	Sheep	% G	Goats	% G	Horses And Ponies	% G
2003	2196538	-	773229	-	906027	-	1115587	-	17144	-
2007	2269178	3.3	761589	-1.5	901299	-0.5	1240836	11.2	13155	-23.3
2012	2149259	-5.3	716016	-6.0	804871	-10.7	1119491	-9.8	15081	14.6
2019	1828017	-14.9	646565	-9.7	671535	-16.6	1108413	-1.0	8851	-41.3
$\bar{x}$	2110748		724349.7		820933		1146081.7		13557.7	
$\sigma$	194833.2		57433.6		109965.8		63335.9		3535.4	
CV	9.2		7.9		13.4		5.5		26.1	
Av.G		-5.6		-5.7		-9.3		0.1		-3.2

Source: Statistical Outline of Himachal Pradesh and Department of Animal Husbandry, Govt. of Himachal Pradesh.



Unfortunately, the results revealing growth in the number of different livestock in Himachal Pradesh are absolutely low in comparison to that of the Country. The results reveal that during the period of 2003 to 2019, cattle has declined and has shown negative average growth of -5.6. Similarly buffaloes have declined by showing -5.7 growth, sheep by -9.3 and horses & ponies by -3.2. Goats which have increased by three times in India, has increased by 0.1 average growth during 2003 to 2019. This implies that livestock rearing in the State has declined and has not become a priority.

#### Conclusion and Suggestions

It can be concluded that livestock in India has almost grown by double in the Country. The species which have recorded around double growth (40 to 60%) are; adult female cattle, buffalo, adult female buffalo, sheep and pigs. The growth in goat has registered three times growth but the number of horses & ponies, camels and donkeys has drastically declined. Keeping in view the conclusion of the research the following measures have been suggested:

Since there is a gradual decline in the number of different livestock varieties in the villages of Himachal Pradesh indicating declining interest of people to rear livestock, there is a need to identify the threats and reasons behind it for which elaborated researches need to be carried-out and in this regard, the related departments like veterinary department need to have special financial provision for motivating people, carrying-out researches and providing high yielding livestock varieties under special schemes.

The produce in the form of milk, leather, eggs, wool etc. needs to be promoted by developing mechanism of providing high returns to people rearing livestock.

Organic farming needs to be promoted so that the demand of livestock increases.

Liberal lending policy to farmers and people rearing livestock must be adopted and loans should be provided to the operational marginal and small land holders at subsidized rates with some lock-in period of no interest rates.

Veterinary services need to be improved by developing mechanism through which medicines, infrastructure and facilities must be ensured in the veterinary centers in the villages and there is a need to have check upon ensuring regular and trust-worthy services rendered by the staff. In this regard there is a need to form special inspecting or flying squad checking offices in the villages and confirming from the official records about the locations of duties being performed by the staff if attending somewhere in the villages.

Govt. should not allocate the grazing and fodder land for landless. Instead such Govt. land areas which are meant for other purposes or idle can be provided. This will help villagers to use grazing and fodder land area for livestock usages.

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