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NOMADISM AND MIGRATION OF PASTORALISTS AND THEIR LIVESTOCK IN WESTERN INDIA

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ABSTRACT

Nomadism and migration are conspicuous features of livestock raising in the arid and semi-arid regions of western India. Migratory movement initiates in the month of November and December and return migration starts in June and July. In extreme western part of sandy desert the migration is local and without any cyclic pattern. In the eastern part of the sandy desert, the livestock migration is cyclic and follows the definitive routes. Livestock herds from the western part of Jaisalmer, Jodhpur and Bikaner districts move towards Punjab plains via Ganganagar. The herds from the eastern part of Jaisalmer, Bikaner, Jodhpur and Nagaur districts go to Ganga-Yamuna Doab and Punjab plains through Jaipur. Herds from southern part of Jaisalmer and Barmer move down to Gujarat via Sanchor. The migratory herds spread over about three times the area of origin.

INTRODUCTION

Nomadism and migration are the conspicuous features of the livestock raising in the arid and semi-arid regions of western India. Migration and nomadic movements of pastoralists in the western India have so far been known in general terms and no attempt has been made to map out the movements of pastoralists in detail in the time and space. Mittal (1979) has given a brief account of the sheep husbandry practices in a cluster of five villages in the arid region of western Rajasthan. Taneja (1970) has given a generalised account of sheep management being practised in Rajasthan. Wherein an informative account on migration routes, migration schedule and losses of sheep during migration is given.

The present study was, therefore, undertaken to document the movements of pastoralists as the commonly adapted husbandry practice in the region. It is envisaged that such a study would generate data which would be useful in planning the strategies for the management of desert eco-system in general and economics of pastoralist of western India in particular.

MATERIAL AND METHODS

Questionnaires encompassing different aspects of livestock management and husbandry practices including nomadic herding were prepared for collecting information from the nomads, oftenly in the process of migrating their herds. Twenty four different livestock herders distributed all over different parts of the region were interviewed.

Study area : Western part of India (lat. N 20° 30′ and 30° 30′ and long. E 70° 30′ and 79° 15′) comprises the states of Gujarat, Rajasthan, Haryana, south Punjab, Delhi and western parts of Uttar Pradesh and Madhya Pradesh. Physiographic divisions of the regions are illustrated in Fig. 1. However, the Marusthali (Desert) is sand dune dominating, rainfall is least and erratic, ecoclimate varies from extremely arid to arid. Rajasthan 'bagar' is a belt of steppe country from the foot of Aravalli hills to Punjab plains, drained by numerous water course, however, some fertile patches also exist. Punjab plains, remarkably flat, receive higher rainfall and have fertile light loamy soil. Ganga-Yamuna doab is densely populated, heavily irrigated, rainfall is higher and soil is fertile. Kachchh peninsula have saline and sandy flat and bare rocky hills of sandstone, fertile and populated plains. Gujarat plains have old alluvium fertile soil, very well drained by perennial river systems.

RESULTS AND DISCUSSION

The migratory herds originate only from western Rajasthan, from there spread to different regions of western India. In the extreme western part of the sandy desert (Marusthali) the nomadism is the man's way of life, much of the livestock movement in this region is local and without any cyclic pattern. In the eastern part of sandy desert, the livestock movement is cyclic and with definite pattern (Table 1, Fig 2). The livestock herds from this region migrate through three major routes : (1) the livestock herds from the parts of Jaisalmer, Jodhpur and Bikaner districts move towards Punjab plains via Ganganagar disirict; (2) the herds from the eastern part of Jaisalmer, Bikaner, Jodhpur and Nagaur districts go to the Ganga-Yamuna doab and Punjab plains, passing tnrough Jaipur; (3) the herds from the southern part of Jaisalmer and Barmer move to Gujarat plains and Kachchh peninsula via Sanchor. The migratory movements are initiated in the months of November and December, and return migration occurs with the onset of monsoon in the month of June and July. In addition to the dry season migration outlined above, a limited migration occurs in the wet season also (Table 2). Composition of the migratory herds interviewed during the study is summarized in Table 3.

Migration is the common husbandry practice in the arid districts (Jaisalmer, Bikaner, Barmer, Jodhpur, Nagaur) of western Rajasthan. The economy of the district is animal based. Agriculture is largely rudimentary and never sufficient for the subsistence of villagers and their livestock. Therefore, the livestock is left out to graze wherever they can. The livestock range from grazers to browsers so that they use all kind of vegetation from ground level to 3 m height. Consequently, all the ground cover vegetation of palatable forage species sink down in a very short time and rest of the time they have to migrate in search of food.

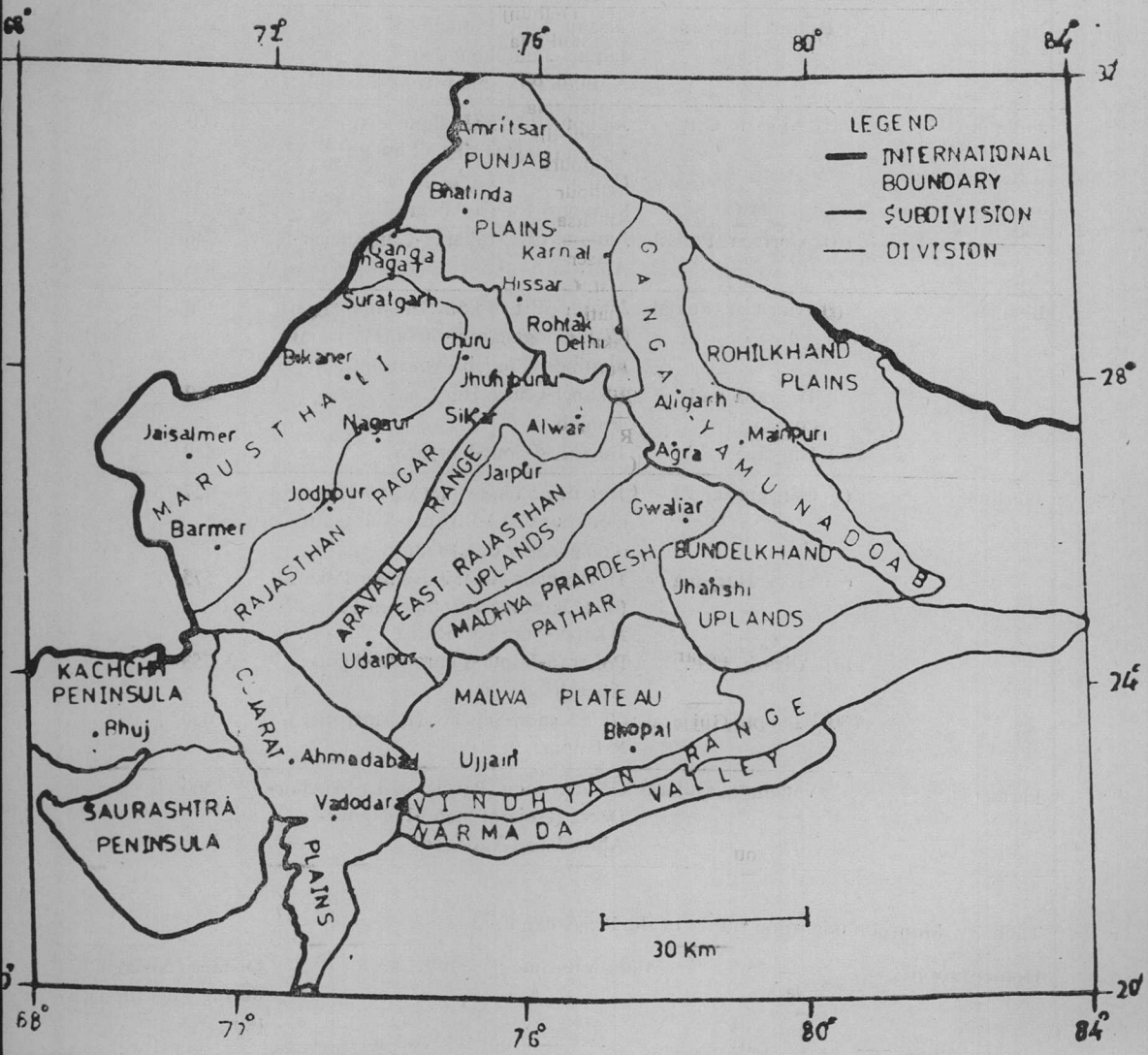

Fig. 1—Physiographic divisions of western India

Table 1. Dry season migration routes of the Rajasthan herds

Home District	Summer station	Migration route	Distance covered during one way migration (km)
Nagaur	Rohtak, Haryana	Nagaur Dist.-Phulera (dist. Jaipur)-Jhunjhunu dist.-Narnaul (Haryana)-Rohtak	511
Jodhpur	(i) Aligarh, U.P.	Jodhpur-Bilara (Jodhpur dist.) Gotan (Nagaur dist)-Phulera (Jaipur dist.)-Jaipur-Agra-Manipuri-Etawa-Aligarh	800
———	(ii) Amritsar, Punjab	Jodhpur dist.-Bikaner-Ganganagar-Amritsar	746
Bikaner	(i) Amritsar, Punjab	Jamser (dist. Bikaner)-Hanumangarh (dist. Ganganagar)-Sirsa (Haryana)-Bhatinda (Punjab)-Amritsar	390
	(ii) Haryana and Punjab	Bikaner-Churu-Haryana-Punjab	360
	(iii) Haryana	Bikaner-Jaipur-Haryana	420
Jaisalmer	(i) Ganganagar	Ramdeora (Jaisalmer dist.)-Phalodi (Jodhpur dist.)-Bikaner-Suratgarh (Ganganagar dist.)-Ganganagar	427
	(ii) Sirsa, Haryana	Devka gaon (dist. Jaisalmer-Pokaran (dist. Jaisalmer)-Ramdeora-Phalodi-Bikaner-Suratgarh-Sirsa	575
	(iii) Aligarh, U.P.	Pokaran-Jaipur-Bharatpur-Agra-Aligarh	753
	(iv) Palanpur, Gujarat	Gunga gaon-Sanchor (Barmer dist.)-Palanpur	450
Barmer	Vadodara, Gujarat	Gandva gaon (Barmer dist.)-Sanchor-Deesa (Gujarat State)-Palanpur-Ahmedabad-Vadodara	500

Table 2. Monsoon migration routes of the Rajasthan herds

Home station	Migration route	Distance covered during migration (km)
Nagaur	Nagaur (dist. Nagaur)-Merta (dist. Nagaur) Champsar (dist. Jodhpur)-Phalodi (dist. Jodhpur)-Ramdeora.	287
Jodhpur	Rook-ki-tala-Shergarh-Pulgbia-Burkio-Sauma-Dedia-Ramdeora-Tippu-ki-tekari (all station within the district)	65

Table 3. Composition of migratory herds

No. of Herd	Number of animals						
	Cattle	Camel	Sheep	Goat	Donkey	Dog	Total
Barmer-2	10	2	20	18	0	0	50
Barmer-3	0	0	0	100	0	0	100
Barmer-4	25	0	50	100	0	0	175
Barmer-5	15	0	30	100	0	0	146
Barmer-6	4	2	2	40	0	0	48
Bikaner-3	0	0	100	10	0	0	110
Bikaner-5	0	0	0	400	0	0	400
Bikaner-6	200	0	100	50	17	0	367
Bikaner-8	50	0	90	50	0	0	190
Jaisalmer-1	0	0	0	55	0	0	190
Jaisalmer-4	0	0	40	65	0	0	105
Jaisalmer-5	0	0	200	140	0	0	340
Jaisalmer-6	0	0	200	100	0	0	300
Jaisalmer-15	7	7	600	600	0	0	1214
Jaisalmer-2	0	0	25	80	0	0	105
Jodhpur-12	9	3	120	80	1	0	213
Average/herd	20	1	98	124	1	0	243

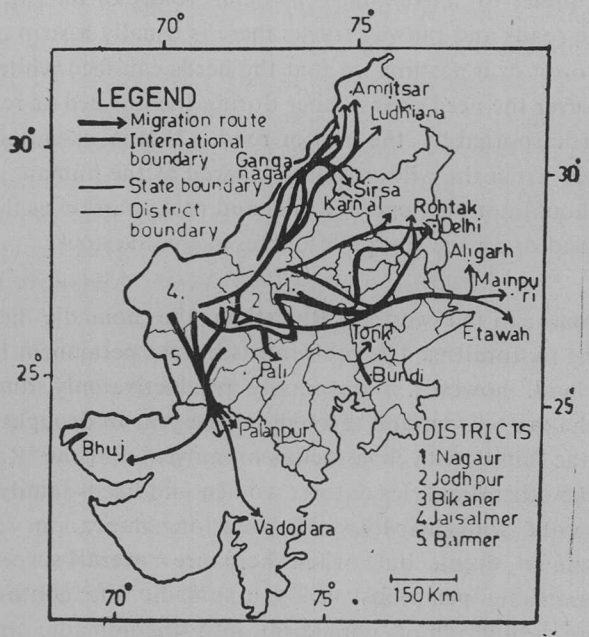

Fig. 2—Migratory routes of pastoralists and their livestock.

Against this reliance upon numbers, the nature matches the exigencies in drought which regularly thins out the stock and prevent "insurance" concept getting out of hand and destroying the range land.

The western concept of 'surplus' cannot easily be applied in this circumstance because the part played by animals in a pastoral society is complex and multifaceted. As yet almost no data on pastoral nomadism (energy flow, basic herd requirements, census details, realistic sociological study or nutritional survey) are available and so any planning for the pastoral community still lacks a solid base.

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