

# **Pastoralism in India: A Scoping Study**



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## **Terms of Reference**

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### **Issues to be covered:**

- ◆ Definition of pastoralism in the Indian context
- ◆ The size, location, ethnic identities and migration pattern of major pastoralist groups in the Himalayan and Arid and Semi-arid regions
- ◆ Classification of major types of Indian pastoralists
- ◆ The extent to which pastoralists of different types can be considered poor in Indian context and in general context of developing countries
- ◆ Major problems experienced by different types of pastoralists
- ◆ Past and likely trends of pastoral development
- ◆ Identification of institutions (civil and/or public) which speak for/represent the interests of the major pastoral groups
- ◆ The institutional arrangements which would enable the concerns of pastoralists to be represented and thereby ensure research is truly demand-led
- ◆ Topics in pastoral development that represent “researchable constraints” for the Livestock Production Programme

### **Output:**

The output would be a report (about 40 pages) and a executive summary based on review of literature, field visits and discussion with key informants like pastoralism groups, NGOs and Animal Husbandry and Forest Department officials, SAUs, etc.

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## Executive Summary

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Pastoralism makes a significant contribution to the economy of developing countries, both in terms of providing employment and income opportunities and in supplying nutrition to the rural poor, however as an economic system it is constantly threatened by inappropriate Government policies. Indian pastoralism is under-researched and poorly documented. It differs in structure and social organisation from other parts of the world. Only a small proportion of pastoral groups have been described in some detail - these include some of the larger communities in Western India, such as the *Rebari/Raika* and *Bharwad*, as well as some of the Himalayan region like *Gaddis*, *Gujjars* and *Kinnauras*. Population figures are scanty or non-existent, and some groups in the Deccan Plateau may never have been reported.

Analysis of the available information on the pastoralists in the Western drylands and in the mountains reveals remarkable similarities in regards to the problems faced by them, despite the contrasting ecological zones that they represent.

There are no official pastoral development policies; in fact both the Ministry of Agriculture and the Ministry of Environment and Forest are remarkable for their stance against pastoralists. The livestock policies of the former have focused on cross-breeding of indigenous breeds with exotic ones while ignoring conservation and development of the much better adapted and often rather productive indigenous breeds kept by pastoralists; animal health provision services have been geared towards the needs of affluent landed livestock owners; the considerable indigenous knowledge of pastoralists has not received any recognition and they are perceived as backward.

The Ministry of Environment and Forest is openly against pastoralists, attempting to exclude them from their traditional grazing areas. While there are a small number of NGOs and pastoral organizations, which have not yet been able to combine their voices and raise the subject of pastoralism at a national level.

Pastoralists have shown themselves very resilient, they have intact social structures and mechanisms for mutual sharing of resources, and their livestock also represents an encashable asset. Although odds seem stacked against them, there is some hope that with increasing international emphasis on the conservation of biodiversity, pastoralists might be able to benefit from recognition for their role in conserving livestock genetic diversity, valuable indigenous breeds and indigenous knowledge about coping mechanisms for environmental stresses like droughts and floods.

The future of pastoralism in India will depend heavily on political decisions made by the State and Central Government. However, working with pastoralists, based on a thorough understanding of their traditional production systems, indigenous knowledge, traditional strategies and practices, could empower the pastoralists and maintain their capacity to produce food on marginal lands.

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# Introduction

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## The Social Context of Pastoralism

The worldwide literature on pastoralism is extremely uneven and determined by politics and security issues as much as by the need for empirical data. According to Blench (2000), Indian pastoralism is the worst documented by far, with confused descriptions of pastoral systems and confused terminology for pastoral ethnic groups. Screening of the anthropological literature, as well as of development reports, indeed confirms that pastoralists represent a subsector of Indian society that has received much less attention in comparison with other social groups, from both the research and the development angle. This can be linked to differences between the spatial and social organization of pastoralism in India and other countries, as well as to prevailing research and development paradigms. In Africa and the Middle East, pastoralists are usually tribally organized and associated with particular territories inhabited exclusively by them. By contrast, in India, pastoralists are integrated into the caste system, representing endogamous social groups with a professional specialization in animal husbandry. There are certain regions – such as the most arid parts of the Thar Desert on the Indo-Pakistan border and the sub-alpine and alpine zones above 3200 metres in the Himalayas - which can only be utilized seasonally by means of pastoral strategies. But in most parts of India, pastoral and agrarian land use strategies are spatially integrated and interdependent activities pursued within the same landscape. Besides breeding their own livestock, pastoralists also take care of the animals of other communities, fulfilling the role of village cowherd.

Because, in India, the “village” has always been the focal unit for investigations by anthropologists as well as for development interventions, pastoralists, due to their transient and dispersed existence, somehow have fallen through the gaps and escaped the attention of researchers and development agencies. The term “pastoralism” is rarely used and remains so far an almost unknown category used neither by anthropologists nor animal husbandry people. The first usually talk in terms of “*nomads*”, a category, which in India contains a large number of non-pastoral groups. For animal husbandry professionals, animal keeping outside “western models” (i.e. either for dairy purposes or production of broilers/eggs) has barely entered their consciousness and for many the term “pastoralist” is new.

Geographically, nomadic pastoralism is most prevalent in the drylands of Western India (Thar Desert) and on the Deccan Plateau, as well as in the mountainous regions of North India (Himalayas). Types of livestock kept in mobile pastoral systems include buffaloes, sheep, goats, camels, cattle, donkeys, yaks, and even ducks are raised under transhumant conditions. But there are also more sedentary forms of pastoralism, represented for instance by the buffalo breeding *Toda* in the *ghat* region of Southern India.

The pastoralists of the Himalayas and the Thar Desert have received much more attention than others and information about them forms the backbone of this report. However, this should not be interpreted as meaning that others are non-existent or not important, but simply as reflecting a lack of information.

### **Pastoralism in the Indian Himalayas**

Pastoralism in the Himalayas is based on transhumant practices and involves cyclical movements from lowlands to highlands to take advantage of seasonally available pastures at different elevation in the Himalayas (Bhasin 1988). During the summer, when the snow melts in the higher alpine regions, Himalayan pastoralists move up to these areas to graze their animals. After the monsoon they move down to occupy the low altitude pasture for the winter months. Movement of people and their livestock proceeds between previously earmarked sites, which become more or less regular seasonal encampments or bases.

Migratory pastoralism is common throughout the Himalayas and, from west to east, some of the herding communities in the region include the goat and sheep herding Bakrawals of Jammu and Kashmir, the buffalo herding *Gujjars* in Kashmir, parts of Himachal Pradesh and Uttar Pradesh, the goat and sheep herding *Gaddis*, *Kanets*, *Kaulis* and *Kinnauras* in Himachal Pradesh, the sheep herding *Bhotias* of Uttar Pradesh, yak herding *Sherpas* of Khumbu, Nepal and less well-known communities in the mountains of Bhutan, Sikkim and Arunachal Pradesh. All of these herders continue a long-standing tradition of migrating up to the alpine pastures of the high Himalayas for the summer and descending to the low-lying Himalayan foothills in the winter.

Some pastoralists in the Himalayas are agro-pastoralists and besides rearing animals they also cultivate land, although the major portion of their household income is drawn from pastoral activities. In addition, they also engage in a multitude of other economic activities like handicrafts, trade and transport. For example, the *Gaddis*, in Himachal Pradesh are known for their beautiful handicrafts; the embroidered caps made by *Gujjars* are also famous. The *Bhotias* are the most prominent trading community on the Indo-Tibet border and similarly *Changpas* in Ladakh are involved in cross border trade with Tibet.

### **Pastoralism in Western India**

The “Old World Arid Zone Belt” that stretches across Northern Africa and Northern Asia and has given rise to many pastoral cultures, reaches its most eastern point in Northern India. Its limit is marked by the Aravalli mountain chain that runs in a northeast-southwest direction roughly from Delhi to Ahmedabad. The area that is bordered by the Aravalli hills in the west and the Indo-Pakistan border in the east is known as the Thar Desert; receiving average annual rainfall ranging from 100-600 mm, it is subject to frequent droughts, and therefore, pastoralism traditionally represented the predominant land use strategy.

In this region pastoralism can be a market-oriented strategy by landless people specialized in the production of animals and animal products for sale; but it can also be a subsistence and drought adaptation strategy by people who own land.

The pastoral castes of Western India are presumed to have immigrated into the area from Afghanistan, Baluchistan and Pakistan. In some instances this has happened recently and is well documented, in others the oral traditions are equivocal and open to interpretation. In general there are many similarities in dress and customs between the pastoralists of Western India and their counterparts to the west.

Although there are exceptions, most pastoralists are Hindus integrated into the village caste mosaic, for which animal husbandry represents a hereditary profession. The majority of them are connected with particular livestock species by their myth of origin, tracing their descent to an ancestor who was created by God for the purpose of taking care of these animals. For instance, the *Raika/Rebari* are linked to the camel, the *Charan* in Gujarat are associated with cattle, and the *Bharvad* keep mostly small stock. Because of this heritage, these pastoralists are endowed with a special sense of responsibility for the welfare of their livestock. Taboos against the selling of livestock for slaughter were prevalent earlier and even now persist among some groups.

Although there are castes with a strong pastoral identity, the situation is to some extent fluid and the transition between herding and cultivation is possible. Some castes that originally were pastoralists have switched to crop farming, for instance the *Ahir* who are now the main farming caste around Junagadh in Saurashtra region of Gujarat. On the other hand, some members of castes who own land and are considered as cultivators have recently taken up (often nomadic or semi-nomadic) pastoralism because of good economic returns. These are known as “non-traditional” pastoralists and, in Rajasthan, include *Rajputs* and *Meghwals*.

### **Definition of Pastoralism**

In the Indian context, pastoralists can be defined as *"members of caste or ethnic groups with a strong traditional association with livestock-keeping, where a substantial proportion of the group derive over 50% of household consumption from livestock products or their sale, and where over 90% of animal consumption is from natural pasture or browse, and where households are responsible for the full cycle of livestock breeding."* It could also be added, at least for Hindu groups, that animal breeding traditionally represented a *dharma* or inherited duty. The fact that they breed animals separates them from other groups which make their living by combining trade in animals with other itinerant professions, such as blacksmithing (*Gadulia Lohars*), conducting bull oracles (*Nandiwallas* of Maharashtra) or selling salt (*Bhats*). Breeding activities also present a useful criterion for separating pastoralists from urban and peri-urban dairy producers, who, although they often belong to communities with pastoral identities, do not breed, but keep milk animals only as long as they are lactating. They continuously purchase replacement stock from rural areas.

Mobility seems to be an unreliable defining criterion for pastoralism in the Indian context. Village based herding is common in semi-arid western India; even large herds of camels - associated with extremely mobile husbandry systems in other parts of the world - are sometimes managed by completely sedentary households – by just allowing them to roam freely during the dry season (or for nine months of the year).



## Size, Location, Ethnic Identities and Migration Pattern of the Major Pastoralist Groups

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Although according to a semi-popular magazine, “more than 200 tribes<sup>1</sup>, comprising 6 per cent of the country’s population, are engaged in pastoralism” (Khurana, 1999), there appear to be no reliable statistics available on the number of “active pastoralists”. Since Independence, population censuses no longer collect data based on caste adherence; besides, not all members of pastoral castes are actually engaged in livestock keeping. Only a small proportion of young people from pastoral backgrounds have the opportunity or interest to become livestock herders and are engaged mainly in unskilled labour in cities.

Indian pastoralists can be divided into groups that practice horizontal movement patterns in the dryland regions and vertical movement patterns in the mountainous areas. But beyond that, they resist attempts for convenient classification and systematisation. In the following section we discuss the major pastoralists groups in India (see Tables 1 and 2 for summary).

### Himalayan Region

#### *Gujjars*

##### *Size and Location:*

The *Gujjars* derive their name from the Sanskrit term *Gurjara*. Historically they were once a dominant people in western India and gave the territory occupied by them the name Gujarat. However, for unknown reasons, the *Gujjars* migrated from western India and spread out all over the north-western part of Indian sub-continent and to some extent central India. Cunningham (1871) describes their distribution to be in great numbers in every part of north-west India, and from the Peninsular Gujarat. The most reliable census data on *Gujjars* is over sixty years old. In 1931 the Census of India reported 2,038,692 *Gujjars* inhabiting eight provinces and Indian states; Delhi, Jammu and Kashmir, undivided Punjab (now consisting of Punjab, Haryana and Himachal Pradesh), the North West Provinces (now Pakistan), and other areas in and along the Himalayas.

There is a great controversy regarding the origin of the *Gujjars*. According to one view, they were pastoral nomads of Central Asia that migrated into India during the 5<sup>th</sup> or 6<sup>th</sup> century AD. According to another opinion, they are of Indian origin and were inhabitants of the region extending around Mount Abu in western Rajasthan, Malwa and Gujarat. They are said to have migrated around the 16<sup>th</sup> century AD in a north-west direction into Punjab Kandi, in primary and secondary waves. The primary wave of migrants

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<sup>1</sup> The term “tribe” is often used to refer to pastoral and other indigenous communities in India. With regards to pastoralists, it is in almost all cases anthropologically incorrect, since they represent castes positioned in the Indian caste system. In the Indian context, the term “tribe” is reserved for the descendants of the original Dravidian population (*Adivasi*) which differ ethnically from the mainstream Indo-Aryan social system.

**Table 1. Major Pastoralist Groups, Size, Location , Ethnic Identities and Migration Pattern in Himalayan Region**

<i>S. No</i>	<i>Pastoral Groups</i>	<i>Size</i>	<i>Location &amp; Species</i>	<i>Ethnic identities</i>	<i>Outline migration pattern</i>
1.	Bakarwals	NA	Kashmir (mainly goats)	Muslims. Speak Kashmiri language and sometimes Hindi.	They move to Jammu and Punjab plains in winter times and to Kishtwar and other higher alpine valleys of Kashmir Himalayas in summer months.
2.	Gujjars	2038692 (1931 census)	Jammu, Himachal Pradesh & Uttranchal (mainly buffaloes)	Hindu and Muslim. Speak a language mix of Gujarati, Urdu, Dogri and broken Hindi with a Perso-Arabic script	Winter times are spent in the regions of Jammu, Punjab, and lower districts of HP & UP, Saharanpur regions and to the areas adjoining Rajaji National Park. They migrate to higher (non-alpine) regions of Himachal Pradesh and Uttranchal in summer times.
3.	Changpas	NA	South-East Ladakh (Yak)	Follow a primitive form of Buddhism. Speak a mix of Ladakhi and Tibetan language, with a Tibetan script.	Their migration cycle is around the various high altitude pastures of Rupshu plains in Changthang region of Ladakh.
4.	Gaddis	1,26,300 (2001 census)	Kangra and Dharamsala regions of Himachal Pradesh, parts of UP and Punjab (Sheep and Goats)	Hindu-Rajputs. Speak Hindi language with a Devanagari script, and Pahari	Punjab plains and lower districts of HP during winter months and occupy Lahaul and Dhauladhar pastures in summer months
5.	Bhotias	NA	Upper regions of Garhwal & Kumaon of Uttranchal (Sheep, Goats, Cattle).	Hindu. Speak <i>Pahari</i> group of languages with a Devanagari script.	They occupy lower districts of Uttranchal like Dehradun, Bhabhar valley in winter months and move to higher pastures of Garhwal and Kumaon Himalayas towards Nanda Devi, Gwaldam, mana pastures and adjoining regions.
6.	Bhuttias	21259 (1981censu)	North district of Sikkim	Buddhists. Speak a Tibetan dialect	Alpine regions of Lachung and Lachen valleys of the North district of Sikkim and move to lower forest below Mangan in the summer times.
7.	Monpas	34469 (1981 census)	Tawang and west Kameng district of Arunachal Pradesh	Buddhists: their language belongs to the Bodic group of Tibeto-Burman family.	Higher reaches of East Kameng and Tawang district in summer season of Arunachal Pradesh and migrate to low lands around Tawang in the winter months.
8.	Kinnauras	59547 (1981 census)	Kinnaur district of Himachal Pradesh	Rajputs or Khosias and the Berus include both Hindus and Buddhists	In summer sheep and goat flocks are driven to higher parts inside H.P. and in winter the flocks are driven to foothills of Uttranchal and H.P.

Note: NA: Data not available

Source: Singh, K.S.

comprised pastoralist nomads who moved into the hilly unproductive marginal areas bordering the Shiwaliks, where there were pastures for their herds of buffaloes (Manku 1986). It is not very important here to resolve the controversy regarding the origin of the *Gujjars*. What is important and interesting is that according to both views the *Gujjars* were pastoralists. As pastoralists of Central Asian origin they would have entered India with their stock of sheep and goats, later taking to buffalo raising, which they were doing already according to the theory of their being of Indian origin. The contemporary *Gujjars*, especially that section which has embraced Islam, are, however, known to raise sheep and goats as well as buffaloes. The smallstock herders are known as *Bakarwal* and the buffalo herders as *Gujjar* or *Dudh-Gujjar*. The *Bakarwal* inhabit the territory of Jammu and Kashmir whereas the buffalo-raising *Gujjars* are in Jammu, and sections of them have also moved in a south-easterly direction from Jammu and western Punjab to Himachal Pradesh and the hills of Uttar Pradesh (now in Uttranchal State). This movement has been caused by the depletion of grazing resources in Jammu and Punjab regions and also due to increase in both human and animal population.

Although it is certain that in the Garhwal Himalayas the *Gujjars* have migrated from the Jammu region through Himachal Pradesh, it is difficult to establish at what point of time they entered this territory. Atkinson (1888) and his contemporaries do not make any mention of the *Gujjars* while describing the people of the Garhwal Himalayas in the gazetteer of the Himalayan districts of the northwestern province of India. Walton (1910) also is silent about them in the gazetteer of Garhwal. However, it is generally believed that the *Gujjars* migrated to Garhwal some 100 to 150 years ago and till very recently were fully pastoralists, following transhumance between two distinct eco-zones without much diversification of subsistence strategy.

#### *Ethnic Identities:*

At present there are both Hindu and Muslim *Gujjars* in northern India but the Hindu *Gujjars* are mostly in the plains of Punjab, Haryana and western Uttar Pradesh, while the Muslim *Gujjars* inhabit the Himalayan region of Jammu and Kashmir, Himachal Pradesh, and the Garhwal and Kumaon divisions of Uttar Pradesh (now the new state of Uttranchal). There is yet another remarkable difference between the Hindu and Muslim *Gujjar* populations; the former are mostly settled agriculturists while the latter are agro-pastoralists in some areas and completely pastoralist in others. However, the vast majority of *Gujjars* today are Muslim and are semi-nomadic, herding buffalo, sheep and goats. They also rear some bullocks, horses and ponies as pack animals. Most of the *Gujjars* do not own any land and do not practice agriculture, and are therefore dependent upon access to state forests where they live for most of the year.

The primary functional unit in the *Gujjar* social system is the *dera* (household or homestead). It is synonymous with the family and is the most dominant institution in the pastoral *Gujjar* society. The major socio-economic, political, religious and reproduction activities are centered around a *dera* (Negi, 1998). The *Gujjars* are polygynous as Islam allows more than one wife (up to four) at one time but actual cases of polygamy are not frequent. The *Gujjars* are divided into various *gotras* (clans), which are the same as among the Hindu *Gujjars*. Some of the clan names of the *Gujjars* inhabiting the lower Himalayas are *Kasana*, *Chechi*, *Chauhan*, *Theckari*, *Dhinda*, *Pathan*, *Poshwal(d)*, *Lodha* and *Kaalas*.

### *Migration Pattern:*

The pastoral *Gujjars* of northern India practice transhumance and migrate with their households and livestock between summer and winter pastures. The basis of their economic activities is keeping buffalo herds and they are specialised producers of dairy products that are sold in local towns. With the approach of summer months, when grass and other fodder as well as water becomes scarce in the lower regions, the *Gujjars* take their herds to high-altitude pastures of Himachal Pradesh and Uttarakhand where grass is regenerated after snow. Winters are spent in the regions of Jammu, Punjab, lower districts of Himachal Pradesh and Uttar Pradesh (U.P.), and to the areas adjoining Rajaji National Park in U.P. Migration proceeds between predetermined sites along traditionally set routes and according to a more or less fixed timetable. The outward and inward journeys take about 15 to 20 days each. The buffaloes start migrating on their own when the weather gets hot in the month of March or April or when it becomes cold in the month of September (close to the snow line). At times, if *Gujjars* are not ready to move, they have to physically stop the herds. If they are not disturbed they can reach their destinations even on their own. The buffaloes forage mainly on leaf fodder during the winter months and on the rich grass of the Himalayan pastureland during the summers. In winter, *gujjars* lop off branches from selected fodder trees making sure that enough nodal branches and leaves are left so that the tree may regenerate during the remaining period of the year. Also, they lop the branches just before the time of leaf fall of the particular species and in this way they ensure that the tree gets the full benefit of its foliage for growth. Buffalo manure provides a very rich fertiliser for the forests.

Earlier the *gujjar deras* would migrate with all its belongings and livestock to the high altitude *bugyals*. But recently a change has set in due to forest policies and opposition from the local populations. Fewer and fewer *deras* migrate to high altitudes. At the same time, the *deras* do not move as a whole: some members with some buffaloes remain behind in the winter habitat. This has resulted in partial sedentarization with more and more transhumance.

### ***Gaddis***

#### *Size and Location:*

The *Gaddis*, also known as Pahari Bahrmauri, live in northern India in the states of Himachal Pradesh, Uttar Pradesh and Punjab. Traditions say that *Gaddis* ancestors originally came from the Punjab and Uttar Pradesh, and fled from Muslim invaders in the plains. They later fled to the Himalayan mountains for refuge. As per latest estimates (2000), the *Gaddi* population is about 126,300. Their population in 1981 was about 76,860, which increased to about 105,100 in 1990 and 115,700 in 1995. The majority of the *Gaddis* (99.9%) are Hindus. Although shepherding is a key feature of the economic landscape of four districts of Himachal Pradesh – Kangra, Kullu, Kinnaur and Chamba - the main concentration is in the Kangra and Dharamshala regions of Kangra district.



***Photo: Gaddis in Traditional Dress***

***Ethnic Identities:***

The word *Gaddi* refers to a territorial group, or a special class of people who wear distinctive clothes. It also refers to the union of castes of Rajputs, Khattris, Ranas, and Thakurs. In general, the *Gaddis* are a people of rugged character. They travel and bear endless hardships in the pursuit of their profession. However, in addition to herding sheep and goats, they are also becoming much more involved in farming. The recent trends towards settling in more hospitable climates have brought agriculture to forefront of their economy, and shepherding is beginning to take a secondary position. The *Gaddis* like other Indians are divided into social classes based on the Hindu caste system. The *Gaddi* castes are divided into two basic classes: clean and unclean. The *Gaddis* are monogamous and have a successful community life based on mutual assistance.

### *Migration Pattern of Gaddi Community:*

Gaddis practice long distance herding of sheep and goats. Gaddis were considered to be nomadic or semi-nomadic from the Kangra valley of Himachal Pradesh. However, most of the Gaddis are semi-nomadic and not nomadic, because they obtained permanent dwellings in the Kangra valley from a government sedentarization programme. Whereas nomadism is defined as a grazing strategy in which "the livestock is herded by a whole social group (e.g., a family) as owners on their permanent and periodic movement from range to range and nomads live all year round in mobile tents, yurts, or huts, and rarely in permanent settlements", semi-nomadism "combines the seasonal movement of livestock with seasonal cultivation. On their seasonal migrations - largely with small livestock - the social group lives in mobile camps but also in permanent settlements" (Rinschede, 1987). Although gaddis kept permanent dwellings the herding unit was still composed of the entire family unit.



***Photo: Gaddis with their sheep and goat flocks in Dhauladhar Ranges, Kangra District (Himachal Pradesh)***

The transhumant pastoralism in Himachal Pradesh is based on a seasonal exploitation of vegetation along the state's elevation gradient. However, *Gaddi* shepherds of the alpine tracts are in the eye of a storm brewing in the foothills of the Himalayas. Dams, National Parks and expanding infrastructure interfere with their nomadic trails. The *Gaddis* move from high pastures to low pastures during the year, leaving for the low hills and plains in October and returning to their fields in April. Following winter grazing in the Shiwalik scrub forests, in early April, the herders begin to work their way northward, moving along the low mountain ranges that separate the Shiwaliks from the Dhauladhar. By early May, the Kangra *Gaddis* arrive in their villages, located on lower, southern slopes of the Dhauladhar Range. They spend the next two months-grazing village forests and higher elevation forests of the Dhaula Dhar.



The month of May and June are a particularly busy time in the *Gaddi* cultivation cycle because this is a time when the cultivators are required to harvest the winter crop and also to prepare the fields for the monsoon. In addition, the sheep and goats are penned for a number of nights on the freshly harvested fields thereby providing manure as fertiliser for the next crop.



***Photo: Gaddi in Lahaul Spiti Tribal Valley of Himachal Pradesh***

The *Gaddi* shepherds spend summer in Lahaul and Spiti, and the Trans-Himalayan region north of the Pir Pangal. Only a small number of herders do not move out, others migrate extensively. Now the access to the summer grazing grounds requires the crossing of passes at high elevation, possible only once the winter snow has melted sufficiently. By the middle of June, the partial melting of the snow on Thamsar Pass allows herders to cross over into the Bara Banghal region of Kangra district and make their way to the nutritious forage of the alpine meadows (Saberwal, 1999).

By September, decreasing availability of forages forces the herders to begin their fall migration southward, including the re-crossing of high passes and the descent to their own villages. During the month of September, October, and November the animals are grazed in forests of Chota Banghal region of Kangra district. By the middle of November the herders begin to descend to their winter grazing grounds in the Shiwaliks. This journey lasts about a month, as the herders wind their way across and along the gentle hills of Kangra valley until they come to scrub forests of the Shiwaliks. Many herders move further south into the Hoshiapur Shiwaliks of Punjab, stretching from Pathankot in the west to the north of Ropar in the east.

By the end of December, the herders arrive at their winter grazing grounds. There are now several claimants to the resources of those low-lying areas, and therefore easily accessed, regions. Population pressures are high, and the herders are now cheek by jowl with the cultivators. On the winter migration southward, as well as once herders have reached their winter grazing grounds, forage is obtained in many different and often unlikely places like village commons, which tend to scrub forests, privately owned grass lands (*ghasinis*) from which cultivator communities have harvested grass to stall-feed their animals, within stream beds and along road sides.

### ***Kinnauras***

#### *Size and Location:*

The people of Kinnaur in Himachal Pradesh have traditionally been referred to as *Kinners*, however, the term *Kinnauras* is also widely used. They live under very harsh conditions, created by the inclement weather and climatic conditions. Some authors claim that in the past Kinnauras were nomads, whose main source of life were animals. Flocks of sheep, goats and cows, yaks and horses are safety investments. Kinnauras are the tribes inhabiting valleys between high mountains. The district of Kinnaur is a part of tribal belt, which inside Himachal Pradesh borders includes also the eastern part of Chamba district and Lahaul Spiti district. There are no reliable estimates of the size of Kinnauras.

#### *Ethnic Identities:*

The Kinnauras consist of the Rajputs or Khosias and the Berus. The *Khosias* include Hindus and Buddhists. The Berus are made up of four artist castes – the *Lohar*, the *Badhi*, the *Koli* and the *Nangalu*. Polyandry prevails in the villages but is rapidly losing ground to monogamy.

#### *Migration Pattern:*

In the summer sheep and goat flocks are driven to higher parts inside Himachal Pradesh borders. In the winters, flocks are driven to foothill pastures around Dehradun (Uttanchal). Nowadays, shepherds with their animals spend the winter period also in Uttar Pradesh. According to their tradition Kinnauras hire shepherds from different parts of Himachal Pradesh, e.g. from Chaupal and Dodra Kawal *tehsils* (an administrative unit) of Shimla district and pay them clothes, shoes, basic foods (maize, salt, spices, ghee, etc.) and 7-8 animals (depending upon flock size). During migration to the neighboring State of Uttar Pradesh, they have to pay *radar* tax. Before 1947 the tax was paid to the then Tiri Raja (on U.P. side) and Bushahar Raja (on Kinnaur side) and a rate of tax was one anna (1/16 rupee) per animal. Today radar is being paid to the forest department in amount of 50 paise per sheep and 70 paise per goat (data for 1996).



### ***Bhotias***

*Bhotias* are sheep herding pastoralists and live in northern parts of Bhutan, Sikkim, and Nepal and along the Indo-Tibetan border in Garhwal, Kumaon of Uttar Pradesh and Himachal Pradesh. They are a Mongoloid people who gradually moved off the Tibetan Plateau. However, details about their numbers, ethnic identities and migration pattern are not properly documented.



***Photo: A Bhotia Woman of Uttranchal State, India***



***Photo: A View of Bhotia village***

### ***Bhuttias***

The *Bhuttias* are the most prominent pastoralists of the alpine regions of Lachung and Lachen valleys of the northern districts of Sikkim. They migrate to the lower forests of Mangan in the summer season. They speak Tibetan dialect and are Buddhists. As per 1981 Census, their population was about 21,259.

### ***Changpas***

*Changpas* in the south-eastern region of Ladakh are involved in cross border trade with Tibet. They follow a primitive form of Buddhism and speak a mix of the Ladakhi and Tibetan languages written in a Tibetan script (Sabharwal, 1996). Their migration cycle is around various high altitude pastures of Rupshu plains in Changthang region of Ladakh.



***Photo: Changpa Nomdas migrating in Hanle Plains-Changthang region of Ladhakh, Jammu & Kashmir, India***

## ***Monpas***

*Monpas* live in Tawang and West Kameng districts of Arunachal Pradesh and their population was about 38, 862 in 1991. They stay in higher reaches of East Kameng and Tawang districts in summer season and migrate to low lands around Tawang during the winter months.



**Photo: Buddhist Changapas**

## **Western Region**

The major pastoral groups of Western India (see Table 2), such as *Rebari* and *Bharwad*, subdivide into many small sub-units, but on the other hand also merge into each other. Among the *Raika/Rebari* who are extant in Gujarat and Rajasthan, as well as other states, there is a high degree of regional diversification with respect to language, deities worshipped, and clothing. They may share more outward similarities with the farming castes in their region than with members of their own community residing further away. Social organization is therefore rather decentralized, with very little contact and information exchange between groups living in different areas.

*Maldhari* is a collective term for the livestock dependent social groups of Gujarat. In this state, pastoralism is especially prevalent in the district of Kutch, bordering Pakistan. Saurashtra was also a pastoral area earlier, but now pastoralists only make up a small and further decreasing proportion of the population, concentrated in the northern part. In Gujarat, the pastoralist castes are members of the *ter tansali*, a group of 13 allied castes, which eat, drink, and smoke together (Tambs-Lyche, 1997).

**Table 2. Major Pastoralist Groups in Selected States of India**

<i>State</i>	<i>Pastoral Group</i>	<i>Reference</i>
Andhra Pradesh	Golla (cattle), Kuruma (sheep)	
Arunachal Pradesh	Monpa (Yak)	Khurana (1999)
Gujarat	Rabari (cattle, sheep, goats), Bharwad (small stock)	Westphal-Hellbusch et al., (1974), Dyer and Choksi (1997)
Karnataka	Kuruba (sheep), Dhangar (sheep)	Anthra (1995)
Kerala	Toda (buffalo)	Rivers (1906)
Madhya Pradesh	Dhangar (sheep)	
Maharashtra	Dhangar (sheep)	
Rajasthan	Raika/Rabari (camel, sheep, goats) Gujjar (buffalo, sheep)	Agrawal (1999), Kavoori, (1999) Köhler-Rollefson, (1992)
Tamil Nadu	Duck pastoralism	

### ***Rebari<sup>2</sup>/Raika***

The *Rebari/Raika* are the major and most numerous pastoral groups in Western India. They are most densely distributed in Rajasthan and Gujarat, but also occur in Punjab, Haryana, and Madhya Pradesh and may be in other states. The term “*Raika*” is applied to the *Rebari* of the Marwar area of Rajasthan. It carries the special connotation of camel breeder with it. *Rebari* is the more encompassing term, and includes groups in Rajasthan, Gujarat, Haryana and other states. The larger *Rebari* community is composed of several endogamous groups, which know very little about each other and do not form any coalitions.

The *Rebaris* of Rajasthan are divided into two groups, the *Maru* and *Godwar*. The *Maru Raikas* are concentrated around Jodhpur and in Pali district. The *Godwar Raika*, which were termed *Pitalia* or *Chalkia* in the British Gazetteers, inhabit the southern part of Pali district, Jalore and Sirohi districts. Sources from the colonial period describe the *Maru Raika* as camel breeders and the *Godwar Raika* as sheep raisers, but this does not apply any longer, since both groups herd sheep as well as camels. Both are endogamous groups that have separate decision making bodies and, although they would seem to have the same interests, they generally do not form political liaisons.

The *Raika* have retained their reputation as “camel people” until today. Yet, only a minority engages in camel breeding. The majority of them raise sheep or goats, or, in some areas, cattle, and even buffalo. If not endowed with livestock on their own, *Raika* often occupy professions where they interact with animals, for instance as village cowherds (in earlier times the *Raika* seem to have had hereditary rights to these positions), as care takers in *gaushalas* (cow-sanctuaries), or as labour in the National Research Centre on Camel, Bikaner.

<sup>2</sup>frequently spelled *Rabari*





*Photo: Raika Boy with Camels (Photo by Ilse Koehler-Rollefson/Courtesy of LPPS)*

**Table 3a. Population Estimates for the Raika/Rebari Communities in India**

<i>Date</i>	<i>Unit</i>	<i>Number</i>	<i>Source</i>
1901	Rajputana	99 009	Population Census
1901	Gujarat	215 664	Population Census
1931	Rajputana	135 820	Census of India
1974	Gujarat and Rajasthan	500 000	Westphal-Hellbusch & Hellbusch, 1974
1991	Rajasthan	200 000 families	Bhopalaram <i>Raika</i>

The *Rebari* of Gujarat are said to have migrated there from Marwar in Rajasthan. They are subdivided into the following groups (according to Westphal-Hellbusch and Westphal, 1976):

- *Kutchi* - living in western Kutch between Lakhpata and Nakrathana and around Bhuj.
- *Dheberya* - inhabiting the area to the south and southeast of Bhuj in eastern Kutch, especially around Anjar and Mandvi.
- *Vagariya* - extant near Vagad and Rapad, also in eastern Kutch
- *Sorathi* - consisting of populations in the Barda Hills (1,000 families) and in the Gir Forest (10,000-12,000 people, )
- *Bhopa* - camel breeders in Okhamandal on western coast of Saurashtra (1400 families)
- *Gujarati* - inhabiting northern Gujarat, near the border with Rajasthan – (about 200,000 people of which 10,000 – 25,000 live in Ahmedabad)

There are no bonds between these groups except in the marginal areas and on the occasion of religious ceremonies in large temples.



*Photo: Nari Boy (Photo by Ilse Koehler-Rollefson/Courtesy of LPPS)*

### ***Bharvads***

The *Bharvads* herd sheep and goats and are often involved in milk selling, especially in peri-urban settings. They are the most urbanized groups among Gujarati pastoralists and have monopolized many urban milk markets (Salzman, 1988).

Alternatively, they act as sedentary “village shepherds” who keep sheep and goats on the outskirts of villages and are paid in grain and cash by farmers for their manure (Tambs-Lyche, 1997). They either trade cartloads of small ruminant manure for the same volume of straw or another low quality crop residue, or leave their herds on fields overnight and get paid for this in cash or kind (grain, straw). Although traditionally regarded as lower in the caste hierarchy than the *Rabari*, they appear to be more upwardly mobile.

The *Bharvads* are divided into the *Motabhai* (who raise mainly sheep and goat and live in northwestern Saurashtra) and the *Nanabhai* (who keep cows and buffalo in eastern and southeastern Saurashtra, Bhavnagar, Surat). The two groups do not intermarry but merge with the *Rabari* in eastern Gujarat, near Rajpipla (Westphal-Hellbusch, 1975).

### ***Charan***

The *Charan* are traditional cattle breeders, considered to be the original guardians of Nandi, the sacred bull of Shiva, but also act as genealogists and bards. They are concentrated in Kutch, Saurashtra, and North Gujarat and in Rajasthan.

### ***Mers***

The *Mers* from Saurashtra and Kutch are sometimes counted as pastoralists since they bred camels and horses for the ruling *Jethwa Rajputs*.

### ***Muslim Groups***

In Kutch, there are about 20 nomadic or semi-nomadic Muslim groups who migrated to Gujarat from Sindh, Balochistan and other areas to the west. Most of them are very small and consist only of a few hundred people, but still remain endogamous. One of the larger ones is the Jats/Jaths who were specialized camel breeders when living in Sindh. Their largest subgroup is the *Danetha* who now rear buffaloes, cows, camels, but also sheep and goats. They do not sell milk, only *ghee* or *mawa*. Another subgroup is the *Fakhirani Jath* who lives near the Lakhpat coastal area in portable reed huts.

In Rajasthan, the *Sindhi Muslims*, residing mostly in Jaisalmer and Jodhpur districts, are often classified as pastoralists, although they were traditionally involved in long-distance caravan trade, rather than the breeding of livestock. Some of them breed camels or engage in sheep-migration, some sub-groups are specialized cattle breeders and have developed some of the most famous breeds, i.e. the Rathi cattle.

### ***Ahir/Gujjar***

The *Ahir/Gujjar* group is described as the largest pastoral community in India by Tambs-Lyche (1997). They were very early immigrants to India who herded cows, but most of them were already settled in the 1920s.

### ***Gairi (Gayri)***

The *Gairi* are a caste in the Mewar (southern Rajasthan) area said to be professionally involved in livestock breeding, especially sheep) (e.g. Wood et al., 2000), but details are not available.

### ***Non-traditional Pastoralists***

This term is used to refer to castes that were not traditionally involved in pastoralism, but have taken up sheep breeding because of its economic promise. This group encompasses the *Rajputs* who are the ruling, land owning caste of Rajasthan.

They are basically agriculturists (although they represent the traditional warrior caste), but *Rajputs* from the resource poor parts of Rajasthan (i.e. Jaisalmer) took up long-distance sheep pastoralism in the 1980s because it provided good income opportunities (Kavoori, 1999). *Jats* (cultivators), *Meghwals* (an untouchable caste), and maybe others, can also belong to this category. According to Kavoori (1999:189): “*Rajasthani pastoralists are simply members of a more generally distributed society who move in and out of pastoralism as circumstance and opportunity indicate... In years of plenty the alternative may lie dormant, being confined to a few specialized castes; in years of want it spreads in the manner of a ‘capillary action’ through broader society and economy, becoming the dominant and determining element in the reproduction of livelihood.*”

### **SIZE OF PASTORAL POPULATIONS**

There are basically no official statistics informing about the size of pastoral populations and their trends during the last 60 years. The following theoretical possibilities exist for calculating these on a case-by-case basis and could be a researchable issue.

#### ***1. Combination of pre-Independence census data with population growth rates:***

Up to Independence, population censuses were undertaken on caste basis. By superimposing these with population growth rates, an estimate of current population sizes could be arrived at. The disadvantage of this method is that the resulting figures would indicate number of people of a certain social and caste background, rather than of people active in livestock keeping. It does not provide a means of determining how many specialized pastoralists still live in their original habitats (and depend on livestock) and how large a proportion of them have out migrated to the cities in search for menial jobs.

#### ***2. Correlation with livestock population<sup>3</sup>:***

In India, farmers keep more livestock in integrated systems than under pastoral conditions. But certain types of livestock - notably sheep, camels, yaks – are kept almost exclusively in pastoral systems and their relative trends would seem to be a reasonable indicator of pastoral trends. For the drawbacks of this method, see the section on trends in pastoral development below.

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<sup>3</sup> Numbers on livestock populations are readily available for each Indian state, since censuses are undertaken in regular five-year intervals. Knowing how these data are collected, their accuracy probably leaves much to be desired; nevertheless they do give evidence of long-term trends. Unfortunately there is a large time gap between their compilation at the field level and their analysis/publication. To our knowledge, the results of the census that was undertaken in 1997 have not yet been published, so that the information for 1992 is the latest available. Since then there have been substantial changes, based on hearsay and our own interactions with pastoralists during that period.



### *3. Migration taxes and grazing permits:*

Pastoralists wandering from one state to the other, for instance from Rajasthan to Madhya Pradesh usually need to have a permit and pay certain grazing taxes. When they cross the border, they are issued with written receipts, noting their number of animals.

Similarly, for access to forest ranges within the same state, grazing fees are usually levied. If these records could be accessed, then they would provide a rough indicator of pastoral movements.

### *4. Caste records:*

Some pastoral communities undertake their own population counts or estimates, usually in an effort to impress politicians and lawmakers with their potential as a vote bank. These data, with all their limitations, would have to be obtained from individual caste leaders or associations.

## **Classification of Major Types of Indian Pastoralists**

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Pastoralism can be categorised in a number of ways. The most important of these are by degree of movement, species, management strategy, geography and ecology. The most common categorization is by degree of movement, from highly nomadic through transhumant to agro-pastoral (Blench, 2000). Major types of pastoralists in the Himalayan and Western regions of the country are discussed below:

### **Himalayan Region**

The pastoral groups can be classified into the following categories on the basis of their migration types:

#### **Nomadic Herders**

*Van Gujjars* of Uttarakhand and Himachal Pradesh and *Changpas* in Ladakh, Jammu and Kashmir migrate from one pasture to another with their whole families. They do not cultivate land and their entire livelihood revolves around pastoral activities. They mostly depend on their neighbouring agricultural communities for cultivable goods for which they perform extensive economic exchange with them.

#### **Semi-Nomadic Pastoralists**

*Gaddis* and *Bhotias* of North-western Himalayas seasonally migrate to higher pastures with their animals. These nomadic groups own cultivable land and during half of the year are involved in agricultural activities. *Bhuttias* living in the Lachen and Lachung valleys of Sikkim and Monpas of Arunachal Pradesh are also included in this category.

#### **Long-distance or Transhumant Herders**

Village pastoralists practice long-distance herding of livestock and are considered to be transhumant herders. Transhumance is a grazing strategy "... in which the livestock is generally accompanied by hired men but also by owners and their relatives, but rarely by a whole family, on a long migration or transit between two seasonal ranges" (Rinschede, 1987).

### **Western Region:**

Pastoral adaptations in the Western region of India can be classified into the following main types:

#### **Urban Pastoralism:**

Urban pastoralism refers to the keeping of buffaloes and cattle in and at the periphery of large cities (Ahmedabad, Baroda, and Jodhpur) for milk production with market-purchased fodder. Certain pastoral castes, especially the *Bharwads* of Gujarat, engage in this strategy. Often these groups do not raise their own replacement females, but continuously buy pregnant stock from rural areas that they keep only as long as lactation lasts. Salzman (1988) describes this strategy.



*Photo: Gaddis Migrating with their animals to Plains*

### **Village-based Pastoralism:**

Village-based pastoralism (sedentary to semi-sedentary, depending on rainfalls) is the type of pastoralism usually practiced by owners of small to medium sized sheep herds, by goat owners and by also by some camel pastoralists, for instance in Pali District of Rajasthan. Herds usually return to the village for the night, although they may stay away for several days or weeks, if more distant pastures are to be utilized or fields that are farther away are to be fertilized. In years of severe drought, many pastoralists also will be forced to go on long-distance migration.

### **Long-distance Group Migration:**

Long-distance migration (for 9 months of the year) is undertaken mostly by owners of large sheep herds, but also by some owners of large camel herds. About 10-12 families form a large group that elects one or more leaders (*Patel, Numberdar*) responsible for negotiating with land owners for night halts and access to fallow land, also to interact with the police, foresters and traders. These migratory groups are called *dangs*; typically, they consist of 4,000-5,000 sheep, 20-30 baggage camels and 50-100 able-bodied family members of all ages. In Rajasthan, long-distance migration leads to Madhya Pradesh, to Gujarat, Uttar Pradesh or to the Punjab. The herding groups move along well-established routes and often have developed contacts with landowners and traders *en-route*. Contacts with the home village are maintained – often family members take turns in joining the *dang*. Length and amplitude of the migration vary according to climatic conditions. In years with good rainfall, the herders can afford to stay longer in their home villages. When rains do not come, then return to the villages is delayed because no grazing would be available there.

**Permanent Migration:**

Permanent migration is a local term used to refer to pastoralists who no longer return with their herds to the villages. This situation is reported for *Raika* sheep breeders from Pali District in Rajasthan. Some of their family members stay permanently with the sheep herds in Madhya Pradesh.

## Pastoralists as Poor People: in the Indian Context and in the General Context of Developing Countries

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In government records, publications and documents, pastoralists are regarded as marginalised, backward and poor populations. The dispersed population, remote habitations, cultural uniqueness, low literacy rates and migratory lifestyles have contributed to this perception of the state.

In the Himalayas, they are a low-priority group and there has been no conscious attempt by the State or any other institution to assess their poverty status. The problems in assessing their poverty status are:

- i. The socio-economic status of pastoralists in Himalayas is seriously under-documented.
- ii. Their mobility and ownership of unconventional property assets i.e. animals have made it difficult to assess their poverty status with the help of existing poverty indicators.
- iii. The only method to assess poverty status of Himalayan pastoralists would be through physically culling out the 'whatsoever' information about Himalayan pastoralists from district census data and compare it with the existing poverty indicators. There are also difficulties pertaining to available census figures because Jammu & Kashmir State was not covered under the 1991 Census and the new census figures are still awaited.

The pastoralists of the Western drylands are not particularly disadvantaged with respect to their position in the caste hierarchy since they occupy a medium position, very much on the same par as the cultivating castes. Although they are positioned below the elite castes of *Brahmin*, *Rajput* and *Banya*, they rank far above the untouchable castes. Nevertheless, they are commonly deemed to represent the most backward and conservative social group in the region and have been surpassed in social development by castes which were traditionally much more deprived, such as the *Meghwals*.

In both Rajasthan and Gujarat, the *Raika* and *Rebari* have the status of “Other Backward Castes<sup>4</sup>” (OBC), which entitles them to certain benefits, i.e. quota for government employment.

As is the case with the pastoralists in the Himalayas, detailed data about their socio-economic status are not available. But experience suggests that according to commonly used indicators for social development, pastoralists qualify as some of the poorest rural groups. In comparison with other segments of the rural population, infant mortality is high and literacy rates are extremely low. It can also be stated that pastoralists are usually poor in terms of cash and land ownership.

Among the *Raika*, there is a negative correlation between herd size and land

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<sup>4</sup> The other backward caste (OBC) people are those which are socially and economically backward and are entitled for some special facilities like reservation in government jobs, local grassroot level institutions (village panchayats) and some other financial benefits.

ownership – families with land have fewer animals on average; those that have large herds generally have no land. Technically, they represent landless livestock keepers. According to some sources, pastoralists were not entitled to receive land during the land reforms after Independence or, being accustomed to ample commons for grazing, were slow to understand the value of land ownership.

Nevertheless, pastoralists also have assets: Their usually sizeable holdings of animals can be readily encashed and – in the case of small ruminants – quickly replenish themselves by natural reproduction. Another strong point is their largely intact social system and network. Within the *Rabari* community, there are various indigenous mechanisms for sharing and redistributing wealth. If a *Rabari* suffers from some catastrophic event, he will receive financial support from caste institutions. A young man who wants to start his own herd and has not inherited any stock, will be given animals by relatives and other caste members. The pastoralists also have a rich indigenous knowledge base, which – because of lack of documentation – is rarely appreciated.

This pressure to share resources (which is not unique to the *Rabari*, but a strong feature of many rural caste communities), also results in a succinct ethic or attitude of trying to appear poor outwardly, so as to avoid requests for support from relatives and friends. Pastoralists do not flout their wealth and may appear poorer than they are. On the other hand, with very limited land ownership and dependence on shrinking common property resources, they certainly are becoming relatively poorer. Combined with their reluctance to take advantage of education, further marginalisation is inevitable and in rural settings, as well as within the community itself, the opinion is often voiced that the *Raika* have “fallen behind” other castes that are lower in social status, but more enterprising and flexible.

## **Major Problems Experienced by Pastoralists**

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The problems that pastoralists face are as much social and political as economic and resource-based. We have discussed the major problems faced by pastoralists in Himalayan and Western region separately, although there are many similarities, especially in the underlying issues of government policy. There is probably no need in this context for a further stratification of pastoralists into different groups, because many problems appear to be the common for most of them.

### **Himalayan Region**

While the government has included the Himalayan pastoral groups, with the exception of the Uttranchal Gujjars, in a reserved category for government jobs and other facilities, Himalayan pastoralists are finding it difficult in many ways to follow their traditional livelihoods. The immediate threats they experience will be discussed below, but they derive in turn from underlying problems: government attitudes to pastoralism, non-recognition of pastoral land rights, and population growth.

### **Government Attitudes to Pastoralism**

In social evolutionary thinking, the nomadic lifestyle has traditionally been treated as less civilized, less productive and more degrading than a settled lifestyle (Saberwal, 1999). This cultural bias is clearly manifested in many of the colonial/historical documents, and seems to have many policy level implications for the Himalayan pastoralists. Pastoralists continue to be treated as a problem for administrators in terms of collecting taxes or controlling the population.

Due to the problem of their cultural stereotyping, small population and migratory lifestyle, the Himalayan pastoralists are ignored in the various policy-level decisions. Non-participation and ignorance of their due rights and status in the Indian State have seriously marginalized these communities. Their political marginalization is also visible across all the Himalayan states where most of the pastoral groups are not vocal about their concerns.

Incorrect and alarmist perceptions of the environmental threats caused by Himalayan pastoralism have also had negative effects on policy. The conservation policies of the country are supposed to have as one of their bases the famous theory of Himalayan degradation which assumes a threat of disastrous floods for the population of the Indo-Gangetic plain, as a result of overgrazing of the Himalayan slopes and massive soil erosion (Ives and Messerli, 1989). Today Himalayan pastoralism is perceived by decision-makers and politicians as an environmental threat to the Himalayas and the local pastoral groups are incessantly blamed for overgrazing and livestock increase. There is little interest in a detailed objective analysis of the condition of the environment. At a local level, these attitudes are held especially by Forestry Department officials.

One manifestation of this perception is that pastoralists are being displaced from protected areas. There are 13 National Parks and 59 Wild Life Sanctuaries in the Indian Himalayas, covering approximately 10 per cent of the total Himalayan zone

(State of the Environment Report, Himachal Pradesh). According to the National Park policy, all the stakeholders dependent on the Park resources are displaced. As an effect there is a large pastoral population in the Himalayas which is affected by the formation of parks where their rights to access pastures have been denied for the purposes of biodiversity conservation. For example, due to recent notification of the Great Himalayan National Park in Himachal Pradesh all the pastoralists who used to occupy the vast alpine pastures of the Park for the summer months have been deprived of access to approximately 300 sq. km of pastures without having being allotted grazing rights in any alternative regions. There are similar examples in other Himalayan states where the availability of pasture resources is reducing with the increase of protected areas.

The pastoral development programmes that are planned and implemented by the state carry a bias against pastoralists. Various development schemes for the pastoral population carry an agricultural preference and pastoralism is considered to be an activity supplementary to agriculture. Programmes of livestock development have more beneficiaries from agricultural communities than pastoralists. The government bias is also evident in various other development programmes such as those for education, health, and income generation where pastoralists are ignored and constantly blamed for a primitive nomadic lifestyle - a hurdle in implementing the development programmes which are planned around the settled or landed communities.

Most of the *research* conducted on Himalayan pastoralism is inclined more towards ecological concerns rather than taking a holistic view and has given rise to a biased understanding. Many studies have concluded that the present knowledge of environmental degradation vis-à-vis livestock grazing by migratory Himalayan pastoralists is not sufficient and there is a need to rationalize and reinforce the existing knowledge. Studies elsewhere, from Poland to Tanzania to Mongolia, have shown that pastoralism can co-exist with, and contribute positively to, biodiversity conservation. However, no such study of the impacts of grazing on biodiversity conservation has been conducted in the Indian context.

### **Non-Recognition of Pastoral Land Rights:**

The local pastoral groups regard themselves as owners of the pasture resources in Himalayas and there is an extensive customary usage of these resources by the local pastoralists (Chakravarty-Kaul M, 1998). They follow traditional rules and regulations in distributing and managing their resources amongst themselves, like the Pipon system in the Sikkim Himalayas, which is still prevalent to facilitate the community resource management practices. Similarly each pastoralist community has evolved traditional resource management practices to use its commonly owned resources. This historical evidence is enough to support customary claims of Himalayan pastoralists to gain access to their common inheritance.

However, the customary usage of the forest resources or common lands is not documented in government records or officially recognised, thus Himalayan pastoralists are simply not understood as the stakeholders in their own land resources. This is very evident during the time of their displacement as a result of government projects such as Hydel power, social welfare programmes or National Parks where the pastoralist are completely ignored in the times of rehabilitation. There are also



instances where the winter pastures of *Gaddi* pastorals in Himachal Pradesh were allotted to landless people under a social welfare programme and the resource use and the right to access these resources of *Gaddi* pastorals were absolutely ignored.

The more recent example is the Kandi Hydel Project in Chamba district of Himachal Pradesh where the settled cultivators with private rights over the land have received compensation from the state and *Gaddis* have not been given any relief. There are problems when pastoral groups are withdrawn from the National Parks and are not compensated with alternative pasturelands as compared to the private landowners and the agriculturists. There are also fundamental institutional changes observed in the pastoral nomadic communities due to this process of land reforms and organizational restructuring.

### Population Growth and Land Fragmentation

As a result of growing human population in the Himalayan region, land resources per household are decreasing, with sub-division and fragmentation of agricultural land. The data available on trends in population growth and per capita cultivated land in selected areas of Himalayan region indicate that the magnitude of reduction in per capita cultivated land is as high as 46.7 per cent within a decade in the case of Central Himalayas (Table 3b). Similarly the reduction in per capita land holding in the Western Indian Himalayas is also significant. This trend accelerated throughout the 1990s.

**Table 3b. Population Growth Trend and Per Capita Cultivated Land (ha) in Selected Areas of Himalayan Region**

State	Year	Population growth	Per capita cultivated area (ha)	Percentage decrease in landholding
Himachal Pradesh	1971	2.09	0.190	29.5
	1981	2.15	0.134	
Uttar Pradesh (8 districts)	1971	2.40	0.30	46.7
	1981	2.38	0.16	

### Livelihood Threats:

These underlying factors are leading to the major immediate threats to livelihoods faced by the pastoral groups in Himalayas (a) reduced pastures and (b) disturbed migration routes.

#### a. *Reduced Pastures:*

Across all the Himalayan states, the pastoral livelihoods are seriously threatened by the problem of shrunken pasturage. This decreasing availability of pasture resources has been due to misinformed conservation policies of these states, as discussed and illustrated above, and encroachment on the pasture resources.

The land use practices in lower altitudes of Himalayas have dramatically altered in the last few decades. The ever increasing human population and the increased

infrastructure and development in these areas have seriously reduced the size of available winter pasturage for pastoralists. There are 4 kinds of encroachments on the winter pastures of Himalayan pastoralists, which have also been responsible for disturbing their migratory patterns: (a) afforestation activities, (b) road construction, (c) army establishments, and (d) agricultural expansion. Tensions between pastoralists and agriculturalists are important here: pastoralists prefer an open forest while agriculturalists favour a "dark" or closed forest.

Similarly, the ever-growing agricultural activities, tourism, army movements and exercises in these regions and terrorist activities in the area bordering Jammu and Kashmir also affect the summer pastures in Himalayas. Since many alpine pastures of the Himalayan region are located along the International borders, the army settlements have taken over many summer pastures in the Himalayas. There are examples like Changthang pastures of Ladakh, Lachung valley pastures in Sikkim, the Tawang region of Arunachal Pradesh etc. The increasing agricultural activities in the high altitude regions of the Himalayas are also a threatening trend for Himalayan pastoralism.

*b. Disturbed Migratory Routes:*

The migratory graziers in Himalayas travel long distances from low to high altitudes. On their way to summer or winter grazing lands, they halt at common lands of various villages, which is important for animal forage and their social relations with the agricultural communities. As said earlier, the Himalayan states have gone through dramatic development in the last few decades and besides infrastructure development these states have seen tremendous tourism development, extensive road building, hydro power plants, hotels etc. across the length and breadth of the Himalayas. As a result, pastoralists frequently have had to alter their migratory routes and face problems of livestock being killed on roads, thefts and a constant pressure to move. There are instances where animals die of eating noxious weeds growing close to the roads or on degraded land.

### **Sedentarization**

Sedentarization of pastoralists is now widespread, both because of active government policies and because of lack of support for migratory pastoralism. The Himalayan states like Himachal Pradesh and Uttar Pradesh have tried many times to settle their local nomadic communities, although this is against the very logic of migratory pastoralism in Himalayas.

The non-supportive government policies play an important role in the decrease of pastoral activities in Himalayas. Further the process of marginalization at cultural and policy level has seriously discouraged the upcoming generation to take over pastoralism as an occupation. The absence of any legal rights over their resources, which have sometimes been appropriated without compensation, has discouraged and marginalized Himalayan pastoralists in all the Himalayan states.

Some studies have shown that the local pastoral economy is in a process of change from a mixed agropastoral system toward agricultural or horticultural based economy, the primary factor being the lack of grazing land in the winter due to Forest

Department closure of winter grazing permits and increased human population. The pastoralists also feel that agriculture/horticulture provides a more secure future for their children as herding would become more and more difficult in the future.

For examples, due to the formation of Nanda Devi Biosphere Reserve and closing of Indo Tibet border for trade, the *Bhotia* pastoral population of U.P. hills has migrated to lower regions permanently. Now many higher villages in the Garhwal and Kumaon regions are vacant and there are no pastoral activities operational in these regions (Sabharwal, 2000). Similarly the extensive Army establishments in Jammu and Kashmir and Sikkim Himalayas have seriously endangered the prospects of Himalayan pastoralism in these regions and there are many instances where the local pastoralists have switched over to daily wage labourers.

## Western Region

The major problems of different pastoralist groups in the western part of India are discussed below:

### Decrease of Pastures

Pastoralists themselves consistently describe disappearance of common property resources and grazing opportunities as the most threatening problem. This is confirmed by many studies on changing land use patterns. According to Jodha (2000), CPR areas in selected villages of India's dryland states declined between 30 and 55% between the 1950s and the 1980s (see Table 4). More recent figures are not available, but the situation has certainly further deteriorated since the 1980s.

**Table 4. Decline in Area of Common Property Resources (CPRs) in India's Dry Regions**

<i>State</i>	<i>Number of study villages</i>	<i>Decline of CPR area between 1950-52 and 1982-84 (%)</i>	<i>Persons per 10 ha CPR 1951</i>	<i>Persons per 10 ha CPR 1982</i>
Andhra Pradesh	10	42	48	134
Gujarat	15	44	82	238
Karnataka	12	40	46	117
Madhya Pradesh	14	41	14	47
Maharashtra	13	31	40	88
Rajasthan	11	55	13	50
Tamil Nadu	7	50	101	286

*Source: Jodha, N.S. (2000)*

The driving forces behind this development are agriculturally centred development strategies. In the course of land reforms in Gujarat, the government allotted village common lands to low caste landless residents. In Saurashtra (part of Gujarat), the majority of village CPRs was converted to cropland and permanent pastures were reduced to 20 per cent of the level at Independence. Pastoralists who had previously grazed their animals only on rangelands came to depend on crop residues and faced shortages of feed and fodder (Cincotta and Pangare, 1994).

For Rajasthan, the processes behind the shrinking pasture resources and CPRs have been chronicled and analyzed in some detail (Brara 1992, Jodha 2000, Robbins 1998). The driving processes include:

*a. Enclosure of Forests:*

Large parts of the Aravalli forest range have become off-limits to grazing. This area represented the traditional rainy season grazing grounds for camel breeders in Pali district, but also year round pasture for sheep pastoralists and keepers of other livestock. Especially the Kumbhalgarh Wildlife Sanctuary is a scene of daily conflict between forest authorities and pastoralists. In Gujarat, establishment of the Gir Lion Sanctuary caused the resettlement of over 845 *Maldhari* families between 1973 and 1981, and this is still cause for much resentment today.

The Dhangar Gowli are cattle keepers living in the forests of Northern Karnataka and Southern Maharashtra, with the population in Karnataka numbering about 10,000. *Dhangar* means wanderer and *gowli* means milkman or herdsman.

*Life of the Gowlis was happy and prosperous as the mountains and valleys offered them plenty of fodder and water... they enlarged their livestock as much as possible and earned a lot of income by selling milk and its products... they prepared curd and butter to be sold in the markets... They acquired lots of wealth by dairy occupation... But the life of Gowlis became miserable in the last 30 years. The forest restrictions do not allow their cattle free access in the jungle... The Gowlis are considered enemies of the forest because their cattle are said to be destroying the forest plants and the saplings... Present socio-economic conditions of the Dhangar Gowli are below poverty line... As they live in small hamlets in the interior forest nook their development is not possible... They live a subhuman life and not better than the cattle they own... It is fortunate that most of them know herbal medicine and treat themselves and their cattle in times of ill health. ... What they need today is land to grow grains and fodder, organised dairy activities with few good yielding milch animals and entertainment of basic needs.*

Extract from a self-description of a voluntary organisation for the development of the Dhangar Gowli Community in Karnataka.

*b. Expansion of Irrigated Agriculture*

Extension of the Indira Gandhi Canal Project (IGNP) into Jaisalmer district, subsidies for tubewells and electricity for agricultural use have led to expansion of cultivation into former wastelands as well as to multiple crop cycles in zones where crops were previously only grown during the rainy season. The latter has eliminated both long and short fallow areas for grazing.

c. *Breakdown of Village Institutions*

There is a complete breakdown of village institutions governing use of village commons (*gocher*) and sacred groves (*oran*). During the pre-Independence period, use of village grazing areas was strictly regulated, users had to pay a fee, and trespassers were punished. These traditional institutions all but collapsed after governance of the commons was relegated to the village panchayats and then turned into a free-for-all.

d. *Deterioration of pasture land*

As a consequence of an increase in livestock numbers and a parallel decline in CPRs, the stocking density has risen immensely – more than threefold – since the 1950s. Between 1952-53 and 1977-78 it increased from 39 animal units per hectare of grazing land to about 105.

The productivity of the remaining grassland has seriously deteriorated. Certain superior grass genetic resources of exceptional nutritious value are disappearing, such as *sevan* (*Lasiurus indicus*) and *dhaman* (*Cenchrus ciliaris*) (Robbins, 1994), not only as components of village CPRs, but also in the form of distinct ecotypes. Famous grazing tracts, such as the *sevan* grass rangelands in Rajasthan's Barmer/Jaisalmer/Bikaner districts, and the Banni grazing area in Kutch have disappeared or changed their character. Infiltration of invasive exotic species, particularly *Prosopis juliflora* and *Lantana sp.* render huge tracts of former grazing land off limits. The former is unpalatable and the latter is poisonous, which causes thousands of death every year.

### **No Access to Veterinary Care and Reasonably Priced Medicines**

Next to grazing, pastoralists perceive access to animal health care and to reasonably priced and genuine veterinary medicines their second largest constraint. The state government of Rajasthan recognises the importance of animal husbandry – which contributes about 15-19 per cent to its net economy – and operates a network of over 1000 veterinary hospitals where consultation and certain basic medicines are supposed to be provided free of cost. However, these facilities are geared towards the needs of landed and wealthier livestock keepers (for instance in their emphasis on Artificial Insemination and crossbreeding) and are rarely made use of by pastoralists, for several reasons. For one, there are the logistical difficulties of taking animals for treatment to the hospitals. Furthermore veterinarians lack training and orientation for successful interaction with pastoralists whom they regard as backward and illiterate and whose traditional knowledge they do not appreciate.

Pastoralists often avoid vaccination campaigns (because they have experienced related losses and mortality in the past) and generally rely on their traditional knowledge for preventing and treating sick animals. At the same time, they are well aware that certain infectious diseases with major economic impact can not be controlled merely by means of traditional interventions and are extremely keen to benefit from modern medicines. They prefer to self-administer anthelmintics and trypanocides, but, being unable to read instructions, often utilize them inappropriately, since they do not understand the underlying principles (for instance classifying drugs only on the basis

of their colour) or the need to give correct dosages, often giving half doses in order to save money.

Availability of genuine drugs is also a problem. There is an enormous volume of counterfeit medicines in the market and in remoter areas medicines are sold at double or triple of their supposed retail price.

### **Dependence on Middlemen for Marketing**

For logistical reasons, pastoralists are largely dependent on middlemen for the marketing of their animals and products. This impinges on their profit margins, often to a considerable extent, although the fact that *vyoparis* (traders) regularly visit even remote areas to purchase animals certainly facilitates marketing for them. There are particular castes that act as middlemen who often are Muslims. But there are also many instances of middlemen belonging to the same pastoral communities as well.

### **Lack of Linkages with Outside World and Access to Information**

Because of their dependence on various types of CPRs and the need to undertake migrations in years of droughts, pastoralists are required to “build bridges with many different actors” (Agrawal, 1999), i.e. engage in constant negotiations with land owners, forest officials, middlemen and police. In the current scenario, bargaining power however rests largely with their negotiating partners and the pastoralists tend to loose out. As a consequence they regard themselves as extremely marginalised, almost succumbing to a collective psychology of being different and out of luck. Their almost complete illiteracy and consequent lack of knowledge of global developments may compound this feeling. Many of them are completely unaware that India is a nation state and that they as citizens have certain rights.

### **Dilemma between Education and the Pastoral Livelihood**

With regard to education, pastoralists face a huge dilemma, although families actively involved in animal production less frequently articulate this. Pastoral leaders extol the need for education and going to school, even for girls. However, until now only a few girls have been sent to school. Those youths from pastoral families that have received even the most rudimentary education will seek employment elsewhere and usually no longer regard animal husbandry as a livelihood option. Herding animals is stigmatised as a lonely job and associated with illiteracy. In the Raika community, there are many cases of girls refusing to marry boys they have been engaged to, because they aspire to a career in herding.

*Statement by Pastoral Federation (Pashu-Palak Sang) at Workshop on Pastoralism and Common Property Resources in the Thar Desert (March 1993).  
(translated from Hindi/Marwari by V.K. Srivastava)*

We propose the following measures for improving the situation of pastoralists:

*i. Grazing problems*

- ☛ protection and development of *gochar*, *oran* and *agor*, and the routes leading to them
- ☛ illegal occupation of these areas should be stopped
- ☛ permission to graze in the Aravalli forest area
- ☛ forest enclosures should be opened after every five years
- ☛ support for grazing on fallow lands after the harvest
- ☛ permission to graze in neighbouring states on minimum charges
- ☛ development of grazing near the Indira Gandhi Canal Project
- ☛ elimination of *Prosopis juliflora* from grazing lands

*i. Financial measures*

For the sake of economic upliftment, the prices for animal products should be raised according to the increase in the prices of other commodities. Taxes should be imposed on imported wool, to encourage local wool production.

*ii. Management of marketing of animal products*

Pastoralists are often cheated in the wool markets; therefore, formation of co-operatives should be encouraged.

*iii. Animal health care programmes*

The pastoralists should be given vaccines and anthelmintics at a reasonable rate. The programmes of the Department of Animal Husbandry and the Sheep and Wool Department should be organized so as to reach the pastoralists.

*iv. Shearing*

The pastoralists should be introduced to new mechanized methods of shearing

*v. Education*

For education boarding schools should be opened and the students given scholarships

*vi. Permission to use arms*

For protecting themselves during migration, the pastoralists should be permitted to keep licensed arms

*vii. Help to pastoralists during emergencies*

Pastoralists should be provided help at the time of epidemics, natural calamities, and accidental deaths in encounters with anti-social elements.

*ix. Representation of pastoralists in different bodies*

Pastoral representatives should be invited to voice their opinion in different governmental and non-governmental bodies dealing with the welfare of pastoralists and the marketing of pastoral products

*x. Creating awareness*

Pastoralists should be made aware of development programmes.

## Trends in Pastoral Development

### Current Situation

No reliable statistics are available on pastoralism in India. An important indirect indicator is provided by livestock population trends.

### Himalayan Areas

In the Himalayan subtropical mountains the majority of farmers operate mixed crop-livestock farming systems. Land holdings are small and fragmented, consisting mostly of marginal uplands. As a result of growing population, land resources per households are decreasing, with sub-division and fragmentation and land over generations.

Although the number of livestock per household is decreasing, the total number of livestock has not declined enough to match the reduced per capita resource availability. This is because livestock are an integral part of a large majority of subsistence households and must be maintained at a certain minimum threshold. The most common livestock species in the Himalayan region (as exemplified by Himachal Pradesh) is cattle (42.4%), followed by goat (21.89%), sheep (21.07%) and buffaloes (13.73%). The population of livestock in Himachal Pradesh in 1992 was estimated to be 2.2 million head of cattle, 0.7 million buffaloes, 1.1 million sheep and 1.1 million goats (Table 5). The total livestock population in Himachal Pradesh has not increased significantly during the last one and half decade.

**Table 5. Trends in Livestock Population in Himachal Pradesh**

(No. '000)							
Species	1962	1967	1972	1977	1982	1987	1992
Cattle	1909	1892	2098	2106	2174	2241	2165
Buffalo	453	415	544	560	621	794	701
Sheep	920	1049	1039	1055	1090	1112	1076
Goat	851	813	906	1035	1059	1119	1118
Others	29	43	49	54	48	-5266	46
Total	4162	4212	4636	4810	4992		5106
<i>Source: Livestock Census 1992, Government of India.</i>							



An analysis of temporal changes in livestock population and composition from 1978- to 1988 in the UP Hills ("Uttarakhand") and in Himachal Pradesh from 1982-92 reveals that in the Himalayan region there is a significant increase in the buffalo and goat population, whereas the cattle and sheep population has declined (Tables 6 and 7). The most noticeable change in the mountains is the considerable decline in the sheep population in total herd composition, which is the most important animal species reared by the pastoralists of this region.

**Table 6. Livestock Population and Composition in the Indian Himalayas**

<i>Species</i>	<i>Central Himalayas (Uttarakhand) 1978-88</i>		<i>Western Himalayas (Himachal Pradesh) 1982-92</i>	
	<i>% increase in population</i>	<i>% change in composition</i>	<i>% increase in population</i>	<i>% change in composition</i>
Cattle	-5.2	-3.0	-1.06	-0.71
Buffalo	+15.1	+2.5	+13.64	+1.62
Sheep	-9.1	-1.0	-8.15	-1.91
Goat	+7.1	+1.4	+5.25	+1.00
<i><b>Source:</b> Directorate of Land Records (1992), Livestock Census, Government of Himachal Pradesh, Shimla</i>				
<i>Revenue Department, Livestock Census, Government of Uttar Pradesh, Lucknow</i>				

**Table 7. Trends in Livestock Population and Composition in the Himalayan Region**

State	Population				Composition				Year
	Cattle	Buffalo	Sheep	Goat	Cattle	Buffalo	Sheep	Goat	
Himachal Pradesh	↓	↑↑	↓	↑	↔	↑	↓	↑	1982-92
Uttaranchal	↓	↑	↓	↑	↓	↑	↓	↑	1978-88
↑↑	Significant Increase			↔	No change				
↑	Increase			↓	Decrease				

There is a pressure on the migratory graziers to decrease the number of their livestock. For example, in Himachal Pradesh, sheep and goat grazing is perceived as a threat to the forest resources and the state government is consistently making efforts to discourage goat grazing, which forms an important component of Himalayan pastoralism. That this perceived threat is misplaced and misinformed, is evident from the government's own records which show that a greater pressure is induced on resources by the cattle population. This kind of a problem exists with all the herd owners of Himalayas as the government consistently discourages the increase in population of sheep and goat through its programmes and policies.

## Western India

The livestock statistics for Rajasthan show that between 1951 and 1992 there has been a steady rise in livestock populations, except for 1988, when a prolonged drought caused major losses. Contrasting to the situation in the Himalayas, in Rajasthan the general trend is for the earlier dependence on large stock (cattle and camels) to be replaced by an increasing reliance on small stock whose grazing needs are easier to cater for and for whom there are no social and legal restrictions on slaughtering. The increase in buffalo numbers is linked to the spread of irrigated cultivation and the dairy co-operatives.

During the 40-year period under investigation, the cattle population remained fairly stable. On the other hand, the buffalo and sheep populations more than doubled. Goat numbers have almost trebled. The camel population initially grew quickly, doubling between 1951 and 1961, but then apparently stabilizing since 1988.

**Table 8. Growth of the Livestock Populations in Rajasthan over the last 40 years (in 100,000s)**

Species	1951	1961	1972	1977	1983	1988	1992
Cattle	108	131	125	129	135	109	116
Buffalo	30	40	46	51	60	64	77
Sheep	54	74	85	99	134	99	124
Goat	56	80	122	123	155	126	153
Camel	3	6	7	8	8	7	7

If we are concerned with people who are pastoralists by identity and who depend on livestock because of landlessness or very small land holdings, the development of cattle and buffalo populations is not directly relevant since these species are primarily kept by landed agricultural groups for whom animal husbandry is a secondary source of income (Rajputs, Jats). Similarly, goat keeping is so widely spread among all castes, that its numbers can not be correlated to pastoralist livelihoods. However, sheep and camels are owned almost exclusively by specialized, often landless pastoral groups.

## Sheep Pastoralism

From the early 1970s until the mid-1990s, nomadic sheep pastoralism from Western Rajasthan into areas of intensive agricultural production in Eastern Rajasthan, Uttar Pradesh and Haryana was on the rise and certain pull factors were made responsible (Agrawal, 1999; Kavoori, 1999; Robbins, 1998). In these areas, irrigation had enabled farmers to generate more than one crop. On one hand this meant that more land was enclosed which led to tensions and hostilities. On the other hand, it generated more biomass: crop residues became available more than once a year, creating added opportunities for pastoralists (Agrawal, 1999). At that time, sheep wool still generated a substantial income and, augmented by the sale of lambs for meat, of dung, and sometimes even ghee, this ensured substantial returns, inducing even non-traditional pastoralists to pursue the option of migration. The trends in sheep and goat population during 1987-1992 are given in Table 9. In his detailed analysis of sheep migration

from Western Rajasthan between 1977 and 1993, Kavoori (1999) showed that during this time period, sheep breeding was economically so attractive, that many non-traditional pastoralists also entered the business. Trying to determine whether the social base of pastoralism in Rajasthan had been shrinking or widening, he concluded that there were changes in the social composition of the migrating and pastoral communities. While the Raika (traditional pastoralists) continued to be the largest caste segment, other groups such as Jats, Raputs and Sindhi Muslims had also entered the business.

**Table 9. Trends in Sheep and Goat Population in Selected States of India, 1987 and 1992**

State	Sheep		Goats		Growth Rate (%/year)	
	1987	1992	1987	1992	Sheep	Goat
Bihar	1520	1689	15032	17459	2.13	3.04
Gujarat	1557	2028	3584	4241	5.43	3.42
Himachal Pradesh	1112	1076	1119	1118	-0.66	-0.02
Jammu and Kashmir	2493	2945	1396	1767	3.39	4.83
Karnataka	4727	5430	3888	6287	2.81	10.1
Rajasthan	9933	12496	12579	15309	4.7	4.01
Tamil Nadu	5881	5848	5921	6343	-0.11	1.39
Uttar Pradesh	2180	2403	11320	13110	1.97	2.98
West Bengal	2312	1488	22694	14170	-8.44	-8.99
India	45703	33915	110208	115279	2.13	0.9

However, although there are no quantitative data available since Kavoori concluded his field studies at the beginning of the 1990s, there is ample circumstantial evidence that in the meantime the situation has changed for the worse and that by now sheep breeding has lost much of its profitability. There is a lack of market demand for wool, and in regards to meat production, sheep can not compete with the more prolific goats. Grazing fees in the neighbouring states whose pasture resources acted as pull factors for migrating sheep, have risen significantly as well. These factors, combined with the constant and increasing fodder shortage, are now causing pastoralists to increasingly opt out of this strategy.

### **Goat Pastoralism**

Goat pastoralism is on the increase because of a strong demand for goat meat and due to the drought resistance of this species and its ability to make use of a wide variety of vegetation. Essentially it always escapes starvation. According to Robbins (1994), in Rajasthan meat production grew 47 per cent between 1986 and 1993. Previously, a small number of goats could be found in most rural households, but keeping large flocks of goats exclusively for meat production is a relatively recent phenomenon that could develop because of the increased purchasing power of India's urban middle class. Whether it is an ecologically desirable development is another question.

### **Camel Pastoralism**

Camel pastoralism is in precipitous decline. The *Raika*, Rajasthan's camel breeding

caste who earlier took care of the breeding herds of the Maharajahs, made a living from breeding camels for the purpose of supplying them to farmers and transport entrepreneurs. The camel is the only one of India's domestic animals whose population is decreasing. While the demand for camels as draft animals may have diminished in certain more affluent areas, for many of the poor camel ownership still represents a very desirable asset since it provides a reasonable income sufficient to support a family. The reason for the decline of the camel population is therefore rather a reflection of the crisis of camel breeding and pastoralism rather than of a lack of market demand and need.

Many traditional camel breeders are giving up their occupation, because it has become almost impossible to provide breeding herds with a proper nutritional support base due to the closure of the Aravalli hills and the disappearance of fallow and wastelands. The reproductive rate of camels is very low and a fairly large number of female camels have to be kept to produce a yearly crop of male offspring that is sufficient to provide a reasonable income. Nutritional deficits have also increased the vulnerability of camels to disease.

Although the Indian camel population rose from 1,001,000 in 1987 to 1,035,000 in 1992, this overall development hides the fact that during the same time period, the number of young camels (defined as those under 3 years) decreased by more than 50% or by an average of 13.8% per year, signalling a dramatic decline in breeding activities. This trend is confirmed by interviews and surveys of camel breeders perceptions undertaken by LPPS (an NGO) which indicated that 76% of them had experienced declining herd sizes to a level where they were no longer sufficient to support a family. With respect to camel pastoralists, an increasing human population apparently depends on fewer and fewer livestock.

### **Cattle Pastoralism**

In the past, many pastoralists were specialised in the breeding of draught cattle. Some of India's most prized cattle breeds such as Gir and Kankrej were the product of nomadic breeders (*Rabari*) who supplied bullocks to sedentary farmers. The breeding skills of these cattle nomads generated attention during the pre-Independence period, but more recent studies of them are noticeably absent. This is surprising, since the demand for draught cattle may have slackened, but certainly has not disappeared. Moreover, especially in drought years the media frequently depict huge trucks of more or less emaciated cattle to illustrate the plight of the rural people, so cattle pastoralists certainly persist, even if no further details are available. In addition to nomadic cattle breeders, there are also cattle traders belonging to the Bhat caste who can be seen moving herds from Marwar to Mewar to exploit price differentials. This is another adaptation that urgently requires attention.

### **Policies on Pastoralism and Past Interventions**

Although pastoral production makes a considerable contribution to the economy, there is a remarkable absence of policies addressing its short-term or long-term development. The problem is simply being ignored and there currently appear to be no policies that explicitly address pastoral development, nor is there even a central policy on rangeland development. Neither of the two Union ministries (Ministry of Agriculture and Ministry of Environment and Forest) whose portfolios impinge on the

two central concerns of pastoralists - livestock and pasture - has evidenced any inclination in dealing with these matters from the perspective of pastoralists.

With regards to livestock, early development plans of the Department of Animal Husbandry of the Ministry of Agriculture laid the emphasis on development through crossbreeding or hybridization programmes. Later there was some diversification into pasture development and feed & fodder resource development.

The goal was to increase the productivity of livestock as well as the pasture resources. Some of the examples of development interventions by the State are presented below:

### **Crossbreeding**

The target of animal hybridization is to get a high yield of products from the animals. The crossbreeding of Indian animals with the exotic breeds is believed to be in consonance with the changing needs of the society, which developed across the whole country after Independence (Singh, 1990). There have been many initiatives of crossbreeding undertaken in the Himalayan states as well as in the Western drylands.

#### *a. Himalayan Region:*

The development programmes implemented by the Animal Husbandry departments across all the Himalayan states have always focused on raising milk production. There 24 districts of the Himalayan states were adopted under the second phase of the Operation Flood, a milk cooperative scheme. The Operation Flood was planned and implemented for cattle development and therefore the programme covered only the agricultural communities and not the pastoral communities of the Himalayas. Similarly the cross breeding programmes for yaks have a target of catering to the agricultural communities through crossing the local yaks with the cow to produce *Dzos* which are extensively used in the highland agriculture.

The only development programme which is well-known amongst the Himalayan pastoralists is wool production. The mountain sheep wool is graded as one of the best quality wool used for making winter clothing and carpets etc. Prior to the Fourth Five Year Plan the Ministry of Agriculture had set up an ad-hoc committee for formulating a sheep breeding policy. Under the programme, large sheep breeding farms, importation of exotic sheep in large numbers, improvement in processes of sheep shearing and wool grading, strengthening of sheep breeding farms and market organisation were planned. The idea was to educate and guide the wool producers to produce good quality wool through better sheep husbandry practices. For the development of sheep and wool industry a substation of the Central Sheep and Wool Research Institute (ICAR) in Avikanagar was also established in Kullu valley at Gersa in Himachal Pradesh. The programme included crossbreeding of Australian Merino sheep with the local sheep and formation of the wool cooperatives. The programme did not turn out to be a big success because the wool grading systems and pricing systems of the government cooperatives were non-practical and most of the pastoralists preferred selling their produce to private traders through middlemen.

These kinds of initiatives were also taken in other Himalayan states. Today, the sustainability and adaptability of the crossbred livestock to the Himalayan environment, effectiveness of increased productivity vis-à-vis resource-use and comparative quality of the produce are all in question.

These initiatives of crossbreeding have given rise to few concerns:

- These initiatives disregard the strength of the local breed which is well adapted to the local Himalayan environment as well as to coexisting with other livestock such as goats.
- The emphasis of the programme is more towards the livestock kept by the agricultural communities, and large herds kept by the pastoralists are largely ignored.
- The crossbreeding programme amongst the pastoral livestock owners is scattered in its application and thus the effectiveness of the programme is not clear.

*b. Western Drylands:*

This part of India has always been famous for the quality of its indigenous livestock breeds, all of which were developed by pastoralists. Well known breeds include Gir, Kankrej, Tharparkar, Rathi and Nagauri cattle, Bikaneri and Jaisalmeri camels, more than 8 distinct sheep breeds, as well as Marwari and Sirohi goats. The local cattle breeds, such as Gir and Kankrej have been exported to Latin America and other parts of the world, having established worldwide reputation as prime beef breeds. Indian pastoralists whose animal breeding skills amazed colonial veterinarians developed the founder stock. However, because of the past decades' official emphasis on crossbreeding, these breeds have now become almost extinct in India. Although the government has woken up to the problem and would like to remedy the situation, it does not have the linkages to the pastoralists who keep the remaining animals and is therefore at a loss about how to establish conservation and development programmes for these valuable genetic resources. On a global level - vide the Convention on Biodiversity - there is increasing recognition that plant and animal genetic resources are best conserved in the surroundings in which they are developed. Moreover, there are demands that the indigenous communities that have acted as stewards of these resources must be provided with benefits for their contribution to the global common goods. This idea is gradually gaining ground and holds out some hope for pastoralists as well, since they play a crucial role in the conservation and sustainable use of livestock breeds which harbour genetic traits that have disappeared in high performance breeds (Köhler-Rollefson, 2000).

In Rajasthan, a specialised sheep and wool department was established in the 1960s for the purpose of ensuring the national wool supply. Its infrastructure consisted of 140 extension centres, 33 Artificial Insemination centres and 6 mobile laboratories. It has now been dismantled and its activities have been reintegrated into those of the department of Animal Husbandry. Its activities focused on upgrading the local sheep breeds through hybridisation with Russian Merino, Rambouillet and Corriedale. Rams with 50% exotic blood were sold to sheep pastoralists at a subsidised rate, however the programme could not be established because of a high mortality rate of lambs and because of reselling of the rams (Ray, 1999).

### **Pasture Development**

Pastures have been targeted in the context of many development programmes, including (a) soil and water conservation, (b) fertilizer management, (c) burning and weed management and (d) silvi-pastoral approaches. The underlying assumption has

been that most Himalayan grasslands are sensitive and have limited regeneration capacity, and that open grazing is harmful to the Himalayan environment. These programmes have simplistically advocated a ban on open grazing and introduction of stall feeding in Himalayan regions. The effectiveness of these programmes is difficult to assess in the context of continuing and developing Himalayan pastoralism.

The programmes on feed and fodder resources were based on supplementing the animal diet through portable feed. Since most of the pastoral communities keep large herds of the animals, which cannot be stall-fed, the programme has mainly benefited the animals kept by Himalayan agricultural communities.

Despite all these efforts by the government, Himalayan pastoralism is declining gradually and there are many small pastoral groups in Himalayas who have completely switched over to other economic avenues. There are some research studies being carried out on various issues of Himalayan pastoralism and it is clear that pastoral development programmes can be successful only when pastoral livelihood research will be conducted in a holistic perspective. Pastoral development programmes should in particular address the needs and aspirations of herders and respect and utilize the vast body of indigenous knowledge that pastoralists possess about pasture resources.

The past trends of pastoral development programmes have seriously ignored the logic of migratory pastoralism in Himalayas. The non-participation of the pastoralists and their indigenous knowledge system is apparent in the present development programmes. These programmes have been very target-specific and were intended to achieve short-term productivity goals, which also contradict the prevalent resource use practices in the Himalayan states. There are problems with this kind of approach because no efforts have been made to see the compatibility between the productivity targets and the existing availability of resources. And the emphasis has always been on technology: producing high quality livestock through crossbreeding or increasing the pasture quality through the introduction of high yielding fodder varieties. To date only 38 per cent of sheep in Himachal Pradesh are crossbred whereas the pressure for increasing wool yields is eminent across all the local pastoral groups. Ultimately the suitability and viability of crossbred animals and high yield varieties of fodder is being questioned in the Himalayan environment.

### **Drought Prone Area Programme (DPAP)**

This programme was launched in 1974 with the support of the World Bank and covered about 50 villages by the mid-1980s. It involved organising sheep breeders into co-operatives and enclosing pasturelands into 100 ha plots for the purpose of development. While the pasture development aspect failed, the remnants of the co-operative societies still exist today and the federation of sheep breeders was able to influence policy decisions by the BJP government in their favour (Agrawal, 1999).

In conclusion, it can be stated that the policy factors which are responsible for the unfavourable pastoral development trends include non-holistic framework for development policy formulation, agricultural bias, limited funds/low priority, lack of knowledge about the pastoral production systems and non-participation of the local communities.

## **Autonomous Development**

The experiences of the last decades have shown that, when genuine economic opportunities open up, pastoralists are quick to take advantage of them and have even overcome age-old social restrictions relating to the commercial production of milk and meat. As in many pastoral societies throughout the world, in traditional Rajasthani culture fresh milk was not meant for commercial utilization, but consumed by the family and offered to guests as a mark of respect and hospitality. Milk was marketed only in the form of *ghee*. Hindu beliefs also prevent the selling of animals, and in the case of cattle, these are legally enforced in the northern part of India.

Examples of pastoralists successfully moving into newly developing market niches, include urban and peri-urban milk marketing which is largely in the hand of *Bharvads*, but also of *Rabari*; switch to large scale goat herding for meat production by *Rabari* and camel milk marketing by *Rabari* in the Mewar part of Rajasthan and in northern Madhya Pradesh. In the Himalayan region with the help of a local NGOs, the buffalo breeding *Gujjars* around Dehradun have started to market their milk as “natural” to differentiate it positively from the “synthetic” milk produced by farmers who artificially augment their milk yields through supplementary feeding of urea and administration of various hormones, including oxytocin.

## **Camel Milk Marketing**

*Rabari* from the Mewar area in southern Rajasthan began marketing small amounts of camel milk as long as twenty years ago, purportedly driven by extreme poverty. From these small beginnings, camel milk marketing expanded and is now practiced in many towns throughout Southern Rajasthan and also in parts of Madhya Pradesh where enterprising milk producers migrated to. The milk is sold mostly to tea stalls where it is mixed with that of other animals. In the town of Jawra, camel milk composes an estimated 20 per cent of the total milk volume sold. Nevertheless, it is an activity that has received no acknowledgement from official side and proceeds entirely in the non-formal sector.

## **Camel Meat Marketing**

Selling camels for meat is another, even more strident traditional taboo. It is an open secret that during the camel market in Pushkar, large numbers of camels (including females) are sold for slaughter in West Bengal and Karnataka. Caste leaders are concerned about this situation and bewail the fact that middlemen now go directly to villages in southern Rajasthan to purchase entire herds also for the purpose of slaughter. This development does not bode well for the survival of the camel as the most drought-resistant element of Rajasthan’s agricultural biodiversity, but from the perspective of pastoralists it is a rational response to a scenario where camel breeding is no longer economically worthwhile.

## **Prognosis on Pastoralism**

Future prospects for pastoralism are generally discouraging throughout India and, in view of dramatically decreased common property resources, removal of trade barriers for imported livestock products, and population pressure, the situation for pastoralists looks almost hopeless. On the other hand, pastoralism has been diagnosed dead many times before and so far has been remarkably resilient, also due to some inbuilt social



and cultural strength of pastoral communities. At a time when nomadic pastoralists became settled in the rest of the world, nomadism actually increased in Rajasthan.

Regarding the likely trends of pastoral development in the Himalayas, there are threats of perceptions where pastoralism is considered as a non-sustainable economic process and a greater productive efficiency is assumed for capital-and technology-intensive sedentary livestock management systems (Karol, 1999). This would inevitably lead towards the discouragement and abandoning of nomadic pastoralism, but sounds unlikely for Himalayan pastoralism because Himalayan resources are spread across various altitudes and ecological niches and the region makes a case for perseverance of migratory pastoralism in the absence of any other viable alternative.

The new perspective on pastoral development looks at the relevance and effectiveness of western concepts which have been applied in developing countries. There is now an increased appreciation for the complexity and ecological and economic efficacy of traditional pastoral systems. It provides hope that the vast indigenous knowledge herders possess will be better understood and used in designing new interventions. Greater awareness of the need to understand existing pastoral systems should also help ensure that the goals and needs of pastoralists are incorporated into new programmes and the local herders become active participants in the development process.

In the proceedings of a Regional Expert Meeting in Nepal on Rangelands and Pastoral Development in 1996 in the Hindu Kush-Himalayas, the following priority actions were identified vis-à-vis pastoral development (ICIMOD, 1996):

- Develop programmes to study traditional systems and perceptions of pastoralists problems
- Improve people's participation and community organization
- Conduct applied study of pasture resources
- Create opportunities for two-way exchange of information between pastoralists and professionals
- Determine the extent and severity of pastureland degradation
- Develop appropriate land tenure legislation and policies

In concrete terms the researchers have noted that the most important development intervention for Himalayan pastoralists would be that of reducing isolationism and forging better links between pastoralists and external resources. Traditional pastoral management systems in the Himalayan region were designed around mobility for favourable forage conditions and the most important input required is to improve the market channels for the better prospects of the Himalayan pastoralists.

A major factor transforming the situation of pastoralists in the new Millennium would be the globalisation of trade in livestock products. As consumers become more aware about hygiene and food quality, the market may shift against pastoralists and more towards enclosed system. One of the biggest apprehensions pertains to the effect of removal of quantitative restrictions on the import of livestock products. Will import of cheap wool, milk and meat sound the death knell for pastoral livelihoods?

One factor that could reinforce pastoralism in a positive fashion is the rapid depletion of groundwater resources and lowering of the water table in Rajasthan and other areas that may force farmers to step back from year-round cultivation and open up fallow areas. Furthermore, Government might also look into more sustainable land use strategies and investigate area development plans that favour pastoralism.

## **Institutions, which speak for/Represent the Interests of Major Pastoralist Groups**

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It is becoming increasingly clear that grassroots-level pastoral organizations or associations provide a path to empower pastoralists. Pastoral associations are not new to nomadic societies as traditional grazing management practices often relied on group herding arrangements and informal group tenure of grazing land. In many areas, vestiges and new variations on traditional pastoral organizations exist. Pastoral associations could help facilitate the participation of pastoralists in the design and implementation of development programs, improve the government's understanding of pastoral systems, contribute to formulating more appropriate policies for land use, and reduce the level of government resources required for monitoring land use. Some of the institutions /organizations which represent the interests of the pastoralists in India, are discussed in this section.

### **Himalayan Region**

There are quite a few government and non-government institutions, which represent the concerns of pastoralists in the Himalayan states. Beside these institutions there are a few academic organizations/institutions, involved in research related to Himalayan pastoralism.

#### **Government Institutions**

Departments of Agriculture, Animal Husbandry, Environment and Forests, and Revenue jointly implement various development programmes for the Himalayan pastoralists:

- Animal Husbandry departments are functional in all the Himalayan states, as separate or subsidiary units of Departments of Agriculture. These departments are essentially involved in livestock development programmes, but their major focus is on settled farmers.
- Revenue and Forest Departments are responsible for the pasture development in the five Himalayan states.

#### **Non Governmental Organizations (NGOs)/Institutions**

Some NGOs working in the Himalayas realize the special place of pastoralism there and being in close contact with people are better placed than the state administration to be sensitive to the social, economic and environmental situation concerning Himalayan pastoralism. Some of the NGOs, which are active in Himalayan region, are discussed below:

##### *Leh Nutritional Project (LNP):*

Leh Nutrition Project is based at Leh in Ladakh of Jammu and Kashmir. The organisation is working amongst the Changpa nomads of Rupshu plains for their integrated rural development, which includes the predominant issue of health and education.

*Contact Address:*

Dr. Samphel  
Leh Nutrition Project, LNP  
Leh-Ladakh-194101 (Jammu and Kashmir)  
Phone: 01982-52807

*Society for Advancement of Village Economy (SAVE):*

Society for the Advancement of Village Economy is based in the Kullu district of Himachal Pradesh and they are trying to fight for the pasture rights of displaced local Gaddi pastorals after the notification has been issued for the Great Himalayan National Park.

*Contact Address:*

Mr. Iqbal Singh  
Society for Advancement of Village Economy (SAVE)  
Aut- District Mandi (Himachal Pradesh)  
Phone: 01905-79234

*Rural Litigation and Employment Kendra (RLEK):*

Rural Litigation and Employment Kendra (RLEK), is working for the land rights of *Gujjar* pastorals in Rajaji National Park, Uttaranchal. They are also running programmes for education and employment generation initiative amongst this pastoral population.

*Contact Address:*

Mr. Avdesh Kaushal  
Rural Litigation and Entitlement Kendra  
21-East Canal, Road, Dehradun 248 001 (India)  
Phone: 91-135-745539, 746071  
Fax: 91-135-656881

*Sikkim Biodiversity and Ecotourism:*

This institution is based in Gangtok, Sikkim and works closely with the high altitude population of Yuksam valley in the Kangchendzonga National Park. The idea of their programme is to focus upon the attributes and values of the local environment to develop Ecotourism in the area.

*Contact Address:*

Mr. Eklabya Sharma  
Sikkim Biodiversity and Ecotourism,  
C/O G B Pant Institute for the Himalayan Environment and Development,  
Todong, Gangtok, Sikkim  
Phone: 03592-31673

*Center for Science and Environment (CSE):*

CSE is an environmental organisation and has been conducting applied research and also publishing papers on the myth of Himalayan pastoralism and environmental degradation.

*Contact Address:*

Director

Center for Science and Environment

41, Tuglakabad Institutional Area, New Delhi

Phone: 011-6081110

## **Community-based Organisations**

Largely community-based organisations work alongside the local Panchayati Raj systems and there are also a few cooperative societies and trade unions of pastoralists that have been formed in the Himalayan states.

The Pipon system amongst the Lachen and Lachung pastoral groups in Sikkim, and the Goba, who acts as a political head of the Changpa nomads, are some of the CBOs. There is also a trade union of Gaddis in Himachal Pradesh, established in 1993 to speak for the causes of Gaddi pastorals in the region. Similarly, there are some trade unions of pastoralists functioning in Dharamsala and Kangra regions of Himachal Pradesh and also amongst the Gujjar pastorals of Uttranchal as well.

## **Western Region**

### **Ber Palak Sang**

This is a federation of shepherd societies (353 societies) composed of nearly 10,000 households from semi-arid western districts of Rajasthan which is chaired by Bhopalaram Raika who maintains close connections to the BJP party (Agrawal, 1999). The previous BJP government often intervened in favour of pastoralists in the context of disputes with the Central government over access to protected forest areas.

### **Pashu Palak Mitr**

Pashu Palak Mitr (literally “friend of the animal breeder”) is a monthly newspaper that has been serving as a communication tool for Raika/Rebari throughout India, for the last five years. It currently has 1570 subscribers/members in 14 states. It has been successful in making some of the problems faced by pastoralists known to the (state) government.

*Contact Address:*

Umaid Singh Rebari (editor and founder)

24A Shiv Colony, Dhani Gujran, Vidhyanagar,

Jaipur, Rajasthan

### **Lokhit Pashu-Palak Sansthan (LPSS)**

This is a registered voluntary society (NGO) with the specific objective of improving pastoral livelihoods through advocacy, facilitation and support projects. It developed out of research with camel pastoralists and has a strong base among camel breeders of the Godwar area. Its activities consist of camel health services, training of pastoralists in use of modern medicines, research and documentation on ethnoveterinary medicine, support for camel milk marketing, camel breed improvement, income generation for women, exposure tours etc. LPSS successfully fought the ban on camel milk marketing that was precipitated by the High Court in Jodhpur on the grounds of camel milk being a human health hazard by bringing it to the Supreme Court in Delhi.

*Contact Address:*

Hanwant Singh Rathore  
Desuri Road, Sadri 306702, District Pali, Rajasthan  
Phone: 02934-85086. Email: [lpss@sify.com](mailto:lpss@sify.com)

### **Godwar Unt Palak Samiti**

This is an organisation of camel breeders in the Godwar area that works closely in association with LPSS.

*Contact Address:*

Kalyan Singh, Bali, District Pali, Rajasthan.  
(Can be contacted via LPSS)

### **Institute of Development Studies**

Some of the staff members of IDS have also worked on pastoral issues.

*Contact Address:*

Director, Institute of Development Studies (IDS)  
8B Jhalana Institutional Area, Jaipur 302004, Rajasthan  
Phone: 0141-515726. E-mail [sunil@ids.org](mailto:sunil@ids.org)

### **Marag or Maldhari Rural Action Group**

Maldhari Action Group is an NGO in Gujarat that seeks to “create greater levels of awareness among the Maldharis, to organise them into different groups and to introduce specific development programmes within these community-based structures”. Its activities focus on formal and informal educational activities, group building for developmental activities, animal husbandry and pastureland development (with a focus on better management of natural resources) and upgrading skills of Maldhari women in their traditional crafts.

*Contact Address:*

Ms. Neeta Pandya,  
Chamunda Road, Chotila, District Surendranagar, Gujarat  
Phone: 02751-50294.

**LIFE** (Local Livestock For Empowerment of Rural People), an initiative for endogenous livestock development and community based management of animal genetic resources.

*Contact Address:*

W.M.K. Warsi ([wmkwarsi@yahoo.com](mailto:wmkwarsi@yahoo.com)),  
C/O LPPS, Desuri Road, Sadri 306702, District Pali, Rajasthan  
Phone: 011-2410855.

Mr. Warsi also acts as the India representative of the CME (Conseil Mondial des Eleveurs/World Herders Council)

**KRAPAVIS** (is working with Gujjar buffalo pastoralists)

*Contact Address:*

Aman Singh, 5/218 Aravali Vihar, Kala Kua, Alwar 301001, Rajasthan  
Phone: 0144-344863

### **Network for Livestock and Pastoral Development in Western India.**

This is a newly established forum of rural development NGOs interested in improving their livestock related activities, as well as in advocacy for more appropriate policies. It meets four times a year.

*Contact Address:*

A.P. Singh, AFPRO Field Unit 7, 630 Arjun Nagar, Sector 11, Udaipur 313002  
Phone: 0294-583506

Smaller NGOs in Gujarat initiated by pastoralists or working with them include, **Gopal Sena** in Ganesh Nagar, Bhuj, **Gujarat Jan Jagaran Sangh** in Bhuj, **Manav Kalyan Trust** in Tehsil Bhachau, **Mangal Mandir** in Bhujodi (Tehsil Bhuj), **Dhebar Rebari Sara Seva Trust** in Anjar (near Gandhidham).

The **Vivekanandan Training Institute** and the **Aga Khan Rural Support Programme** (AKRSP) are larger organisations who work with pastoralists, especially in the context of resettlement around the Gir sanctuary.

The **Gujarat Gopalak Vikas Board** is a state organized livestock development board whose chairman is Arjunbhai Rebari. Its goals include the provision of education, general welfare, treatment of animals; pasture development and ensuring information flow to the government.

**Gujarat Rajya Bher ve Un Vikas Nigam** (Gujarat State Sheep and Wool Development Corporation) also has a Rebari as chairman. It assists in marketing of wool and also supports vaccination campaigns.

### **Southern Region**

**ANTHRA**, an NGO of female veterinarians that works with Kuruba shepherds in Karnataka.

*Contact Address:*

Dr. Nitya Ghotge,  
Shop F, Lantana Gardens, N.D.A. Road, Bavdhan, Pune 411021, Maharashtra  
Phone: 02139-51282. Fax 02139-51165. E-mail [anthra@pn2.vsnl.net.in](mailto:anthra@pn2.vsnl.net.in)

Dr. Sagari Ramdas, 124 Vayupuri, Secunderabad 500094, Andhra Pradesh  
Phone: 040-7113167, Fax 040-7110977. E mail anthra@hd2.vsnl.net.in

**SEVA** (is working with a variety of pastoral groups in southern India, incl. Toda and Vembur sheep breeders, encouraging community-based conservation of their indigenous breeds; is part of the LIFE initiative, and might be in a position to provide information on South Indian pastoralism.

*Contact Address:*

P. Vivekenandan, 45 TPMNnagar, Virattipathu, Madurai 625010, Tamil Nadu  
Phone: 0452-780082, E-mail: numvali@vsnl.com

**Karnataka Dhangar Gowli Vikas Sangh** is a voluntary organisation for the development of the Dhangar Gowli community in Karnataka.

*Contact Address:*

W.D. Patil, Secretary,  
Kaulapur Wada, Wagh Wade Post, Khanpur Taluka, Belgaum Dist. Karnataka –  
590014



## **Institutional Arrangements which enable the Concerns of Pastoralists to be Represented and thereby ensure Research and Development are truly Demand-led**

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The existence and problems of pastoralists in India have barely filtered into the consciousness of the general public and policy makers. If there is any awareness at all, then pastoralism is regarded as a way of life that is backward and doomed. It is this attitude that requires change. Pastoralism needs to be given recognition and promoted as a land use strategy that is ecologically and economically appropriate in certain marginal areas and basically has the same value in some areas as cultivation and wildlife conservation in others, besides providing positive reinforcements to them. Moreover, pastoralists make an important contribution to the conservation of biodiversity through their sustainable use of indigenous livestock germplasm. Making planners, policy makers and advisors recognize this situation would mean that a major part of the battle was won.

At the moment the groundwork has not been laid for achieving such a change in perspective. There is hardly any interaction between pastoralists and the actors that could affect their situation. They essentially occupy different spheres that are very far apart and not at all interconnected. Building bridges across this gap, “institutionalizing vertical and horizontal linkages” so that regular and systematic interaction between the pastoralists and the concerned agencies can take place, must be given greatest priority.

As already mentioned, there is currently no government or non-government institution at the national level that supports pastoral causes. If such an institution is to be built, it is more likely to be successful - and act in a demand-driven way - if it is constructed from the bottom with great care being taken that it receive its impetus from the field, rather than from the top. The first priority must therefore be to strengthen and link field level and grassroots organizations composed of or working with pastoralists, as well as isolated research projects addressing relevant issues.

For the Himalayan region, the existing institutions are predominantly involved either in specialised research or planning development programmes with specific pastoral communities in Himalayas. Generally their highly focussed work is on very specific issues and communities, which makes them susceptible to producing results that are contextual and based on subjective assumptions. At present, the foremost requirement is to have a holistic knowledge base on Himalayan pastoralism with an extensive coordination of all the institutions involved in Himalayan pastoralism.

For the western drylands it can be stated that there is a need for more rural development NGOs to get interested in working with pastoralists or pastoral associations and to develop the necessary attitude and approaches. Although there are more than a thousand NGOs working in the rural areas of Rajasthan and Gujarat, only a couple of them (LPPS, Marag) attempt to address the problems of pastoralists.

This is due to several factors:

- The activities of NGOs are largely driven by donor preferences, i.e. concentrate on those types of projects that are currently en vogue and therefore likely to be funded - such as watershed development. Donors so far have not shown interest in pastoralists.
- NGOs also lack orientation to pursue work with pastoralists and to appreciate their positive qualities. If they involve in animal husbandry projects, they team up with the government departments in promoting A.I. and improved breeds. Instead they should be motivated and trained to understand and document the indigenous knowledge and institutions of pastoralists, as well as their significance.

The second interface that needs to be built is between NGOs/pastoralists on one side and policy makers and research institutions on the other. Many NGOs concentrate on local activities only without concern for effecting policy changes and even refuse to cooperate with governments. Examples of linkages between NGOs and research organizations are also virtually non-existent.

At the local level, it is also of crucial importance, that the forest department is enticed to work with pastoralists.

Thirdly, there is a need to combine the voices of pastoralists so they can be heard. While there are some instances where pastoral leaders have managed to effect changes in specific cases or the context of a certain crisis, these are isolated events and too few and far between to achieve sustained impact.

There is thus a need for a body that collates information on the various pastoral groups and facilitates exchange, communication and mutual support between them. This could lead towards building regional pastoral platforms and a national pastoral forum. Ideally this in turn should be linked up with pastoral organizations in other countries for establishing a global forum.

Other responsibilities of such a national level pastoral organization or forum would be to create horizontal linkages between the various government departments that could influence the situation of pastoralists, such as forest/environment, agriculture, revenue and industry. It should strive to establish the credentials of pastoralism as a separate livelihood strategy from agriculture. For this it should be facilitated with its own administrative set up where all the government departments like agriculture, forest, revenue, environment, industry cooperate to sustain and develop pastoralism.

But merely representing pastoralists is not enough and it must be emphasized that creating such a platform will not be sufficient until and unless requisite changes are achieved in the institutions and organizations that are supposed to listen. Animal husbandry and veterinary professionals have to change their attitude and need to be equipped with better communication techniques. Training in participatory approaches should be incorporated into the academic curricula. The research institutions, including universities, also need to be enabled to respond to requests for researching issues that are brought to their attention from bottom, especially from pastoralists; such structures for creating a bottom-up research agenda are currently not available.

**“MORE PRO-PASTORAL ORGANIZATIONS AND INSTITUTIONS  
ARE NEEDED IN INDIA.”**

## **Topics in Pastoral Development that Represent “Researchable Constraints” for Livestock Production Programme**

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Pastoralism is in crisis globally, both as a result of man-made and natural constraints, and internal and external influences. Even though the buzzword “people's participation” is on everybody's agenda, there has been very little progress in truly empowering and allowing participation by pastoralists in their own development process. As already mentioned, of all the pastoral regions of the world, Indian pastoralism is the worst documented by far, with uncertainty about ethnic identities and confused descriptions of pastoral systems. However, there is a growing interest by Government in tackling the issue of pastoral development for socio-economic and socio-political reasons. Therefore, it appears an opportune time to direct research efforts and funds into this sector. Some of the needs for researched, will include:

- A detailed study of the important pastoral communities in India to understand their needs and problems, traditional livestock production systems, strategies and practices to create awareness amongst the policy advisors and decision makers to frame appropriate policies
- Given the lack of data on Indian pastoralism, the generation of a more reliable database to understand the problems relating to pastoralism through development of indicators of poverty and relative poverty, as well as monitoring mechanisms for the size of pastoral populations and their demographic trends
- A detailed investigation of policies adopted by various State Governments towards Pastoralists and selected case studies of National Parks/Protected Areas to understand their policies and management strategies to identify appropriate policy framework for the welfare of pastoralists.
- The generation of timely and appropriate information about Indigenous Knowledge and pastoralists' coping mechanisms in the face of environmental and socio-economic stresses and pressures; and the efficacy of these coping mechanisms; filling the knowledge gap in pastoral issues, while creating a critical mass of local and international resource persons
- An adaptive Study on impact of livestock grazing on biodiversity conservation including scientists from different disciplines, practitioners, policy makers, NGOs and other stakeholders (Larger project)
- The enhancement of the capacity of grassroot pastoral communities and NGOs and facilitate policy development and/or reform in line with the needs and constraints of the pastoralists through participatory process
- The identification, analysis and diffusion of successful experiences for adoption by local level people through case studies

- Development of a model for improving access of pastoralists to relevant information (Training and Extension)
- Merging/blending of indigenous/ethnoveterinary with modern knowledge to control animal diseases
- Value addition to the indigenous breeds and livestock products that increases economic returns, e.g. goat milk (cheese), camel milk (healthfood), camel wool and leather and institutional arrangements for marketing
- The scope for pastoral production as a variety of “ecological animal husbandry” and certification
- Feasibility of pasture – especially silvipasture - development, not from a technical angle, but from a social and institutional angle. Many Government Organizations and NGOs are engaged in pasture development – but how successful have these projects been? Does this represent a viable option for creating grazing opportunities for pastoralists?
- The compatibility of the conservation of wildlife and of indigenous livestock breeds? Are there non-exclusive or co-conservation concepts that do not require expulsion of pastoralists from protected areas?
- The development and political acceptance of regional land use plans that do not discriminate against pastoralists

## Bibliography

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- AGRAWAL, A. (1999) *Greener Pastures Politics, Markets and Community among Migrant Pastoral People*. Duke University Press, Durham and London.
- ANTHRA (1995) *An analytical study of a community-based approach to sheep development implemented by India Development Service in partnership with semi-migratory pastoral shepherds of Dharwad district, Karnataka. Facilitated by Oxfam (India) Trust, Hyderabad, Andhra Pradesh*.
- ATKINSON (1888) *Gazetteer of N.W. Province, Himalayan Districts*.
- BHASIN, VEENA (1988) *Himalayan Ecology: Transhumance and Social Organization of Gaddis in Himachal Pradesh*. Kamal Raj Enterprise, New Delhi.
- BLENCH, R. M. (2000) *Extensive Pastoral Livestock Systems: Issues and Options for the Future*. London: Overseas Development Institute.
- BRARA, R. (1992) Are Grazing Lands “Wastelands”? Some Evidence from Rajasthan. *Economic and Political Weekly*. February 22, 1992: 411-418.
- CHAKRAVARTY-KAUL, M (1998) *Transhumance and Customary Pastoral Rights in Himachal Pradesh: Claiming the High Pastures*. In Mountain Research and Development, International Mountain Society and United Nations University.
- CINCOTTA, R. and PANGARE, G. (1993) Evidence of Transhumance in “Sedentary” Bharwad Small Ruminant Pastoralists in Saurashtra. In: *Pastoralism and Pastoral Migration in Gujarat*. Cincotta, R. and Pangare, G. (Eds). Institute of Rural Management, Anand.
- CUNNINGHAM, A. (1871) Archaeological Reports, Vol. II. Cited in: *The Tribes and Castes of North-Western India*. Crooke, W. (1896).
- DYER, C. and CHOKSI, A. (1997) Literacy for Migrants: An Ethnography of Literacy Acquisition among Nomads of Kutch. *Compare* 27(2): 217-229.
- ICIMOD (1996) Rangelands and Pastoral Development in the Hindu Kush-Himalayas. In: *Proceedings of a Regional Expert Meeting*. International Centre for Integrated Mountain Development, Kathmandu.
- IVES, J.D. and MESSERELI, B. (1989) *The Himalayan Dilemma: Reconciling Development and Conservation*, Routledge, New York.
- JODHA, N.S. (2000) *Life on the Edge: Sustaining Agriculture and Community Resources in Fragile Environments*. Oxford University Press, New Delhi.
- KAVOORI, P. S. (1999) *Pastoralism in Expansion: The Transhuming Herders of Western Rajasthan*. Oxford University Press, New Delhi.
- KHURANA, I. (1999) The Milk that Ate the Grass. *Down to Earth*, April 15, 1999: 24-31.
- KÖHLER-ROLLEFSON, I. (1992) The Raika Dromedary Breeders of Rajasthan: A Pastoral System in Crisis. *Nomadic Peoples* 30:74-83.

- KÖHLER-ROLLEFSON, I. (2000) Management of Animal Genetic Diversity at Community Level. GTZ Programme on "Management of Agrobiodiversity in Rural Areas", Eschborn (Germany).
- KÖHLER-ROLLEFSON, I. and RATHORE, H.S. (1997) *Camel Pastoralism in Pali District: Anachrinism or Chance?* Report on the CHIP Project. League for Pastoral Peoples, Ober-Ramstadt (Germany)
- KÖHLER-ROLLEFSON, I. and RATHORE, H.S. (1998) *NGO Strategies for Livestock Development in Western Rajasthan (India): An Overview and Analysis*. Discussion Paper. League for Pastoral Peoples, Ober-Ramstadt (Germany).
- MANKU, D.S. (1986) *The Gujjar Settlement — A Study of Ethnic Geography*.
- NEGI, R.S. (1998) Symbiotic Relationships between Man, Animal and Nature: A Study of the Gujjars of Garhwal. In: *Lifestyle and Ecology*. Saraswati, Vaidyanath (Ed.). New Delhi: Indira Gandhi National Centre for the Arts and D. K. Printworld Pvt. Ltd.
- RAY, S. (1999) Declining Production Conditions of Raw Wool: Analysis of Emerging Conflicts in Sheep Husbandry in Rajasthan. *Economic and Political Weekly* **34**(20): 1209-1214.
- RIVERS, W.H.R. (1906) *The Todas*. Macmillan and Co., London.
- ROBBINS, P. (1994) Goats and Grasses in Western Rajasthan: Interpreting Change. *Pastoral Development Network Paper*. **36a**: 612. ODI, London.
- ROBBINS, P. (1998) Nomadization in Rajasthan, India. *Human Ecology* **26**(1): 87-112.
- SABERWAL, VASANT K. (1999) *Pastoral Politics - Shepherds, Bureaucrats, and Conservation in the Western Himalaya*. Oxford University, New Delhi. 1999
- SABHARWAL, ALKA (2000) *Twice Unlucky-A study of Displaced High Altitude Tribal Communities in Central Himalayas*. Down to Earth, January 2000.
- SABHARWAL, ALKA (1996) *Changpas: Nomads of Rupshu- A Study of Economy, Economy and Exchange*. M. Phil thesis (unpublished). Department of Anthropology, Delhi University.
- SALZMAN, P.C. (1988) From Nomads to Dairymen: Two Gujarati Cases. *Economic and Political Weekly* **31**:1582-1586.
- SINGH, K.S. (1996) *Peoples of India Series*, Anthropological Survey of India, New Delhi. 1996
- STATE OF THE ENVIRONMENT REPORT - Himachal Pradesh (2000), *State of the Environment: Himachal Pradesh*. State Council for Science, Technology and Environment, Shimla.
- TAMBS-LYCHE, H. (1997) *Power, Profit, and Poetry: Traditional Society in Kathiawar, Western India*. Manohar Publishers, New Delhi.
- VIRA, S. (1993) The Gujjars of Uttar Pradesh: Neglected Victims of Progress. *Issues Paper - Drylands Networks Programme, International Institute of Environment and Development* No. 41, 28pp. London.
- WALTON, H.G. (1989) *Gazetteer of Garhwal Himalaya* (reprint).
- WESTPHAL-HELLBUSCH, S. (1975) Changes in the Meaning of Ethnic Names as Exemplified by the Jat, Rabari, Bharvad, and Charan in Northwestern India.

- WESTPHAL-HELLBUSCH, S. and HEINZ WESTPHAL (1975) *Hinduistische Viehzüchter im nord-westlichen Indien i. Die Rabari*. Duncker and Humblot, Berlin.
- WOOD, C.D., CONROY, C., BADVE, V.C. and JOSHI, A.L. (2000) *Proceedings of the workshop on participatory research in goat feeding systems in Northwest India and silvipastoral development on common lands*, held in Udaipur, 11-13 September, 2000. BAIF, Pune.