



## **ROLE OF DAIRY FARMING IN SOCIO-ECONOMIC ACCELERATION ASPECTS IN BALOCHISTAN: LIVESTOCK INDUSTRY SCENARIOS**

*Dr Hazrat Bilal Shah*  
*Senior Veterinary Officer*  
*Livestock and Dairy Development Department*  
*Kohlu - Pakistan*  
[hazratbilalshah568@gmail.com](mailto:hazratbilalshah568@gmail.com)

*Dr Shahida Habib Aliizai*  
*Assistant Professor*  
*Gender Development Studies Department*  
*University of Balochistan*  
*Quetta - Pakistan*  
[shahidadostain@gmail.com](mailto:shahidadostain@gmail.com)

*Dr Hussain Ahmed*  
*Senior Veterinary Officer*  
*Livestock and Dairy Development Department*  
*Panjgoor - Pakistan*  
[drhussainahmed71@gmail.com](mailto:drhussainahmed71@gmail.com)

### **Abstract**

*In order to determine the role of dairy farming within terms of socio-economic acceleration aspects in the livestock industry this research was carried out. Descriptive research design was used. Two (2) districts (Quetta and Nasirabad) were selected randomly by quantitative research. Three hundred (300) dairy farmers selected randomly and 150 from each district. Statistical Package for Social Science used data analyzed. Chi-square test was run. Alpha level or p-value settled on 5-level. Findings reveal that most (59%) of dairy farmers are between the 30 to 40 age category. Simple majority (65%) of dairy farmer's illiterate. Vast majority (87%) of dairy farmer's male. Non-variations dynamics observed in Quetta and Nasirabad districts dairy farmer's perceptions by using the Pearson Chi-Square based on ( $p \leq 0.05$ ) level. Access to paramount nutritious feed for livestock animals, drinking water and protected animal shelter should be promoted or*



*developed. In this regard, to increase the milk quality and improve livestock animal health so as to aggregate the profitability or livelihoods of dairy farmers. Female participation should be encouraged in the livestock sector so as to improve the female livelihood option, income generation process as well as reduce the cultural differences or rift of local women. To develop the notable capacity building program for dairy farmers so that to grow the food security dynamics as well as improving the socio or livelihoods option of the dairy farmers.*

**Keywords:** *Livestock industries, dairy farming, socio-economic acceleration, Balochistan districts*

## **1. Dairy farming outline**

A dairy farming is the useful business and imperative segment for sustainable. As a pronominal, the term dairy generally refers to milk-based foodstuffs and byproducts. Rural development. Dairy farming in this regard, contributes major enterprise for both rural and urban people. However, the dairy farming profitable business that mostly is obtained from the livestock industries and livestock animals like buffaloes, cows, sheep, dairy goats and the like for human consumption. Milk harvesting and obtaining mostly from the dairy farming. In this regard, the dairy farming produces the variety of dairy products like yogurt, whey, cheese, lard, butter, margarine, ghee and the like for global dairy or food industry (FAO, 2009).

For thousands of years the milk generating animals were domesticated in a systematic way. Primarily, in this regard this entire condition or state had been a portion of subsistence husbandry. The livestock animals were used for multiple purposes like best sources for meat, beef, obtaining milk, wool obtaining, fur gaining, serving as draught animals for pulling a plow for agriculture purposes, obtaining the animal skin for the leather industries and so forth. Due to the rapid urbanization, and speedy industrialized development, the demand of milk supplies increased for commercial industry.

Pakistan is the major milk producer either in qualitative or quantitative volume. The dairy products in Pakistan have arisen twenty-six (US\$ billion) mostly in rustic areas of the country. In both rural and urban areas, the supply of milk demand is increasing and local consumption is swelling (Ameen, 2012).

In a metropolitan city of Pakistan like Karachi, the daily requirement of milk was around 4 million liters. The demand and supply gap is still exciting and increasing in the period of 2015 around (3.6 billion liters) (Ishtiaq, 2010).



The most hazardous factors are exciting about milk production. However, in this regard, the important motive for the current cavity or crack is that milk production is still not swelling at three percent per annum (GoP, 2010-11).

In Pakistan the milk production is still increasing. In this context, the milk production boasts up despite the facts that the deficiency of genetic resources, deficiency of optimum feeding level of animal, very or extraordinary livestock animal disease incidence, poorer marketing mechanism for livestock and dairy industries, lack of research facilities, deficiency and absence of veterinarians, very poorer and weak physical infrastructure capacity mostly in rural area of the country and very poorer livestock practices (Ahmed et al, 2012).

### **1.2 Structure of the dairy industry**

Factually, most of the states on nations yield or harvest their own milk goods or milk food items, however, in this regard, the dairy industry arrangement is differing from country to country. Around the world the major milk-producing republics are producing the superfluous milk and then again sell out in the international market through wholesale. Pakistan is the foremost milk producing country within raw shape (Sarwar et al., 2002).

The milk is sold out through cooperatives farming platforms at some large-scale processors in Australia and Ireland while on the other hand, individual contracts method used in the USA whereby the majority of the farmers run their business individually and sell 86% (USDA, 2010; and FAO, 2009).

On the other hand, mostly in developing countries, the livestock farmers sold their milk products from their neighborhoods. Further, the role of dairy farming is the imperative in both developed and developing countries through dairy cooperatives farming. Therefore, milk products are the major socio-economic acceleration of rural people (FAO, 2009).

Dairy products were the major food staff for humans. Various governments have taken an effort to fulfill the human food need. In this regard they are promoting their dairy products that are safe and sound (John, 2009; Lisa, 2016; and Field and Taylor, 2008).

### **1.3 Justification and problems statement of the research**

Baluchistan province is covering the 44% of land masses of the country. Majority of the rural people directly or indirectly revolved around livestock sector. In this regard the livestock sector is the major contributors of the livelihood and occupation. Dairy products are the major food items for human consumption. Due to the rapid urbanization the food demand of the general people is increased at a considerable extent. But unfortunately, due to well established livestock sector the milk product did not fulfill. The impurities in dairy products is another problem. Therefore, current research was developed in order to determine the livestock sector role within terms of dairy products in selected districts of Balochistan.



### **1.4 Study objectives**

1. To measure the demographic profile such as age composition, educational position, gender status of dairy farmers in study areas.
2. To assess the dairy farming role in the livestock sector regarding socio-economic acceleration aspects in Balochistan.
3. To firm appropriate recommendations for dairy farmers.

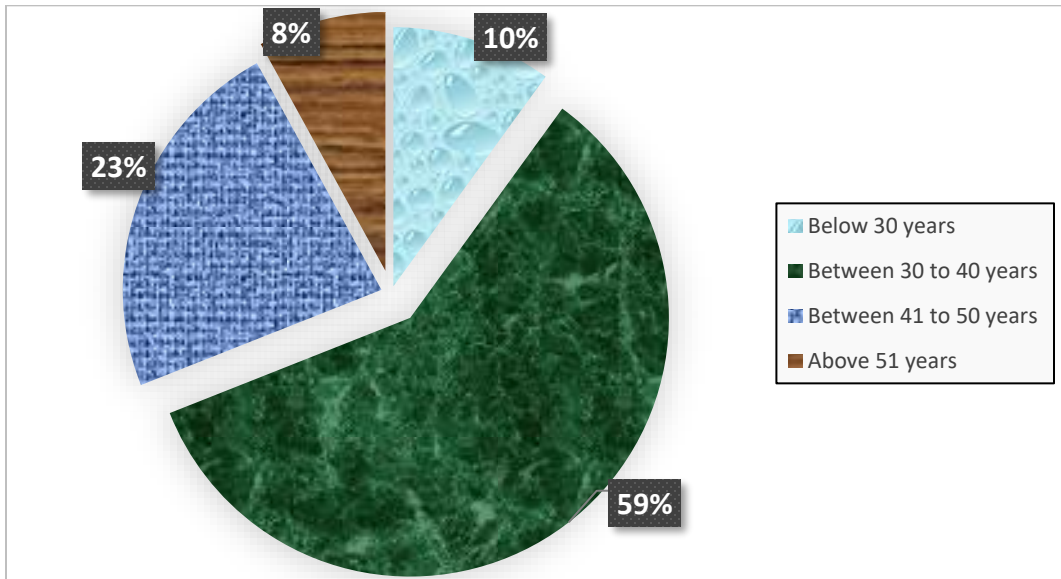
### **1.5 Methodology of the study**

Descriptive research design has been carried out (American Psychological Association, 1993). Because in this research method the perceived perception of the respondent is directly observed about social facts and current condition of the phenomena (Trochim, 2000). Two (2) districts (Quetta and Nasirabad) of Baluchistan province was selected randomly by using the quantitative research. Further, three hundred (300) dairy farmers selected randomly and 150 from each district (Kothari, 1984). The raw data was gathered at field level in this regard the dairy farmers interviewed individually about the role of dairy products in the selected district of Balochistan (Best and James, 1998). Semi-structured interview schedule developed thoroughly connected from study objectives (Nunnally & Bernstein, 1994). Statistical table about sample size from given population was used as developed by (Krejcie and Morgan, 1970). In order to determine the validity and reliability of interview schedule Cronbach's Alpha program was carried out (Nunnally, 1967; and Nunnally 1978). Both independent variables (age, education, gender) and dependent variables (general information) were analyzed (Ary et al., 1996). Obtained information was captured at field level and then analyzed by using Statistical Package for Social Science (George & Mallery, 2003). Pie-chart, graphics and bar-chart were used (Best, 1981). On the other hand, the non-parametric test (Chi-square) test was run (Chi-square test, 2014; and Cohen et al., 2000). Alpha level or p-value settled on 5-level (Leedy, 1989; and Campbell, 1969).

### **1.6 Finding of the study**

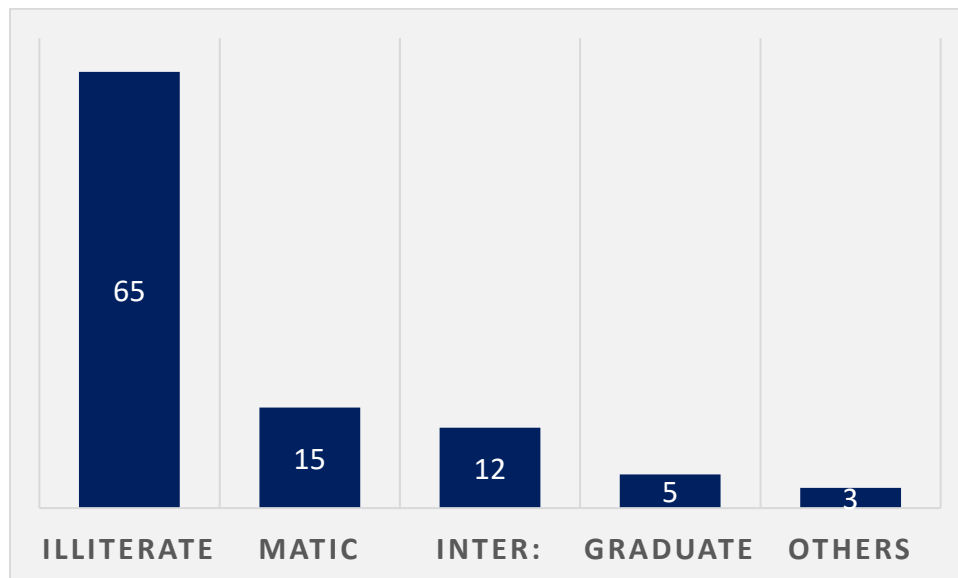
Major aspect of this research was to determine the role of dairy products in the livestock sector so as to measure the perceived perception of the dairy farmers in the selected district of Balochistan.

#### **Figure-1, Dairy farmers age**



Significant demographic variable of the dairy farmers was age composition. In this reared dairy farmers were asked about their age at field level as presented in figure-1. The finding revealed that most (59%) of dairy farmers are between the 30 to 40 age category. Followed by most 23-10% of dairy farmers were between 41 to 50 years and below 30 age categories respectively.

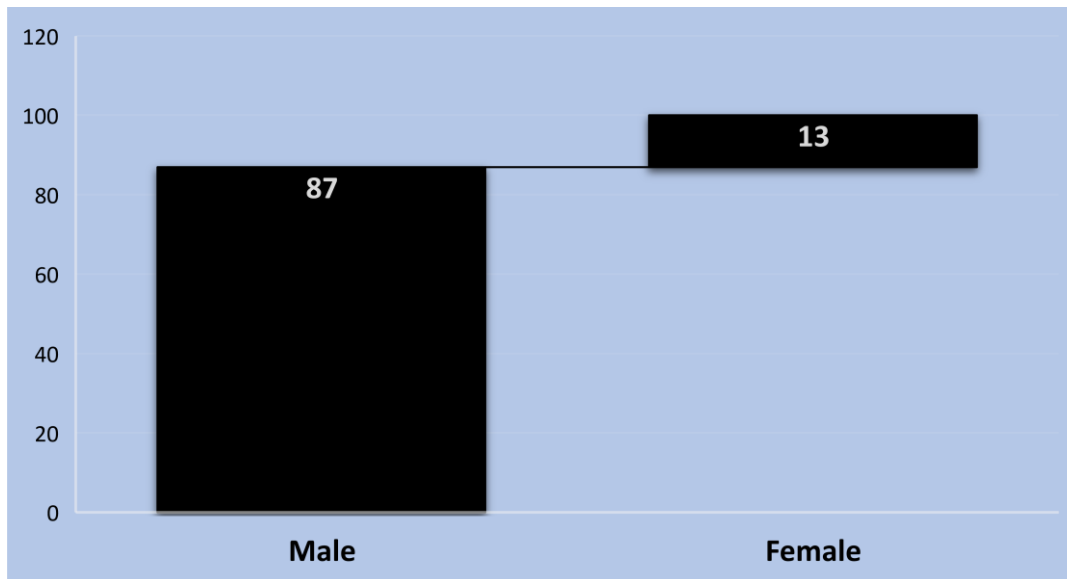
**Figure-2, Dairy farmers educational position**





Education level and literacy plays a vital role for dairy farmers. In this regard, the educational level of dairy farmers was the prime socio-economic variable in this investigation (figure-2). Simple majority (65%) of dairy farmer's illiterate. While, 15-12% of dairy farmers were matric and intermediate respectively.

**Figure-3, Dairy farmers gender status**



Gender was another imperative demographic characteristic of dairy farmers as shown in figure-3. Vast majority (87%) of dairy farmer's male and just only 13% female in both districts of Balochistan region.

**Table-1 Perceived score regarding dairy farmer's socio-economic acceleration aspects**

dairy farmer's socio-economic acceleration aspects in both district	Value	df	Asymp: Sig. (2-sided)
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<i>Quetta district dairy farmers</i>			
Pearson Chi-Square	19.273 <sup>a</sup>	4	<b>.001**</b>
Likelihood Ratio	19.879	4	.001
Linear-by-Linear Association	.042	1	.838
Phi	.253	-	.001
Cramer's V	.253	-	.001
<i>Nasirabad district dairy farmers</i>			
Pearson Chi-Square	32.974 <sup>a</sup>	4	<b>.000**</b>
Likelihood Ratio	34.729	4	.000
Linear-by-Linear Association	20.628	1	.000
Phi	.332	-	.000
Cramer's V	.332	-	.000
No. of Valid Cases = (three hundred dairy farmers) "300"			
*Significant 5% level			

Pearson Chi-Square within terms of Cross-tabulation technique was carried out so as to determine the relationship and association between variables as used in this research as shown in table-1. Three hundred (300) dairy farmers were selected as a valid case in this research. The alpha was set on ( $p \leq 0.05$ ). Chi-Square technique was realistically carried out in order to define the connection between both variables. In this context, highly statistically significant differences found in both selected districts regarding dairy farmer's socio-economic acceleration aspects. However, Cramer's and Phi values are possibly measured. Ground on accomplished result Chi-Square values highly significant in Nasirabad region: (Chi-Square=32.974<sup>a</sup>), (Likelihood Ratio=34.729) and (Linear-by-Linear Association=120.628) receptively based on ( $p \leq 0.05$ ) level. Similar, Chi-Square values also highly statistically significant at ( $p \leq 0.05$ ) level in Quetta district: (Chi-Square=19.273<sup>a</sup>), (Likelihood Ratio=19.879) and (Linear-by-Linear Association=.042) receptively based on ( $p \leq 0.05$ ) level. It was concluded that non-variations were observed in Quetta and Nasirabad districts dairy farmer's perceptions.

### 1.7 Conclusion and policy implication for solid recommendations



This research was carried out in both selected districts of Balochistan region. Both Quetta and Nasirabad district were selected randomly. There was a huge gap between potential milk production and actual milk production at province level. In order to exploit and reduce the gap of actual and potential milk production this research was carried out. Raw information gathered on daily farmers field and location. At the provincial level the majority of people are related to the field of livestock. Therefore, following recommendations and suggestions for policy implication were developed. Access to paramount nutritious feed for livestock animals, drinking water and protected animal shelter should be promoted or developed. In this regard, to increase the milk quality and improve livestock animal health so as to aggregate the profitability or livelihoods of dairy farmers. Improved livestock animals milk feeding regimes are the major aspect for milk production. In this regard, developed the well and up-to-date mechanism (milk plant) for dairy farmers so as to improve their socio-economic condition. Female participation should be encouraged in the livestock sector so as to improve the female livelihood option, income generation process as well as reduce the cultural differences or rift of local women. T developed the notable capacity building program for dairy farmers to grow the food security dynamics as well as improving the socio Or livelihoods option of the dairy farmers.





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