



PRODUCTION TRENDS IN LIVESTOCK AND ANIMAL HUSBANDRY SECTOR: A CASE STUDY OF BALOCHISTAN PROVINCE

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Abstract

Descriptive type of survey was applied so as to determine the current livestock production trends in Balochistan. Random sampling was used. Nushki and KillaAbdullah districts were selected Three hundred respondents were selected, 150 from each district. T-test was used based on $p < 0.05$ alpha level. Finding revealed that More than half (55%) of livestock respondents placed at the age category of 31 to 45 years. Infinite majority (77%) of livestock respondents did not obtain the education in any formal institutions. Majority 77% of livestock farmers married in social structure. Majority (76%) of livestock respondents by gender male. Based on reached outcomes it was found that statistically differences were observed in two out of five variables regarding livestock production trends. Following recommendations were put forward. Livestock stakeholders and beneficiaries should be provided with selected and



adequate packages, rewards and incentives in order to promote the livestock sector at UC level for their efforts. At department level the both wings like research wing and extension wing should be strengthened and ensure their effective linkage mechanism at UC to province level coordination. Livestock extension services on the other hand should be empowered so as to disseminate the practical dynamics of the livestock sector at field level as well as motivate the livestock farmers regarding the adoption of modern livestock technology. Marketing of poultry and livestock should be encouraged so as to remove the livestock intermediaries' monopoly at market level in rural areas.

Keywords: Animal husbandry, livestock sector, production trends, case study, Balochistan province

1.1 Introduction

In Pakistan the livestock sector encompasses a diversity due to its unique features. Livestock, animal husbandry and poultry industries have a huge potential. However, the livestock products, fodder, feed inputs, balanced diet and roughages in proper time for livestock industries has the issue in Pakistan. Despite these facts and figures the livestock sector still produced the raw material, bi-product, fur, red meat, eggs, beef, milk and dairy product, poultry meat, leather, hair production, wool and mutton for the general population. However, the growth and trends in the livestock sector has increased. In addition, the contributing factors like land areas, labor, money and technical processes were the major aspects in the livestock sector and animal husbandry sector (Nadiri, 1970).

Livestock in Pakistan provides the raw substantial material for industries development not only locally but also on a national level. Agriculture sector is the mainstay of Pakistan's economy, but due to the failure in agriculture sector or crop-failure the livestock sector is providing sound food security for the general population. On the other hand, the livestock sector is also responsible for making sports items for the general population. The livestock sector is the prestige emblem of Pakistan. Livestock is the prime sector and revenue generated sector in Pakistan which contributes thirty-five million populations are involved and tied up in this sector (GoP, 2002).

Higher growth rates are observed in the livestock sector notwithstanding the little influence of technical development in the livestock production sector in Pakistan. Conversely, the federal administration has follow-up the strategy and plan of selective



intensification in the livestock sector so as to increase the income of livestock farmers (Ahmad et al., 1996).

At the country level the livestock sector has an ironic hereditary means. Kundi breed and Nili-Ravi breed of buffaloes are famous and preeminent dairy buffalo-breeds globally (Shah, 1991). The Buffalo breed in Pakistan is famous around the world in this regard. Sindh has possessed (31.8percent) on the other hand, Punjab has possessed (60.9percent) of this buffaloes breed. However, the 10 buffaloes in Pakistan are very famous in four provinces of Pakistan (Naqvi and Jafar, 1989; and Bhutto et al, 1993). Though, these buffalo's strains perhaps constitute merely thirty percent of the entire livestock population. In order to enhance the milk and dairy product the native buffaloes crossed with the exotic breeds (Khan, 1994).

1.2 Livestock population trends

In Pakistan over the years the livestock populations were persistently growing amazingly. However, in this regard the livestock production and growth rate is diverse from species to species. This depends upon the regional environment, feed pattern and other related factors. In this context, as compared to cattle, buffalo growth-rate is higher. Based on above mentioned facts and figures the at a nominal rate the cattle populace is bigger. In Pakistan the dairy-livestock animal has a huge potential. However, the growth rate of these increased 1.75%. Dairy products were fulfilled by livestock in most parts of the country. On the other hand, within small ruminant cases like the sheep growth-rate in Pakistan or country level is much higher as compared to goats. But these conditions are not retained at the country level. But modified as passage of time in Pakistan. The current situation depicts that the goat population is outnumbered as compared to sheep. As compared to sheep the goat meat as mutton are used therefore, the goat sold at an upper amount as compared (Afzal and Naqvi, 2004).

1.3 Need for study

Traditionally, in Pakistan as compared to small ruminants the large livestock rearing is preferred due to dairy products and beef consumption selling into the market. These livestock holders sell their milk-products on commercial bases at regular rates. Balochistan as areas-wise largest region at country level. Livestock is the prime occupation of Balochistan rural people. Due to the remote areas the livestock sector is the utmost profession of rural farmers. The production trends in livestock sector as facing various problems like inappropriate planning by the administrative department, persisting drought spell, smuggling in cross border areas, lack of precipitation and other limiting



factors made this scenario worst as a results the socio-economic conditions of the rural frames not upgraded and faraway in development process in the circle of livestock sector. Hence, this research was carried out based on production trends in livestock and animal husbandry sector as a case study of Balochistan province.

1.4 Specific research objectives

1. To measure the socio-economic determinants in the study area of respondents.
2. To explore the livestock and animal husbandry production trends in the study area.
3. To produce the appropriate recommendations for the livestock sector based on achieved outcomes from this research.

1.5 Methodology

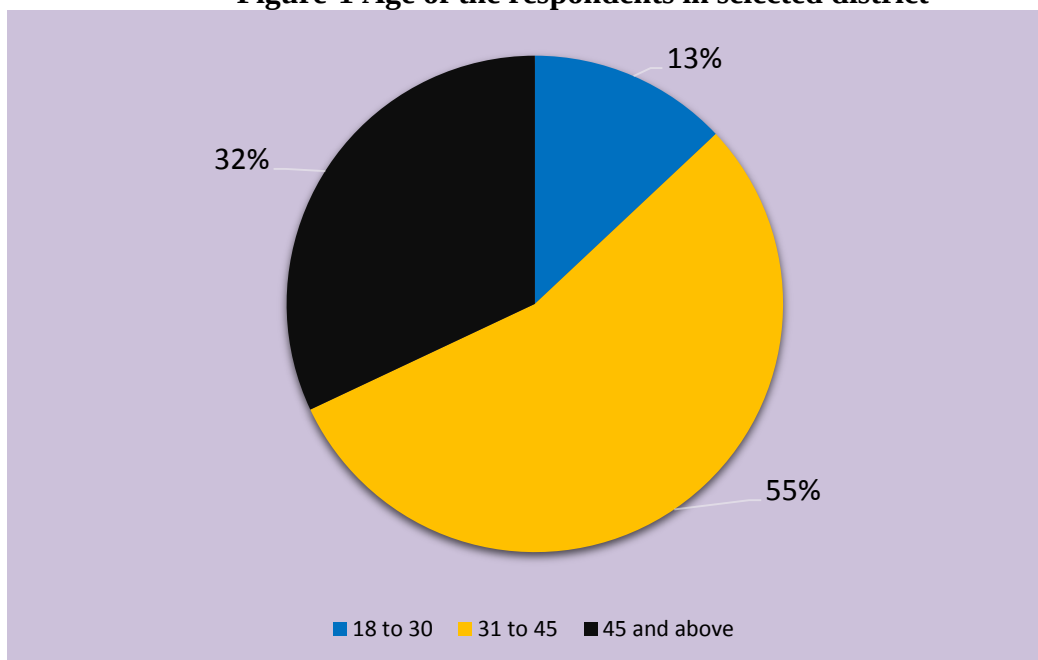
Quantitative method was run by using random sampling (Tashakkori & Teddlie, 1998; Creswell, 1998; Hegarty, 2001; and Yiquan, 2020). Henceforward, a descriptive type of survey was applied so as to determine the current livestock production trends at province level (Trochim, 2000). Nushki and KillaAbdullah districts were selected for this research purposely as to determine the livestock production trends. Sampling frame has been developed for selection of livestock respondents by researcher (Nachmias & Nachmias, 1992 and Cochran, 1963). Three hundred respondents were selected from two districts equally, 150 from each district. A questionnaire as a research instrument generally containing both open or closed-ended enquiries interconnected with livestock production trends at province level were developed. Specific 5-point Likert scaling was applied from lowest scale like one towards higher scale like five (Likert, 1932). Sample size in this context, was measured by applying a table of (Fitzggibbon & Lynn, 1987). Field interviews were used on alternate places of the livestock respondents (Creswell, 1998). Cronbach's Alpha program by using SPSS ranging was .95 to .88 (Nunnally & Bernstein, 1994). T-test was used (Chaturvedi, 1970) based on $p < 0.05$ alpha level by using (SPSS-25 Inc, Chicago, Illinois, USA) (Barzun & Graff 1990; and Best & Kahn, 1986).

1.6 Finding

Demographic features in this research were used so as to determine the relationship of independent and dependent variables. On the other hand, the cascading relationship also was measured between variables (Berelson & Colton, 1978; Bhattacharya, 1972; Burgess, 1960; and Clover & Balsley, 1984).



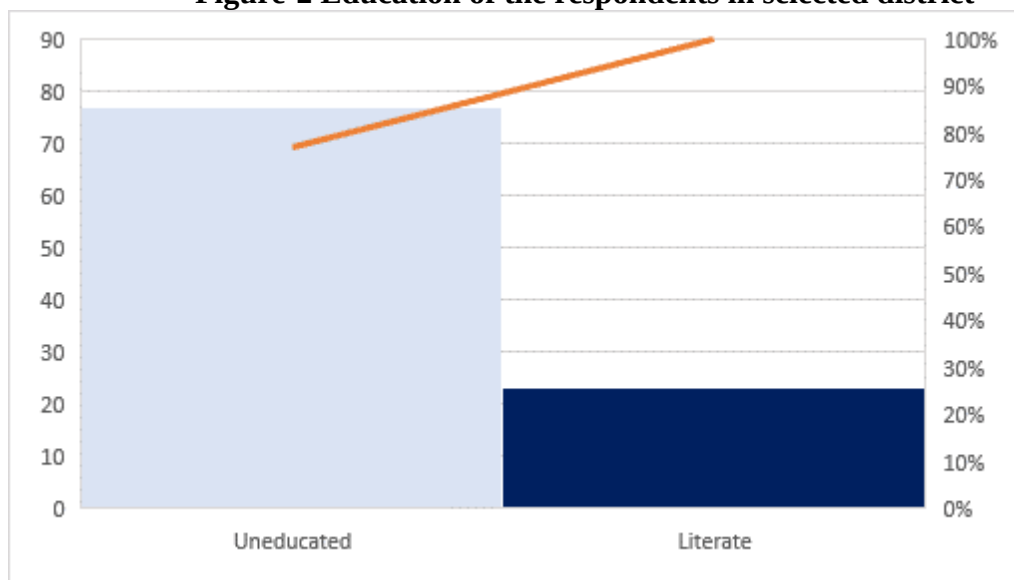
Figure-1 Age of the respondents in selected district



In selected districts the age composition was asked and enquired from the livestock farmers because of the socio-economic condition of the livestock farmers were most significant demographic parameters as presented in figure-1. More than half (55%) of livestock respondents placed at the age category of 31 to 45 years in both selected districts in Balochistan. While, 33 and 13 percent of selected livestock respondents placed in the age categories of 45 and above and 18 to 30 years of age categories respectively.



Figure-2 Education of the respondents in selected district



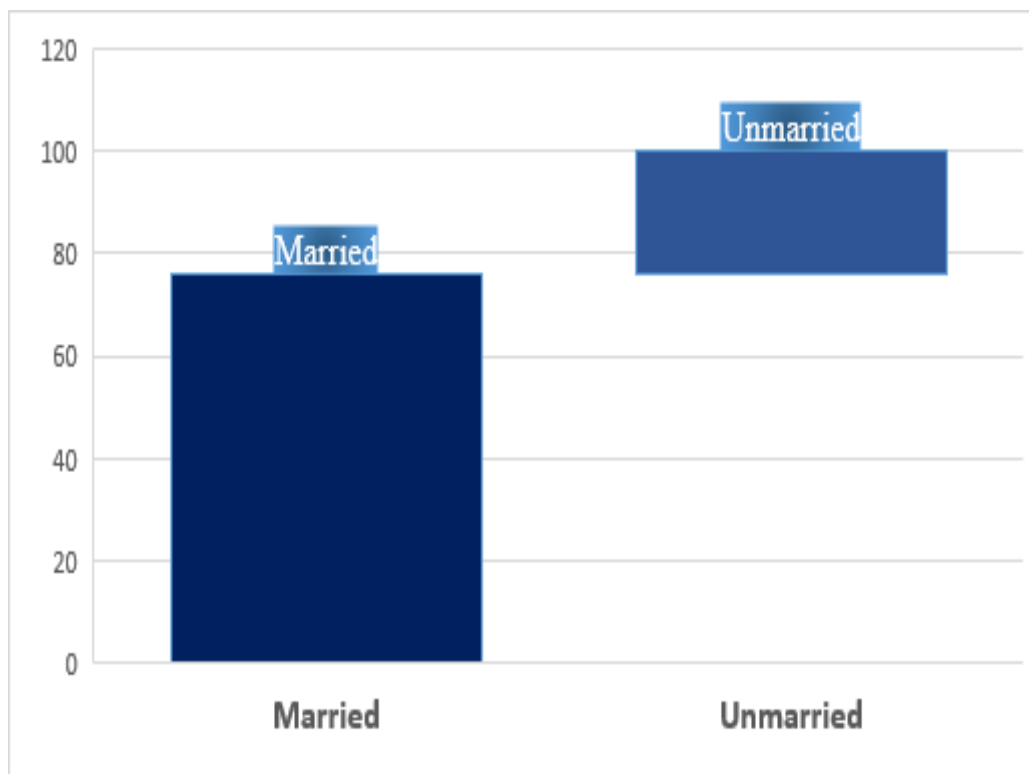
Balochistan province has faced low education indexes either male or female, in this regard there were huge gaps and mammoth differences in terms of male and female education. As a result, the economic condition of the rural people has not improved.

In this research the education level was the prime and significant variables in both selected districts (figure-2). Finding educational level was shown that an infinite majority (77%) of livestock respondents did not obtain the education in any formal institutions. On the other hand, 23% of livestock respondents were learned or literate.

This huge gap may be caused at province level especially for female livestock farmers who have a rigid tribal system, far-flung or remote areas, extreme poverty, unwillingness of parents, social limitations, economic restrictions, lack of awareness for female education, limited social culture and so forth.

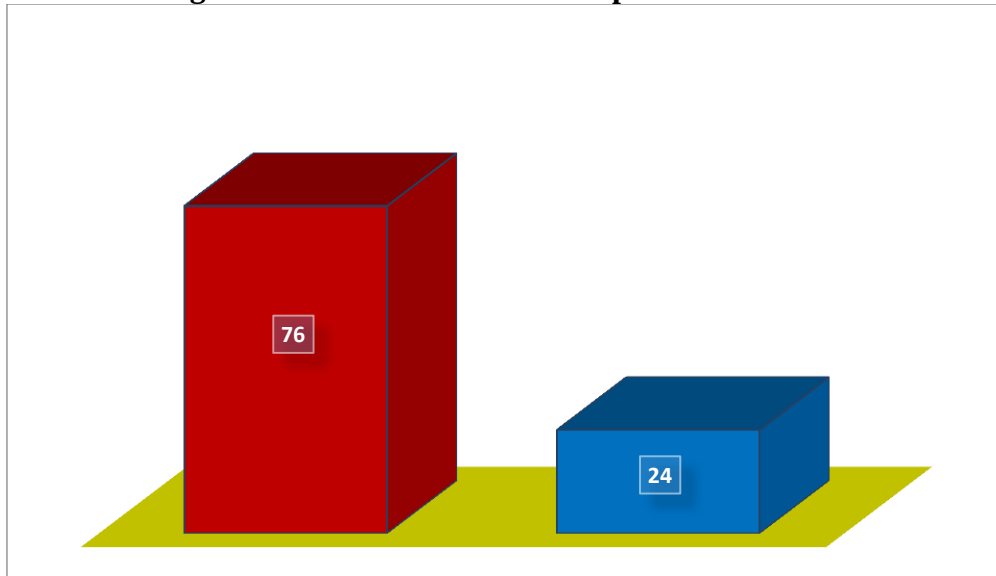


Figure-3 Marital status of the respondents in selected districts



At province level the extreme poverty malevolent depicted to display their menacing appearance. Mostly in rural areas the poverty reaches their acme point as a result the existence and way of life of females in those areas depicted the miserable depiction. In rural areas they faced the lack of controlled parental resources. In Pakistan the joint family system was preferred. Majority 77% of livestock farmers married in social structure, while 33% of livestock farmers married in social structure as shown in figure-3.

Figure-4 Gender status of the respondents in selected districts



Gender difference has a dominant figure in our society as shown in figure-4. Because gender has the energetic and dynamic socio-economic physiognomies Majority (76%) of livestock respondents in selected districts by gender male respondents while most 24% of livestock respondents in selected districts of Balochistan by gender as female respondents.

Table-1, T-test regarding livestock production trends

Livestock production	Nushki		KillaAbdullah		Std. Error Diff	f-value	2-tailed sig*
	M	SD	M	SD			
Extremely increased	2.3467	1.00326	2.2067	.97138	.11402	.361	.548 NS
Moderately increased	3.8267	.68293	3.8067	.80848	.08641	2.313	.129NS
Frequently increased	3.7133	1.28145	4.0400	1.28429	.14813	4.136	.043*
Somewhat increased	3.8467	1.03455	4.1267	.67850	.10102	10.122	.002**
Not at all increased	4.0600	.52110	4.2067	.40627	.05395	2.429	.120 NS

* Significant at 0.05 Level

SD = Standard deviation

M=Mean Score



With the intention of evaluating to judge the livestock production trends this study was carried out. Because of the livestock production trends was the imperative general information and dependent variable as shown in table-1. Mean scores and Standard Deviation were also determined. Integrated information and raw data based on livestock production trends depicted that: Livestock production trends somewhat increased were reported as highly significant ($M = 3.8467$ "Nushki", $M = 4.1267$ "KillaAbdullah" $p \leq 0.05$). While livestock production trends frequently increased, it was reported as only significant ($M = 3.7133$ "Nushki", $M = 4.1267$ "KillaAbdullah" $p \leq 0.05$). Whereas, livestock production trends extremely increased was reported as non-significant ($M = 2.3467$ "Nushki", $M = 2.2067$ "KillaAbdullah" $p \leq 0.05$), livestock production trends moderately increased was reported as non-significant ($M = 3.8267$ "Nushki", $M = 3.8067$ "KillaAbdullah" $p \leq 0.05$) and livestock production trends not at all increased was reported as non-significant ($M = 4.0600$ "Nushki", $M = 4.2067$ "KillaAbdullah" $p \leq 0.05$) respectively. Levene's Test for Equality of Variances were measured by using the test. Based on reached outcomes it was found that statistically differences were observed in two out of five variables.

1.7 Conclusion and solid recommendations for policy implications

The cross-cutting component of this study was to measure the socio-economic determinants based on livestock production trends in the study area so that to develop firm recommendations for livestock holders in selected districts of Balochistan. According to this study results the livestock production and growth rate declining to deteriorating as a result the livestock holder's livelihood option decreeing. Livestock sector in this context remains limited. Therefore, following recommendations were put forward. Necessary physical infrastructure should be developed in all districts of Balochistan so that to improve the livestock sector's condition more productivity. Livestock stakeholders and beneficiaries should be provided with selected and adequate packages, rewards and incentives in order to promote the livestock sector at UC level for their efforts. At department level the both wings like research wing and extension wing should be strengthened and ensure their effective linkage mechanism at UC to province level coordination. Livestock extension services on the other hand should be empowered so as to disseminate the practical dynamics of the livestock sector at field level as well as motivate the livestock farmers regarding the adoption of modern livestock technology. Marketing of poultry and livestock should be encouraged so as to remove the livestock intermediaries' monopoly at market level in rural areas.



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