

Population Diversity and Role in the Socioeconomic Development of Domestic Buffaloes of Rural Areas of District Haripur, KPK Pakistan

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Abstract: This study conducted as a type of survey in a time period duration of 6 month that starts from the end of the march to the end of September total of the 1000 houses were visited from each of the selected villages of Haripur Pakistan along with 100 dairy farms study carried out by the questionnaires and by the direct meeting with the keepers of buffalos. Four villages were selected where the highest population of buffaloes were found in Syria maira. The farm buffalos were kept mostly for the purpose of selling the milk Results showed that the most of the areas the buffalo keeping is for the purpose of selling the milk while in other where the selling rate is not found they keep them for their own food and milk purposes. It facilitate their economic status to rise as a part time job. Government should take steps to rise there stander.

Keywords: Household cattle's, economic importance, diversity, Remote areas.

INTRODUCTION

Since centuries on record Livestock has been an integral component of traditional agriculture. In Asia, buffalo played a pivotal role in overall social development through contributions to milk, meat, hides and draft power for agricultural operations. In fact, all body parts are used including horns and hair. Buffalo forms a part of the property, possession and profession of rural farmers. Not only that, they are an easily 'convertible currency' and a reliable 'living bank' to serve the immediate needs of the rural masses in several communities. The buffalo population is very divers and found in every part of world used for the various purposes the as estimated world buffalo population the greater amount of the buffalos was found in Asia with percentage of 95.5%. In Africa, 4.2%, America 0.1%. In Europe 0.2% and in India has the major population of buffalo with about dairy buffalos about 33 million and 10.8 million meat producing buffalos. India also produces about 52 million tonnes of milk and 1.5 million tonnes of meat most buffalo milk and meat in the world [1]. Most of the buffalos can be found in Asia as showed by these statistics in the part of South and South-East Asia. In Egypt and Africa, reported buffalos about, for milk production is 1.6 million and for meat production 1.5 million. As reported by the FAO Countries like Asia, Europe and Africa are declared as by milk producing buffalos, and the USA described as meat producing buffalos [2]. Three countries Bulgaria, Greece and Italy in southern and

eastern reported by FAO to have milk and meat producing buffalos in 2006; in these countries Italy has the biggest amount of these animals; about 154000 dairy buffalos and 5000 meat producing buffalos. Bulgaria, was found to be the outstandingly lower number of animals; about 2000 meat producing buffalo's and 4000 dairy buffalos. Greece has 450 buffalos for meat production and 150 dairy buffalos as reported by [3]. Production of dairy items in Pakistan Buffalo and cattle are playing main role. Buffalos are the main animals in terms of milk production and has higher potential of production. According to the (Economic Survey of Pakistan, 2015-16) 36.6 million population of buffalo was recorded in Pakistan. In the national economy of Pakistan Buffalo farming is playing a key role by producing important proportion of meat and draught powder of milk. In Pakistan the milk production was found during 2014-2015, 54,328 thousand tones and the involvement of buffalo was 33,137 thousand tones [4]. Recorded milk production by buffalo and cow was recorded as 180 and 135 liters per month, respectively [5]. In Pakistan Out of the 22 million head of buffalo, in the Punjab 76 percent are found (24 percent in other provinces of the country: Sind, North West Frontier Provinces (NWFP), and Baluchistan. The Punjab supplies 73 percent of the total national milk production and 71 percent comes from buffaloes which are part of the customary small mixed farming system which is combined with crop production. In the world Pakistan stands fourth in the list of milk producing countries, United States of America, stand first China stand second, India stand, third the milk is nutritious element consumed both as fluid milk, cheese and other dairy products. In Pakistan, to low productivity in livestock various causes attributed

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due to the unfavorable climate condition, low animal genetic potential, inadequate food supplies, and failure of the genetic development program and absence of proper healthcare conveniences. There are 0.5 million landless farmers keeping dairy animals and donating a significant (70 percent) share of the total milk production [6]. The aim of this study was to conduct the comprehensive work to find out the status, diversity and the role of the buffalos in the economic status of the rural peoples.

MATERIAL AND METHODS

Methodology

Study Area

Study area was district Haripur KPK Pakistan. Haripur is the main city of the Haripur District in Hazara, Khyber Pakhtunkhwa in Pakistan, with Swabi and Buner to the west, some 65 km north of Islamabad and 35 km south of Abbottabad. It is in a hilly plain area at an altitude of 520 m. Having the 33.9946° N, 72.9106° E. With the pleasant weather and hilly areas with grasses and pine trees.

Data Collection

The data was collected from hundred randomly selected farms, located in five selected villages of district Haripur where expected high population can be found i) Khanpur ii) Sirya Maira iii) Mankra iv) chhajjian v) Jabri these were the selected villages from Haripur Pakistan This study conducted as a type of survey in a

time period duration of 6 month that starts from the end of the march to the end of September total of the 1000 houses were visited from each of the selected villages of Haripur Pakistan (200 from each village) along with 100 dairy farms study carried out by the questionnaires and by the direct meeting with the keepers of buffalos. The following parameters were recorded during the study of number of buffalos kept in the each house along with their calves, their source of forage, quality and quantity of milk production and the morphological traits effect on the milk production, selling level from each house long with the consumption at the house level and the role of these buffalos in the socioeconomic development of the rural peoples.

For the Farms

The data regarding, farm management experience, Farmers education, farm size, farm productivity, feeding system used at farms, milk price, percentage of milk selling, financial records were documented for further analysis. Data Processing and Analysis The raw collected data was processed to calculate three categories of education level, farm size was divided in big, medium and small farms based on number of animals at each farm, farm productivity was categorized in three types high, medium and low productive based on productive animals at each farm, breeds mainly kept in studied farms were of five different types Percentage were calculated for all the processed data and represented in the form of graphs/tables.

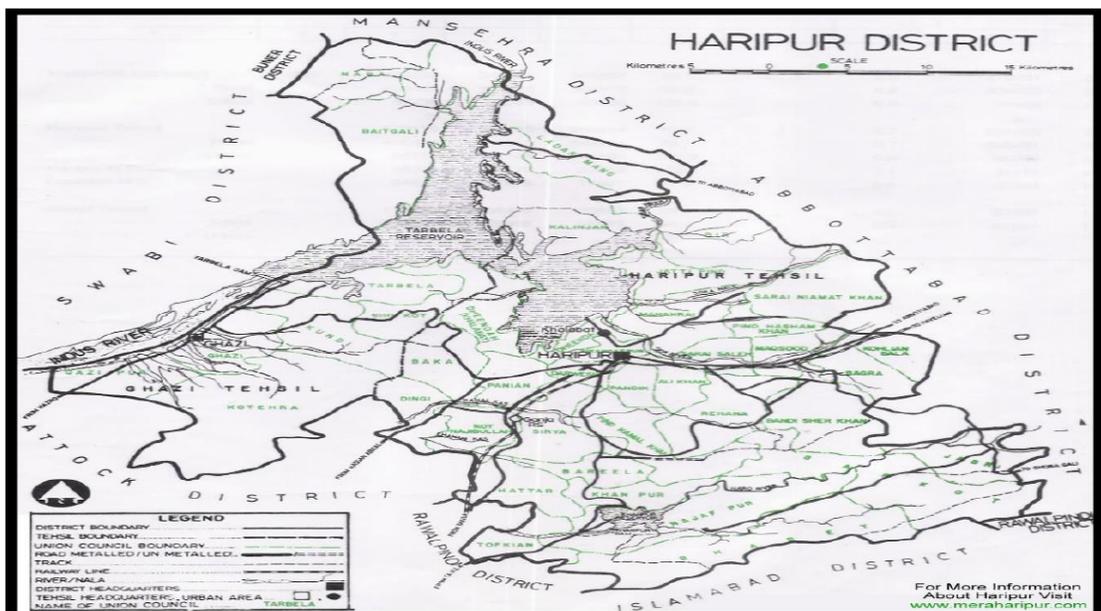


Figure 1: Map of district Haripur (Google source).

Table 1: Showed the Population of the Buffalos at the Selected Areas of District Haripur

| Villages | Population% | Number of buffalos kept | Calves | Milk selling status | Price |
|-------------|-------------|-------------------------|--------|---------------------|-----------------|
| Kanpur | 60% | 1-5 | 20% | 50% | Rs:80 |
| Sirya Maira | 70% | 2-10 | 40% | 90% | Rs:80 |
| Mankra | 40% | 3-4 | 20% | 30% | Rs:70 |
| chhajjian | 30% | 2-4 | 25% | – | No milk selling |
| Jabri | 20% | 1-2 | 15% | 20% | Rs: 70 |

Include also price in US dollar; and specify what money is Rs?

Table 2: Effect of White Coloring on Peak Milk Production in Buffalos of District Haripur

| Body parts | White coloration | Number of animal | Avg. milk production (L) | SE | P-value | Villages |
|------------|------------------|------------------|--------------------------|------|---------|-------------|
| Horns | Present | 40 | 12.22 | 1.20 | < 0.001 | Kanpur |
| | Absent | 60 | 21.32 | 1.40 | | |
| eyelids | Present | 50 | 14.56 | 1.43 | 0.002 | Sirya Maira |
| | Absent | 50 | 21 | 1.45 | | |
| Muzzles | Present | 60 | 12.96 | 1.21 | <0.001 | Mankra |
| | Absent | 40 | 22.6 | 1.50 | | |
| hoofs | Present | 30 | 13.9 | 1.30 | 0.008 | chhajjian |
| | Absent | 60 | 18.8 | 1.34 | | |
| Tail | Present | 45 | 8.45 | 1.28 | <0.001 | Jabri |
| | absent | 50 | 15.7 | 1.25 | | |

A question: the animals with white coloration present, the endogamy degree is more higher then black animal? Because they are healthier than others.

RESULTS AND DISCUSSION

The highest percentage of population of buffalos were recorded from the Syria maira (70) also the highest selling rate were also recorded from that area, Khanpur is at second having the percentage of 60%, the highest price for selling the milk were recorded from Khanpur and Syria maira, the reason is that the people in Syria maira kept the buffaloes mostly for the milk selling purposes in the colony nearby that area so they prefer to keep the large number of herd. They don't face in the difficulty to forage them in the day time. The buffalos forage in the nearby fields due to plain area. They also use other crops to forage the animals.

Diversity in Morphological Characters

It was observed from the table that white coloring intensity was not same there exist a great little variation in the coloration and intensity of milk production. Along with the patches of white colors there are also variation in body colors like some are dark black in Colour some are whitish black and some are brownish in Colour number of variation also observed in the horns of the

buffalos like people think that the buffalos with flattened horns on the skull are good in milk production.

For Farms

As showed by the Figure 2 the highest selling rate of milk at the farm of Bhandra were recorded that is 95% all the other areas also showed the highest percentages of the milk selling rate instead of for the meat purposes. Herd size is very small; 85 percent of buffaloes are raised in herds of one to five animals. There are 0.5 million landless farmers keeping dairy animals and contributing a significant (70 percent) share of the total milk production [6]. Data recording of buffaloes is mainly undertaken in the seven institutional herds and on a few military farms. Apart from this, Dairying is still not undertaken on a commercial basis so the level of inputs is very low. Generally, animals are fed on crop residues with some additional forage/fodder grown for this purpose. The government facilitates vaccination against contagious diseases at nominal costs. About 5-10 percent of breed able females are artificially inseminated while the rest are mated naturally with bulls of a good type. Credit

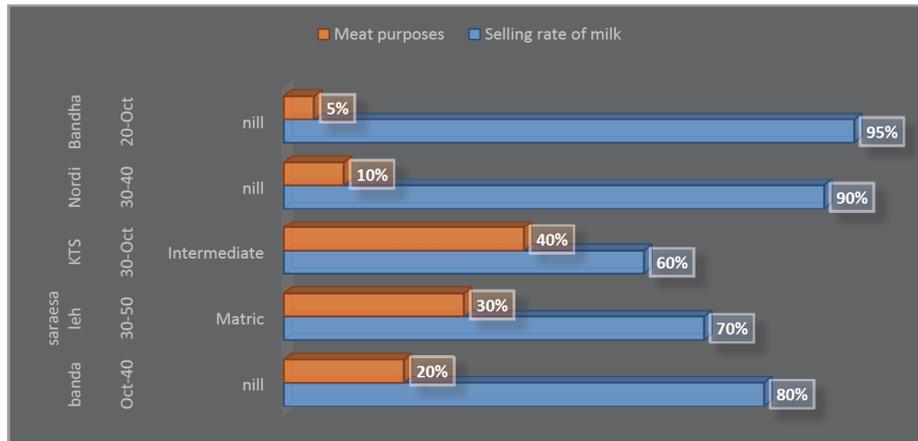


Figure 2: Showed the percentages in randomly selected areas of Haripur.



Figure 3: Showed the buffalos with their morphological traits and site for their tying.

facilities have also been made available to farmers for the purchase of milk yielding animals but on a limited scale [7]. Here we cannot mention the breeds because most of the buffalos were purchased from the Rawalpindi and Punjab so there were mixed types of buffalos were found. By the end of 2015 it is estimated that the demand and supply difference would be 3.6 billion liters in Karachi city four million liters of milk shortage is reported [8]. As reported by the [9]. The main problem with livestock in Pakistan is the low milk production of Pakistani milked animals. This is because of improper systematic national breed awareness program, unavailability of nutrients in fodder due to less profit [10]. Pakistan needs a good support and inter sectorian coordination to fill the loopholes and to enhance the yield to make dairy a profitable

business. so the buffalos play an important role in rising their living standards. We also observe that at the rural areas the 90% involvement in caring of the livestock animals were done by the females of villages, they were tired but they delighted when their children's get nutritious and pure food.

CONCLUSION AND RECOMMENDATION

We concluded that although it is very difficult to take care of livestock animals. But it is not more than the delight and joy by drinking lasi (drink made up of milk yougert) and eating the products that are pure. Government should conduct the seminars on educating the farmers and housekeepers so they can get more profited.

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