

A STUDY ON CONSTRAINTS PERCEIVED BY SHEEP FARMERS OF DISTRICT SRINAGAR, JAMMU AND KASHMIR

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ABSTRACT

To develop suitable livestock development policies, the constraints faced by the farmers need to be understood. Therefore, a study was conducted in four community development blocks of district Srinagar in the UT of Jammu & Kashmir in order to study the constraints perceived by the sheep farmers. The information was collected from 94 respondents of 19 identified areas through a pre-structured questionnaire. The results revealed that inadequate finance (97.8%), lack of technical knowhow (64.8%), nonavailability of quality breed (51%), lack of quality medicine (35.1%), insufficient grazing land (34%), inadequate market availability (26.5%) and lack of labour (12%) were among the major constraints. Minor constraints included lack of subsidized sheep units (65.9%) feed/fodder (36.1%), lack of dipping tank (30.8%), inadequate logistic support (30.8%) from the department of sheep husbandry.

Keywords: Kashmir Merino, J&K, sheep farmers, constraints, policies

India being an agrarian country, agriculture represents the back bone of its economy. However, under Indian conditions, the success of agriculture production is dependent on the monsoon which adds an element of uncertainty to it. In order to cope up with such uncertainties and assured a year round income to the farmers, livestock production represents an important subsidiary occupation. About 73% of rural India owns livestock and this sector provides employment to 22.45 million people directly or indirectly. The livestock sector alone contributes nearly 25.6% of Value of output at current prices of total value of output in Agriculture, Fishing & Forestry sector. The overall contribution of livestock Sector in total GDP is nearly 4.11% at current prices during 2012-13 (Anonymous, 2012).

The state of Jammu & Kashmir is predominantly an agrarian state with about 70% population involved in agricultural activities. The state has a total geographical area of 222.24 Lac hectare, out of which only about 28% (about 62 Lac hectare of land) is cultivable (Anonymous, 2003) and rest being under forest cover, rocky hills and barren uncultivable land. Geographically Kashmir valley is a temperate zone lying in between the outer and inner zone of western Himalayas. The state is ideally suited for rearing of sheep and goats owing to its favourable agro climatic conditions, rich alpine pastures and host of other natural endowments. Sheep and goat rearing is the core activity of rural masses in the state and plays a vital role in socioeconomic upliftment of weaker sections of the

society viz, Gujjars & Bakarwalls, Chopans, Gaddies and Changpas. The Gujjars and Bakarwalls, have adopted the sheep and goat rearing as their primary occupation from times immortal and prefer to migrate in search of pastures to feed their livestock.

Kashmir Merino sheep is a huge success story of cross breeding programme that has improved the mutton and wool production in Jammu and Kashmir. However, the production performance of Kashmir Merino has decreased over the years, so there is need to identify the core problems. As stated by Verbeek *et al.* (2007), to develop a suitable breeding programme, aspirations of farmers need to be known. In view of this, an attempt was made to evaluate the constraints perceived by the farmers of Jammu and Kashmir.

Material and Methods

Study area and animals

The proposed work was undertaken in the four community development (CD) blocks of district Srinagar. Srinagar city is located at an average elevation of 1600 meters above mean sea level and it is spread over in the heart of the oval shaped Valley of Kashmir. It is situated between 740-56' and 750-79' East Longitude and 330-18' and 340-45' North Latitude. Srinagar has a humid subtropical climate, much cooler than what is found in much of the rest of India, due to its moderately high elevation and northerly position. The valley is surrounded by the Himalayas on all sides. Winters are cool, with a January daytime average of 2.5°C (36.5°F), and temperatures below freezing at night. Moderate to heavy snowfall occurs in winter and the only road that connects Srinagar with the rest of India may get blocked for a few days due to Avalanches. Summers are warm with a July daytime average of 24.1°C (75.4°F). The average annual rainfall is around 710 millimetres (28 in). Spring is the wettest season while autumn is the driest. The highest temperature reliably recorded is 38.3°C (100.9°F) and the lowest is -20.0°C (-4.0°F) (Anonymous, 2015a).

Experimental site

The investigation was undertaken, in collaboration with the extension wing of Sheep Husbandry Department, in four community development (CD) blocks of district Srinagar viz. Srinagar North, Srinagar South, Khanmoh and Harwan block. A total of 94 respondents involving 29, 27, 16 and 22 farmers from Srinagar North, Srinagar South, Khanmoh and Harwan were selected, respectively. This was because of uneven distribution of sheep populations in the study areas. The visited sites in each CD block were selected on the basis of having a higher concentration of livestock. At each study

site, the farmers were randomly selected from a list of breeders available with Sheep Extension centers. Each flock owner was interviewed face to face at their homesteads using pre-structured questionnaire to get information regarding their socio-economic profile.

Data Analysis

The response to the questionnaires were entered into a computer spread-sheet, Microsoft Excel (Microsoft Corporation, USA) followed by Analysis using standard statistical tools of the said programme.

Results and Discussion

Major Constraints:

The main production constraints mentioned by farmers have been tabulated based on the order of importance (Table 1) which included: inadequate finance (97.8%), lack of technical knowhow (64.8%), nonavailability of quality breed (51%), lack of quality medicine (35.1%), insufficient grazing land (34%), inadequate market availability (26.5%) and lack of labour (12%). All the respondents indicated high cost of feed/fodder particularly during winter months as one of the most important constraint in sheep production though its availability was not a problem.

Minor constraints:

The constraints indicated were lack of subsidized sheep units (65.9%) feed/fodder (36.1%), lack of dipping tank (30.8%), inadequate logistic support (30.8%) from the department of sheep husbandry, unreliable chopans (27.6%), quality Rams supplied by department of sheep husbandry (19.1%), lack of shearing facility (13.8%), encroachment of grazing areas (9.5%) and grazing scarcity (4.2%) (Table 2).

Discussion

Major Constraint: All of the respondents (100%) reported high cost of feed & fodder as major production constraint especially during winter season although its availability was not a problem which was in contrary to the reports of Khan *et al.* (2013) who observed that non-availability of feed & fodder was perceived to be the most important production constraint. Similarly, Rauniyar *et al.* (2000) reported that farmers faced a serious feed shortage during winter season. In addition to this availability of poor pasture growth and reduction in public grazing land are the main constraints observed by the farmers of Nepal. Sheep farming being mainly in the hands of poor farmers, majority of the respondents reported lack of financial help as major constraint in sheep production. Majority of the respondents (97.8%) had insufficient capital to upgrade infrastructure & their sheep flock by purchasing superior ewes and rams. They also could not borrow money from a commercial or from

the Agricultural Development Bank because they had been practicing a migratory grazing system and high rate of interest by the banks on loan amount. Almost all farmers (51.0%) from all the blocks expressed concern about the low productivity of the breed against the expectation. Under development of pastureland and cultivation of marginal lands were expressed as the primary concern by the farmers in terms of sheep feeding during spring & autumn season. About 34.0% respondents reported insufficient availability of low land pastures for grazing due to encroachment of these areas, fencing by Forest department, occupation by security forces etc. as production constraint. This is consistent with the findings of studies in Ethiopia by a number of workers (Oba *et al.* 2000; Oba and Kotle 2001; Desta and Coppock 2004) who reported that Borana pastoralists were under increased pressure due to shrinkage of grazing lands as a result of ethnic conflicts, demarcation of regional boundaries and displacement of Borana pastoralists from large parts of the grazing lands. Natural pasture and crop stubble were the main feed resources for sheep production in the study area. In the present study, it was observed that to satisfy the growing human population, grazing lands were being converted into crop lands or residential areas. The results in this study are in conformity with the reports of Yenesew *et al.* (2013) who reported that 48% of the farmers indicated that the communal grazing lands had decreased in area, also resulted in overgrazing and poor productivity of grazing lands. This is in contrary to the reports of Kopongo (2011) who observed that feed shortage and shortage of grazing land were reported by only 9.4% and 6.2% respondents respectively. Similarly Kagira and Kanyan (2010) reported that majority of the farmers grazed their animals in open land spaces especially government & municipal lands. As sheep and wool production is largely concentrated in remote areas, the lack of markets for both live sheep and wool was one of the problems observed by 26.5% of the respondents from South & Harwan block due to their location which was too far from main markets, prohibitive transport costs, migratory sheep grazing system etc. Similar findings were observed earlier by Kagira and Kanyan (2010) who reported that main constraint observed by the farmers of Kenga was diseases (100%), lack of feed (56%) and helminthosis (62%). According to Kopongo (2011) 88.1% respondents reported non-availability of market as major constraint. Lack of scientific knowledge of sheep farming and poor extension work of government officials on management

practices were a major constraint in sheep production as reported by 64.8% respondents. In the present study almost all the respondents reported that medicines were available at nearest sheep extension centres. However, 35.1% of the respondents were unsatisfied with the quality of drugs. This agrees with the report of Hassan *et al.* (2015) who stated that the presence of pests and diseases increased their cost of production and reduced the number of animals kept. In the present study availability of labour was not considered as a problem as per 87.2% of the respondents. None of the respondents from district Srinagar reported mortality in adults as a major constraint.

Minor Constraints: Availability of limited or few subsidized sheep units under different govt. schemes with interest component as subsidy and easy repayment of instalments was one of the minor constraints for increasing sheep production as reported by 65.9% of the respondents. Lack of dipping tank along with water supply was a constraint as reported by 30.8% of the respondents mostly from Khanmoh block because mange was seen as big problem responsible for low production and higher cost on its control. Similar results were earlier reported by Zubair (2013) in goat production. Khanmoh being the industrial area and hub of cement factories, skin affections to which farmers consider mange was reported to be present throughout the year in spite of continuous treatment of animals. It needs to be ascertained whether skin affection of sheep in Khanmoh area is really a parasitic infestation or any allergic response to the dust coming out of cement factories. Dipping tank was used for dipping the sheep with medicated water to clean and control the mange. About 27.6% respondents mostly from South block reported the lack of trust on shepherds or chopans as a constraint in sheep production. It was reported that birth of lambs on high land pastures were not reported to their owners. Moreover, prized animals were sold & owners were shown a piece of skin of other dead sheep as a proof of dead animal killed as a result of wild attack. Such cheatings were common on part of chopans as reported from all the blocks. Lack of quality rams from government department for breeding purpose was reported to be a constraint by 19.1% of the respondents except for the Harwan block where chopan community had maintained the quality breeding stock out of their experience and dependence on sheep sector due to sheep farming activity adopted by their ancestors.

Conclusion

Lack of finance, high cost of feed & fodder, nonavailability of good quality breed, insufficient low

land pastures and subsidized sheep units etc., are among the important constraints in the sheep rearing. To improve livestock productivity, it is recommended that key stakeholders address

the constraints mentioned in this study. Further, intervention to free a large chunk of occupied grazing area is needed.

Table 1^o: Major constraints perceived by sheep farmers of District Srinagar (J&K)

Parameter	Variable	Percent Frequency				Overall Percentage
		Block				
		North N= 29	South N= 27	Khanmoh N= 16	Harwan N= 22	N=94
Breed	Available	12 (41.38)	12 (44.44)	6 (37.50)	16(72.73)	46 (48.93)
	Not available	17 (58.62)	15 (55.56)	10 (62.50)	6(27.27)	48 (51.06)
Feed/Fodder	Available	29 (100)	27 (100)	16 (100)	22(100)	94 (100)
	Not available	0 (0.00)	0 (0.00)	0 (0.00)	0(0.00)	0 (0.00)
Grazing Land	Sufficient	20 (68.97)	10 (37.04)	14 (87.50)	18(81.82)	62 (65.95)
	Insufficient	9 (31.03)	17 (62.96)	2 (12.50)	4(18.18)	32 (34.04)
Quality Medicine	Available	25 (86.21)	17 (62.96)	5 (31.25)	14(63.64)	61 (64.89)
	Not available	4 (13.79)	10 (37.04)	11 (68.75)	8(36.36)	33 (35.10)
Labour	Available	29 (100)	23 (85.19)	16 (100)	14(63.64)	82 (87.23)
	Not available	0 (0.00)	4 (14.81)	0 (0.00)	8(36.36)	12 (12.76)
Market	Available	29 (100)	14 (51.85)	16 (100)	10(63.64)	69 (73.40)
	Not available	0 (0.00)	13 (48.15)	0 (0.00)	12(54.55)	25 (26.59)
Technical Knowledge	Available	28 (96.55)	6 (22.22)	14 (87.50)	13(59.09)	61 (64.89)
	Not available	1 (3.45)	21 (77.78)	2 (12.50)	9(40.91)	33 (35.10)
Finance	Available	29 (100)	27 (100)	15 (98.75)	21(95.45)	92 (97.87)
	Not available	0 (0.00)	0 (0.00)	1 (6.25)	1(4.55)	2 (2.12)

Table 2^o: Minor constraints perceived by sheep farmers of District Srinagar (J&K)

Parameter	Percent Frequency				Overall Percentage
	Block				
	North N= 29	South N= 27	Khanmoh N= 16	Harwan N= 22	N=94
Availability of Dipping Tank	7 (24.14)	0 (0.00)	13 (81.25)	9(40.91)	29 (30.85)
Encroachment of grazing area	5 (17.24)	3 (11.11)	0 (0.00)	1(4.55)	9 (9.57)
Quality Ram from SHD	8 (27.59)	7 (25.93)	3 (18.75)	0(0.00)	18 (19.14)
Subsidized sheep Units	19 (65.52)	20 (74.07)	9 (56.25)	14(63.64)	62 (65.95)
Subsidized feed/fodder	20 (68.97)	1 (3.70)	3 (18.75)	10(45.45)	34 (36.17)
Unreliable Chopans	1 (3.45)	22 (81.48)	2 (12.50)	1(4.55)	26 (27.65)
Logistic Support	0 (0.00)	7 (25.93)	0 (0.00)	22(100)	29 (30.85)
Shearing Facility	0 (0.00)	0 (0.00)	13 (13.82)	0(0.00)	13 (13.82)

^o Figures in parenthesis indicate percentage of respondents

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