LIVESTOCK SECTOR DYNAMICS AND DEVELOPMENT DIMENSIONS: A CASE STUDY OF BALOCHISTAN PROVINCE

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ABSTRACT

So as to determine the livestock sector dynamics and development dimensions as a case study of Balochistan province this study was carried out. A descriptive sample survey was used. Quantitative research used. Two districts such as Jaffarabad and Sibi were selected randomly. Two hundred eighty (280) respondents were taken as a sample size. 155 respondents from Jaffarabad and 125 respondents from Sibi districts were selected. Cronbach's program ranged between .89 to .76. Independent Samples t-test Independent was used. p-value set on ($p<0.01$). Results revealed that most (56%) of both districts respondents fell into 41 to 50 years' age categories. While, most (33%) of respondents fell into age categories of 20 to 40. Most (52%) of respondents were uneducated. Most (32%) of respondents were 30 years' livestock experiences respectively. Most (45%) of respondents hold buffaloes as livestock animals. Vast majority (73%) of both district respondents were male. Statistically

significant were found, 5 out 7 statements regarding livestock dynamics and dimensions. Following recommendations were suggested. Establish the livestock byproduct and processing industry in Balochistan. Developed the animal production system so as to strengthen animal productivity. Training and incentives should be arranged for the livestock farmers about marketing and animal production systems so that they empower the livestock farmers purchasing power and professional skill.

Keywords: dynamics, livestock sector, development dimension, Balochistan province.

1.1 Overview

Globally, the dynamics and dimensions in the livestock sector are swiftly changing mostly in least developed countries. The Diversity of this change may be due to the population pressure and rapid suburbanization process around the world. By the end of 2050, the human demographic population may have enhanced 9.2 billion globally. In the Africa region it is expected that one billion of the human demographic population may increase. This drastic figure may have depicted the bleak picture. Due to the huge and rapid population of human beings in the coming decades the demand of animal husbandry and livestock are increased significantly (Delgado et al., 1999).

By and large, the current prospective dynamics and dimensions have impacted the livestock sector at a considerable rate. However, the poor livestock holders and poor farmers (resource-poor) socio-economic conditions and livelihood options were severely affected or damaged to a greater extent as a result marketed demand changes of livestock increased.

Therefore, there was a dire need to develop effective policy measures and better institutional innovations. Because of the better institutional innovations aspects may increase genetics and breeding in the livestock sector. Besides that, better environmental management options in the livestock sector is part and parcel in developing countries.

1.2 Dynamics and dimensions in livestock sector in Pakistan

In Pakistan the livestock and animal husbandry sector has materialized and emerged as the largest revenue generating sector in the country after the agriculture sector. Livestock sector contributes 60.1% to agronomy value addition. On the other hand, during the fiscal year 2021, the livestock sector constituted 11.5% overall in country GDP. Livestock sector is the imperative segment of the rural economy. Around 8 million in Pakistan the

rural household's families evolved livestock production. In addition, 35-40% of the demographic population relies on the livestock sector for their major sources of income. At country level the cross value totaling within terms of livestock sector has yielded at the rate of 1,505 billion during the fiscal years of 2020 to 2021 (GoP, 2020-21).

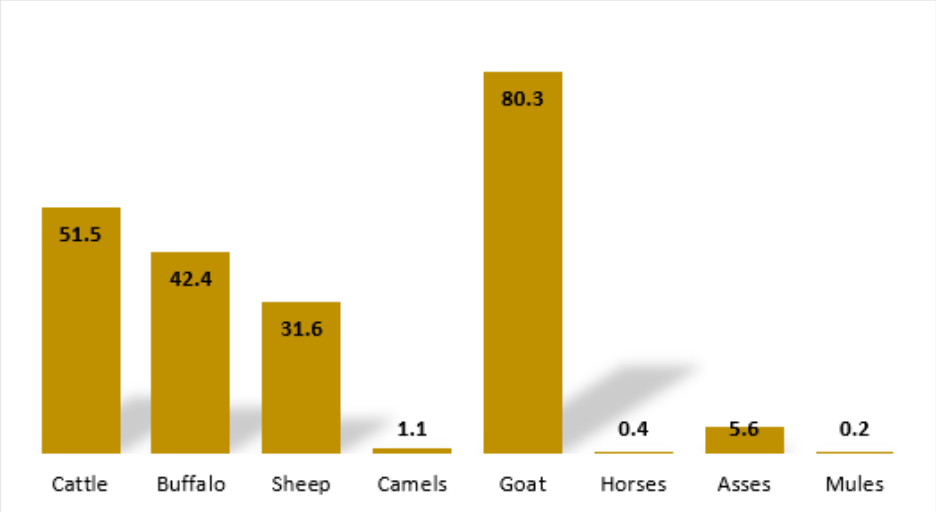
In Pakistan, the federal government takes an initiatives and firm steps regarding to strengthen the livestock sector. Because of the livestock sector directly linked with food security at country level. On the other hand, the federal government also pinpointed how to develop the economic growth in an operative manner by using the livestock sector effectively so as to reduce the extreme poverty in Pakistan for food security (GoP, 2020-21).

By and large, the government is also promoting the public private partnership and joint venture programs so as to accelerate the rate of development in livestock sector. However, the overall livestock sector was based on top-down style at country level whereas the laymen did not benefit from this sector development. Therefore, it is dire need to foster the policy interventions in livestock sector (GoP, 2020-21).

In order to remove these obstacles and problems the government takes a solid step to promoting the value added livestock export sector enhancement. However, on the other hand, the government made Hi-tech labs such as pathogenic avian influenza, foot & mouth disease control and well slaughterhouses in diverse locations at county level. These Labs are fully equipped with state-of-art technology that are functional within diverse processing zones. Furthermore, the government made solid steps and concentrated on animal breed development, productivity of red meat and their consumption pattern and the like (GoP, 2020-21).

The livestock national herd population in the period of the 2020-21 (Million in Nos) as shown in table-1.

Figure-1, Livestock National Herd Population in 2020-21 (Million in Nos)



Source: GoP, 2020-21.

1.3 Livestock dynamics in Balochistan

Major portion of the province land comprising the arid and semi-arid zones of Livestock and animal husbandry is the major occupation of the rural population in Balochistan. Balochistan constitutes 43% of the country's land mass. Balochistan region has constituted the very big rangelands and pasture for small ruminants. Due to arid nature, the precipitation rate is very low in Balochistan. Livestock and animal husbandry is profitable and the largest industry of Balochistan economy. Due to the poorer economic development, the livestock sector faced various problems. No doubt, the livestock and animal husbandry sector at Balochistan level has more potential. It is estimated that livestock contributes 40 to 52 per cent to the agriculture economy every year. Rural livestock farming has been established in regions of the province (Shafiq, 2013).

Livestock is a significant contributor and prime engine for revenue generation for rural masses. However, on the other hand, the livestock sector is a main cause of income and nutrition for humans (Buzdar et al., 1989).

Furthermore, rural farmers sell the small ruminants wool in the domestic market and increase their socio-economic circumstances for centuries. In this regard entire family

members evolved these activities. Therefore, the livestock sector is the major role and eventually contributing earnings tools for rural farmers (Farooq et al., 1999).

Livestock sector in Balochistan has huge potential for marketing dynamics and dimension. Henceforth, the livestock sector is enormously significant and imperative for rural people in rural areas in Balochistan. However, the South East Asian countries, Afghanistan, Iran, and even Gulf States are the major livestock markets (Shafiq, 2013).

1.4 Problem Statement

Livestock and animal husbandry sector is playing a major role in Balochistan economy. Livestock sector in Balochistan has facing the various snags like lack of regulatory measures in livestock sector, lack of units for animal or livestock productivity, lack of animal or livestock health coverage matter, lack of management practices in livestock and animal husbandry sector, lack of animal breeding facilities, lack of balanced feed and fodder ration for livestock animal and lack of diagnostic services that control the livestock animal or animal husbandry diseases (GoP, 2020-21). Hence, there was dire need to improve the livestock sector in an effective manner. However, cost effective technologies, efficient livestock management and development aspects were suitable options in Balochistan. Therefore, this effort was determining the dynamics and dimensions in the livestock sector especially in three districts of Balochistan, and developed the practical aspect to remove the inconsistent planning in this sector (Shafiq, 2013).

1.5 Objectives of Research

1. To measure the actualities regarding demographic profile of the three district respondents.
2. To assess the impact of livestock sector dynamics and development dimensions at province level.
3. To design recommendations for future policy implications regarding the livestock sector.

1.6 Methodology reflection

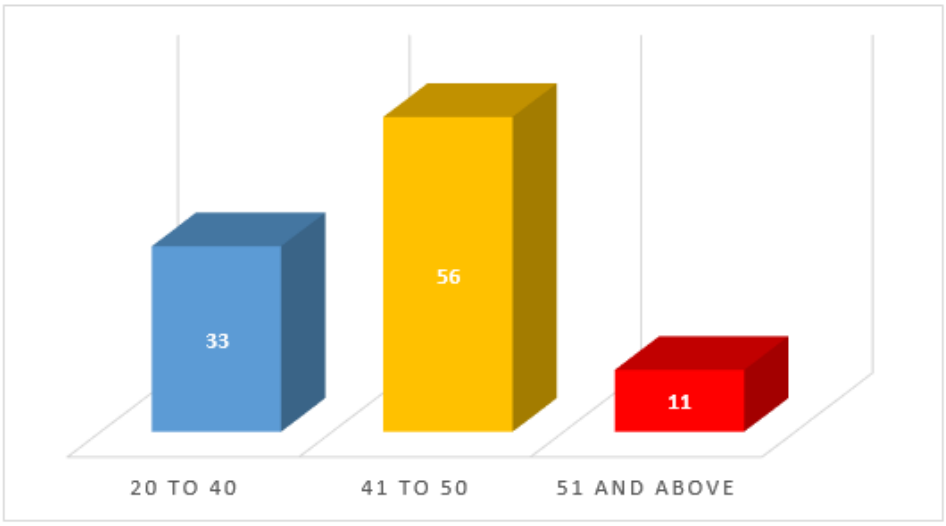
This research adopted the based on descriptive sample survey in order to determine the existing livestock sector dynamics and development dimensions in animal husbandry aspect as a case study in Balochistan province. On the other hand, the socio-economic profile as independent variables were assessed (Trochim, 2000; and Cohen et al., 2007). Quantitative research was used and two districts like Jaffarabad and Sibi were selected

from the Balochistan region randomly. Two hundred eighty (280) respondents were taken as a sample size from this research by using random sampling. On the other hand, 155 respondents from Jaffarabad and 125 respondents from Sibi districts were selected randomly. Primary information was collected at field level and secondary data was obtained from various electronic sources (Research Journal and Articles) (Babbie, 2004). Fitzgibbon and Morris (1987) table for sample size was used. Survey form as a comprehensive questionnaire was used in this research. Likert scaling was used (Likert, 1932). Cronbach's program was ranged between .89 to .76 as a reliability and inner consistency (Nunnally 1967). Quantitative approach was used for data breakdown. In this context, the SPSS software was used. Independent Samples T-Test was used. p-value set on ($p<0.01$).

1.7 Socio-Economic Profile of Livestock Respondents

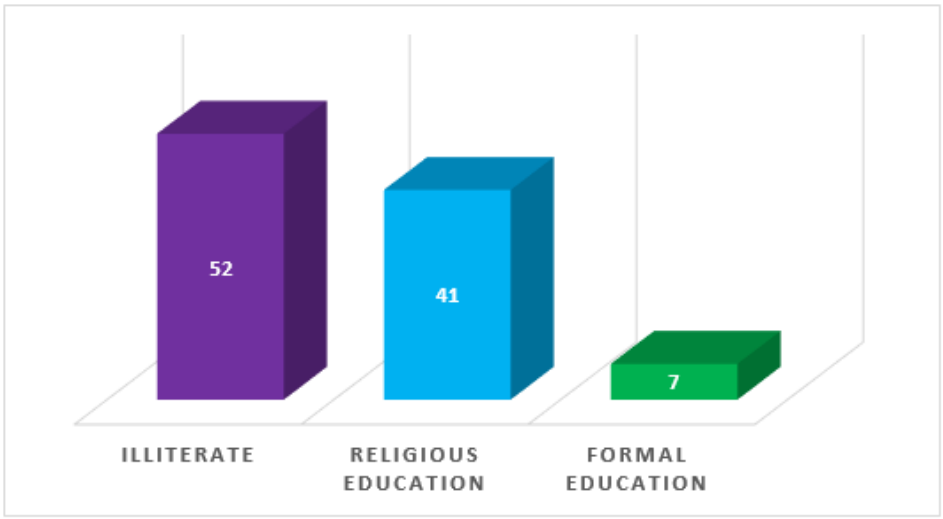
Socio-economic profiles of livestock respondents were the major independent variables in this research. Better socio-economic conditions may enhance the livestock respondent's decision making process. For that purpose, the socio-economic condition was measured. The data was gathered at field level. Socio-economic profile of livestock respondents was given below:

Figure-2, Socio-Economic Profile Regarding Age



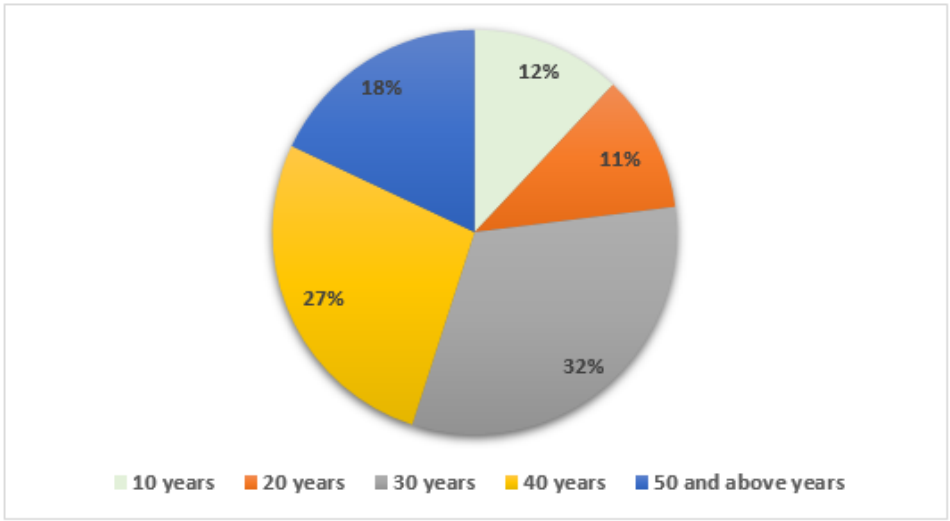
Most (56%) of both districts respondents fell into 41 to 50 years' age categories. While, most (33%) of both districts respondents fell into age categories of 20 to 40 (figure-2).

Figure-3, Socio-Economic Profile Regarding Education



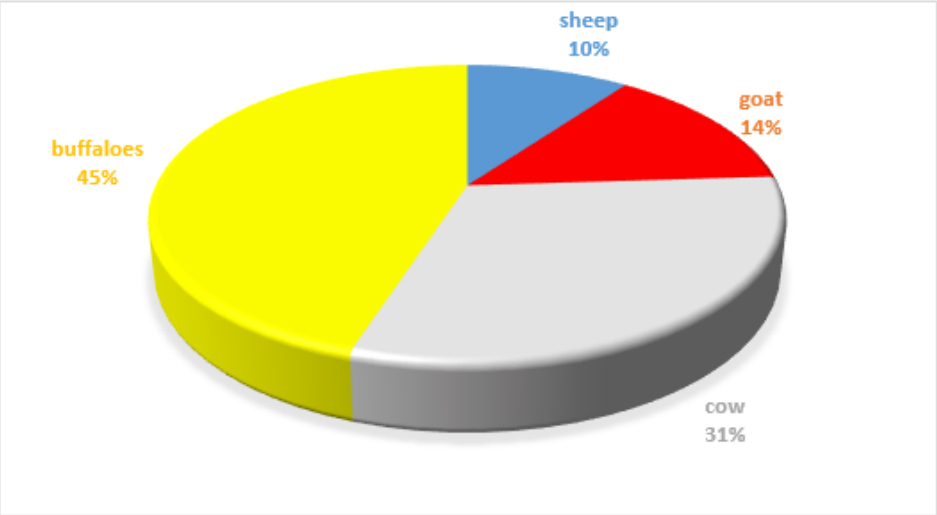
Most (52%) of both districts respondents were uneducated and did not get the education from formal education. Whereas, most (41%) of both districts respondents achieved religious education from religious schools (figure-3).

Figure-4, Socio-Economic Profile Regarding Livestock Experience



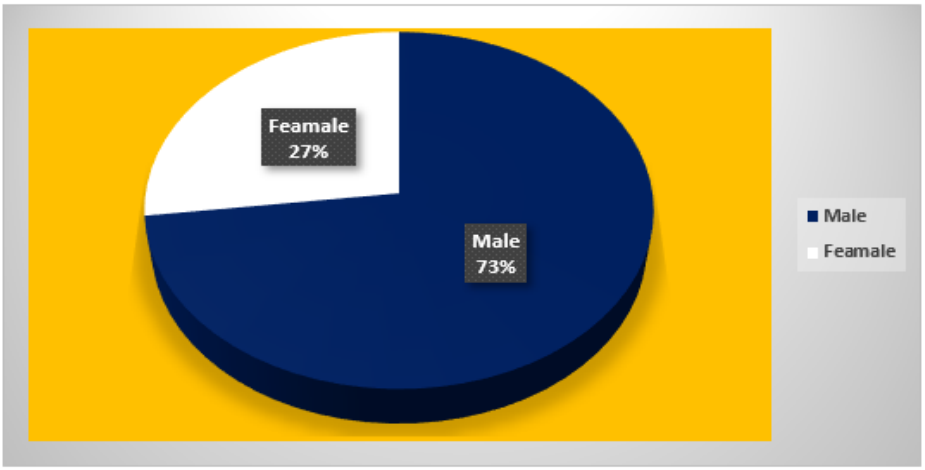
Most (32-27%) of both districts respondents were 30 and 40 years' livestock experiences respectively. Whereas, most (18-12%) of both districts respondents having 50 and above and 10 years' livestock experiences respectively (figure-4).

Figure-5, Socio-Economic Profile Regarding Livestock Owner



The results of figure-5 showed that most (45%) of both districts respondents held the buffaloes as livestock animals. Whereas, most (31-14%) of both districts respondents were having the cow and goal as livestock animals respectively.

Figure-6, Socio-Economic Profile Regarding Gender Differences



Vast majority (73%) of both district respondents were male. While, only (27%) of both districts respondents were by gender female as shown in figure-6.

Table-1: District-Wise Caparison About Livestock Dynamics and Dimensions

Dynamics and dimensions	Items	Sibi		Jaffarabad		t-value	S
		MS	SD	MS	SD		
Management	Coordination and participation of farmers	2.24	.839	2.88	1.284	-4.774	.000**
Technology	Diffusion of modern technologies	1.92	1.130	3.16	1.281	-8.434	.000**
Application	Efficient use of facilities for animal welfare	3.70	.959	3.75	1.275	-.369	.001**
Credit	Loans distribution by agencies	3.96	.614	3.60	.964	3.622	.000**
Accuracy	Precision livestock farming for reproductive improvement	2.57	.969	2.95	1.456	-2.496	.000**
Marketing	Value added meat production and precision nutrition uses	3.04	1.303	2.51	1.186	3.514	.807NS
Policy	Strengthening institutional reforms	3.73	1.063	4.00	.960	-2.179	.108NS

*SD = Standard deviation * Difference is significant at the 0.01 level in mean score*

District-wise caparison about livestock dynamics and dimensions were made in order to measure the perceived perception of respondents as group-wise as shown in table-1. In this regard the raw data was gathered at field level from the livestock farmers. The alpha level was set at .001 level. Livestock dynamics and dimensions as items had been highly significant:

- *Management*: Coordination and participation of farmers (*t-valve* -4.774; p, 1**);
- *Technology*: Diffusion of modern technologies (*t-valve* --8.434; p, 1**);
- *Application*: Efficient use of facilities for animal welfare (*t-valve* -.369; p, 1**);
- *Credit*: Loans distribution by agencies (*t-valve* 3.622; p, 1**); and,
- *Accuracy*: Precision livestock farming for reproductive improvement (*t-valve* -2.496; p, 1**);

On opposite side, items that were observed non-significant about livestock dynamics and dimensions as made by assumption received form the livestock farmers:

- *Marketing*: Value added meat production and precision nutrition uses (*t-valve* 3.514; p, 1^{NA}); and,

- *Policy*: Strengthening institutional reforms (*t-valve* -2.179; p, 1 [NA]);

Hence, Independent Samples T-Test was applied in order to determine the Levene's Test for Equality of Variances based on 0.01 level. Statistically significant were found, 5 out 7 statements regarding livestock dynamics and dimensions.

1.8 Conclusion and Policy Implication Aspect

Balochistan has huge potential for livestock grazing and also a major earning field. Due to that cause the Balochistan rural dwelling has been engaged in the livestock sector for centuries. Livestock sector is a major source of income. Livestock sector in this regard promotion is preliminary for policy makers and government. Contribution of females in the livestock sector is part and parcel women, that further improved the female livelihood options and income provisions. Keeping in view the above mentioned figures following recommendations suggested. Establish the livestock byproduct and processing industry in Balochistan. Developed the animal production system so as to strengthen animal productivity. Training and incentives should be arranged for the livestock farmers about marketing and animal production systems so that they empower the livestock farmers purchasing power and professional skill. In diverse districts of Balochistan modern slaughter houses should be developed. Developed the demand-driven policies so as to strengthen the livestock and animal husbandry markets premises at province level.

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