

Grazing Status of Graziers Along Rivers in District Jhang–Pakistan

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ABSTRACT

Study was conducted to determine the extent and problems of agro-grazing of respondents inhabited in three tehsils viz., Jhang, Shorkot and Chiniot of District Jhang. The areas was divided into three categories viz., Chenab-I, Chenab-II and Jhelum-I. The numbers of respondents were 36 in Chenab-I, 32 in Chenab-II and Jhelum-I each. Thus 100 respondents were interviewed. Hundred % respondents have their own herd in all the categories. The major occupation the respondents were grazing. They are large and small ruminants. The type of vegetation consumed by herd were trees (Kikar, Siris & Ber) Shrubs (Lai & Kahi) and grass (Dhaman) and itsit (herb) with reticulate leaves. Non-cooperative attitude of farmers, Lack of water, low carrying capacity, poisonous vegetation were the grazing problems faced by the respondents. Road sides, river sides, crop after harvest area and canal sides were the sites providing feed for livestock. Sources of drinking water were tube-wells + water channels, canals and rivers. Hundred % respondents depends upon livestock and their by-products as their major source of income.

Key Words: Agro-grazing; Grazing problems; Nomadic herders; Livestock status

INTRODUCTION

Livestock sector have a vital importance as it renders various services for mankind, milk meat and fat are essential components of our diet and are very rich sources of proteins, fats and vitamins. It also provides draft power and manure. Foreign exchange trade in livestock products contributes 11% of the total export value at \$ 350 million. Livestock occupies a key position in the rural economy of Pakistan for bringing cash income twice a day for improving the living standard of small resource poor graziers and other population (Khan *et al.*, 2005).

Out of total area of 196 million acres approximately two third is range land. These range lands are being used by nomads and local graziers who provide 40 - 50% forage to their livestock (Wahid, 1984). In addition to conventional grazing in these rangelands, irrigated crop lands also provide grazing and browsing to livestock kept by landless/small holding grazier living in the villages. This practice of grazing is known as agro-grazing. These graziers allow grazing and browsing to their livestock in the cultivated fields especially after crop harvest. In addition to grazing on farm lands, their animals also depend on canal side, road side vegetation and village waste lands (Shahid, 1992).

It is need of the time that this important sector of agro-grazing should also be given due importance.

MATERIALS AND METHODS

The study was conducted to know the extent and

problems of agro-grazing along rivers in district Jhang. The map and other relevant information of District Jhang were collected from office of the Deputy Commissioner.

One hundred and ten villages along rivers were marked and out of these 54 villages, three sites were selected at random according to the pattern given below. These three sites were named as Chenab-I, Chenab-II and Jhelum-I.

- a. 20 villages along site Chenab-I
- b. 18 villages along site Chenab-II
- c. 16 villages along site Jhelum-I.

About 1/3 respondents from each selected village were interviewed. In this way 100 respondents in total were interviewed from 54 villages.

Thirty six respondents from twenty villages at site Chenab-I, thirty two respondents from eighteen villages at site Chenab-II and thirty two respondents from sixteen villages at site Jhelum-I, were interviewed. The response to select the three different sites was to know the difference in their number of animals, availability of forage/water and their problems etc. The data thus were transformed to tally sheet, then tabulated to bring into a comparable form.

RESULTS AND DISCUSSION

The study was conducted in three Tehsils namely, Jhang, Chiniot and Shorkot of district Jhang. One hundred respondents were interviewed from 54 villages along the river sides categorized as Chenab-I, Chenab-II and Jhelum-I. The purpose of the study was to know the status of agro-grazing and to propose suitable measures/recommendations

for agro-grazing.

The grazing problems faced by the respondents were due to non-cooperative attitude of the farmers, lack of water, low carrying capacity, thorny and poisonous vegetation, lack of improved breed and lack of credit (Naveed, 1991; Ali, 1993). It was noticed that 50% respondents have very bad opinion about attitude of the farmers in all the categories. The farmers did not cooperate with the respondents for grazing their animals in the fields. However, 50% farmers have good attitude with the respondents. Lack of water was another problem of agro-grazing. Fifty per cent respondents faced shortage problem of drinking water for their herd in village adjoining sites of Chenab I and Jhelum I, while this figure was 46.87% for Chenab II. There were no problem of un-palatable vegetation at all but due to lack of vegetation, 100% respondents were suffered. Fifty per cent respondents have imported breeds in their herd. No credit facilities were provided to the respondents by Government or any other private agency. Harmful vegetation existed in the study area. Thus, 47.22, 50 and 47.22% graziers faced this problem for grazing their herds in Table I (Wasaya, 1994).

The contribution of crop residues as a source of feed after crop harvest was availed during summer season (May & August) in Chenab II and Jhelum I. In category Chenab I, these sites have no role for providing grazing facilities after

crop harvest. The major dependent of grazing was on vegetation of road sides and river side showing 88.89 and 94.44% contribution, respectively. The contribution of stall feeding was 55.55% in Chenab I. Similarly the role of road side and river sides vegetation was 81.25 and 87.50%, respectively for each Chenab II and Jhelum I, during spring season. During summer, river side vegetation was most abundant for grazing showing 88.89, 84.38 and 87.50% contribution for Chenab I, Chenab II and Jhelum I, respectively (Azam, 1991; Wahid & Hinjra 1992).

The vegetation present on road sides and canal sides contributed a little for Chenab II and Jhelum I. However the land after crop harvest provided full opportunity to the respondents for grazing their herds (100%). During autumn, road sides and river side vegetation contributed a lot i.e., 77.77 and 88.88%, respectively in category Chenab I. In the same locality, canal sides' vegetation, however contributed only 5.55% for grazing the herds. More or less alike situations were found to exist in categories Chenab II and Jhelum I; Whereas, road sides vegetation contributed 68.75 and 71.87% for providing feed to livestock. However, in the same area (categories II & III) the river sides, forest and range contributed 6.25, 3.13 and 18.75 and 6.25, 0.00 and 15.63% to provide feed for herds, respectively. In winter season, river-sides vegetation played a major role for providing feed to livestock in all the categories showing

Table I. Grazing Problems Faced by the Respondents

Categories	Non-cooperative attitude of farmers (%)	Lack of Water (%)	Unpalatable vegetation (%)	Low carrying capacity (%)	Harmful vegetation (%)	Lack of improved breed (%)	Lack of credit (%)
Respondents of villages adjoining site Chenab I	Very bad = 50 Good = 50	50	Nil	100	47.22	50	100
Respondents of villages adjoining site Chenab II	Very bad = 50 Good = 50	46.87	Nil	100	50	50	100
Respondents of villages adjoining site Jhelum I	Very bad = 50 Good = 50	50	Nil	100	47.22	50	100

Note: In category I the number of respondents is 36 and in category II and III, the number respondent is 32

Table II. Contribution of Various Sites Providing Feed for Livestock (%)

Categories	Source	Spring	Summer	Autumn	Winter	Stall feeding
Respondents of villages adjoining site Chenab I	After crop harvest	-	-	-	-	-
	Road sides	88.80	-	77.77	2.55	-
	Canal sides	-	-	5.55	5.55	55.55
	River sides	94.44	88.89	88.88	88.89	-
	Forest Range	- -	- -	- -	- -	- -
Respondents of villages adjoining site Chenab II	After crop harvest	-	100.00	-	-	-
	Road sides	81.25	6.25	68.75	-	-
	Canal sides	-	18.75	-	0.13	50.00
	River sides	87.50	84.38	6.25	81.25	-
	Forest Range	- -	- -	3.13 18.75	- -	- -
Respondents of villages adjoining site Jhelum I	After crop harvest	-	100.00	-	-	-
	Road sides	81.25	21.88	71.87	-	-
	Canal sides	-	6.25	-	12.50	50.00
	River sides	87.50	87.50	6.25	78.13	-
	Forest Range	- -	- -	- 15.63	- -	- -

Note: In category I the number of respondents is 36 and in category II and III, the number respondent is 32

Table III. Source of Drinking Water

Categories	Source	Wells %	persons %	Tubewell + water channel%	Hand persons %	pumps %	Canal persons%	Tobas persons%	River persons %
Respondents of villages adjoining site Chenab I	Spring	-	-	97.22	-	-	-	-	100.00
	Summer	-	-	25.00	-	-	5.55	-	80.55
	Autumn	-	-	100.00	-	-	44.44	-	19.44
	Winter	-	-	100.00	-	-	16.67	-	-
Respondents of villages adjoining site Chenab II	Spring	-	-	100.00	-	-	-	-	100.00
	Summer	-	-	25.00	-	-	12.50	-	78.12
	Autumn	-	-	100.00	-	-	37.50	-	18.75
	Winter	-	-	100.00	-	-	25.00	-	-
Respondents of villages adjoining site Jhelum I	Spring	-	-	100.00	-	-	-	-	100.00
	Summer	-	-	25.00	-	-	12.5	-	81.25
	Autumn	-	-	100.00	-	-	31.25	-	18.75
	Winter	-	-	100.00	-	-	31.25	-	-

Note: In category I the number of respondents is 36 and in category II and III, the number respondent is 32

88.89, 81.25 and 78.13% contribution in Chenab I, Chenab II and Jhelum I, respectively. Stall feeding contributed 55.55, 50.00 and 50.00% role in Chenab I, Chenab II and Jhelum I, respectively (Table II).

The results regarding the source of drinking water revealed that about 100% respondents provided drinking water to their herds by tube wells + water channels in all categories and in all the seasons except summer season when 25% respondents provided water to herds from water channels and tube wells. In category Chenab I, canal water was provided to the herds by 5.55, 44.44 and 16.67% respondents during summer, autumn and winter season, respectively whereas in category Chenab I, 12.50, 37.50 and 25.00% respondents provided water from canals during summer, autumn and winter season, respectively. More or less situation was also observed in category Jhelum I. During spring season, river water was consumed by 100% respondents for their livestock in all the categories, whereas during summer, autumn and winter, the consumption of river water by the respondents for drinking their animals was variable in all the categories, ranged from 18.75 to 81.25% in Table III (John, 1992; Zafar-ud-Din, 1995; Ahmed, 2002).

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