

Socio Economic Status and Associated Constraints of Camel Production in Desert Thal Punjab, Pakistan

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Abstract

This study was undertaken in Mankera tahsil of district Bhakkar to evaluate the socio economics and associated constraints which affect camel production. A questionnaire was developed and used to collect the information from a total of 100 farmers by interview using a single-visit-multiple-subject diagnostic survey. The living status of camel herders/pastoralists has been improved. Camel plays an indispensable role in the socio economic importance of the nomads in study area. Livestock and dairy development department and local NGO's should realize and take into consideration the camel importance and the prevalent constraints in the study area in order to improve the camel production.

Keywords: Desert; Camel; Socio economic; Pastoral system; Pakistan

Introduction

Economy of Pakistan is primarily agricultural based; it shares 18.9% in GDP. Livestock is the main sub-sector of agriculture which contributes 58.9% to agriculture value addition and 11.1% in overall GDP. The gross value addition of livestock sector in 2017-18 has increased 3.8% than last year as PKR1327 billion in 2016-17 and PKR1377 billion in 2017-18 [1]. Small holders meet their daily needs of cash income and food security (in terms of milk and meat) from livestock sector which is completely dominated by them. This sector is a secure source of income for the small holders, landless and poor farmers and an employment source [2]. It plays an important role in the reduction of income variability at the time of crop failure. Livestock plays a pivotal role in the uplifting of socio economic status of rural poor in the country thus has significant contributions in poverty alleviation [3]. Pakistan is rich with genetically potent high yielding livestock species having 1 million camels and ranks 8th in the world regarding its populations [4]. Hence, need was felt to perform current study for a deep look into camel production in the desert Thal.

Methodology

In desert Thal there is an area named Mankera which is tahsil of district Bhakkar and located between 70° 47' and 72° East Longitude and 31° 10' and 32° 22' North Latitude having most of the area as deserted plains. The mean summer temperature remains 45.6°C and winter falls up to 5.5 to 1.3°C with an arid to semi-arid climate. Mean annual rainfall increases from south to north and ranges between 150-350 mm [5]. A questionnaire was developed and a single visit multiple subject diagnostic survey was conducted in different pockets of study area to collect the information data. About 100 households keeping camels and which were willing to participate in the study were interviewed by using purposive sampling techniques. The socio economic status and the prevailing production constraints were studied as perceived by the camel herders and the solution sought. Semi structured questionnaire was used to collect all the information from the herders/pastoralists. Methods described by the ILCA (International Livestock Center for Africa) were used to rank the major contributions of dromedary camel [6].

Discussion

Socio economic importance

Camel played an important and a pivotal role in the economy of

the study area. The living status of the herders/pastoralists has been improved a lot than last decade as reported by them. Most of the herders keeping Marecha camel breed which is also known as Mahra and it is a beautiful multipurpose animal which mostly used for milk, meat, racing, draft, dancing and aesthetic purposes. Some herders also keep Barela breed of camel which is a good milk producer and well known for the persistency of lactation and yield. Most of the herders have female camels while the male camels remained low. Majority of male camel calves are used for slaughtering in their earlier ages except the breeding stock. Some male camels are castrated and allowed for growing up to 3-5 years of age and then sold and slaughtered for Eid-ul-Azha festival. Monsoon is the main season of camel sale in the area. Most of the herders sell their camels to the middle men (beoparees) and the price depends on the condition, demand and stage of the camels. Main income source of the herders were sale of milk, meat, animals and for some extent was crop cultivations.

It does not require a scientist to discover that pastoralist in draught stricken areas are receiving milk from their camel when other food providers have succumbed to the environmental stresses. Nevertheless, the role of camels as food providers has been neglected because of the common misunderstanding of comparing camel production to cow production in the temperate climates. Even then the production of camels can be formidable. There are, however, many camels with low milk production because of bad selection practices over many decades, which have increased the genes for poor milkers, increasing the numbers of bad producers. However, even poor milkers producing up to 5 liters of milk can still provide sustenance for 10 children because of the "filling effect" of the milk.

More than 30% camel population of the Asian countries is present in Pakistan. Camel is an important food animal especially for arid and

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Figure 1: Camel raising as aesthetic preference (riding & dancing camel).

semi-arid areas in Pakistan [7]. The deserted people mainly rely on camel regarding their food. The rainy area of the total cultivated land is only about 25% while the rains make a significant contribution to the agriculture. The arid lands of Pakistan support almost 70% of the livestock population. There are persistent food deficiencies in the region due to lower crop yields and poor marketing infrastructure so livestock sector contributes a major contribution to the agriculture. Livestock production values have been increasing due to large number of animals mostly the camels and the small ruminants. Mostly the people residing there are illiterate while women are specially disadvantaged socially [8].

Uncertain and erratic rainfalls cause failure of the crops and have drastic effect on the economy of the small resource poor farmer, thus socio economic and physiological conditions of the area don't allow the people to rely on crop production as a sole source of income. Therefore the farmers/herders keep camels and other livestock species as a security against the crop failure and as a meaning of savings and source of supplementary income. The mixed crop and livestock farming reflects an important element of compliment and integration between these enterprises [7]. Despite of the fact of small number, in comparison to other animals, camels provide an important source of subsistence and income to the people of arid and semi-arid areas in Pakistan. Its socio economic values are widely recognized. In the marginalized societies, although peaceful mechanization is also endangering the greater role of camel, the camel has been remains an integral component of the nomadic ecosystem of country (Figure 1) [8].

Constraints

Thal is the second largest desert of Punjab and rich in livestock resources. Mainly indigenous breeds of sheep, goats and camels are raised here. Marecha is most favorite and beautiful camel breeds rise in that area. People raise that breed as aesthetic preference for dancing and riding purpose. Utility of that animal as meat and dairy purpose is still limiting due to many anthropological and socio-economic reasons [7]. Major issues regarding intensifying the camel husbandry practices are discussed in few points here:

1. Preference of cow or buffalo milk and meat utility over camel food products.

2. Lack of information about value addition of camel products.
3. No value chain services regarding camel production.
4. Lack of guidelines regarding formulation of ration and nutritional standards.
5. Lack of consultancy regarding commercializing the camel husbandry.
6. Calf mortality is a prime issue.
7. Poor extension services for herders empowerment and entrepreneurship.
8. Main reliance on ethno-veterinary practices.
9. Traditional way of camel husbandry.

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