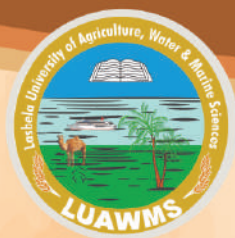


POLICY PAPER

BALUCHISTAN : THE HUB OF CAMELIDS IN PAKISTAN

Bottlenecks, Strengths and Strategies to Conserve and Develop
Camels and Camel Community in Balochistan

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BACKGROUND

Pakistan ranks eighth major camel populous country of the world. Balochistan shares about 41% (0.41 million) camel population of Pakistan (1.10 million). Being the leading province in camel heads, the responsibilities lie on policy makers, livestock experts and researcher of the province to chalk out strategies for the camel development and poverty ridden camel farmers. It is a fact that despite of healthy total strength and naturally gifted milk and meat potentials in camels of the province, this animal remained neglected both at provincial and national levels. Of the twenty camel breeds documented at national level, seven breeds are native to Balochistan. The prevailing camel farming in this region is traditional. The camel farmers are illiterate and living ultra-low level life standards. Marketing of camel meat and camel milk are open opportunities as earning source for camel farmers. However, in order to achieve this, it is desired to introduce paradigm shift in practices from conventional to commercial camel farming.

In Balochistan, sale of camel milk is considered as "Forbidden tree" by the camel farmers. It is estimated that camel milk worth of billions is being wasted in Balochistan. Calf crop is also obtained in long period of time resulting in low meat production in a given period of time. Therefore it is pertinent to educate and aware camel farmers through organizing Farmers Field Schools (FFS) for optimizing yield and earnings. On the other hand same awareness program is also required for public to adopt utilization of camel milk and meat products. This can be possible if leading government and non-government organizations focus and design

collaborative strategy to conserve the perishing camel and camel farming community from the socio-economic collapse. Considering various deficient and non-consideration of hidden worth of this animal species, this policy paper is floated in view to shift our ignored attitude towards camel, camel farming practices, camel products marketing, research and perception change.

01 | BALOCHISTAN: THE HUB OF CAMELIDS IN PAKISTAN

Balochistan is bestowed with rich wealth of camels. The total population in this province is 0.41 m which is 41% of the total camel heads of Pakistan. Of the twenty camel breeds documented at national level, seven breeds (Kharani, Kacchi, Lasi, Makrani, Brahbi, Pishin, Rodbari) are native to Balochistan. It is interesting to note that this animal species is found in all ecological zones of Balochistan (from zero sea level to higher altitudes). However, there are ten regions which have more than ten thousand camel population. Based on available data, it is found that 0.32 million camel population is found in these top ten major regions i.e., Kharan, Kholu, Dera Bugti, Bolan, Lasbela, Khuzdar, Killa Saifullah, Musa Khail, Chaghi and Kalat (Figure 1). Other regions have less than ten thousand camel population. Hence, priority to initiate any camel development strategy may be likely to revolve around these top ten regions.

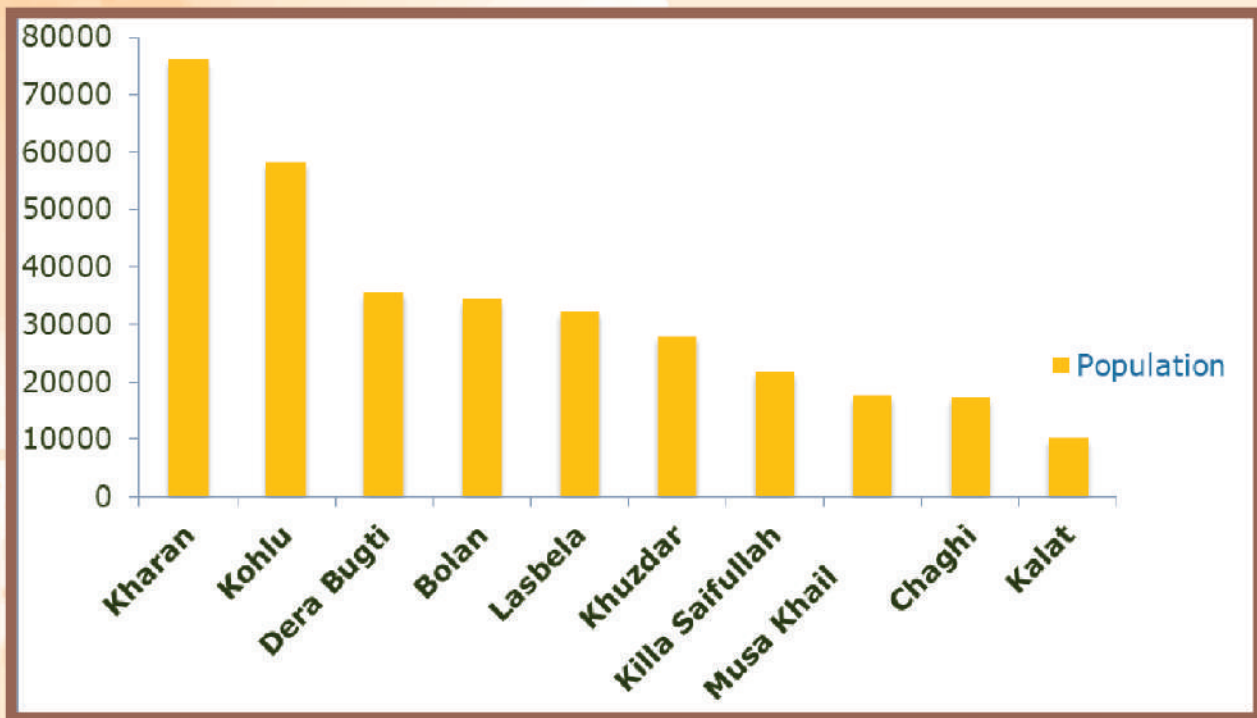


Figure 1: Top ten camel populated regions of Balochistan

02 | LACK OF POLICY AT GOVERNMENT LEVEL

It is unfortunate that camel as an animal species remained ignored both at provincial and national levels. Even non-government organizations and academic institutions/universities have little or no contribution in understanding and analyzing the potential of this animal species. At provincial government level, Livestock and Dairy Development Department (L&DDD), Government of Balochistan (GoB) launched camel project approximately a decade ago however, it remained dormant in papers and to some extent materials support to offices. The recent initiative by the L&DDD, GoB to establish camel milk collection and pasteurization plants (50 million PSDP) in Washuk and Mosa Khail is appreciated. Therefore infrastructure development may be expedited.

At institutional level, to break the ice, Agriculture Linkages Program (ALP), Pakistan Agriculture Research Council (PARC) have given financial support (approx. 3.0 million) to Lasbela University for conducting study on prevailing Lassi camel farming practices, milk yield on supplemental feeding and marketing awareness to Lassi camel farmers in Lasbela region. This project has completed its two phases and has produced meaningful results. In this connection, no program/aid from non-government organization has come to the surface so far.

03 | INSTITUTIONALIZATION OF CAMEL RESEARCH

Livestock and Dairy Development Department, Balochistan may initiate proposal for establishment of 'Camel Research Institute (CRI)' in an area having higher population of camels. However, it is commonly observed that un-accessible/remote areas lose their working potential due to lack of interest by the employees to continue work and carry out research studies. Gradually, uncertainty in carrying out research studies become routine measure due to transfer and posting orders. Hence, such factors may be kept in mind before selection of any specific region.



In this connection, following basic areas of research and coordination may be considered for future.

- ▶ Genotypic and phenotypic characterization of all native breeds of Balochistan
- ▶ Prevailing camel husbandry and marketing practices of all breeds in Balochistan
- ▶ Milk/meat potential of all native breeds on natural grazing and supplemental feeding regimes
- ▶ Prevailing camel diseases, control measures, ethno-veterinary practices and incorporation of recent trends of medication.

- ▶ Increasing camel milk shelf life and products development with different applications
- ▶ Camel preferred management of rangeland species

04 | MILK COLLECTION AND MARKETING MODEL

Camel milk in Balochistan is an unearthed "White Gold". With application of general assumptions and minimum milk yield of 04 L/d, it is estimated that an average 1,65,860 L/d (approx.166 tons) camel milk is being produced in only major top ten regions of Balochistan (Figure 2). While estimating monetary worth at nominal cost i.e., Rs.100/L camel milk, it is found that 16 million rupees is being wasted per day in these regions. Of this value, if half of camel milk is fed to calf or used for home consumption, still 08 million per day, 240 million/month and 2880 million/ annum can be generated.



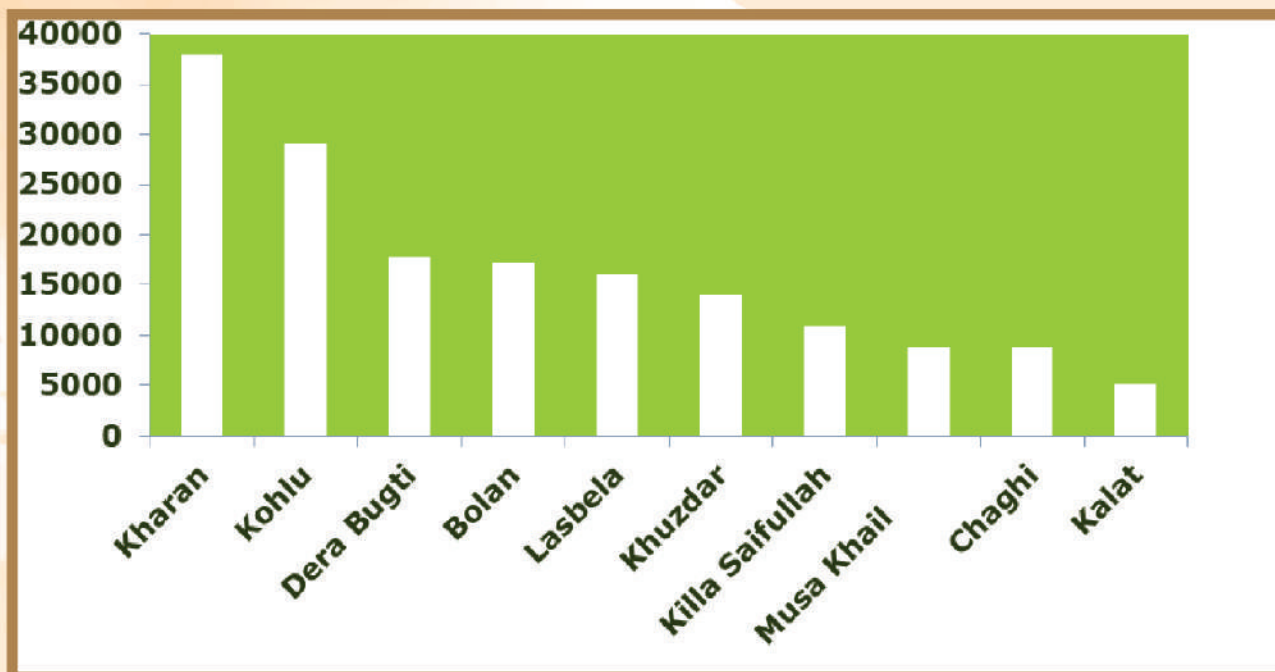


Figure 2: Estimated camel milk yield in top ten regions of Balochistan

Hence, there is dire need to chalk out collaborative strategy by the provincial government, non government organizations and academia for educating camel farmers through FFS and facilitating through milk collection, transportation and marketing interventions.

05 | EDUCATING FARMERS AND AWARENESS CAMPAIGN

Camel farmers are living socially distanced life. They spend most of the time in grazing their animals and get back to home in the evening with camel milk.

A literate camel farmer is hard to be found. They are not getting maximum output (milk and meat) from their animals. They practice poor breeding procedures and get calf crop in approximately two years duration. Better breeding management can easily increase 70-80% calf crop in present camel husbandry being practiced at farmers level. Likewise, in case of milk, they have very hard religious and cultural misconceptions regarding sale of milk. They offer free milk happily but never agree to fix a price. It is unfortunate that a camel farmer having 20 lactating she-camels is not earning single penny from this rich source of camel wealth. On the other hand, this farmers can earn 120000-150000/month.

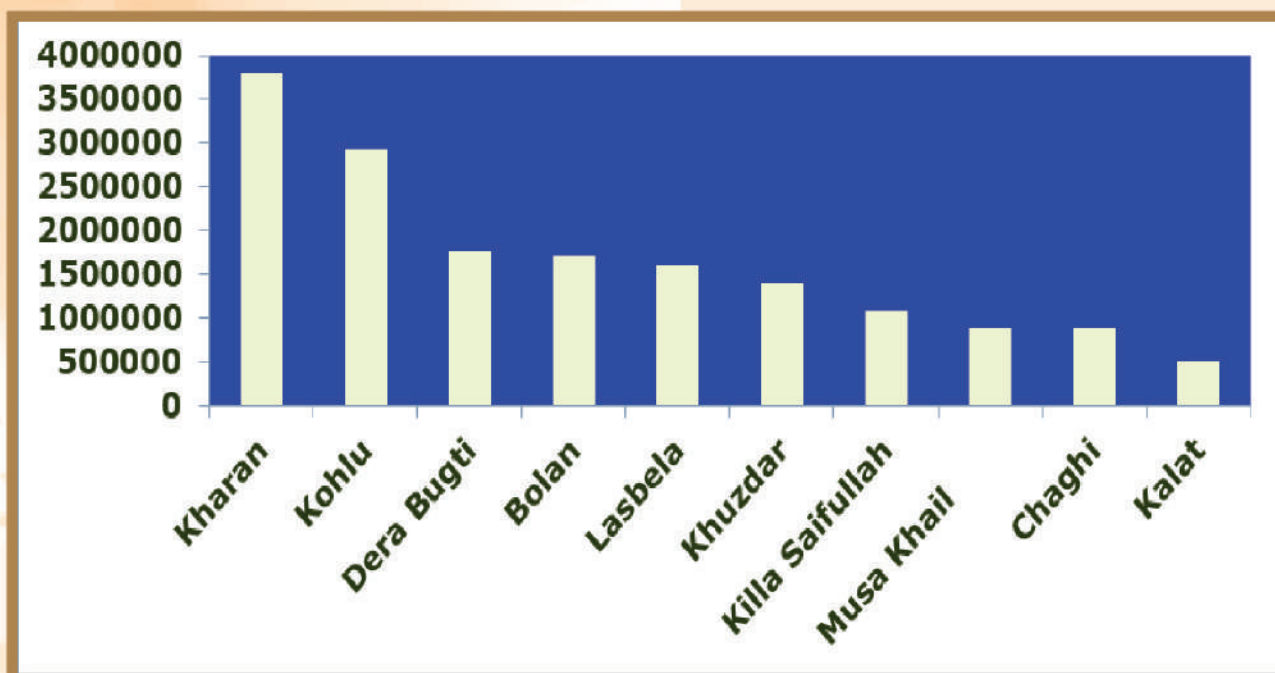


Figure 3: Estimated worth of camel milk in top ten regions of Balochistan



Therefore, comprehensive awareness program to change farmers perception and behavior through FFS is extremely desired. Camel breeding management, supplemental feeding, calves fattening, milk collection and marketing, meat points, value added products, disease control and commercial farming are various aspects for farmers training that will consequently help in their poverty alleviation.

06 PUBLIC AWARENESS PROGRAM FOR USAGE OF CAMEL MILK

Consumption of camel meat and milk is at minimum level. Camel meat market is somehow available on daily basis in Uthal, district Lasbela, Balochistan. Other regions may have weekly availability of camel meat with selected consumers. Increasing camel meat points will enhance availability and consumption. On the other hand, camel milk market is not available due to hard misconceptions of camel farmers regarding marketing of camel milk. Although, camel milk is not available in the markets, yet people does not prefer its taste over other livestock species. Camel milk has many health relevant benefits and only preferred by those consumers who are aware of its therapeutic advantages in cases of asthma, autism, diabetes, allergy, digestive problem, insomnia, poor skin structure etc.

Hence, public awareness campaign to utilize and adopt the taste of camel milk is highly desirable along with awareness program of camel farmers for marketing of camel milk.

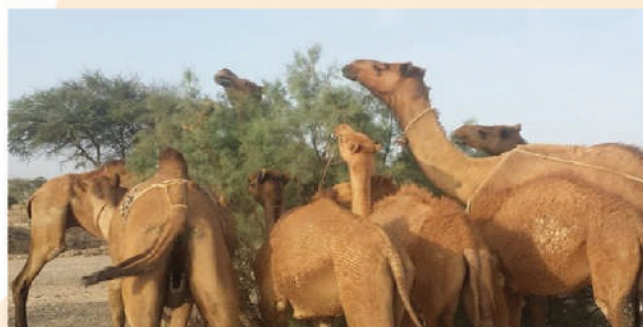
07 | ESTABLISHMENT OF DRY MILK PLANT AND VALUE ADDITION OF MILK

The establishment of dry powder milk plant will be best strategy. It will not only generate more monetary worth but will also let utilize all collected fresh camel milk which usually have very short shelf life. The demand of dry camel milk is high in foreign countries and the present leading companies/countries are not able to bridge the gap of demand and supply.

Moreover, value addition and development of dairy products like yoghurt, cheese, kurut, flavored milk etc. are other business generating opportunities and earning source. Therefore, it will significantly work if government and private sector also go in collaborative strategy for national and international marketing of dry milk and value added dairy products.

08 | RANGELAND MANAGEMENT

Rangeland species (Trees, shrubs, herbs and grasses) differ in palatability, availability, nutritional value and preference. This province is also bestowed with vast rangelands however,



its richness and feeding value depends upon many factors including rainfall pattern. Camel preferred rangeland species required to be collected and chemically evaluated for proper feeding strategy. The preferred rangeland species with good feeding value may be propagated and grazing on rotation is desired. Further, a lot of work is also required to introduce drought resistant varieties in rangelands of the province.

09 | FORMATION OF INDEPENDENT SOCIETY/FOUNDATION/ ASSOCIATIONS RELEVANT TO CAMEL AND CAMEL FARMERS WELFARE

In order to stick and focus on camel and camel relevant tasks, it is necessary to develop working groups that remain vibrant and active. The formation of camel societies, foundations and association at local and provincial levels is deemed fit to connect farmers, private sector, government, NGOs and academia so that timely strategies at any level can be developed and practically implemented.

The formation of “Camel Development Society Balochistan” (CDSB) or “ Camel Association Balochistan (CAB) is suggested so that it play its effective role in collaborating all stockholders and future planning for development of camels and camel farming in the province.



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