



ROLE OF LIVESTOCK INDUSTRY IN DROUGHT AFFECTED AREAS OF BALOCHISTAN: MULTIDISCIPLINARY-POVERTY REDUCTION APPROACHES

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Abstract

In order to develop the livestock industry in drought stricken areas this research was carried out. multidisciplinary-poverty reduction approaches were used to mitigate the food security dynamic in the drought affected areas of the Baluchistan region. Descriptive type of research was used. Three (3) districts such as Washuk, Jhal Magsi and Zhob were selected randomly Detailed and comprehensive survey was used. Three hundred (300) livestock farmers were selected, 100 from each district. Quantitative research was used at field level and SPSS statistical software was used for analyzed data. Results showed that (52%) of respondents remain in the range of 36 to 45 between age categories Majority (71%) of the



respondents did not acquire any sorts of formal or non-formal education and still remain uneducated. Vast majority (89%) of the respondents engaged in married status. Statistically discrepancies were found in three out of five items regarding the role of livestock industry in drought stricken areas. While differences are found in 3 out of 4 statements about capacity building programs for livestock farmers in drought stricken areas. Provincial administration should be starting credit schemes for livestock farmers in drought stricken areas. So as to improve the socio-economic condition of rural livestock farmers from extreme poverty. Government of Balochistan should develop the well mechanism so as to promote the latest emerging technologies in sustainable livestock systems for poverty reduction. Public and private sector should be promoting the livestock industry by using capacity building programs in order to accomplish the food security objectives in Balochistan drought areas.

Keywords: livestock industry, Balochistan, drought, poverty reduction, animal husbandry.

1.1 Introduction

Livestock sectors remain as a life-line segment and energetic drivers of the country's economy which contributes 18.9% of GDP. The last survey was conducted by ESP depicted that 24% of the country's demographic population lived below the national poverty-line. On the other hand, Balochistan area-wise remains as the biggest province of Pakistan. Livestock sectors are still major contributors and a vivid revenue-based energizer of the provincial economy. Balochistan province is facing many challenges and issues like extreme rural poverty, unemployment among masses, food in-security at province level and continuous natural disasters like flood, earthquake and drought. On the other hand, in terms of food security dynamics, the entire condition showed a very austere image (GOP, 2020).

Balochistan province has the first highest incidence of multidimensional poverty in Pakistan as reported by the latest World Bank report. Generally, more than seventy to eighty percent of the demographic population at province level is facing multi-disciplinary poverty at grass root level. The province is prone to multiple hazards including earthquakes, floods, drought and other natural calamities. Nevertheless, since



2016, drought like situations have also been predominant almost in the entire province which has affected the socio-economic condition of the rural people as a result the masses are facing food insecurity as a whole. For the most part, drought has also been a frequent phenomenon in almost all of western and central districts (Balochistan Development Statistics, 2008-09).

Cross-cutting of its efforts was to promote the animal industry especially of small ruminants so as to reduce the extreme poverty. Due to the persisting drought condition the livestock sector was adversely affected. Therefore, this research was conducted to develop a solid recommendation regarding increasing the socio-economic conditions of livestock farmers in Balochistan (GOP, 2010).

1.2 Rationale of study

Baluchistan province consists of twenty million animals but due to the continuous drought spell this sector was impacted at a considerable rate. On the other hand, overgrazing, mismanagement, irresponsibility practices in livestock, lack of capacity building program for livestock farmers, lack of departmental coordination, depletion of natural resources, decrease rate of rainfall and other factor made the condition more worsen as a results livestock industry did not delivered the effectively. Several procedural sanctions and reports for enactment to increase fodder production and range management but still they are still deceitful unexecuted consequently provincial government did not deliver the fruitful outcome thereof. At province level it has been observed that some defined rangelands as a self-generating and self-maintaining vegetation existed therefore the livestock sector has a huge scope for income generating of rural livestock farmers (GOP, 2015-16).

It is in dire need to develop the livestock industry so as to promote food security in drought striking areas. For that purpose, it was a calamitous requirement to design the need-oriented objects and cost-effective features in order to fulfill the specific needs of the livestock farmers. However, livestock farmers of the Balochistan province are not yet getting the desirable income instead of having the massive rangeland potential (GOP, 2015-16).

Therefore, the present research efforts will envisage to tackle and handle the beneficial aspects of farmers' right of income by enhancing their livelihood options through



effective establishment of animal's industry for ruminant's production and promotion. Keeping in view the above mentioned figure following specific objectives was undertaken.

1.3 Specific Objectives

- I. To discover the perceived demographic statistics of the livestock farmers in the study area.
- II. To determine the role of the livestock sector regarding food security dynamics in drought affected areas.
- III. To organize need-based training for livestock farmers in the study area.
- IV. To design result-oriented recommendations for livestock farmers.

1.4 Methodology

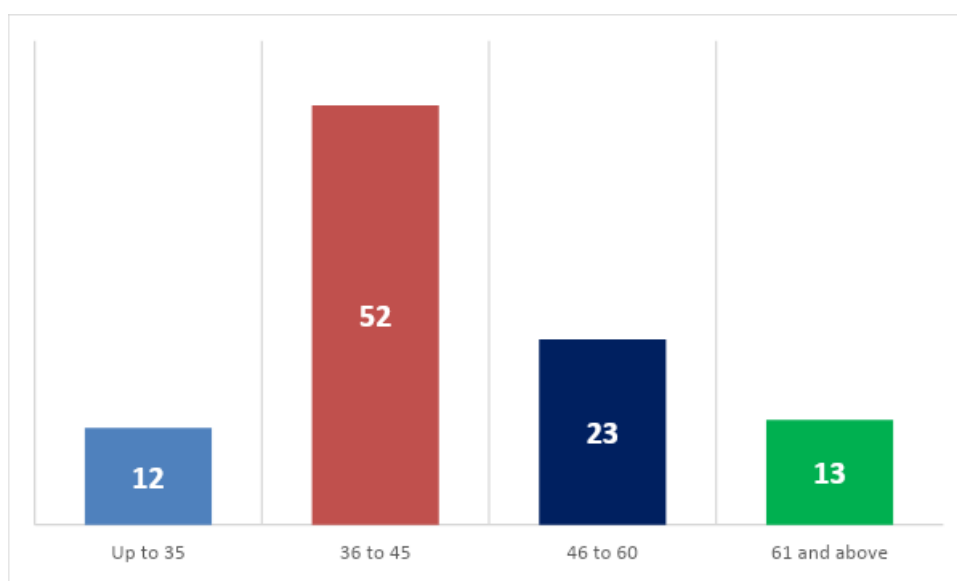
In order to develop the livestock industry in drought stricken areas this research was carried out. In this regard, multidisciplinary-poverty reduction approaches were used to mitigate the food security dynamic in the drought affected areas of the Baluchistan region. On the other hand, capacity building programs and need-based motives were also. Descriptive type of research, in this study was used or utilized. Because this kind of research was most appropriate to obtain a required information about livestock farmers realities in the current condition (Gay & Mills, 2006). Therefore, three (3) districts like Washuk, Jhal Magsi and Zhob were selected randomly out of thirty three (33) districts of Balochistan. Because these districts were badly affected because of prolonged drought spell. Detailed survey form was used so as to denote the livestock farmer's perceptions based on a 5-point scaling like Likert by using random sampling technique (Sekaran, 1992; and Babbie, 2004). Three hundred (300) livestock farmers were selected, 100 from each district. So as to capture their responses regarding poverty and livestock management production practices. Cronbach's Alpha program in this regard carried out (0.76. to 0. 73 ranged) (Pallant, 2007; and Nunnaly, 1978). Fitzgibbon and Morris, (1987) table was used. Quantitative research was used at field level and SPSS statistical software was used for analyzed data (Nachmias & Nachmias, 1992). ANOVA (LSD Post Hoc Tests) technique was used (Gay & Mills, 2006). P-value was measured significantly at $p < 0.05$ (Babbie & Mouton, 2004).

1.5 Socio-economic condition of the respondents



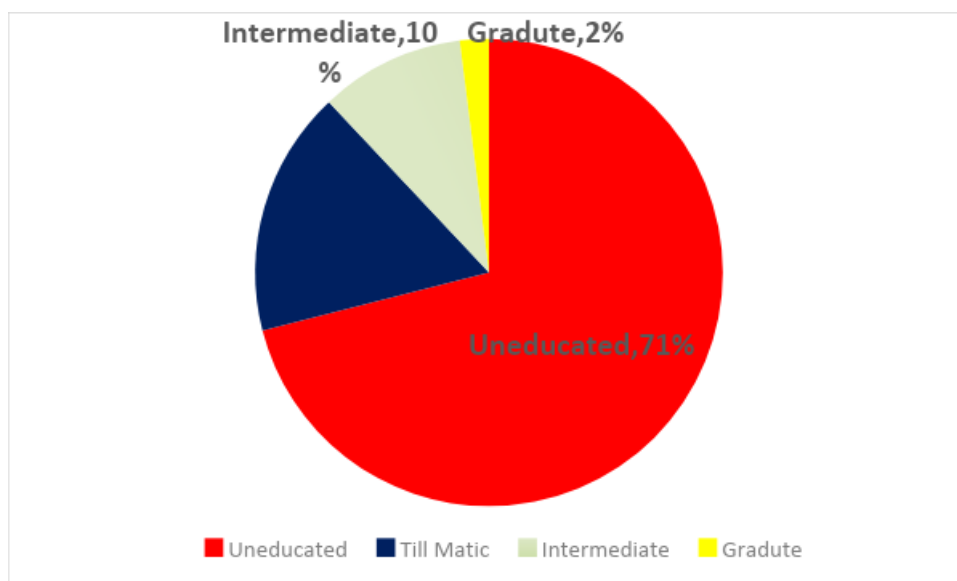
Demographic information were major factors and prime variables as used in this study. Demographic information such as marital status, monthly income, paved structure, family size, age gender and education level were the imperative socio-economic scales that reflected the positive impact as well as also creates cause and effect relationship (Fadare *et al.*, 2014; Allahyari *et al.*, 2008; Abuzar, 2003; and Tarar, 1983).

Figure-1 Livestock farmers age level



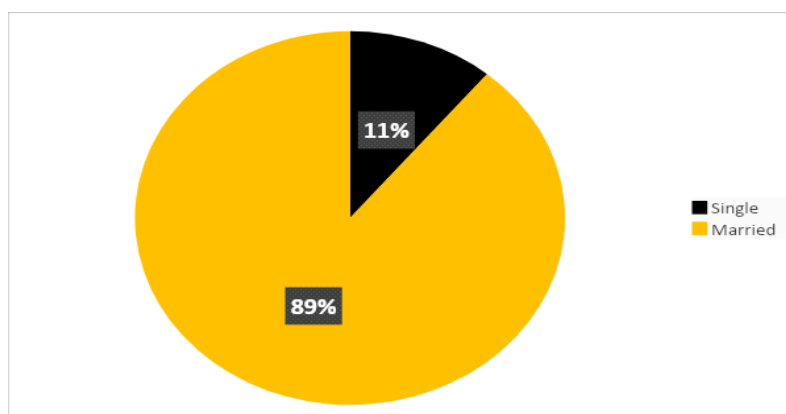
Age of the livestock farmers was the imperative aspect and prime demographic information that may have reflected optimistic influence on the decision making process of livestock farmers as revealed in figure-1. More than (52%) of respondents remain in the range of 36 to 45 between age categories. Followed by most 23 percent of the respondents remaining in the range of 46 to 60 between age categories.

Figure-2 Livestock farmers educational level



Educational position of respondents was another imperative demographic information as exposed in figure-2. In this regard the raw data was gathered at field level. Majority (71%) of the respondents did not acquire any sorts of formal or non-formal education and still remain uneducated. Whereas, 17% and 10% of the respondents obtained the matriculation certificate as well as intermediate educational certificate respectively.

Figure-3 Livestock farmer's marital status





Livestock farmer's marital status were the important variables. In this regard the data was gathered at field level. Vast majority (89%) of the respondents engaged in married status. Whereas, the remaining 11% of the respondents in favor of living alone due to the socio-economic condition that prevailed in the areas (figure-3).

Table-1: Perceived score regarding role of livestock industry in drought stricken areas

Items	Washuk		Jhal Magsi		Zhob		Mean Square	f-vale	Sig*
	M	SD	M	SD	M	SD			
Raise the livestock farmers income	3.960	.5846	3.660	.8435	3.830	.7661	2.263	4.139	.017*
Important changes in the livestock industry by govt.	3.560	1.4655	4.280	.7531	4.240	.8179	16.373	14.514	.000**
Animal productivity is increasing by govt.	3.880	1.1571	3.460	1.4799	4.260	.9058	16.013	11.044	.000**
Poverty reduction programs for livestock farmers	3.360	1.5668	3.770	1.3622	3.640	1.3448	4.390	2.152	.118NS
Credit facilities for livestock farmers	3.760	1.2801	3.800	1.2792	4.070	1.3046	2.843	1.714	.182NS

*SD = Standard deviation * The mean difference is significant at the 0.05 level.*

Result of table-1 represents the highly variances observed in following items as dependent variables regarding role of livestock industry in drought stricken areas as district-wise in Balochistan. Items highly discrepancies based on statistically analyzed were:



- Important changes in the livestock industry by the government. (*f-value* 14.514; MS. 16.373.); and,
- Animal productivity is increasing by the government. (*f-value* 11.044; MS. 16.013).

Then again, an items that observed only significant ground on postulation as acknowledged form livestock farmers in drought stricken areas were:

- Raise the livestock farmer's income (*f-value* 4.139; MS. 2.263).

However, the variables concerning to the role of livestock industry in drought stricken areas as district-wise found non-significant based on 0.05 level were:

- Poverty reduction programs for livestock farmers (*f-value* 2.152; MS. 4.390); and,
- Credit facilities for livestock farmers (*f-value* 1.714; MS. 2.843);

Thus, the statistically discrepancies were found in three out of five items regarding the role of livestock industry in drought stricken areas.

Table-2: Perceived score regrading capacity building programs for livestock farmers in drought stricken areas

Items	Washuk		Jhal Magsi		Zhob		Mean Square	<i>f-value</i>	Sig*
	M	SD	M	SD	M	SD			
Skill improvement for livestock farmers	4.040	.9311	3.740	.9704	4.180	.6724	5.053	6.705	.001**
Better livestock animal practices	3.960	.7095	3.900	.8226	3.810	.9287	.570	.837	.434NS
Livestock industries used for poverty alleviation in drought affected areas	3.610	1.3401	4.300	.4605	4.340	.4761	16.843	22.612	.000**
Promotion and using the livestock industries for food security	4.030	.5938	4.170	.3775	4.200	.4020	.823	3.761	.024*



*SD = Standard deviation * The mean difference is significant at the 0.05 level.*

The farmers were asked about capacity building programs for livestock farmers in drought stricken areas. In this regard the data were collected at field level as shown in table-2 as district-wise in Balochistan. Items or statements that were highly statistically inconsistencies were:

- Skill improvement for livestock farmers (*f-value* 6.705; MS. 5.053.); and,
- Livestock industries used for poverty alleviation in drought affected areas (*f-value* 22.612; MS. 16.843).

While, statements found only significant based on 0.05 level was:

- Promotion and using the livestock industries for food security (*f-value* .4020; MS. .823).

On the other hand, the variable as a dependent variable as district-wise observed non-significant were:

- Better livestock animal practices (*f-value* .837; MS. .570). Therefore, differences found in 3 out of 4 statements about capacity building programs for livestock farmers in drought stricken areas.

1.6 Conclusions and recommendations

Livestock is the imperative segment of Balochistan economy. In this regard this research was carried out. Relevant data regarding livestock diversity was obtained at field level by using face-to-face communication and holistic approaches for poverty reduction features. So as to eliminate extreme poverty through promotion of animal's industry this regard was conducted. This research developed the recommendation about the enhancement of food security dynamics in parallel ways as well as improvement of socio-economic promotion of livestock farmers by using the capacity building programs for livestock farmers. Achieved results based on it were recommended that provincial administration should be starting the credit schemes for livestock farmers in drought stricken areas. So as to improve the socio-economic condition of rural livestock farmers from extreme poverty. Government of Balochistan should develop the well mechanism so



as to promote the latest emerging technologies in sustainable livestock systems for poverty reduction. Public and private sector should be promoting the livestock industry by using capacity building programs in order to accomplish the food security objectives in Balochistan drought areas.



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