

NATURE AND EXTENT OF PROBLEMS OF AGRO-GRAZIERS IN SOUTHERN PUNJAB

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ABSTRACT: Studies on nature and extent of problems faced by agro-graziers were carried out in Multan, Bahawalpur, Rajanpur and D.G. Khan districts of Southern Punjab, Pakistan during last decade. From the studies, it was concluded that agro-graziers of Southern Punjab faced problems of varied nature like non-cooperative attitude of canal and forest departments for not allowing them to graze their animals along canals, forests, range areas and irrigated plantations. This not only resulted in underfeeding but the poor graziers also had to purchase fodders and concentrates at their high prices to overcome the problem of underfeeding and malnutrition of the grazing animals. In addition to this, prevalence of diseases and non-availability of veterinary medicines was also prominent problem for agro-graziers of the region. Non availability of loan, subsidy or any other financial assistance for buying good breeds of animals, fresh green fodders, concentrates and veterinary medicines were found more extensive problems for agro-graziers throughout the Southern Punjab. Shortage or non availability of water and frequent presence of unpalatable and noxious plants were also recorded as prominent problems because approximately 60% agro-graziers of Southern Punjab faced these problems.

Key words: Agro-grazing, Agro-graziers, Grazing sites, Problems.

INTRODUCTION

It is a very common observation that mobile flocks of sheep and goats and other livestock herds can be seen everywhere in rural as well as urban areas grazing or browsing naturally grown vegetation and crop residues in the cultivated areas of Punjab. This is referred to as Agro-grazing (Quraishi *et al.* 1993). Agro-grazing is the cheapest source of livestock production where the weeds and other waste forage is converted into very valuable edible, non edible animal products and by products (Khan, 1994; Ashraf *et al.* 2008). Otherwise weeds may cause to reduce the agricultural yield by more than 40% (Muhammad *et al.*, 2007). Grazing of crop residues has great potential for livestock production (Thompson and Nathhall, 1976; Quraishi, 1994; Waheed *et al.*, 2007). Quraishi, *et al.* (1993) reported that 17.40 million animal units depended upon agro-grazing (23% of total livestock wealth of Pakistan). The agro-grazed wealth of Punjab alone was almost equal to the total livestock wealth of Balochistan. Sindh (29.2%) and Punjab (26.4%) have a relatively higher percentage of agro-grazing animals than those of Khyber Pukhtoon Khawa (17.9%) and Balochistan (10.4%) Among livestock species, goats constituted the highest (38.5) percentage of agro-grazing animals followed by buffaloes (24.4%) and sheep (23.2%) respectively. Whereas cattle and camels combined were nearly 21 percent of the agro-grazing animals.

Hinjra (1994), Sarwar *et al* (2002) and Ali (2005) revealed the fact that there is acute shortage of green fodder in the country (Bhatti *et al.* 1989; Hinjra,

1994; Sarwar *et al.* 2002). Natural vegetation grown here and there is the best substitute of green forage for livestock production (Quraishi, 1994). No doubt grazing had been the oldest practice for livestock production in the country. But since long ago, agro-grazing as a potential source for livestock production remained ignored and no serious and sincere effort seems to have been made to explore its potential in the past. In the last two decades, some studies on the prospects of agro-grazing in T.T. Singh and Khanewal, were respectively undertaken by Ashraf *et al.*, (2008) and Khan *et al.*, (2004 a,b). The researchers highlighted the importance of agro-grazing and strongly recommended to promote it for livestock production in the country. Another study conducted by Shahbaz (1993) pointed out the problems of agro-grazing along rivers in district Jhang. He reported that non-cooperation of farmers with agro-graziers, lack of water, presence of unpalatable and poisonous vegetation, low carrying capacity, lack of improved breeds of grazing animals and credit were the major problems faced by agro-graziers, Naseem (1991), Shahid (1992) and Gulzar (2001) studied the problems associated with agro-grazing in Vehari, Faisalabad and Gujranwala districts, respectively. Their findings were also similar to those of Shahbaz (1993).

Anyhow, it was the unanimous opinion of all research workers that agro-grazing was very valuable but an ignored feed source having high potential of livestock production. Hence the present research project "Nature and extent of problem of agro-graziers in Southern Punjab" was designed to find out the factual situation in Southern Punjab.

MATERIALS AND METHODS

The study was conducted in cultivated areas of Multan, Bahawalpur, Rajanpur and Dera Ghazi Khan (D.G.K.) districts located in Southern Punjab. A questionnaire was designed for interviewing the agro-graziers. Research area of each district was divided into following grazing sites.

1. Agro-grazing areas adjoining rivers
2. Agro-grazing areas adjoining canals
3. Agro-grazing areas adjoining roads
4. Agro-grazing areas adjoining the boundary of irrigated plantations, forests and rangelands.
5. Agro-grazing areas located in interior villages (far away from rivers, canals, roads, irrigated plantation, forests and rangelands),

Number of villages selected randomly from each grazing site in each district was 20 and number of agro-graziers (Respondents) interviewed from each selected village was 2 to 3. Keeping in view, the problems of varied nature and extent faced by the agro-graziers in different grazing sites. 250 agro-graziers in total were interviewed in Southern Punjab. Data was documented on the basis of average values for yes or no answers given by the agro-graziers. Data was obtained after following a pre planned and designed questionnaire. Data collected in average values was statistically analysed (Steel *et al.* 1997).

RESULTS AND DISCUSSION

It was observed during the course of the study in Southern Punjab that non availability of bank credit or any other financial facility was the root cause of most of the other problems. Due to lack of money and high prices of cultivated green fodders and concentrates, majority of agro-graziers of the region were not found able to purchase feed for their animals. Therefore, this led to malnutrition, underfeeding of animals. Moreover farmers did not allow agro-graziers to graze their animals on stubbles and crop residues in the cropped fields after harvesting the crops. Similarly officials of canal and forest departments also did not allow them to graze their animals along canal banks and boundaries of plantations, forests and range areas. These were the major problems faced by all agro-graziers as each agro-grazier of each grazing site of the region pointed out the problems as shown in (Table 1). Due to poor and miserable socio-economic conditions and lack of financial subsidy, agro-graziers had no money to buy cultivated fresh green fodders in scarcity period and concentrates as supplementary feed to improve animal health. As a result, animals remained underfed and were victimized of malnutrition and diseases. In this situation, wherever these agro-graziers took their animals to agriculture

fields, canals, forest and range areas to graze crop residue and stubbles, natural herbs and shrubs growing around or along these areas, they had to face very harsh and inhuman attitude of farmers and concerned government officials (Naseem, 1991; Malik, 1997). On the other hand, officers of agricultural bank also revealed the fact in their off the record conversation that the poor agro-graziers were very reluctant to apply and receive the credit/loan because they find themselves helpless and unable to return this loan in the stipulated period and also were afraid of its ever increasing interest. The poor socio economic conditions of agro-graziers in other districts of Punjab was also confirmed by certain number of researchers (Quraishi *et al.* 1993; Ashraf *et al.* 2001; Khan *et al.* 2003a,b; Khan 2004b; Quraishi *et al.* 2006 and Ashraf, *et al.* 2008). These researchers found poor agro-graziers unable to buy costly concentrates and other animal feeds and veterinary medicines whenever needed. Water is an unavoidable need of human as well as animals. Unfortunately, majority of the agro-graziers faced the acute shortage of water. Water shortage or non availability of water was the biggest problem of agro-graziers of D.G. Khan (85.6%) followed by Multan (69%) whereas it was not a serious problem for agro-graziers of Bahawalpur & Rajanpur districts because only 18 & 29% agro-graziers of both sites, respectively faced the problem.

The prevalence of animal diseases and non availability of veterinary medicines was a common problem found in the study region (Table 1). Except D. G. Khan (95%), all the agro-graziers (100%) of other districts of Southern Punjab faced this problem. The same problem was also reported by Squires (1978), Naseem (1991), Shahid (1992) and Shahbaz (1993).

The presence of unpalatable and noxious plants in the grazing sites for animals was a serious problem for agro-graziers of the Southern Punjab as shown in (Table 2). But it was not too much extensive like other problems. Same fact was also reported by Gulzar (2001) and Khan *et al.* (2004 a,b).

It is quite obvious from the results that non availability of credit, loan, subsidy or any other financial assistance, non cooperative hostile attitude of farmers, canal and forest departments officials towards agro-grazier, underfeeding, malnutrition, animal diseases, non availability of veterinary medicines, presence of unpalatable and noxious plants in grazing sites and high prices of animal feeds and forages and medicines are some of the prominent problems being faced by the agro-graziers in Southern Punjab. For increasing livestock production through agro-grazing it is highly recommended that aforementioned problems should be solved effectively by the concerned administrators as it is the only cheapest source of livestock production in the country.

Table 1. Number of agro-graziers (% age) faced with the prevalence of diseases of agro-grazing animals and non availability of veterinary Medicines in Southern Punjab.

Districts	Grazing Sites					Av. Values (%)
	Along River Sides (%)	Along Canal Sides (%)	Along Road Sides (%)	Along Forest/Range Sides (%)	Interior Villages (%)	
Multan	100	100	100	100	100	100
Bahawalpur	100	100	100	100	100	100
Rajanpur	100	100	100	100	100	100
D.G. Khan	85	90	100	100	100	95
Av. Values (%)	96.25	97.50	100	100	100	98.75

Table 2. Number of agro-graziers (% age) faced with the presence of unpalatable and noxious plants in Southern Punjab.

Districts	Grazing Sites					Av. Values (%)
	Along River Sides (%)	Along Canal Sides (%)	Along Road Sides (%)	Along Forest/Range Sides (%)	Interior Villages (%)	
Multan	55	30	45	30	60	41
Bahawalpur	30	40	40	25	35	34
Rajanpur	35	30	55	25	25	34
D.G. Khan	35	25	25	40	30	31
Av. Values (%)	38.75	31.25	41.25	30.00	37.50	35.75

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