AN ANALYSIS THE MEAT PRODUCTION AND CONSUMPTION PATTERN: A CASE STUDY OF BALOCHISTAN SELECTED DISTRICTS

Dr. Abdul Haq Zehri
Senior Veterinary Officer
Livestock and Dairy Development Department
Khuzdar - Pakistan
abdulhaq8690@gmail.com

Dr. Noor Ahmed
Senior Veterinary Officer
Livestock and Dairy Development Department
Khuzdar - Pakistan
drnoorahmed07@gmail.com

Dr. Shahid Nadeem
Senior Veterinary Officer
Livestock and Dairy Development Department
Kharan - Pakistan
poultryfarmkharan1@gmail.com

Abstract

In order to explore the production and consumption pattern of red meat three districts namely, Killa Saifullah, Pishin and Jaffarabad of Balochistan were selected randomly. 300 hundred respondents were selected. Well-structured questionnaire was used. Cronbach's Alpha program was 0.84. to 0. 81. Chi-Square test was applied and the p-value was considered significant at $p < 0.01$. Results revealed more than (53%) of the respondents fell into the age group of 36 to 45. While most (44%) of the respondents were acquainted with religious schooling. More than half (55%) of the respondents belonged from married categories. Chi-Square technique about the production and consumption pattern of red meat based on ($p \leq 0.01$) was used. Highly statistically variations were observed regarding the production and consumption pattern as district-wise. Based on the results following recommendation has been developed. Government should be encouraging the new emerging technologies in the livestock sector and livestock farmers should adopt different methods and

approaches for animal breeding so as to increase the livestock production. Government should promote the integrated livestock approaches and system within terms of real practices shape and mode.

Keywords: analysis, consumption, production, red meat, Balochistan

1.1 Introduction

Meat is an imperative dietary item for human beings. In this regard the meat production is utterly linked with the livestock sector and their exclusive meat production. Livestock sector is responsible for heightened the livestock farmers socio-economic condition and major aspects for food security. Therefore, to retain the food security dynamics the meat production is the important factor in this context. Beside that world-wide the natural resources slowly and gradually are diminishing therefore the livestock sector importance is increasing. Hence, the livestock sector is essential to combating these challenges (GOP, 2009).

Pakistan has huge potential within terms of livestock production but unfortunate livestock potential was not exploited, therefore more than half of the demographic population lived below the extreme poverty line. Effective utilization of livestock potential may reduce poverty in Pakistan. Livestock sector is an effective section for poverty reduction, and relatively easier for the underprivileged population of the country for their or fulfill their subsistence food items (GOP, 2010).

By the way, the federal government is making an effort to improve the livestock sector by using the joint venture program so as to create awareness about the improved practices in livestock husbandry. In this regard, the paradigm shifts from market-oriented livestock towards commercial led farming so as to increase the domestic demand (Aslam, 2004; Dawn, 2010).

The government of Pakistan has developed the six policy mainstays in order to increase the livestock sector. The policies mainstays or strategies feature are mention as: (1) promotion of livestock sector by using the joint venture programs and partnership, (2) to increase the country financial growth, (3) to takes an effective initiative for extreme poverty reduction packages, (4) to improve the livestock sector for recovered and better food security for common population, (5) livestock sector enhancement as energizer or stimulator for better service delivery and (6) to developed the livelihood options of the livestock farmers by using the advanced technology (GOP, 2010).

Livestock sector is the major component of Pakistan's economy. At the country level a huge potential exists regarding the livestock sector. Livestock sector in this regard is the solitary source of red meat production at country level. However, the livestock sector contained the camel (1.0 million), goat (63.1 million), sheep (28.4 million), buffalo (32.7 million) and cattle (36.9 million) population respectively during the period of 2011-12. On the other hand, the red meat consumption pattern consisted of beef (1.769, million tons), mutton (0.629 million tons) and poultry (0.834 million tons) respectively (FAO, 2010; and GOP, 2012).

1.2 Consumption Pattern of Meat in Balochistan

Diversity exists about consumption patterns of red meat in Balochistan. Therefore, livestock farmer's socio-economic conditions or livelihood trends may have directly or indirectly related to the livestock sector. Henceforward, the livestock sector is increasing the economic conditions of rural poor which reflected the positive impact. It was worthwhile to mention that the feeding attitudes concluded that meat is the major daily dietary item (Strydom and Museler, 2000; and Gallup Pakistan, 2009).

1.3 Study Significant

Present effort was not only fruitful for the livestock farmers but also very imperative for the other stakeholders regarding meat consumption pattern at local and national level.

1.4 Problem Statement

Balochistan is a deprived province of Pakistan whereas the lack of basic amenities, extreme poverty, poorer educational system and lack of basic healthcare facilities made this condition worse. Balochistan province consists of the vast rangeland and extensive pasture ground that is suitable for nurturing the livestock. But due to the less rainfall during the winter season is the major problem as a result the feeding ground of rangeland for animals and feeding concentration for animals are limited behind livestock rearing. Generally, the revenue generation process of the livestock farmers did not seem to be improved. On the other hand, a prime reason behind poor meat production at province level, the per-animal is the underweight due to the shortage of feed, forage and fodder and limited nutritional value (GOB, 2009). Therefore, this effort was carried out to determine consumption and production patterns of red meat in a selected district of Balochistan province.

1.5 Objectives of Study

Specific objectives of the research:

1. To evaluate the socio-economic aspects of the respondents.
2. To measure the production and consumption pattern of red meat in a selected district of Balochistan province.
3. To design result-based recommendations for policy implication.
to determine

1.6 Review of Literature

Pakistan's status is ninth position within terms of meat production. USA, China, USSR, India, Brazil, Mexico and Argentina are the major meat production countries (FAO, 2008; Dawn, 2010; GoP, 2012). Pakistan is the leading nations that produce the meat industry as faster rate in Muslim world. During the period of 1990-1995 meat production increased as slowly in Pakistan. Though, in the period of 2006 the animal census had been carried out, but during the period of 1990-2010 cattle and buffalo population were increased as softly (Dawn, 2010). On the other hand, as reported by the ESP results it shows that cattle populations increased during the period of 2010-11. Whereas buffalo production during the period of 2010-11 was also increased and measured to estimate at 31.7 million. During the period of 2010-11 it was estimated that the sheep population also increased at an amazing rate and also estimated at 28.1. On the other hand, goat's production also increased in the same period to 61.5 million. The camel population was estimated as 1.0 million during the period of 2010-11 (GoP, 2012).

In the last few decades the meat production at the country level was amazingly increased during the period of 2009-2010. In this regard the meat production was reported as 2965 thousand tons. In the period of 2010-11, the meat production at country level increased at the rate of 3095 to 3232 thousand tons. Furthermore, during the period of 2009-12 the beef production increased from 1711-1769 thousand tons respectively. However, the poultry production remains 767-834 thousand tons respectively (GoP, 2012). In Balochistan the livestock production based on livestock census during the period of 2006, that cattle production had been recorded as 2.254 million, buffalo total population was recorded as 0.320 million, sheep was recoded as 12.804 million, goat was recoded as 11.785 million as well as camel was recorded as 0.380 million respectively. However, the entire livestock population has been recorded as 33.991 million (GoP, 2012). During the drought the animal population was severely affected and the animal population had a smooth upward trend during the period of 2004-08 (GoB, 2010; and GoP, 2012). The trends of red meat consumption patterns and their production at province level were enhanced during the period of 2009-2010. Production of red meat and their products were

increased in developing countries (Christopher, et al. 1999; and Nierenberg, 2002). In Africa Namibia is the only country which has the major business activity either nation or international regarding red meat business. Therefore, the stern policy may be required so as to enhance the red meat business, their supreme significance and safety concerns (Strydom and Museler, 2000). However, Kalu (2001) reported and measured mutton production world-wide. Zawadzka (2001) in this regard also pointed out the red meat production and their status. Further, Marsh (2003) found out the sixty-six % red meat consumption decline in the period of 1999 in the USA. White et al. (2003) in this regard pointed out the marketing system of meat at regional-wise regarding price aspects during the last three decades (Bouwman et al., 2004). Moreover, Sabir (2004) further depicted the meat marketing pattern in Pakistan. But in India the livestock sector is promoted, especially the scope of goat farming is enhancing (Tripathi et al. 2004). However, Akbay (2006) assesses the impact of consumption patterns of red meat in Turkey context. Lara et al. (2006) explore the perceived perception and consumption patterns of meat for food security in Lebanon.

1.7 Research Methodology and Design

Three districts namely, Killa Saifullah, Pishin and Jaffarabad were selected for the purpose of study. Random sampling technique was used. In order to capture the respondent's perception a cross-sectional design was applied (Trochim, 2000). In this regard, 300 hundred respondents were selected (Nachmias & Nachmias, 1992). Because the larger sample sizes are more specific within terms of study generalizability or study outcome. Well-structured questionnaires were used to capture the respondent's opinion at field level (Babbie & Mouton, 2004; and Sekaran, 1992). In this regard the pilot study was carried out from 15 respondents in the study area. However, Cronbach's Alpha program by using SPSS remained as 0.84. to 0.81 that was excellent (Pallant, 2007; and Nunnally, 1978). Sample section from given population, the table of Krejcie and Morgan (1970) was applied so as to determine the sample size criteria. Thus, the Statistical Package for the Social Sciences was used for data analysis. Evidence was symbolized and exemplified mean score $\pm$ standard error and F-ratios. Chi-Square test was applied as group-wise (Mohsin *et al.*, 2011). However, the p-value was considered significant at $p < 0.01$ (Babbie & Mouton, 2004).

1.8 Results and Finding

1.8.1 Socio-Economic Condition of the Respondents

Socio-economic attributions are the major components in this research. Because the Socio-economic attributions are the independent variables that create the cause and effect relationship among variables. Therefore, the age, educational level and marital status were the major socio-economic attributions in this research. (Tarar, 1983; Abuzar, 2003; Allahyari *et al.*, 2008; and Fadare *et al.*, 2014).

Figure-1 Sample Distribution about Age

More than (53%) of the respondents fell into the age group of 36 to 45. While, 21% of the respondents fell into the age group of 45-55 as shown in figure-1.

Figure-2 Sample Distribution about Educational Status

Most (33%) of the respondents did not acquire schooling and were considered as illiterate as shown in figure-2. While most (44%) of the respondents were acquainted with religious schooling. Whereas, 12% of the respondents acquired schooling at primary to high level.

Figure-3 Sample Distribution about Marital Status

More than half (55%) of the respondents belonged from married categories. While, 235%) of the respondents preferred to live alone. However, (12%) of the respondents were widowed and 10% of the respondents belonged from divorced categories respectively (figure-3).

Table-1 Chi-Square Results about Production and Consumption Pattern as District-wise

Production and consumption pattern in livestock sector	Value	df	Asymp. Sig. (2-sided)
KillaSaifullah district respondents			
Pearson Chi-Square	45.255b	16	.000**
Likelihood Ratio	48.604	16	.000
Linear-by-Linear Association	3.125	1	.077
Phi	1.259	-	.000
Cramer's V	.630	-	.000
Pishin district respondents			
Pearson Chi-Square	24.605c	16	.077 ^{NS}
Likelihood Ratio	29.623	16	.020
Linear-by-Linear Association	.003	1	.959
Phi	1.245	-	.000
Cramer's V	.719	-	.000
Jaffarabad district respondents			
Pearson Chi-Square	44.975d	8	.000**
Likelihood Ratio	56.090	8	.000
Linear-by-Linear Association	1.262	1	.261
Phi	1.041	-	.000
Cramer's V	.601	-	.000
No. of Valid Cases = 300			
*Significant at 1% probability level

Information in this regard is tabulated so as to liken the relationship as shown in table 1 by applying Chi-Square technique about the production and consumption pattern of red meat based on ($p \leq 0.01$). Highly statistically variations were observed regarding the production and consumption pattern as district-wise. On the other hand, Pearson Chi-Square value was calculated based on alpha level, however, significant value was estimated or measured based on Phi or Cramer's based on 01 probability level. Pearson Chi-Square values previewed score has been highly significant for instance 45.255b, and 44.975d in KillaSaifullah district respondents and Jaffarabad district respondents respectively about the production and consumption pattern as district-wise. Nevertheless, in this regard, calculated values estimated as a dependent variable based on 000, and .000, highly statistically significant on 1% of probability level. Alternatively, Chi-Square values have been reported as 24.605c. Accordingly (non-significant) based on 0.01 level in Pishin district respondents.

1.9 Conclusions

Balochistan is the poor province of Pakistan. Balochistan province is facing chronic problems like lack of infrastructure, poor communication, poor health and educational facilities. In order to determine the consumption and production pattern of meat this research was carried out in a selected district of Balochistan province. Based on the results following recommendation has been developed. Government should be encouraging the new emerging technologies in the livestock sector and livestock farmers should adopt different methods and approaches for animal breeding so as to increase the livestock production. Government should promote the integrated livestock approaches and system within terms of real practices shape and mode.

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