



COPING STRATEGIES ADOPTED BY SHEEP FARMERS FOR MEETING THEIR FAMILY NEEDS IN SEMI-ARID RAJASTHAN

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The farming community in arid and semi-arid regions of Rajasthan depends upon monsoon for their crops which is unpredictable and one of the reasons for poverty among households. In this scenario, sheep husbandry is suitable farming practice for livelihood of economically weaker sections of the society in drought-prone areas (Bagdi et al., 2016a). However, shrinking of grazing land, feed and fodder scarcity, disease incidence and unorganized market are some of the constraints, which need attention to ensure the growth of sheep husbandry. A study was conducted with an objective to know the strategies being adopted by sheep farmers to meet their household needs.

The study was conducted in the Malpura tehsil of Tonk district (Rajasthan) in the year 2015. A total of 50 sheep farmers were drawn randomly from eight villages (Soda, Kurthal, Bacchera, Chawandiya, Rindaliya Bujurg, Jailmiya, Tantiya and Malpura) of Malpura tehsil, constituted the sample for the study. The data were collected by personal interview of the households using a well-structured, comprehensive and pre-tested schedule. For analyzing the frequency of use of all available and accessible strategies by sheep farmers, a Coping Strategy Used Index (CSUI)

score was adapted as per Islam and Kashem (1999). The extent of use of the coping strategies was expressed on a 4-point scale with the scoring order as 3, 2, 1 and 0 for frequently, occasionally, rarely and not used, respectively. The following formula was used to obtain the CSUI score:

$$CSUI = N_1 \times 3 + N_2 \times 2 + N_3 \times 1 + N_4 \times 0$$

where, N_1 , N_2 , N_3 and N_4 are the number of households using a particular coping strategy frequently, occasionally, rarely and never.

The constraints faced by the respondents were analyzed according to severity using 3-point continuum scale with the scoring order 2, 1 and 0 for always, sometimes and not faced, respectively. The data were analyzed with the help of descriptive statistics like frequency and severity of problems faced by the respondents.

Sheep farmers in semi-arid region of Rajasthan employed a number of strategies to meet household needs. Among different coping strategies (Table 1), sale of small ruminants (17.2%) was the most employed strategy followed by withdrawal of money from personal savings (14.1%), borrowing of money from friends / relatives (12.9%) loan from friends/relatives (12.1%),

loan from banks (8.6%) and migration towards cities for work (8.2%). Similar study conducted by Kumar et al. (2015) in Uttar Pradesh showed that goat rearing is a major source of income for landless farmers which contribute more than half of total household income. The least patronised strategies were reducing expenses on non-food items (6.8%), sale of large animals (6%), reduce expenses on food (3.5%) and compel the children to drop out from the school (1.6%). The results revealed that sheep and goat rearing has distinct economic, managerial and biological advantages. Economically low individual values mean a small initial investment and correspondingly small risk of loss by individual deaths. Managerially they are conveniently cared by

women and children, occupy little housing space, lower feed requirements and supply both meat and milk in quantities suitable for immediate family consumption. These strategies can be useful to policy makers for identification of problem and implementation of schemes to improve livelihood of shepherds. Effort should be intensified for capacity building of shepherds in Rajasthan through training which can enhance their productivity. In the present study, a few shepherds with tertiary education were able to manage the livestock-financial needs interface well than those without formal education. Thus, education is empowerment which can translate to better adoption of technology that will invariably enhance output and increase revenue.

Table 1. Ranking of accessible coping strategies employed based on the frequency of use (n=50)

Strategy	Response for use of strategy				CSUI	Households(%)	Rank
	Frequently	Occasionally	Rarely	Never			
Sale of small ruminants	37	10	1	2	132	17.2	I
Withdrawal of money from personal savings	24	14	8	4	108	14.1	II
Borrowing of money from friends/ relatives	13	26	8	3	99	12.9	III
Loan from friend /relatives	11	25	10	4	93	12.1	IV
loan from cooperative societies	18	6	3	23	69	9.0	V
Loan from banks	17	7	1	25	66	8.6	VI
Migration towards cities for work	2	26	5	17	63	8.2	VII
Reducing expenses on non-food items	2	14	18	16	52	6.8	VIII
Sale of large animals	2	16	9	23	47	6.0	IX
Reduce expenses on food of family	0	5	17	28	27	3.5	X
Compelling the children to drop out from school	0	3	6	41	12	1.6	XI

The analysis of constraints faced by the respondents in sheep farming showed that insufficient grazing land (78) as the most severe constraint in the study areas (Table 2). This may be due to declining area under pastures and grazing as a result of encroachment by the people (Yogi et al., 2014). This has forced them to either leave or down-scale sheep rearing occupation. Incidence of disease (38) was recorded as the next major constraint, followed by

non-availability of green fodder (35), low wool price (20), unorganised sheep marketing facilities in villages (20), excessive encroachment of vilayti babul (*Prosopis juliflora*) in grazing land (20), non-availability of wool clipper (10) and low interest of young generation in sheep farming (8). Monopoly of local buyers, inferiority complex in society, attack of wild animals and drinking water scarcity constraints were also faced by some of shepherds.

Table 2. Constraints faced by respondents in sheep rearing

Constraint	Score	Rank
Insufficient grazing land	78	I
Incidence of disease	38	II
Non-availability of green fodder	35	III
Low wool price	20	IV
Unorganised sheep market	12	V
Prosopis <i>Juliflora</i> encroachment in grazing area	12	V
Non-availability of wool clippers	10	VI
Low interest of young generation in sheep rearing	08	VII
Still birth/abortion cases in flock	07	VIII
Higher lamb mortality	05	IX
Drinking water scarcity	02	X
Monopoly of local buyers	02	X
Attack of wild animals	01	XI
Inferiority complex in society	01	XI

Similar findings were reported by Bagdi et al. (2016b) earlier from this region. The results revealed that there is a need for removing the encroachment of community grazing land by the government and local Panchyats. There is a need for reorientation of extension services to provide relevant information to the shepherds on remunerative marketing opportunities for their produce. Community grazing resources in the villages should be rehabilitated with perennial grasses and *Prosopis juliflora* shrubs should be managed properly to protect unnecessary encroachment.

SUMMARY

A study was conducted in eight villages of Malpura tehsil, Tonk district (Rajasthan) with an objective to know the strategies being adopted by sheep farmers (n= 50) to cope the household needs. The frequency of these strategies was assessed using Coping Strategies Used Index (CSUI). The study revealed that sale of small ruminants (17.2%) was the most employed strategy followed by withdrawal of money from personal savings (14.1%), borrowing of money from friends /relatives (12.9%), loan from friends/relatives (12.1%), loan from cooperative societies (9.0%), loan from banks (8.6%), migration towards cities for work (8.2%), reducing expenditure on non-food items (6.8%) and sale of large animals (6.1%). Lack of grazing land, frequent disease

occurrence, non-availability of green fodder, low wool price, unorganised sheep marketing facilities in villages, encroachment of vilayti babul (*Prosopis Juliflora*) in grazing land in the descending order of severity were the major problems faced by the sheep farmers in the areas.

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