STUDY THE TRANSPORTATION, MANAGEMENT AND MARKETING OF LIVESTOCK IN BALOCHISTAN PROVINCE: ECONOMIC AND SOCIAL BENEFITS

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Abstract

*So as to measure the observation of the livestock farmers regarding transportation, management and marketing of livestock in Balochistan this research was carried out. Mastung and Nushki districts were selected. Cross-sectional research design study was applied. Fitz-Gibbon and Morris (1987) table used with the purpose of to measure the sample sizes selected for a given population. SPSS was used for data analysis. Pearson Chi-square test was run based on 5-point level. Most (45%) of livestock respondents fell into the age category of 46 to 55. Majority (65%) of livestock respondents were illiterate. Majority (77%) of livestock farmers were married. Vast majority (88%) of livestock respondents belonged to joint families. Vast majority (96%) of livestock respondents were male by nature. Results show that differences were found in perception of livestock respondents as group-wise based on (p ≤0.05) level Statistically significant variances observed in both districts' livestock respondent's opinions respectively. **C**urrent research design need-based suggestions for policy makers. Financial institutions and macro-credit banks should be providing the loan based on subsidy rates for livestock farmers in order to enhance their socio-economic condition in study areas. Incentives schemes should be endorsed for livestock staff on competency bases so as to stimulate their work efficacy.*

Keywords*:* Balochistan, livestock management, transportation, marketing

1.1 Introduction

The term livestock firstly used in the period of 1650 onward 1660. Livestock is a compound word combining like "live" and "stock". The livestock term broadly is used for commercial and other purposes like carrying loads and draught purposes, milk meat-hide, fleece. Flesh-hide, egg, wool and so on. Nevertheless, all domestic animals are regarded as livestock and animal husbandry. These two terms are used interchangeably (CED, 2012; and Merriam-Webster, 2023).

Livestock sector remain and major sources of livelihood option for the rural population mostly raised under the agricultural setting so as to develop and improve the socio-economic condition of the rural masses. Livestock sector is also providing the expanded dairy products for human intake for example milk, egg, meat, beef, butter and so on. Livestock terms mostly mention and are used for domestic animals rearing like goats, cattle, ruminants, sheep buffalo, oxen, llamas, and camels (Encyclopædia Britannica, 2023).

Beside other forms of farm animals the horses are also considered as a livestock category in the USA (AHC, 2019). On the other hand, the United States Department of Agriculture under the functional or working of the United States Federal Executive Department is classifying all livestock red meat such as mutton veal, lamb beef, and pork as considered livestock. However, the fisheries and poultry did not consider this category (USDA, 2023).

Furthermore, the collective form of breeding of animals, maintenance of livestock animal management, slaughter for the animals and overall subjugation of livestock are considered or to be called animal husbandry. This form of livestock prevailed since human civilization's inception and modern form of agriculture. Animal husbandry practices in this context are widely applied across various human cultures. Therefore, animal husbandry is regarded as vital economic activities for various societies.

Globally, the entire system of livestock farming and their productive practices have mainly shifted to intensive or exhaustive animal farming. In this context, intensive animal farming proliferations and enhances the production of diverse commercial outputs. On the other hand, these trends reflect the bad impacts on animal welfare, the surroundings atmosphere as well as effects the public health condition. In specific, the beef, dairy industries plus livestock-related industries have extra-large sources of greenhouse gas emissions mostly in the agriculture sector (Anomaly, 2015; and NASS, 2017).

1.2 Transportation and marketing of livestock

Transportation and marketing of the livestock part and parcel for development of these industries. Since numerous animal husbandry industries are promoted in late decades due to this industry's benefits. In this context, animal marketing is optimistic for rural farming (Bonser, 1972; and Chambers et al., 2001). Truck transport in this regard remains a common method mostly in advanced countries. Further, at local level the regional livestock marking is still imposed in Pakistan (Bonser, 1972; and Chambers et al., 2001).

In Canada the largest livestock marketing system exists. In these prospects, per day two thousand

workers process and slaughter around four thousand five hindered cattle in Alberta Canada. This figure is considered as more than one-third of capacity in Canada. But unfortunately the majority of the livestock workers became infected due to coronavirus during the period of 2019 (CBC, 2020). On the other hand, the entire world mostly in Central Asia, the livestock marketing, bazaar or wet market livestock sector severely affected and beef supply limited due to coronavirus (CBC, 2020).

However, on the other hand, various nations encouraged livestock farmers to improve their livelihoods and easily access markets in mostly non-Western countries. In this regard, International Crops Research Institute helps out the farmers regarding their livestock herds marking so that to improve the livestock farmer's livelihood option at the best level (WebCite, 2014).

1.3 Economic and social benefits of livestock

Global livestock production and their expected values was estimated around eight-hundred-eighty-three billion dollars, during the period of 2013. Further, economic and social benefits of livestock extended within terms of downstream of livestock industry such as milk processors units, refrigerated transport of livestock, food services for the community, marketing intermediaries within systems related with livestock, development of abattoirs and the like. On the other hand, within terms of upstream industry of the livestock such as feed producers in livestock industry, feed transport of livestock, develop the sound farm and ranch supply with companies and the management chain, equipment manufacturers for livestock industry, vaccine manufacturers and their development, better nutrition consultants and their development indispensable for marketing (FAOSTAT, 2016).

Livestock sector provides a diversity of milk products, food items as well as other non-food items leather, obtaining wool for textile industries, development of drugs for pharmaceutical companies, fats, bone products as well as industrial protein development. A precise and slight animal biomass can be unexploited at slaughter and abattoirs. Even though intestinal innards distant at slaughter can be improved and used as a fertilizer. Livestock compost and fertilizer benefits soil and increases the fertility of grazing lands and maintenance. Compost and fertilizer are generally together from barns and cropland. However, animal manure is cast-off for fuel and major sources of methane for heating and generating electricity indirectly.

In some cases, the livestock are used as draft stock, whereby the machine power is restricted. In some regions of the world livestock was used for transport of goods, commodities and people. Livestock sector provided effective energy around the world ranging from twenty-five to sixty-five in irrigated systems within terms of cultivation energy during the period of 1997. Globally, around 300 million draft animals are used in the agriculture sector (De, et al., 1997).

Even though the livestock sector serves as the major sources of livelihood options and income generation for rural populations. However, this sector also provides the additional economic benefits for farmers. Thus the livestock sector, considered as the major contributor for food security at country level and best option for the economic security at regional level. Livestock sector in this regard, covers the peril, jeopardy, hazard, menace and expected risk of the rural communities at a bigger level (Swanepoel et al., 2010).

Livestock sector has various economic and social benefits within terms of food supply, income generation, socio-economic development and the like. Sometimes the livestock sector plays the role of economic buffer. Thus, this sector retains the dynamic resources; for example, this sector can serve as a kind of insurance for some farmers in Western countries (Fafchamps et al., 1998; and Johannesen, and Borge, 2011).

While, in Western countries, farmers can be rearing the livestock as a strategy point of view for diversification aiming at to secure their income generation process and income sources. In order to diminish the risk factors associated with their weather and markets (Bell et al., 2012; and Kandulu et al., 2012).

In this context, various studies have been carried out regarding the social and economic benefit of livestock. Most of the studies pointed out the evidence of the social and economic benefits livestock farmers had. This evidence was also pointed out that the major changes occurred in livestock farmer's lifestyle due to the social and economic benefit. These social and economic benefits also remove the extreme poverty in roaming or nomadic societies in least developing countries (Swanepoel et al., 2010; Bettencourt et al., 2013; Khan et al., 2013; and Ali, & Khan, (2013).

Social and economic values of the livestock farmers increased at considerable rates in developed countries. For instance, ranching preserves the conventional or traditional norm or values as well as linked rural farm families to their inherited lands and inherited cultural legacy in New Mexico and USA. Livestock sector is as important as land. In the USA the livestock sector involves or is linked with ranchers (Gentner, and Tanaka, 2006; Torell et al., 2001; and McSweeney et al., 2012).

1.4 Justification of study

Balochistan region is regarded as the least developed province of Balochistan. Whereas, the human development indexes are very low and ebb. Livestock sector is the major sector which contributes a huge amount of GDP. Being a very last range land, their geographical importance, the livelihood option of the livestock farmers is very limited. Therefore, present research was carried out to study the transportation, management and marketing of livestock in Balochistan province within terms of economic and social benefits.

1.5 Objectives of the research

1. To find out the biographic profiles such as age, educational level, marital status, types of family and gender status of the livestock farmers or respondents in study area.
2. To assess the transportation, management and marketing of livestock sector in study area.
3. To design result-oriented suggestions for the livestock farmers.

1.6 Research methodology mode

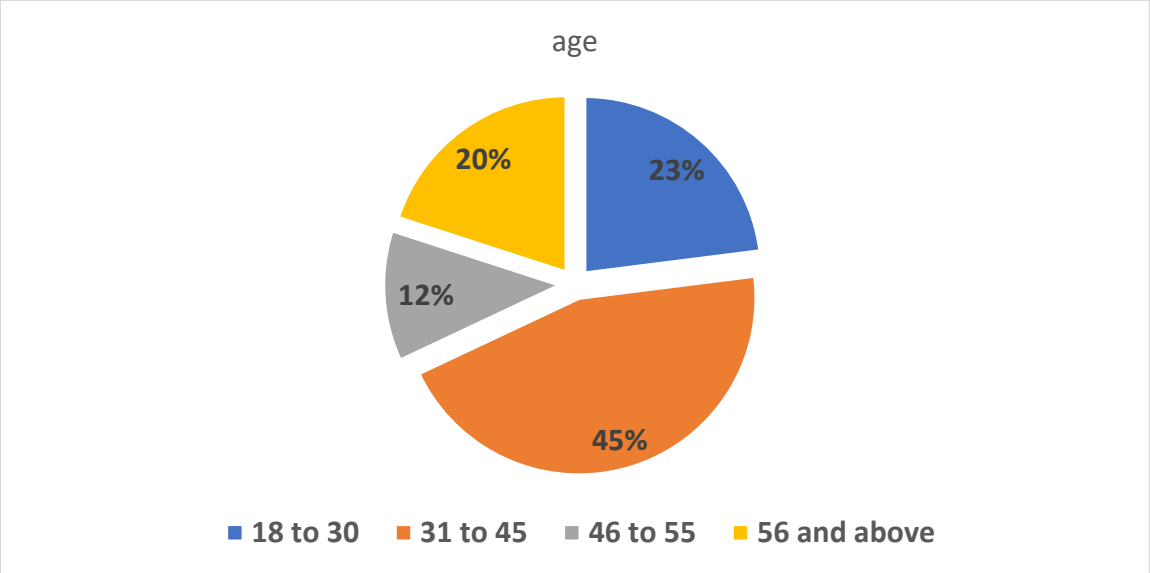
In order to extend and measure the observation of the livestock ranchers concerning the transportation, management and marketing of livestock in Balochistan province within terms of economic and social benefits this research was carried out. 2 districts like Mastung and Nushki districts were selected. In this context, a systematic sampling technique was applied (Sekaran,

1992; and Babbie, 2004). Cross-sectional study was applied owing to the convenient nature of study. Cross-sectional research design was mostly used in social and applied sciences (Gay & Mills, 2006). Detailed questionnaire was designed so as to meet the study objectives. One hundred (100) livestock farmers selected as target population. Fifty-one (51) livestock respondents from Mastung district and forty-nine from Nushki district were selected. The ratio of the livestock farmers given in detail like (Mastung+51 livestock farmers) and (Nushki+49 livestock farmers) respectively. Fitz-Gibbon and Morris (1987) table used with the purpose of to measure the sample sizes selected for a given population. In this prospect, the information was gathered at field level. Henceforth, SPSS was used for data analysis (a statistical software). Pearson Chi-square test was run in order to determine the relationship and association among variables either independent or dependent variables based on p-value or 5-point level (Cohen et al., 2000).

1.7 Study finding

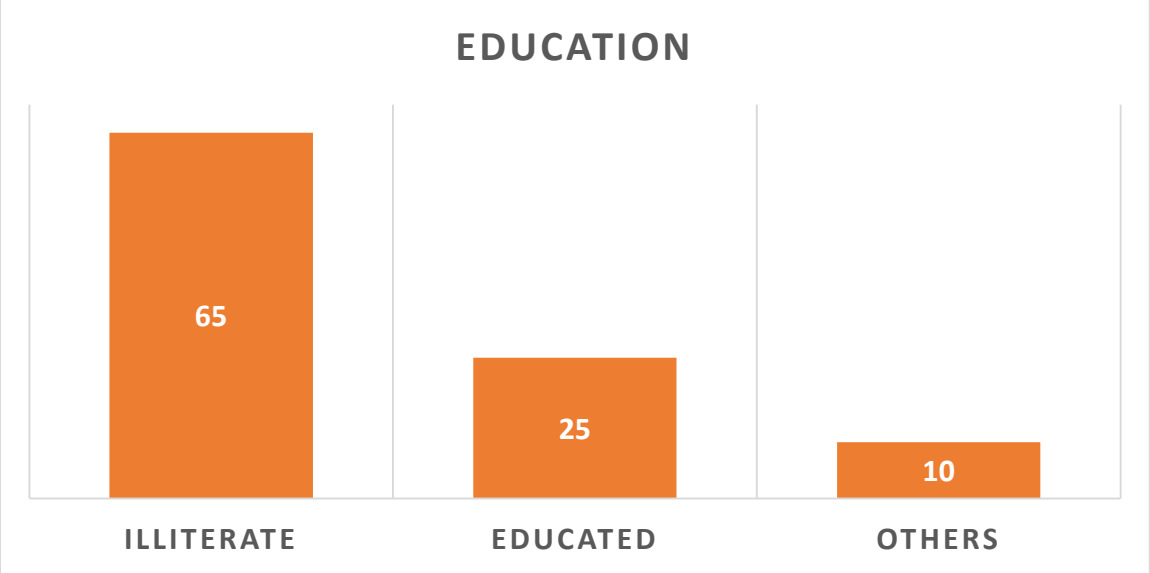
Livelihood variables such as their age, their educational level, their marital status, their types of family and their nature of gender were considered as the prime independent variables. In this regard, the data was gathered at field level.

Figure-1, Age of livestock farmers



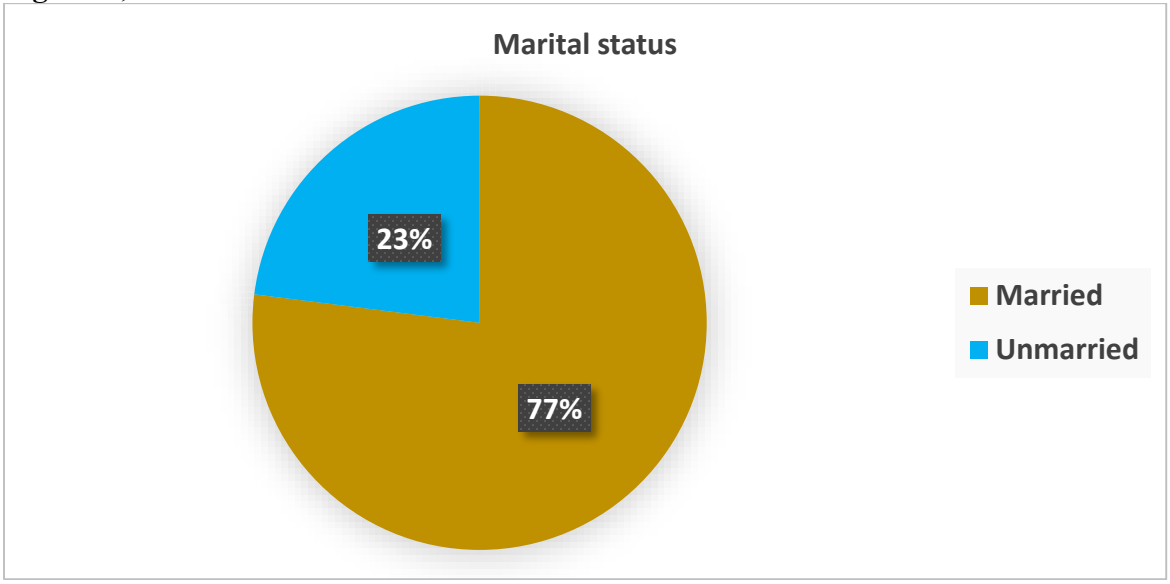
Most (45%) of livestock respondents fell into the age category of 46 to 55. Whereas, (23%) of livestock respondents fell into the age category of 18-30 (figure-1).

Figure-2, Educational level of livestock farmers



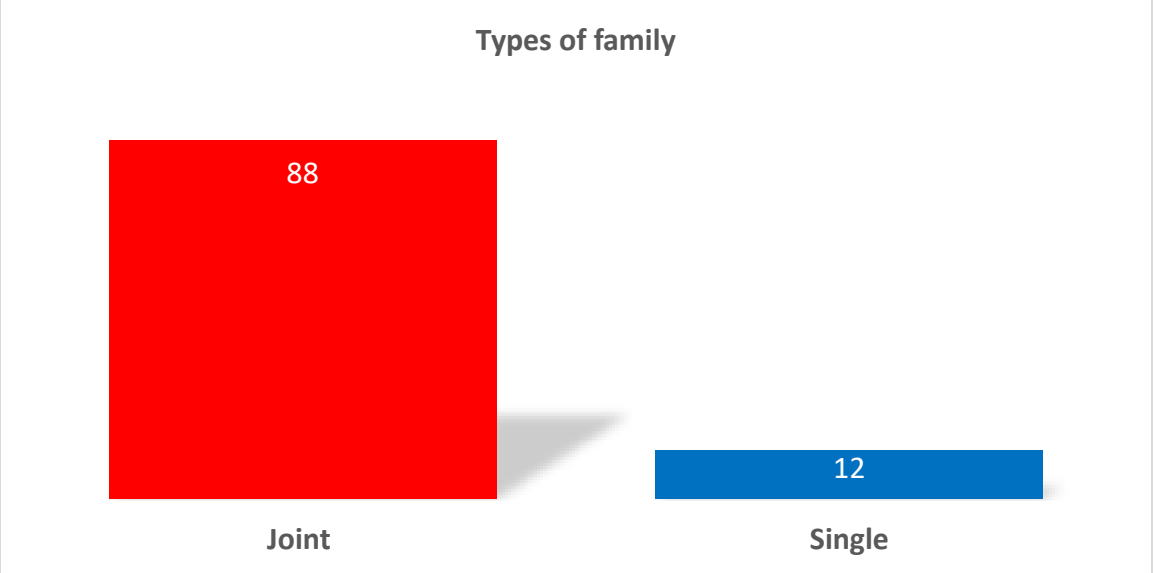
Majority (65%) of livestock respondents were illiterate (figure-2). Whereas, (25%) of livestock respondents did obtain schooling from primary to higher level. Only 10% of livestock respondents acquired other forms of formal and non-formal education respectively.

Figure-3, Marital status of livestock farmers



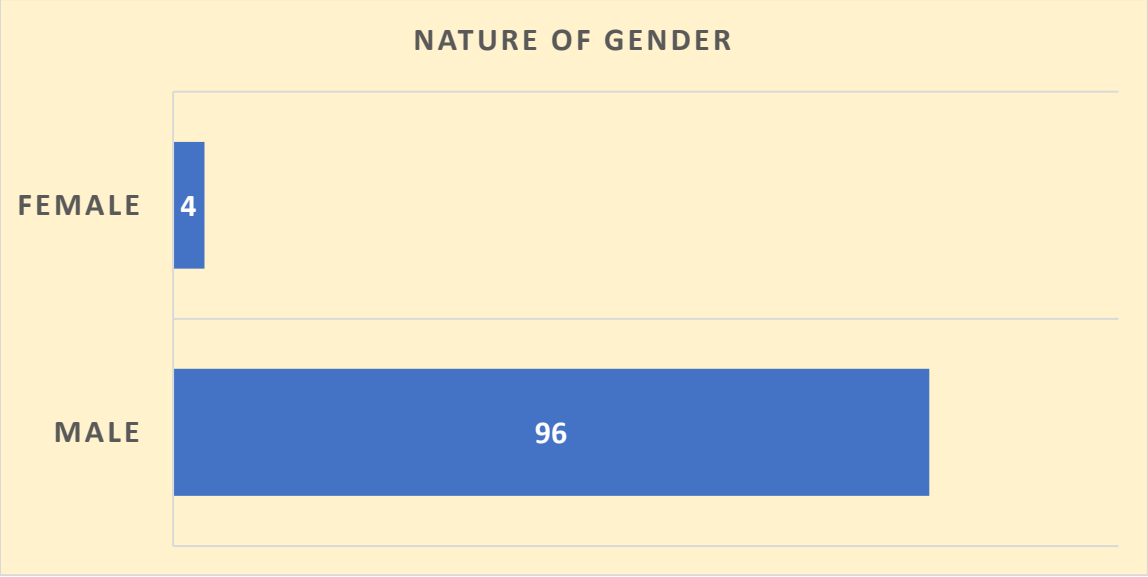
Majority (77%) of livestock farmers were married. Whereas, (23%) of livestock respondents have single status (figure-3).

Figure-4, Types of family of livestock farmers



Vast majority (88%) of livestock respondents belonged to joint families. Whereas, only (12%) of livestock respondents lived alone as shown in figure-4.

Figure-5, Nature of gender of livestock farmers



Vast majority (96%) of livestock respondents were male by nature. While, only (4%) of livestock respondents were female (figure-5).

Table-1, Chi-square assessment about economic and social benefits of livestock farmers

District-wise association and relationship re the economic and social benefits	Valu	(	Asymp: Sig. (2-

Mastung district			
Pearson Chi-Square	12.47		**.014***
Likelihood Ratio	12.79		.012
Linear-by-Linear Association	8.29		.004
Phi	.353		.014
Cramer's V	.353		.014
Nushki district			
Pearson Chi-Square	20.99		**.000****
Likelihood Ratio	23.64		.000
Linear-by-Linear Association	15.83		.000
Phi	.458		.000
Cramer's V	.458		.000
Valid Cases No. = "100" livestock respondents based on five (5%) level significant Symmetric Measures:			

Results of cross-tabulation within terms of Pearson Chi-Square shown in table-1. While, differences were found in perception of livestock respondents as group-wise. The Alpha level was set on ($p \leq 0.05$) level about district-wise association and relationship of economic and social benefits. Statistically significant variances observed in both districts livestock respondent's opinions respectively. Highly statistically significant found in district Nushki: (Chi-Square=20.997[a]), (Likelihood Ratio=23.646) in addition (Linear-by-Linear Association = .15.838). Alternatively, cross-tabulation within Pearson Chi-Square was only significant in Mastung district: (Chi-Square=12.470[a]), (Likelihood Ratio=23.646) and (Linear-by-Linear Association= 15.838) receptively.

1.8 Conclusions and recommendations of the study

In order to determine the perception of the livestock respondents this study was conducted regarding social and economic benefits in the livestock sector. In this context, raw information was gathered at field level. Consequently, current research designs need-based suggestions for policy makers. Financial institutions and macro-credit banks should be providing the loan based on subsidy rates for livestock farmers in order to enhance their socio-economic condition in study areas. Incentives schemes should be endorsed for livestock staff on competency bases so as to stimulate their work efficacy.

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