

‘It Takes Two Hands to Clap’: How Gaddi Shepherds in the Indian Himalayas Negotiate Access to Grazing

RICHARD AXELBY

This article examines the effects of state intervention on the workings of informal institutions that coordinate the communal use and management of natural resources. Specifically it focuses on the case of the nomadic Gaddi shepherds and official attempts to regulate their access to grazing pastures in the Indian Himalayas. It is often predicted that the increased presence of the modern state critically undermines locally appropriate and community-based resource management arrangements. Drawing on the work of Pauline Peters and Francis Cleaver, I identify key instances of socially embedded ‘common’ management institutions and explain the evolution of these arrangements through dynamic interactions between individuals, communities and the agents of the state. Through describing the ‘living space’ of Gaddi shepherds across the annual cycle of nomadic migration with their flocks I explore the ways in which they have been able to creatively reinterpret external interventions, and suggest how contemporary arrangements for accessing pasture at different moments of the annual cycle involve complex combinations of the formal and the informal, the ‘traditional’ and the ‘modern’.

Keywords: northern India, transhumant nomadism, common property resources, *bricolage*

INTRODUCING THE COMMONS

A significant strand of the academic analysis of property regimes¹ concerns itself with identifying the characteristics of long-enduring systems of common resource ownership and management (see, among others, McCay and Acheson

Richard Axelby, Department of History, School of Oriental and African Studies, Thornhaugh Street, Russell Square, London WC1H 0XG. e-mail: richaxelby@yahoo.co.uk

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¹ Contemporary interest in Common Property Resources (CPRs) was provoked by Garrett Hardin’s 1968 paper on ‘the tragedy of the commons’. Though initially influential, Hardin’s view that an absence of individual defined ownership inevitably leads to ruin was, by the 1980s, subject to considerable attack. Critics of Hardin recognized that, under certain circumstances, collective ownership or management can be as effective as private or state ownership in promoting efficient and sustainable resource use.

1987; Wade 1988; Bromley and Cernea 1989; Ostrom 1990; Arnold and Stewart 1991; Baland and Platteau 1996). Reviewing these works, Agrawal (2002) helpfully summarizes the key features recognized in examples of successful cooperative resource management. Of these 'design principles' for institutional sustainability, it is generally agreed that the resource itself should be clearly defined and the user group small in size, have recognizable borders, shared norms and homogeneity of identity and interests. Resource users should additionally possess the ability to communicate, enjoy a degree of mutual trust and hold the expectation of a shared future. Moving from the resource users themselves to the wider contexts in which they operate, it is suggested that common property institutions require a high degree of stability and an absence of external intervention. Wade (1988) and Ostrom (1990) both explicitly state that central governments should not undermine local authority, while Baland and Platteau (1996) suggest that external sanctioning institutions must be 'supportive'.² The conclusion of such observations is that communal systems for regulating common-pool resources are only found in small, stable communities characterized by political and economic self-sufficiency and internal homogeneity. Looking at the examples of robust and viable commons-type regimes on which these findings are based, we find many of them are drawn either from historical or ethnographic studies; whether located in the past or amongst contemporary 'indigenous' societies, there is a presumption that commons type arrangements are vulnerable to demographic and technological change or to increased subversion by markets and the state.

This conception of the working of common property management institutions fits readily into a telling of Indian history exemplified by the likes of Anil Agarwal (1986), Chhatrapati Singh (1986), Vandana Shiva (1991), Ramachandra Guha (Guha and Gadgil 1989; Guha 1994) and Madhav Gadgil (Gadgil and Guha 1992, 1995). Identified by Sinha et al. (1997) as 'New Traditionalist Discourse' and by Greenough (2001) as the 'Standard Environmental Narrative', this position came to dominate alternative understandings of environmental history in South Asia.³ At the risk of simplification, a picture is painted of a traditional 'golden age' of appropriate resource use in which self-governing and relatively harmonious communities were able to collectively manage natural resources in a sustainable and appropriate manner.⁴ We are told how, in the pre-modern past, common property formed the backbone of India's economy – a large number of people, and (as we shall see) particularly nomadic pastoralists, were heavily dependent on natural resources managed in this manner. This image of 'village

² Wade includes the following as a condition for successful CPR institutions: 'the less the state can, or wishes to, undermine locally based authorities, and the less the state can enforce private property rights effectively, the better the chances of success' (1988, 216).

³ For an overview and critique of what Baumann calls the 'populist position' (1997) see also Madsen (1999) and Agrawal and Sivaramakrishnan (2001).

⁴ 'It is evident that till the end of the last century and in all historical periods before that at least 80 percent of India's natural resources were common property, with only about 20 percent being privately utilized. Given the uncertainty of records, even a ratio of 90:10 for common versus private property would not be an unlikely estimate' (Singh 2001, 16).

republics' acting in concert with local herders assumes effective autonomy from external political and economic forces (Sinha et al. 1997, 81). But, as CPR theory suggests, such systems are fragile and vulnerable to external intervention and change.

In the 'new traditionalist' telling of Indian environmental history, the early nineteenth century saw long-standing systems of resource management increasingly undermined by external forces. Among the most obvious effects of colonial appropriation and administration of India's natural resources were the arrangements by which these resources were owned and managed as common property. According to Guha, over the past century and a half, ecological imperialism has 'transformed existing patterns of resource use and initiated fundamental alterations in the natural environment' (2000, 216). Following incorporation into the 'modern' relations of emerging world systems, the integrity of pre-existing systems of natural resources management was critically disrupted and the social capital they were built upon eroded.⁵ Seeking certainty in uniformity, the colonial state acted to petrify indigenous systems that previously had been characterized by local appropriateness, complexity and fluidity. The drive to impose simplified plans readable by the centre resulted in the unvarying imposition of private and state control. From this perspective the arrival of the new and exogenous must inevitably undermine the old and indigenous: it seems the two cannot co-exist in any shape or form.

Even if we accept this notion of the penetration and absorption of local communities, it would be incorrect to regard this 'great transformation' as a one-way process in which outcomes are uniform and predetermined. Cohn has written of how the 'all-India' legal culture shaped during the period of British rule and continued since Independence 'has affected the bulk of the population in varying ways, but most infrequently in the ways those creating the legal culture intended' (1990, 608). Such variation and divergence from intention can partly be attributed to the modern state being less uniform, less monolithic and less powerful than is frequently supposed. Law, as Singh points out, is a process within which what exists (and what does not) is never wholly predetermined; far from being rigidly defined, there is a large legal space within which 'interpretation and the invocation of fundamental principles of justice provide fertile ground for creativity' (1986, viii). Once we start to view law as a process rather than an absolute set of rules, it becomes possible to identify 'living spaces' within which local occupancy rights are resurrected and a diverse range of outcomes may be found. Accepting a degree of contradiction and conflict within the modern state, it is necessary to consider the other side of the equation: the reaction of local people to change. This article looks at the effects of state intervention on the contemporary workings of systems of common use and management of natural resources. Specifically it focuses on the case of the nomadic Gaddi shepherds and official attempts to regulate their access to grazing pastures in the

⁵ Breman writes that, as the countryside was opened up, 'all kinds of supra-local institutions and agencies entered the scene [thus] depriving the people of any control over their own lifestyle which was based on mutual co-operation' (1997, 24).

Indian Himalayas. In the words of a saying well known to the Gaddis: 'it takes two hands to clap'.

THE GADDI SHEPHERDS OF HIMACHAL PRADESH

With a population of approximately 120,000,⁶ the Gaddi tribe⁷ inhabit the slopes of the Dhaula Dhar and Pir Panjal ranges in the Indian State of Himachal Pradesh.⁸ The Gaddis are staunch Shaivites, most of whom claim Rajput status, though Brahmans, Khattris and a number of lower castes are also known. A typical Gaddi household is engaged in the production of wheat and maize; nowadays a large proportion of these formerly wholly subsistence crops is sold at market.⁹ Owing to the limits on arable farming imposed by the mountainous terrain,¹⁰ a significant proportion¹¹ of families also maintain large flocks of sheep and goats. Practising a form of transhumant¹² nomadism, in which they drive their flocks from winter grazing grounds in the Siwalik scrub forests up to the alpine pastures of the high Himalayas for the summer months, the shepherds generate significant cash incomes from the sale of meat and wool.

In contrast to the individual ownership of livestock, a frequently occurring feature of nomadic societies is that rights over migration routes and grazing grounds are vested in kinship and community groups. In part, communal ownership arrangements can be attributed to the sorts of arid, marginal and risky environments in which nomadic pastoralists operate (Sandford 1983). With grazing resources spread over large areas and high levels of temporal and spatial variability in biomass production, the cost of individual control of grazing land is likely to be considerably greater than the benefits derived from it; in such situations common type arrangements proliferate (see Behnke et al. 1993; Behnke 1994; Scoones 1995). This can be described as the transaction cost argument: communal ownership works to reduce the time that would be needed to negotiate access with a host of other individual owners, while joint monitoring and enforcement minimize the costs of ensuring appropriate resource use. Shared

⁶ This figure is for the number of people speaking the Gaddi language according to SIL International (http://www.ethnologue.com/show_language.asp?code=gbk Accessed March 2006). However, with definitions of Gaddi identity complicated by residence and caste, it should not be taken as definitive.

⁷ Gaddis living in Chamba District are accorded Scheduled Tribe status. Moves are underway to accord the same status to those who inhabit Kangra District.

⁸ Though their 'homeland' is said to be Bharmour Tehsil, substantial Gaddi populations are also found in Chamba Tehsil in Chamba District and in Kangra and Palampur Tehsils in Kangra District.

⁹ Recent decades have also seen an expansion in horticulture with apple orchards now a source of employment in Chamba District.

¹⁰ The average terraced field in Chamba was described as being 'no bigger than a billiard table' in the *Punjab Gazetteer* (1908).

¹¹ Around 25 per cent of households have one or more members involved in migratory pastoralism though this figure varies considerably by locality (see Axelby 2005).

¹² Transhumant nomadism is based on the seasonal exploitation of different but complementary ecological and climatic zones. 'Vertical' migration allows shepherds to take advantage of variations in altitude, climate and geography. Through the exploitation of these different niches, practitioners of transhumance can maintain larger collections of animals than if they remained fixed in one location throughout the year.

access arrangements also allow for flexibility of movement and thereby underpin the risk spreading that is often crucial to survival in marginal environments. By enabling nomads to adjust spatially and temporally in their migrations, joint access arrangements represent an excellent way of assuring access to adequate grazing and thus to share risks and minimize uncertainty. With the benefits of common ownership thus defined, it is generally assumed that, in pre-colonial times, such systems would have typified pasture access arrangements for the Gaddis also.

In descriptions offered by Gadgil and Guha (1992, 174), Bhattacharya (1986, 1995) and Chakravarty-Kaul (1995, 1996a, 1996b, 1997), Gaddi shepherds are used to exemplify several key characteristics of the 'new traditionalist' telling of Indian history. Bhattacharya describes pastoralists in the pre-colonial Punjab enjoying 'a relatively uninhibited movement in their search for pasture, and unrestricted rights of grazing in grasslands and forests' (1986, 120). In a system that was, according to Chakravarty-Kaul, 'as old as the hills', communal arrangements supposedly guaranteed equitable and appropriate resource access to the different pastoral and agricultural communities of the Punjab Himalayas. Importantly these arrangements were resolutely 'local': Chakravarty-Kaul describes pre-nineteenth-century transhumance grazing patterns as being 'relatively untouched by outside influences' (1996b, 1).

Communal systems for managing grazing resources may have been highly effective in the pre-colonial era, but the institutions that governed access and monitored use were likely to be fragile and highly vulnerable to change. '[A]nything reducing the authority of communal control or the incentive to remain together would weaken such institutions and be a threat to the order' (Chakravarty-Kaul 1996a, 53). Alterations in the conditions or practices of production of either farmers or pastoralists would disrupt existing arrangements. According to Chakravarty-Kaul, the expansion of British hegemony over the Punjab had just this effect: 'thus began the erosion of customary institutions which regulated herding and agricultural practices in the mountains' (1996b, 1). Since this time the communal systems which traditionally governed access to grazing resources have been steadily undermined by the partition and privatization of common lands carried out through the colonial settlement reports and enforced by new legal codes.

Bhattacharya describes how, with the growing influence of the colonial state, the Gaddis 'found their access to forests closed, their rights redefined, the rhythms of their movements controlled, their spatial movement restricted' (1995, 54). Age-old systems of reciprocity between different users of grazing commons were brought to an end with the imposition of an alien set of rules. In the 'New Traditionalist' narrative, conflicts over common lands exemplify the confrontation of a traditional past with the powerful trends of modernization: indigenous arrangements are defined and opposed against externally originating institutions that demand 'one size fits all' private and state management of natural resources. Chakravarty-Kaul writes of tensions between customary law 'rooted in natural ecological systems' and foreign statute 'based on a political system' (1996a, 4). Land settlement and grazing permits meant that the shepherds' movement, once fluid and flexible, was now tightly controlled by externally imposed rules and

regulations. With the new system of law applied ‘uniformly to all situations and places’, land use practices are now frequently found to be ‘at variance with local conditions and much less responsive to regional contingencies’ (Chakravarty-Kaul 1996a, 101). These new rules and regulations had the effect of literally curtailing the ‘room for manoeuvre’ upon which the shepherds had traditionally based their survival: ‘[a]ll along the route their halts and use of the forests were monitored and sanctioned. Their flexibility was reduced to a minimum’ (Chakravarty-Kaul 1997, 143). With their scope to adjust temporally and spatially severely constrained, pastoralists like the Gaddis were effectively ‘frozen in their tracks’ (1997, 134). From this perspective, Gaddi nomadism, like the systems of common resource management it is based upon, is seen as ill-equipped for long-term survival.

CONTEMPORARY COMMONS AND WIDER CONTEXTS

In recent years an emerging body of work has pointed to inadequacies in the ‘design principle’ approach to common property management offered by the likes of Ostrom. It is argued that CPR theory has been developed on the basis of descriptive research in relatively simple settlements where boundaries and users can easily be identified. Analysis of long enduring commons regimes is based on an underlying conception of a public realm almost entirely independent of the state¹³ (Gilmartin 1999, 237). We are left with the idea, also apparent in ‘New Traditionalist’ historiography, that collective action is either stable and institutionally robust, or it is disappearing, undermined by contextual change. Thus, in resource institution theory:

collective action tends to be understood as the likely *outcome* when certain conditions are in place, rather than as a *process* evolving from the interplay between such conditions, characterizing the resource and its users, and – something which CPR theory tends to neglect – the contextual or external factors, and how these are interpreted by resource users. (Ravnborg 2000, 8)

This article presents a detailed case study¹⁴ of the migratory cycle of a single group of Gaddi shepherds.¹⁵ By exploring the ways that local people both

¹³ The title of Wade’s *Village Republics* (1988) makes this tendency clear.

¹⁴ This article is based on fieldwork conducted in 2002 and 2003. During this time I was able to accompany the shepherds for large parts of their journey; interviews substituted for direct observation of those places I was unable to venture. Interviews were conducted in a mixture of Hindi and the Western Pahari dialects of Chamiali and Gaddiboli; though competent in the former, for the latter two languages I required the assistance of an interpreter. While this account of the migration is written in the ethnographic present, I should make it clear that this description is specific to the period of fieldwork only.

¹⁵ Several previous works on Gaddi nomadism have adopted this strategy (from Lyall 1874 to Noble 1987), typically outlining the ecological niches occupied by shepherds moving from the jungles of the Punjab to the Alpine pastures of Lahoul. However, topography is not the sole determinant of nomadic movement and here I consider the social, political and economic relationships through which the Gaddis attempt to access grazing land and fodder.

withstand and creatively re-appropriate external interventions, the following is intended as a response to Agrawal's (2002) call that more attention be paid to the wider contexts within which communal arrangements may survive (see also Menon and Lele 2003; Steins et al. 2000). An examination of the social, political, legal and economic determinant of grazing access reveals a range of contemporary property management systems with diverse origins, institutional structures and workings. Drawing on the work of Pauline Peters and Francis Cleaver, I identify surviving examples of socially embedded 'common' management institutions and explain the evolution of these arrangements through dynamic interactions between community, individuals and the state. Doing so questions accepted notions of community and property and the relationship between state power and local agency. Exploring the 'living space' of the Gaddi shepherds, and in particular the ways in which they have been able to creatively reinterpret external interventions, demonstrates the extent to which contemporary access arrangements involve complex combinations of the formal and the informal and how they evolve in tandem.

SPRING

Baisakh (mid-April to mid-May)

Bhensu Ram Chauhan lives in Baal village, a string of eight slate-roofed houses scattered along a ridge in the Panj La area of the Saal valley. Baal, at an altitude of over 2000 metres, is located about 12 kilometres north-east of Chamba town and is a good hour and a half walk from the nearest metalled road. I first met Bhensu Ram in March as he and his younger son Nandlal (25 years old) were busy ploughing a terraced field in preparation for sowing the maize crop. 'I am 80 years of age but still I work [in the fields] each day. It is important to keep working. When I stop work then I will die.' Bhensu was unable to say exactly when he started working. Having never gone to school, he started to perform household tasks at an early age and then to help in the fields soon after. He recalls the age at which he became a shepherd:

At 15 I started going to Lahoul each year with our *dhan* [flock] and I did this for 40 years. My father was a shepherd as was my grandfather before him. I also had uncles who did this work. We would travel together in a group. . . . When my father died his sheep and goats were shared between my brothers and me. I inherited 25 animals but, over time, was able to increase the number to 160. This I did by keeping plenty of strong males so that more females could conceive each year. I kept very careful watch over the mothers during lambing season. The first 15 days after being born is the hardest time. I would carry 10 to 15 newborns in my *chola*¹⁶ to keep them warm and hidden.

¹⁶ A thick coat of wool tied at the waist with a rope belt.

Bhensu married and fathered two sons and a daughter. When he reached the age of 12, the older boy began accompanying Bhensu on migration for a few months each year. Three years later this son took to shepherding year round and, since that time, Bhensu has concerned himself with farming his 10 *bigha* (3–5 acres) of land, growing maize in summer and a small amount of wheat in winter. Bhensu's younger son Nandlal and two daughters-in-law also work in the fields as well as caring for the family's two cows and the ten or twelve goats that remain in the area throughout the year.

Outside the files of the Forest Department, Des Raj Chauhan is familiar to most as 'Deso'.¹⁷ By the age of 12 he began accompanying his father Bhensu on migration for a few months each year. Deso left school at 14 having completed eighth class and has cared for his family's flock since that time. Though still relatively young at 39 years old, Deso's intelligence and trustworthy reputation have allowed him to take on the position of *malundi* (flock leader).¹⁸

Though I learned a lot about him from his father and brother, I was unable to meet Deso until the Hindi month of *Baisakh* (beginning in the second half of April), when he returned to Chamba district, having spent the winter in the low hills. Travelling with Deso along the road that runs over the Dhaula Dhar to Chamba and up the Saal valley were five other shepherds and somewhere between 400 and 450 sheep and goats. At this point it is necessary to give a brief description of Deso's companions and outline the composition and ownership of their combined flock.¹⁹ The oldest member of the group, 65-year-old Nidhia, is Bhensu Ram's younger brother and therefore Deso's *chacha* (uncle). Like his nephew and brother, Nidhia began shepherding at an early age. In recent years he has chosen not to make the arduous journey up to Lahoul and now remains at home in Lehta village (close to Baal) during the summer months. Nidhia's son, 35-year-old Bir, stays with Deso and the flock throughout the year. Between them Nidhia and Bir own 80 animals. Prithu, the fourth shepherd in the group, is from Sarahan village at the northern end of the Saal valley. Deso, Nidhia and Bir claim Prithu as a relative but are unable to specify the exact nature of the tie. Either way, Prithu and his 70 sheep and goats have been travelling with the group for the last 15 years. The junior shepherds in the group are 22-year-old Mohinder and his 16-year-old brother Dimu. The brothers' home village is in Belg, a remote area 10 kilometres to the east of the Saal valley. Owing to a lack of land and a surfeit of sons, Mohinder and Dimu's father, though not a shepherd himself, decided to invest in sheep and goats eight years ago. With no immediate source of capital and lacking a grazing permit, the only option was to find employment for Mohinder as a *chota*

¹⁷ To protect the anonymity of sources the names of all individuals and some locations have been changed.

¹⁸ The size of his flock plus his grazing permit authorized by the Forest Department also contribute to Deso's status.

¹⁹ In fact, throughout the year, the number and identity of the shepherds in each group can vary considerably. How this works will become clearer over the course of this description.

*puhal*²⁰ or hired shepherd. Initially Mohinder travelled under the permit of a *Bad dhania*²¹ from Bharmour called Balia Ram. For assisting in looking after Balia's flock of over 700 animals, Mohinder was given five sheep each year and provided with 'all meals and a pair of shoes'. After four years of working on these terms, Mohinder decided to leave Balia Ram's service complaining that he was often left alone on the high pastures while Balia Ram went to get drunk with his village friends. Mohinder spent the next two years working for a shepherd called Vishnu, thereby adding several more animals to his flock. This arrangement came to an end when Vishnu decided to increase the size of his own flock and felt he could no longer accommodate Mohinder under the quota limit specified on his grazing permit. Since that time Mohinder has travelled with Deso's group and has been joined by his younger brother Dimu, who is also working to establish himself as a shepherd. Mohinder and Dimu add another 40 sheep and goats to the flock.

Alongside the animals belonging to the six above-mentioned shepherds, the total flock includes an additional 150–200 animals belonging to Gaddis who are not active shepherds. Typically a sedentary family will send between 10 and 40 animals, allowing them to retain an interest in livestock as an asset that can quickly and easily be converted into cash. Most of these additional animals included in Deso's flock are owned by Gaddi farmers living in villages around Baal and Lehta. This also benefits the shepherds who are compensated for taking on livestock for others. Usually those who are not close family can expect to pay around 50 rupees per animal plus a share of the wool and possibly one or two young animals each year.²²

Along with Deso's group, the month of *Baisakh* sees the return of 15 other large flocks to the villages in the southeast end of the Saal valley. The shepherds who manage these flocks are well known to each other; they largely follow the same route from winter to summer pastures and, partly by virtue of common residence, feel a degree of kinship (*nyat*, *gotra*, *al*, *dharam bhai*²³). Bhagtu is a cousin of Bhensu Ram and from Meloh village; Bhader and Rasalu are from Agar and own a joint flock of 600 animals; Gimoo is from Mileti, the next village along from Baal, as is Chenu and his group; Hari Singh is the brother of Deso's father-in-law and carries a lot of weight among these shepherds; Pyaro (18) and Hans (at 85 the oldest of the Panj La shepherds) have less than 50

²⁰ Typically *chota puhals* (also variously known as *tarnete*, *trinair*, *toridhar puhals* and *khieng*) have fewer than 40 animals and are employed by owners of big flocks for labour.

²¹ Owner of a large flock – above 400–500 animals. Also known as *barapuhals*, *numberdhars* and *negis*.

²² These amounts can vary considerably, depending on the relationship between owner and shepherd and the degree to which the owner is willing to spend time caring for the flock or provide access to grazing.

²³ *Nyat* are endogamous groups that Gaddis may marry within. Smaller than a caste but larger than an extended family, a *gotra* forms a kind of corporate group which may share territorial lands and in which each member is responsible to and for the whole group. As elsewhere, Gaddis marry outside of their *gotra*. *Al* are associations of cooperation and mutual assurance and members are obliged to provide physical, material, moral and vocal support for one another (Bhasin 1988, 135). *Dharam bhai* are religious bonds which, following a ceremony, convert a non-relative into a relative.

animals, having lost many to disease the previous year; Himpat, Rasalu and Haroo all, with some minor variations, follow the same migration route.

For a month the shepherds remain close to their home villages, slowly moving their way up the hillsides towards the higher forested areas. With the winter wheat crop recently harvested, most fields are empty and available for grazing. For the first 10 days after arriving, Deso's flock grazes on agricultural land. Starting from the banks of the Saal River they gradually climb to the fields around Baal and Lehta, where the animals are penned in the fields of various friends and relatives.²⁴ As sheep droppings make a good fertilizer, farmers invite shepherds onto their land. Worried about the dangers of animals trespassing onto neighbouring fields with standing crops, landowners often volunteer to watch over flocks, allowing the shepherds the chance to spend time relaxing at home.

As well as farmers' fields, flocks graze at a number of other locations, which shepherds access through a variety of arrangements. As opposed to a field used for agriculture, *du dhar* is an area of privately owned land that supports grazing only. Being close to the owner's residence and relatively small in extent, such land is easily guarded against encroachment. A further source of grazing is provided by village pasture land: *charan* or *ghasni*²⁵ are areas of flattish land where cattle can be grazed; in contrast, *faat* describes steeply sloped ground unsuited to large animals or cultivation but suitable for grazing sheep and goats.

With most non-agricultural land in Chamba under the formal ownership of the Forest Department, officially it can only be used by certain people for limited purposes. Traditional rights to graze or cut grass for fodder are restricted to particular families and village communities. However, enforcement of such regulations is generally weak and rules are subject to widespread abuse. As Gururani points out, knowledge of forest boundaries and some awareness of the official rules and regulations of use does little to stop local people from entering the forest: 'they rely on the long tradition of collecting fuel and fodder from forests designated as reserved and devise strategies to claim a share of the forest' (2001, 171).²⁶

Though Forest Department rules are not always upheld, access and use of forest resources are not entirely unregulated. Local villagers hold well-defined norms of use that are more strictly enforced. If a *ghasni* is to provide fodder to last the winter it is necessary to restrict its use. In spring these areas may be grazed freely but, by common consent, such areas are out of bounds to grazing animals with the onset of the monsoon rains. After this time new grass is allowed to grow freely until the coming of winter when it is cut, collected and stored. Compared to *ghasni*, restrictions on *charan* are determined by residence rather than season. With animals grazing *charan* year round there is little grass

²⁴ It is not unusual for Gaddi families to own homes at different altitudes of the sides of a valley. From the winter home low down they move up to their summer house around mid May to begin preparations for maize planting.

²⁵ Also known as *ghalla*, *gochar* or *juh*.

²⁶ Though originally written about Uttaranchal, Gururani's comments apply equally well in Himachal Pradesh.

left to use for fodder and hence less need for restrictions on use. However, in the case of the Gaddi shepherds, it is generally agreed that their migratory flocks should not be allowed such land for too long, as this would leave insufficient grazing for livestock kept in the village. Only local Gaddi flocks may graze areas of *ghasni* and *charan* and then for no more than two or three days; shepherds from other areas are expected to move across without delay. These rules are rarely hard and fast: shepherds' difficulties in finding adequate grazing throughout the year are well recognized and restrictions may be relaxed and entitlements stretched at certain times and for certain individuals. A final source of grazing is found in the restricted forest, supposedly firmly off-limits to the Gaddi flocks. The prospect of being fined if caught does not seem to deter most shepherds from occasionally allowing their sheep and goats to 'stray' across the boundaries of Forest Department reserves.

After two weeks close to their home villages, the shepherds are ready to move to higher pastures. Known as *trakar*, *gahar* or *thatch*, these grazing areas are located below the tree line or at the point where forest gives way to alpine pasture. *Trakars* are those pastures to which a return visit from the nearest village may be made in a single day. Above the Saal valley, good grazing is to be found strung along the ridge that runs for 10 kilometres between the high points of Bari Jhamohar and Topi. The ridge has an altitude of between 2800 and 3000 metres along its length and is covered in snow from November through to the end of March. Though this land is under Forest Department control, the shepherds are able to gain admission to it in a number of ways. Some shepherds' claims to use these pastures and to enter the forest around them are based on long-term usage, i.e. over several generations. According to Deso:

When we settle in one place then others won't come even though there is no permit or legal right for that one place. Going to the same place every year becomes tradition and others won't use it if they know that someone else is already established there. An understanding exists about who stays where and that they shouldn't be disrupted or disturbed. However, if a place hasn't been used for several years then others may then move in. For example, my father [Bhensu Ram] used to stay every year at Bari Jhamohar. Then, one year, he decided to shift over to Dugga Got because he was tied up with some shepherds from Charira village [close to Dugga Got]. Since that time other shepherds have gone to Bari Jhamohar while we stay at Dugga Got.

While some flocks are able to camp at *gots* to which they claim an exclusive customary right of use, other groups, including Deso's, stay on land that officially should be used only by the Gujjar buffalo herders that camp there during the summer months. At several places along the ridge Gujjar families have constructed *kotas* – flat roofed, three-walled dwellings made of wood and mud. At each of these a named Gujjar holds a Forest Department permit, giving them a monopoly right to graze there. Deso explained the arrangement that allowed him to bring his flock here:

This place is called Dugga Got. Sharma Un's family [a group of Gujjars] have the permit of this area so they can stop us using it²⁷ . . . [But] before they arrive and after they have gone we can use these pastures without any restriction. Any shepherd can use it. How long shepherds stay here depends on where they are going, what other pastures they have and the general condition of the grazing. If the pasture is green they may stay a day or two longer than usual. If the pasture is less green then they stay a day or two less.

In fact, far from any shepherd using any pasture, it seems that the same shepherds are likely to return to the same *kotas* every year. In a later interview²⁸ Deso explained this: 'I have a friendship with Sharma Un so I am able to stay here but others cannot'.²⁹ While other Gaddi flocks may move across a pasture, certain identifiable individuals and groups make a strong claim to temporary exclusive access during the last two weeks of *Baisakh* (early to mid May) and again in the month of *Kartik* (late October). Here we can see another niche into which Gaddi migration fits: the Gujjars do not arrive until late May, by which time the Gaddis have left. Similarly, in the later part of the season the Gaddis don't return until the Gujjars have moved south. The Gaddis argue that, as their sheep and goats graze differently from cattle,³⁰ their short stay will not reduce the grazing available to the Gujjars' buffalos.

To this tableau of Saal valley shepherds and local farmers, Gujjars and the Forest Department, an additional level of complexity is added by a number of flocks whose migration route follows the Bari Jhamohar–Topi ridge, but whose shepherds can not claim residence in any of the nearby villages. Several groups of shepherds, most from around Bharmour at the eastern end of the Chamba valley, choose to follow this path early in the season. The expectation is that they will move quickly through, staying only one night at each grazing place. However, under exceptional circumstances, or in return for payment or some later reciprocal arrangement, the Saal valley shepherds will happily allow them to stay for longer, declaring their sheep and goats as their own in the event of a visit from Forest Department guards.

With the shepherds staying within easy visiting distance of their villages, it is possible for their relatives to watch over the flocks, allowing them some time at home. Deso's 12-year-old son Ravi spends a few days at this time watching over his father's flock. In spring such arrangements release adult shepherds to help in preparing their families' fields for maize planting. This is also the time for shearing, a process which commences with the sheep being washed in a stream.

²⁷ Several of the shepherds were a little indignant at this point, asserting that as the place was called a *Got* (i.e. a Gaddi grazing ground) rather than a Gujjar *dhar*, then Gujjars should not hold a permit for grazing there. Rather than being rigidly defined, we see here that access can be contested even on the basis of place names and the implications these have for traditional usage.

²⁸ Conducted in October rather than May.

²⁹ In return for being allowed to stay at Dugga Got, Deso takes a number of sheep belonging to Sharma Un up to the higher (and dryer) summer pastures of Lahoul.

³⁰ 'Even if a very large flock comes [to this Gujjar pasture] it is not damaging. Sheep don't pull up roots when eating; they just eat the top of the grass.'

The following day, ten or more men will arrive to assist with the cut. Those shepherds with very large flocks, and any whose home villages are not in the Saal valley, must expect to give a share (10–15 per cent) of the wool to these shearers. More often relatives and friends are happy to assist and are given a communal meal in return.

The majority of the Gaddi flocks that spend these months grazing on the forests above the Saal valley follow the same migration trail from the winter grazing ground around Chakki to the Saal valley, the Tundah Nalla and then the alpine pastures near Udaipur in Lahoul. By the end of *Baisakh* (mid-May) the days are getting warmer and shepherds are ready to move on.

The Communal Basis of Gaddi Nomadism

The above description of the month spent in and around the Saal valley demonstrates the extent to which Gaddi nomadism is a communally based activity. Social relations not only contribute to the determination of group composition and promote understanding and mutual support between different groups, but also play a crucial role in shaping the arrangements through which grazing resources are accessed. As I go on to show, these ties and relationships allow an understanding of resource use practices which is considerably at odds with the official position held by the Forest Department. First though it is worth considering the purpose and character of such arrangements.

In his study of the Raika shepherds of Rajasthan, Arun Agrawal (1999) considers why they choose to migrate as a collective and how doing so assists them in their quest to find pasture. Combined flocks save on consumption costs and also enjoy considerable economies of scale, not least through the enhanced bargaining position that strength of numbers provides. Given the need for interaction with potentially hostile settled communities, the physical security that group migration offers should also not be underestimated. Such benefits are not inconsiderable and are apparent in the Gaddi example also. 'As herders the Gaddis projected a strong and separate social identity, for this enabled them to interact more effectively with the state and settled society' (Singh 1998, 121). What is more interesting, at least from the perspective of this article, are the ways in which travelling as part of a group can serve to open up a wider range of potential points of access to pasture resources when compared with individual migration. Each member of the group brings different connections to relatives, associates and acquaintances which are pooled for the benefit of the group as a whole.

While 'community' is often valorized as harmonious, egalitarian and affirmative, it is important to acknowledge that it also can place limits on the action and potential of individual group members with requirements and obligations that constrain independence of enterprise. However (and for the purposes of this study rather interestingly), in the case of the Gaddis the construction of communal ties is not necessarily qualified by a subsequent loss of freedom of individual action. Bhasin's study of Gaddi social organization emphasized the distinct lack of rigidity in their social relations compared with those in much of India.

The forgoing study of family patterns and social relations among the Gaddis of Bharmour leaves one with [the] overwhelming impression of flexibility and fluctuations. There are several levels at which the people of the village are related or bound to one another, there are several degrees of intimacy and permanence, within these relationships or bonds. Whether it is a setup of family or membership of a *Dharam Bhai* bond, there is no rigidity or permanence. Social relationships as a matter of fact provide us with an index to the adaptation that the Gaddis have made to their ecology . . . Thus, while on the one hand there is snapping of bonds, on the other new ties are formed – this contradictory tendency is the result of the ecology to which the Gaddis have to adapt. (Bhasin 1988, 137–8)

Bhasin's study of Gaddi social relations suggests that, far from constraining individuals within 'traditional' limits, their ties and relationships can be quickly constructed or reformulated as and when the situation demands. The flexibility of social bonds amongst the Gaddis enables them to establish close ties of mutual help and cooperation with a wide range of other people according to their different needs. Such forms of social organization are, according to Bhasin, of great importance in nomadism in a mountainous ecological setting, where individuals may be distanced from close kin and therefore unable to rely on them for assistance or social interaction. Though Bhasin's study was confined to a number of villages at the eastern end of the Chamba valley, it is apparent that flexible bonds and shifting alliances are also heavily utilized in the shepherds' migration. As the previous section demonstrated, it is possible to find strong material reasons for the community of Gaddi shepherds to function as a whole rather than operating as separate individuals. The ability to forge strong yet flexible bonds while on the move underpins the workings of this system.

Rather than simplifying resource users into a single, undifferentiated and essentialized community, it is important to recognize their multiple identities, strategies and aims. Doing so allows for the full spectrum of access rights to become apparent and also the patterns of negotiation and disagreement over access, use and management rights that take place within a hierarchy of varied users. 'Community' applied to Gaddi shepherds is a somewhat loose term. Identities and boundaries are relatively permeable and a number of interactive and overlapping networks of resource users can be identified from amongst Gaddi shepherds, Gujjar buffalo herders and local cultivators. Far from the simple rules and small user group size emphasized by Ostrom and others, the Saal valley case demonstrates considerable complexity in a range of access arrangements. Another commonly cited feature of successful common property institutions is that of homogeneity among users. Certainly relations within and between shepherding groups should not be seen as egalitarian. Significant disparities exist in terms of wealth and the ability to gain access to pasture – wealthier and better connected shepherds are able to exploit their position to attract the extra labour they need to care for their livestock. It seems that the flexibility of association identified by Bhasin (above) allows economic differences between herders

without resulting in destructive social conflict – those offering labour and those with excess capacity on their permits are partially interdependent. As we shall see, though, while a hierarchy of rights and responsibilities exists within groups of resource users, all members play some role in determining the management and use of the resources. Perhaps it is better to dispense with simple, and dichotomous, notions of the ‘individual’ and the ‘communal’, and more satisfactory to posit a shifting calculus spanning individual interest and mutual benefit, selfishness and brotherly feeling. Such ties and alliances extend beyond kinship groups to encompass relations with other Gaddis and with the range of different communities, both sedentary and nomadic, through whose lands the shepherds must pass.

SUMMER AND MONSOON

Jeth (mid-May to mid-June)

The Hindi month of *Jeth* (mid-May to mid-June) marks the beginning of summer. With fields now occupied by the maize crop and the Gujjars arriving to reclaim their permit *dhar*, it is time for the Saal valley shepherds to move on. Their next substantial destination is the grazing pastures of the Tundah Nalla, a journey of between nine and ten days. From Dugga Got, Deso’s group aim to reach the north end of the Saal valley in a single day. Above Sarahan village Prithu’s family have a *du dhar* (private pasture), where the flock grazes for a couple of days before moving out of the valley by way of Panch Ungla.³¹ Their next stop is Sikrena village, where they have a longstanding arrangement with one of the Gaddi farmers – in return for taking some of his sheep and goats on migration, he allows them the use of a private pasture above the village.

The shepherds are now in an area known as Belg. Their route takes them down the steep hillside and slightly south to a point where they reach the river that bisects this valley. At this point crossing the fast-flowing river would be difficult, so the flock is led north along its left bank for a few hours before fording and climbing up the other side. A short distance below the Sangharani Pass, Deso’s *dhan* camps for the night in a forest clearing known as Korara Got. Nidhia explained to me the arrangements regarding the use of such stopping places:

We will stay at this pasture which is called Korara Got just for this one day . . . Everyone can use this *got* – it’s on the route up to Tundah Nalla and the Kalichho pass so hundreds of flocks use this pasture each year. Gujjars also stay here . . . Camps such as this [which have no exclusive owners] will not be overused as flocks don’t stay long and when they move on there will be enough grass left for others to use. Usually flocks will stay for only a day at such places but sometimes they may stay for two or three days

³¹ Panch Ungla is a series of ridges which, from certain viewpoints, looks rather like five fingers clenched in a fist. The pass out of the Saal valley is known as Swagatdwari – ‘Heaven’s gate’.

depending on the thinking of the *malundi*, how he feels about the needs of his flock and when he has to cross the next pass or reach the high pastures . . . This [moving every day] is one of our own customs rather than a rule imposed on us by the government.

This links to a description of the coordinated movement of the different Saal valley flocks provided by Deso:

Normally we keep in mind the places they will stop each day. If on the route two or three flocks are moving then one will always be slightly ahead and the others slightly behind. There is an understanding that each will use a different stopping point each night . . . If the first flock is already established at a stopping point then the second will continue on a bit further. In this way we pass each other until we reach the big pastures . . . We never have disagreement over this – we have to work together [so] it's not a problem.

The next day, the sixth since leaving Dugga Got, Deso's *dhan* climb the last stretch up to the Sangharani Pass and exit Belg to head down into the Baili valley. As we shall see, in this area finding grazing becomes more problematic; the shepherds have no close contacts here and must pass through as quickly as possible. Things are complicated by the arrival of the Gujjars' buffalo herds that this particular year left their winter pastures earlier than usual due to a lack of fodder. Normally it is thought reasonable for Gaddi flocks to cross Gujjar pastures even if the permit holder is in residence. However, on the hillside below the Sangharani Pass, two Gujjar women strongly object to Deso's flock passing over what they claim as their exclusive pasture. The Gujjars complain that their buffalo will refuse to graze on areas that have been polluted by the droppings of sheep and goats. After a lengthy argument, it is agreed that the flock can cross provided they divert to a longer, and more difficult, path that runs along the edge of the pasture rather than moving through the centre of it. Deso is understandably annoyed:

The problem is that the Gujjar block the way and stop us from using the pastures. They are always exaggerating their permit land beyond what is allowed. Buffalos destroy grass and it doesn't come back. Now the problem is worse than before – there are more Gujjar and more buffalos and they act like *goondas* [gangsters] – they steal the blankets we leaves in our camps. Four or five shepherds can't fight two or three entire Gujjar families.

Having crossed the Gujjar permit *dhar* the flock reaches Almi village and Deso arranges to stay in the village pasture land in return for a small payment to the *pradhan* (headman). The next day they cover several more miles before camping at Silaru Got. This is Forest Department territory and, since it has recently been declared as reserved, the shepherds have no right to be there. When land is closed off to shepherds the Forest Department must provide an alternative and equivalent area of pasture, but Deso, for reasons he did not explain, continues to take the

customary route. Were the shepherds to be caught trespassing in the forest they would be fined.³²

From Silaru Got to the 3600 metre Silaru Pass is a walk of a few hours. Here the shepherds enter the Tundah Nalla, where the Saal valley shepherds have traditional permit rights to defined areas of pasture. To reach their area of permit land, Deso and his companions must first spend a few nights staying on land that belongs to other groups. Tired from the rapid crossing of Belg and Baili, they spend two nights at Kud and another two each at the pastures called Chilot and Jhannu. The permit holders for these places have not yet arrived, and, 'depending on the grass', illicit use of the pasture is considered acceptable by the shepherds. Nidhia's explanation of these access arrangements differs somewhat from the Forest Department's rules:

When walking [moving every day] we don't need a permit but for longer stopping places then the name of the pasture shall be mentioned on the permit. Big *gots*³³ belong exclusively to one group of shepherds and can be used only by their flock. However sometimes, before or after the right holder has passed, others may use the pasture for a short time.

Towards the head of the Tundah Nalla is a steep sided valley called Jui, one side of which, from the stream at its bottom to the ridge at the top, is known as Jui Charola. In this area Deso's family are recorded in the forest settlement as being permitted to exercise certain carefully defined customary rights, namely the grazing of 200 sheep and 200 goats. Nearly two weeks since leaving their last secure grazing place, Deso's group, along with the other eight or nine *dhans* from the Saal valley, reach the upper pastures of the Tundah Nalla. Each group claims the customary right to use a named area of pasture: Fuula dhar, Jui Charola, Jui Chilot, Pathnai Got, Lamba Paro etc. A young shepherd named Pyaro explained the attraction of the place to me:

Everything is available at Jui: pasture, food and drink. The wool produced is very nice and the water is healthy. Our animals grow very big during their time here – bears can't kill them because their claws can't pierce their hearts through the layers of fat! . . . We are comfortable here.

They remain here for a full month at altitudes of between 3000 and 3500 metres.

Having reached Jui Charola, the first 'official' grazing place of the journey thus far, it is worth examining the workings of the grazing permit system and the various ways in which shepherds are able to access pasture here. Deso's grazing permit (carried wrapped in waterproof plastic at the back of his wallet) mirrors the entry in the Forest Department Register for Lower Chamba Range. It reads as follows:

³² The shepherds told me that the penalty for trespassing on Forest Department land was a fine of Rs. 5 per animal plus (unofficially) the forest guard may take up to five animals for himself.

³³ The term *got* describes an alpine meadow where shepherds stay for several weeks in the summer months.

Bhensu Ram s/o Uttam Chand of Village Baal (Saal). No. 673.
 Sheep 150, Goats 150, Lambs 50; Kids 50.
 Jui Charola, Bhasi dhar top, Chakki Ban.
 Permit Issued by Chamba Division 25-04-02.

Forest Department regulations state that a customary right derives from inheritance only and cannot be transferred under any circumstances. When a family abandons pastoralism and stops using its pastures, then the permit is cancelled and full rights over the land revert to the state. Here we find a disjuncture between the ways that shepherds and forest officials view the workings of this system of permits, customary rights and grazing tax. Originally the job of *malundi* would have been entrusted to a shepherd who used a particular grazing place. A *malundi's* responsibility was to occupy the pasture to what was judged to be the maximum sustainable level of animals, and to ensure that the grazing tax for this number of animals was collected and passed on to the state. This is the arrangement that the Gaddis continue to recognize: crucially it implies that a shepherd does not need to hold a grazing permit in order to travel with their flock. A corollary of this is that the person named on the permit as having user rights to graze animals at a particular pasture does not necessarily have to shepherd with the flock or indeed to actually own any animals himself. As Phillimore (1981) points out, with fluctuation in fortunes, division through inheritance and inevitable sedentarization, over time the original connection between a particular pasture and a *malundi* may be broken. To the Forest Department this would mean that the customary right to graze ceases to exist. Furthermore, the official position is that to be allowed to travel each and every grazier must hold a permit. From this perspective a permit detailing customary rights is a prerequisite for all flock-owning Gaddis rather than just a guarantee of access to certain points along the way.

Interestingly, the divide between these two seemingly irreconcilable positions is not necessarily unbridgeable. The Gaddis and the officials of the Forest Department seem to have established a kind of working equilibrium; throughout this description we see examples of compromise and flexibility on both sides. The pasture of Jui Charola provides a fine initial illustration of the *de facto* functioning of this system. Taking each shepherd from the group that accompanies Deso we are able to construct the ties of kinship, money and labour that bring the group together and work to ensure access to grazing at Jui Charola. It is fair to say that, to varying extents, none of these ties conform to the official rules through which grazing is supposed to be governed.

1. *Deso*. As the permit holder's son, Deso has an incontestable right to continue to graze his flock at the pastures named. Though Bhensu's name remains on the permit document, Deso is the *de facto malundi*. It is Deso's access to the pasture at Jui Charola that conforms most closely to the Forest Department ideal.

2. *Nidhia*. Being Uttam Chand's younger son, Nidhia would have been legally entitled to a half share in the customary entitlement to the pastures

at Jui Charola, Bhasi Dhar and the winter grazing grounds around Chakki. It was his inherited right to hold an official permit confirming this. Instead, when Uttam Chand died it was decided to keep intact the customary grazing grounds and for the permit to show Bhensu Ram's name alone. While in the eyes of the Forest Department this means that Nidhia has no formal stake in these pastures, he does possess a considerable moral claim on continued use. Nidhia explains that he did not want the bother of entering into any formal arrangements with the *sarkar* (government) and stresses that he can rely on Bhensu and Deso not to deny him what he sees as very much his right. If they were not to fulfil this obligation they would be subject to the strong disapproval of the community.

3. *Bir*. Nidhia's son Bir also maintains a claim to the pasture at Jui Charola based on the family tie to Bhensu Ram. Every year Bir and Nidhia give 50 ps (paise)³⁴ for each of their goats and 25 ps for each sheep to Deso, who passes this on to the Forest Department in his own name.

4. *Prithu*. Though Deso recognizes some degree of kinship with Prithu, it is not significant enough for the latter to make any claim to the customary usage of the pastures recorded in the Forest Department permit. Instead, Prithu's ability to stay at Jui Charola is based on his provision of access to grazing elsewhere: a reciprocal arrangement exists between Prithu, Deso, Nidhia and Bir, whereby they travel with one another and share grazing. For each this opens up access to grazing in locations where they are formally deficient.

5. *Mohinder and Dimu*. Unlike Prithu, the *chote puhal* Mohinder and Dimu do not possess a claim to customary grazing and therefore must gain access by other means. Owing to the relatively large total flock size that includes a proportion of animals sent by non-shepherding Gaddis, Deso's group requires additional manpower. Mohinder and Dimu's claim to access is based on the labour they provide. Officially, for those who do not possess a grazing permit migration with a flock is forbidden. Unofficially, such barriers are overcome by joining with a permit holder whose own flock does not exhaust the maximum quota allowed on the permit. Such arrangements are made on various bases: for simple friendship or through family connections, in return for monetary or non-monetary reward, for labour or in order to be able to access grazing land elsewhere.³⁵

³⁴ 100 ps is equal to 1 rupee.

³⁵ Taking on additional animals is of some benefit to permit holders as it enables them to pay the full grazing tax while, at the same time, maintaining the spare capacity on their quota that gives them the flexibility to increase their own flock should they wish to do so. In this way permit holders maintain the freedom for their flocks to rise or fall in size according to domestic considerations and the family's available labour.

It is not unusual for individual shepherds to take a slightly different route from the others they normally travel with and to team up with a new group for a short time if the conditions are favourable. This is indeed the case at Jui where, a week after they arrived, Deso's group are joined by Jamul whose home village is close to Kwarsi on the north side of the Dhaula Dhar range.

6. *Jamal*. Jamal provides another example of how those who lack the official requirement of a customary right are still able to access pasture. Like Mohinder and Dimu, Jamal does not possess a permit. However, his family's long history of migration has allowed them to build up a network of contacts and relationship under whose protection Jamal is able to travel. To gain access to the grazing in the upper part of the Tundah Nalla, Jamal gives to Deso and Nidhia an amount equal to the annual grazing tax they would pay on his animals. At other pastures Jamal says he is expected to give something more, either an animal or additional cash, but Deso seems happy enough with the simple monetary arrangement. He explained his willingness to collaborate with Jamal in this way as being based on 'nothing – just friendship'. Here, as elsewhere, Deso invokes the concept of *bhai bandi*³⁶ as the reason for providing assistance to Jamal.

As at Bari Jhamohar, again we can see the formation of temporary communities on the move. Such alliances between groups of Gaddis and also with other pastoralists (the Gujjars) and settled cultivators in different locations are a feature found throughout this case study.

Asarh (mid-June to mid-July)

Each year the flocks spend most of the month of *Asarh* (mid-June to mid-July) grazing on the alpine pastures above the Tundah Nalla. Pastures such as Jui, above the tree line and far distant from the nearest village, are known as *dhar* or *nighar*. The Gaddis consider such places the home of the Gods and Goddess as well as various benevolent and malevolent lesser spirits and so must adhere to a set of rules³⁷ to avoid their displeasure.

Before crossing the Pir Panjal range, the shepherds must appease the deities of each pass. During the second half of *Asarh* (early July) they undertake a series of religious ceremonies, culminating with the ritual slaughter of a number of animals. On the third Tuesday of *Asarh* a series of sacrifices are made at Banni village and permission to make the pass crossing is requested from the Goddess. Several hundred Gaddi *dhan* cross the Kalichho pass each year and these rituals provide a degree of organization and coordination in the timings of movement and the order in which the flocks should proceed.

³⁶ 'Brotherhood' – a moral requirement to do something for others without the expectation of getting anything back (other than respect and recognition).

³⁷ Known as *sooch*, these rules dictate where and when the cooking should be carried out, place strictures on toilet activities and forbid the making of noise, particularly at night.

Sawan (mid-July to mid-August)

July sees the arrival of the monsoon and for the next two months the Chamba valley will be subjected to heavy rains. Although some shepherds remain in Chamba, many cross the Pir Panjal range in order to exploit the freshly uncovered grass of Lahoul and to protect their animals from the damp conditions to the south.

Immediately after descending from the Kalichho pass, Deso's group spend one night at a grazing *got* near the foot of the glacial moraine. There is little grazing here, so the next day they move on to their summer *dhar*. Most of the Saal valley flocks spend the rainy season in pastures up the side valleys south of the Chandra Bagha River to the west of the town of Udaipur. For the first two weeks of *Sawan* Deso's group stay at Bhansi Dhar, a small grazing ground on the upper part of a hillside. Bhansi Dhar Top is included on Bhensu's permit, legitimizing the customary right of access that Deso's family enjoy over this area of pasture. While possessing the 'traditional' right, in fact the history of this arrangement is more recent than at first appears. Until the 1950s Bhansi Dhar, like many other grazing places in the area, was under the control of a *thakur*³⁸ who lived in a nearby village. In the past, Lahouli *thakurs* controlled the use of pastures and were able to impose levies on the shepherds who wished to graze upon them. Shepherds did not need permits but had to come to an agreement with the *thakur* – typically payment was in kind: a quantity of wool and meat or some animals. In pre-colonial times these payments were supposedly passed on to the Raja; however, by the time of independence, this system had broken down and the *thakurs* were acting as *de facto* landowners controlling large areas of grazing ground in this part of Lahoul. This situation was rectified by the Government of India, which assumed ownership of the land, thus allowing the shepherds to retain their rights of use. Bhensu Ram explained to me the relative merits of the two systems: 'the *thakur* system was easy but costly. Getting permits from the Forest Department is harder but cheaper'.

Before this reorganization, seven or eight large *dhans*, comprising more than 20 shepherds, used to graze their flocks at Bhansi Dhar under a variety of arrangements. After taking over the land the Forest Department divided the customary right equally between these shepherds, leaving each with an area insufficient to supply their needs for the full six weeks of their stay in Lahoul.

With the pasture at Bhansi Dhar Top exhausted after little over a week, Deso's group move on to the *dhars* at Sorbat and Mirkola which are adjacent to one another. In the Forest Department records the customary right to using these *dhars* is vested in three individuals:

Jiga of Badgraon village (in the lower part of the Tundah Nalla);
Labdi Ram also of Badgraon;
Riga, son of Soraji, from Chirira village.

³⁸ Feudal landholder.

These combined permits allow the grazing of more than 1600 sheep and goats. Deso is able to claim a right to a portion of the *dhar*s at Sorbat and Mirkola by virtue of Jiga being his maternal grandfather.³⁹

Close to the intersection of two streams, a couple of small stone huts provide a degree of comfort for the shepherds, which is much needed at an altitude of 3600 metres. The huts are roughly central to the collective summer grazing: Mirkola covers both valley sides to the northwest, while Sorbat stretches south-east running to the base of a glacier. Unlike at Bhansi Dhar, the shepherds at Sorbat Mirkola have reached an agreement whereby they pool their animals during the time they spend there. Thanks to this arrangement fewer shepherds are required to look after the sheep and goats. Nidhia returned home at Jui and, having delivered the flock to Sorbat-Mirkola, both Prithu and Dimu take the opportunity to walk back to Chamba and spend a few weeks in their home villages. Normally six or seven shepherds stay with the flocks at this time. Deso, Bir and Mohinder spend the next four weeks here, along with Bhagtu, Haroo and Hardiyal from the Saal valley and Jiga's son and grandson from Badgraon village.⁴⁰

Pooling flocks has additional advantages for use of the pastures. Each day the combined flock is divided into different groups: sheep go to a suitable grassy area of the *dhar*, goats are grazed higher up, while expectant mothers and newborn animals remain near the camp. Over the next month the animals are moved to different parts of the *dhar*, thereby rotating the grazing area. Starting lower down, they gradually make their way up the hillsides. Within ten days of being grazed, grass has re-grown and can be grazed again.

It is important to recognize the difference between a resource being 'held collectively' and 'used collectively'. Though the pastures at Sorbat-Mirkola and Jui are not owned by the user group (the state owns the land and delegates right of use to named individuals), they are *used* collectively, with all users responsible for management. It might be expected that official rights holders would enjoy certain superior rights within these pastures. However, as Bhattacharya points out, though the shepherd in possession of a permit holds certain limited powers and privileges, 'his right to his *ban* was no different from that of the other families who formed a part of the group he led' (1995, 55). Bhattacharya goes on to suggest that while segregation and the recognition of rights over a particular area of pasture serves to restrict competition and reduce conflict between groups of herders, within each area of pasture 'collective, non-individual rights . . . ensured co-operation among each herding group' (1995, 55). As I suggest

³⁹ Such maternal links are unusual – this was the only case of a claim being traced through the shepherd's mother's side that I came across. It is possible that the usual strict inheritance arrangements were relaxed here by virtue of the large amount of spare pasture at Sorbat-Mirkola and in order to raise some extra cash to pay the grazing tax.

⁴⁰ Of the other official permit holders for this area, Labdi Ram sold his flock many years ago and reached some arrangement with Jiga about continuing to graze under the protection of his customary right. None of the shepherds recognized the names of Riga or Soraji (though Jiga did recall that he had relatives from Chirira village).

below, here we see the appearance of a shadow system – two distinct sets of rules, the interplay of which determines final access arrangements. On the one hand, the official system designates a named individual with whom the state deals; on the other hand, the use and management of each *dhar* is collectively determined by all users, thereby promoting a certain shared interest. Policing of use and exclusion of non-group members are more effectively carried out by a collective than by the formal right holder acting alone. The workings of this system chime well with the attitude of Forest Department officials that while at their Lahouli *dhar*s the shepherds can be ‘left to police themselves’. Those without permits and who have reached no arrangements to graze are ejected from permit pasture, using force if necessary, by collective groups of users. Official intervention is limited to collecting the grazing tax, limiting illegal incursions into reserved forest, and the occasional attempt to enumerate some of the flocks. With little else to do, Deso and other members of this group make several visits to the small town of Udaipur with the intention of visiting the temple,⁴¹ selling some animals to butchers there, and ‘taking refreshments’ at liquor stores.

Investing Property with Meaning – Formal and Informal Rights

The above account demonstrates, at least in the case of Gaddi shepherds, that the anticipated shift from common to private property management is by no means inevitable. Contrary to predictions of demise, the communal basis of migrations is readily apparent with grazing resources frequently used and managed by joint units over and above the individual. If, as Scott (1998) and others have pointed out, the structure and workings of the modern state leaves available space in which local agency may make itself apparent, it is necessary to examine the role played by local agents in ensuring the survival of communal methods for accessing natural resources. Here we are interested in the *pays réel* as much as in the *pays légal* – what actually happens rather than what the law books say.

Of course, definitions and categorizations of systems of property right are discursive constructs. ‘Open access’, ‘private’, ‘state’ and ‘common’ property are ideal types useful to facilitate analysis, but are not necessarily readily distinguishable in the real world: ‘in practice, many resources are held in overlapping, and sometimes conflicting combinations of these regimes, and there is variation within each’ (Feeny et al. 1998, 78).

The work of Pauline Peters (1987, 1994) demonstrates a subtle appreciation of property relations which centres on ‘meaning’ and the influence of culture on the arrangements governing resource use. Peters points out that far from communal holdings implying ‘an undifferentiated, general right of all to use the specific resource held in common’, in fact ‘most so-called communal systems are characterized both by multiple or overlapping rights that are not identical and by a combination of individual and group rights’ (1987, 181).

⁴¹ Making an offering in thanks for successfully crossing the pass.

It is clear that understanding the patterns of use . . . depends on investigating the multiplicity of and competition among rights to range resources and not on positing the confrontation between individual rational herders and a group demanding selfless action. Moreover, one must also attend to the level of meaning . . . Competition among rights and claims take place through competition in meanings. These are assigned, accepted and imposed: whose right, which meaning, whose definition are critical questions in deciphering changes in systems of land rights. (Peters 1987, 192)

Central to any examination of property regimes must be a consideration of the diversity of perspectives on both 'property' in itself and the systems of management that govern its use. To understand properly the variety of means through which resources are accessed, Peters suggests that it is necessary to dispense with rigid definitions of property types and of the binary distinctions (state vs people, private vs common, individual vs collective, self-interest vs altruism) upon which they are based, and instead focus on the social, political and economic structures in which resource users are embedded. It is in these wider structures that 'meaning' is found and they are therefore key to determining how property is defined. If 'common property' exists, it is not as a legal or geographical entity, but rather as sets of social relations. By moving from a preoccupation with the official language of rules, regulations and boundaries we can begin to differentiate the definitions applied by the state and the myriad subtleties of local meaning as they emerge in the realm of everyday interaction. Local cultures internalize such official vocabularies and translate them into the vernacular, thereby giving them new meanings in how they are understood and applied.

This account of the means by which a single group of Gaddi shepherds gains access to pasture illustrates a diverse range of ownership regimes and varied strategies through which aims may be attained. In some cases, most notably on farmers' fields, the right to exclude others and to regulate the use of the resource is clearly vested in an individual. Farmers are in a position to determine who may (and may not) utilize their fallow fields for grazing and on what terms they may do so. Even so, individual ownership remains subject to certain social norms and expectations – private owners must obey certain moral obligations and are influenced by social ties and relationships that open up the rights of access. And if the use of private agricultural land is subject to the influence of wider social and communal norms, then what of arrangements where no single identifiable owner is clearly visible? Away from the cultivated areas, definitions of user rights become even more elastic.

As we saw earlier, forest land around the shepherds' home villages in Chamba can be accessed at particular times and by recognized groups subject to a number of restrictions and conventions of use. Access, like the determination and enforcement of rules of use, derives not simply from settlement reports and Forest Department manuals, but also from the communities that live in the vicinity of the forest. Not infrequently, local ideas of what is acceptable may

differ from those laid down in the rulebooks of the Forest Department: 'the legal and the legitimate do not always coincide in the moral economy of rural Himachal Pradesh' (Vasan 2002, 4126). Furthermore, the workings of this informal 'shadow system' differ considerably from the rigid bureaucratic arrangements of the state: rights of use are not permanently fixed and may differ by year, season, month or even time of day. The Gaddis' use of the Gujjars' grazing pastures provides an example: during certain periods the shepherds enjoy fairly unrestricted use of these pastures, while at other times they are entirely excluded from them or permitted only to cross rapidly and under sufferance. Similarly, cultivated fields are private property through much of the year, but are opened up during the fallow period. This seasonal shift from exclusive private to common use shows how local institutional arrangements governing access fluctuate – temporal changes in recourse management arrangements mesh with the seasonal movements of the shepherds.

Moving to the 'permit' pastures of the higher slopes we find an official system in which rights of use are formally vested in a single, defined individual. While the land is under the ownership of the Forest Department and rights of use are assigned to individuals, these permit holders remain subject to a range of social obligations and group pressures that expose and adapt official definitions by imbuing them with vernacular meaning. In order to protect a resource from encroachment it is necessary for individual permit holders to ally themselves with others. If they did not extend access in this way, isolated permit holders would be incapable of adequately managing and policing large areas of pastureland. Unofficially, rights to pasture are seen as belonging to groups of users who, by clubbing together, are able to defend their collective territory from encroachment. Such an 'identifiable community of interdependent users' clearly bears many of the characteristics of a common property institution. Distinguishing between a commons as a *location* and as an *activity* or *organization* makes clear the point that communal institutions have not disappeared despite a century and a half of pressure on them. On the grazing pastures of Himachal Pradesh there remain many instances in which 'individuals within the group coordinate their actions in order to frame rules for exclusion, use and management, as well as access, and ensure that these are implemented in a manner consistent with group objectives' (Vira 1999, 255).

Natural resource access arrangements in present day Himachal Pradesh rarely fit into simple, bureaucratically defined and imposed, 'one-size-fits-all' categories. While some property regimes are very clearly defined, others are less so and hence are ambiguous in terms of any simple scale of property regime types. Examples from the Gaddi migratory cycle show how resources such as a restricted forest may be 'common' and 'private' simultaneously: while the state claims ownership over these areas, local residents take a different view and, where they may, opt to exploit forest resources as they (rather than the Forest Department) see fit. While some residents might hold 'customary rights' over certain forest resources, others do not and resort to subterfuge, often with the connivance and assistance of the wider community. Where necessary, people

may act collectively to deny ‘outsiders’ the chance to use the resource, possibly even enlisting the assistance of Forest Department officials to enforce this exclusion.

Throughout this account of the Saal valley shepherds’ migration, it is apparent that local definitions of resource access are rarely synchronous with those prescribed by the state. Arrangements for accessing grazing resources are varied and dependent upon (and derived from) indigenous social arrangements and cultural meanings as much as legal designations. A number of recent works (e.g. Coward 1990; Davidson-Hunt 1995; Guha 1999a; Mosse 2003) recognize the co-existence of informal ‘collective’ alongside statutory private and state land tenure arrangements. Despite property rights in law (*de jure*) supposedly precluding community management of natural resources, it is still possible for (*de facto*) shared property rights to be claimed. As a cultural construction of social relations in which the rights, duties and obligations of users are clearly defined, common property arrangements prove to be surprisingly robust, a quality that in part derives from their flexibility and scope for negotiation. ‘[T]he competing claims and overlapping boundaries of moral and legal property, rights and livelihood, and rules and practice work to redefine and reinterpret property in the context of cultural politics’ (Gururani 2001, 172).

If the capacity of the modern state to impose its models of property rights is frequently overstated, a corollary is that the ability of local people to exercise agency and determine change is underestimated. ‘The weakness of property rights analysis is its limited understanding of informal institutions, how they evolve and how they relate to formal institutions’ (Eggertson cited in Ensminger 1996, 183). Commenting on village systems of water management in Tamil Nadu, Mosse (2003, 13) writes of how ‘a generalised notion of the decline of rural institutions’ has contributed to the under-recognition of those that do continue to exist; the failure of these contemporary commons to conform to expectations about the ‘village republic’ and its corporate institutions ‘often make them invisible’. Recognizing the existence of a shadow system, running alongside the formal one, allows us to observe the operations of local agency as it impacts upon the formal system imposed by the state.

AUTUMN

Bhadon (mid-August to mid-September)

The start of the Hindi month of *Bhadon* (mid-August to mid-September) sees the grass at Sorbat-Mirkola become increasingly threadbare and the shepherds begin to make preparations for the journey south. Jamal and Dimu rejoin the group and they shift the flock back to Bhansi Dhar Top for a last few days in Lahoul before crossing the Kalichho Pass on the 3rd of September. A few days later they are back at Jui Charola and here they stay at their permit pasture for the next three weeks.

Asooj/Kvar (mid-September to mid-October)

With the beginning of the autumn season the maize crop is harvested in the Saal valley and the cobs placed on the roofs of houses to dry. Along with the other Saal valley shepherds, Deso leaves Jui around the middle of *Asooj* (the end of September). The downward journey reverses the route taken in June, crossing the Silaru and Sangharani Passes on the way through Baili and Belg. In the first week of October, Deso's group re-enters the Saal valley and heads first to Prithu's home village of Sarahan. Once more they are able to stay at the grazing pasture (*du dhar*) belonging to Prithu's family. Over the past few months members of Prithu's extended family have used this area to pasture their cattle, but it is now vacated to accommodate the migratory flock. Earlier in the year, when moving north to good grazing in the Tundah Nalla and Lahoul, Deso's group halted only briefly at this place. Now, with the grass regenerated by the recently departed monsoon, they opt to stay longer, thereby delaying the need to move on to the more intensively used (and expensive) pastures to the south.

Kartik (mid-October to mid-November)

The beginning of the month of *Kartik* (mid October) finds the Saal valley flocks back grazing the pastures between Bari Jhamohar and Topi. Again many stay on land that is officially under the customary right of permit holding Gujjars, whose recent departure has left their *dhars* available to the Gaddis again. While the shepherds may sell sheep and goats throughout the year, this is considered a good time to offload a few more. The animals' weight will have been increased by the nutritious grazing in Lahoul, while the difficulties of finding winter grazing and close attention from Forest Department officials make this a good time to reduce flock sizes. The second shearing of the year is carried out with the help of friends and family. This particular year, Deso chose to spend a few days away from the flock in order to reconnoitre the winter grazing grounds on the border of Punjab and Himachal. He returned to say that their customary grazing area was 'in worst condition. Barbed wire has closed some of the land off'. The feeling was that little could be done about this: 'we will go and see . . . who can say what will happen or where our animals can eat?'

The Co-determination of Resource Access Arrangements

This review of the Gaddi shepherds' annual migration cycle reveals diverse arrangements by which grazing resources are accessed and used. Some locations, such as dry river beds or the sides of roads, conform to the open-access model of Hardin's work; other grazing places demonstrate rigidly enforced notions of private ownership by a defined individual; others still are nationalized – owned (though not always controlled) by the state. Yet, as we have seen, even these supposedly simple property arrangements are cross-cut by social and political influences. Between ideal types there exists a range of access arrangements

mediated by identity, time and space. The reality is of a wide variety of property regimes, each demonstrating different facets of individual, communal and state ownership and control. For defined resources (whether farmers' fields, permit pastures or reserved forest), ideas of ownership differ according to the perspective of varied observers with access possibilities filtered through multiple social, economic and political lenses. 'Shadow systems' exist beside official ones – sometime matching, sometimes opposed and sometimes working to mediate between state regulations and the needs of local people. Informal, socially embedded arrangements, to a greater or lesser extent, work alongside official systems of private and state property to determine actual access to natural resources.

Chetan Singh (1998) suggests that before the colonial settlement and forest laws were enacted, access to grazing was regulated through a fairly flexible combination of both collective and segmented rights. Contrary to the beliefs of many, it appears that this is still the case today. Importantly, this is not to say that these arrangements and the institutional bases of the local informal system represent some remnant of a pre-colonial tradition. Certainly, the 'stable and isolated' commons describes by Wade (1988), Gadgil and Guha (1992) and others, if they ever existed, would have been incapable of enduring the changes that have occurred over the past century and a half. However, against expectation, such an outcome does not prevent the possibility of a realignment of common interests occurring with arrangements for the management of shared resources constructed anew. In his work on natural resource use in nineteenth-century Maharashtra, Sumit Guha (1999b, 62) has shown that newly created pressures on natural resources, instead of destroying common management arrangements, may actually encourage their creation: 'rural people soon became aware of the shortages and began to organized themselves in response to it' (1999b, 60–1).

What is significant, for the remainder of this article, is not the 'survival' of nomadic pastoralism or the common management of grazing resources, but rather the ways in which such practices are altered through their incorporation in wider economic and political systems. While some long-standing systems of organization may disappear with development, others appear able to continue, while more still are created anew. Of the latter, though 'form' may appear unchanged, 'content' is inevitably altered by the transformation of the context in which they exist. The recognition that they can survive into the era of international markets and the modern 'developmental' state raises questions about the origins, form and workings of these contemporary commons. Returning to the notion of a community-oriented 'shadow system' operating alongside the formal structure of private and state institutions, I argue that not only may these two seemingly opposed systems co-exist but that, in many ways, they are interdependent.

In his examination of the connections between the irrigation rights as recorded by the British in the nineteenth century and the present functioning of communal irrigation systems (*kuhls*) in the Kangra valley of Himachal Pradesh, Walter Coward suggests that 'the property relations created through the record of rights

provides much of the social glue required for operating and sustaining the . . . works' (1990, 78). Coward argues that the communal arrangements that determine access to water were in fact actively created by the very processes of settlement and privatization so often blamed for their decline. In many ways the same applies to Gaddi pastoralism. In the face of inflexible official regulation of movement and grazing access, the shepherds have been forced to self-organize new social arrangements through which subtlety, flexibility and local appropriateness are re-injected into the resource use systems. Efforts to convert limited permit pastures (such as those at Sorbat-Mirkola) into large collective grazing grounds demonstrate how state efforts to individualize and separate resource users can paradoxically serve as a spur to future communal action.

It is not only that the local 'shadow' system represents a response to the formal rules imposed by the state, but that the rigid regulation, classification and standardization of the latter would be unworkable without the local knowledge and flexibility provided by the former. If, as Scott (1998) suggests (following Foucault), the basis of state action is classification and simplification, then, paradoxically, formalization and regulation can also undermine state action. Operating from distant centres of power, statute and policy are passed down as edicts that, in the form originally intended, cannot be successfully applied across the varied locales on which they are imposed. Similarly, information concerning distant and varied localities, in the process of moving back up the hierarchy, is homogenized almost to the point of being meaningless. In the Gaddi case, examples of permit pastures and customary rights demonstrate the extent to which official policy is unworkable at the local level. Applied to the letter of the law, the equal division of grazing rights among all descendants would result in such a degree of fragmentation that the divided inheritance of individual shepherds would be small and unworkable. Here local solutions of communal control and management greatly reduce the cost of policing against encroachment and ensuring appropriate exploitation of the resource. In effect, then, informal, locally based and socially embedded property arrangements work as an essential (though unrecognized) complement to the official system. Hanging off state rules and regulations, these hybrid institutions serve to lower the transaction costs of the official legal system and provide it with a flexibility and local appropriateness that central control denies.

Modern states, working from a distance and deficient in both capacity and local knowledge, try to impose certain uniform policies on the diverse localities under their rule. Here a tension between central direction and local autonomy becomes apparent. Scott uses the ancient Greek concept of '*metis*' to describe the local know-how, common sense and practical experience that is missing from externally imposed plans: 'the formal order encoded in social-engineering designs inevitably leaves out elements that are essential to their actual functioning' (Scott 1998, 351). Both mainstream 'developmental' and alternative 'new traditionalist' positions share a view of the colonial state as the embodiment of 'high modernization', an entity capable of imposing uniform technical solutions onto diverse local realities. As I have argued elsewhere (Axelby 2005, chapter 4),

this image of a uniform, all-powerful, controlling state does not match the reality. Furthermore, as externally determined rules and regulations lack *metis*, locally based conventions of negotiation, compromise and accommodation that exemplify *metis* increasingly come into effect. The vernacular shadow system, which exists alongside the official one, works to correct its rigidifying influence and maintain the elasticity required to operate in the real world. More flexible, and locally appropriate, rights to grazing can be shared among shepherds with access defined and monitored and sanctions enforced according to the shared interest of the group. Recognizing the complementarities between formal and informal arrangements allows for the contextual fit crucial to the successful operation of resource use. In the case of the Gaddi shepherds, processes of formalization and informalization of tenure rights combine to produce natural resource access that is 'neither regulated by predictable rules and structures nor characterised by sheer anarchy' (Benjaminsen and Lund 2002, 3).

The work of Francis Cleaver (2000, 2002) similarly suggests that resource use practices and management arrangements are likely to be a complex blend of the formal and informal, the traditional and the modern. To distinguish institutions she employs the terms 'bureaucratic' and 'socially embedded' for, respectively, the explicit organizational structures of governments or development agencies and 'culture, social organization and daily practice' (Cleaver 2002, 14). Countering Ostrom's notion of the conscious selection of mechanisms best suited for a collective action task, Cleaver suggests a messier process in which property rights solutions are pieced together by individuals acting within the bonds of circumstantial interest. Through a process she terms 'institutional *bricolage*', Cleaver suggests that people are able to assemble and adapt norms, values and arrangements from various backgrounds and identities in order to achieve new goals.

The workings of institutional *bricolage* are readily apparent in the following description of the means by which the Gaddis find grass and fodder during the winter months. Drawing on overlapping legal and normative repertoires and switching between identities, it is possible for the shepherds to successfully access pasture resources.

WINTER AND THE COOL SEASON

Maghar, Posh and Magh and Falgun (mid-November to mid-March)

Before the second half of the month of *Kartik*, the Saal valley shepherds move down to their home villages where the flocks stay in the now empty fields. They remain for a week to ten days and are able to celebrate *Diwali* with their families. Then, over a few days in the final week of *Kartik*, the flocks re-commence the return journey to the Punjab borders.

The first stage of the journey south begins just before sunset. From Baal village the flock is led down the hillside to reach the main road in what remains of the day. Moving quickly, shepherds aim to cross Chamba town soon after

midnight to avoid the worst of the traffic and cross the bridge over the Ravi River without disruption.⁴² By 3 a.m., Deso's group reaches Mangal village on the south bank of the Ravi and from here they follow the road that climbs up over this relatively low part of the Dhaula Dhar range. By midday they are at Ratiar where, with sheep, goats and shepherds exhausted, they rest beside a dried-up riverbed until the next morning. 'Anyone can stay here – permission isn't required as there is no forest and this place can't be cultivated. But no one stays for more than a day as there is less grazing [than elsewhere].'

Leaving the Chamba valley during the final days of *Kartik*, the next stage of the shepherds' journey coincides with the start of the month of *Maghar/Agahan* (mid-November). With five more days of journey before they reach their winter grazing areas, typically Deso or Nidhia will get up early each morning and travel ahead of the rest of the flock trying to arrange grazing for the night. Local people approach this '*assami*' [friend] and negotiate for the goats and sheep to stay in their fields. Though for Deso's group the stopping points are pretty much fixed – Malkawal, Nurpur, Naga Bari and Bari Khed – they stay with different people each year, depending on who wants their fields manured.

Most of the Saal valley flocks, and many from elsewhere in Chamba, follow the same route over the Dhaula Dhar via the pass at Jot. It is estimated that each year over 200 flocks will come this way, mostly within a few days of each other. Having crossed the last barrier to the south, the flocks fan out again, with some going east towards Chintpurni, the Pong dam and Jawalamukhi, while others, including the Saal valley shepherds, travel west for the forests around Malkawal, Barnda, Kandwal and Chakki – an area broadly between Nurpur and Pathankot. Though still within the borders of Himachal Pradesh, this area, stretching to where the jungles of the Siwalik Hills flatten out into agricultural plains, is referred to as 'Punjab' by the shepherds. Marking the southernmost point of their migration, the shepherds graze their flocks in forest and fields here for the next few months.

Bhensu Ram's permit specifies an area close to Chakki Bank as the customary winter *ban*⁴³ that may be used by his family for as long as they choose to continue in shepherding. Upon arriving in 'Punjab', it is to their *ban* in the Chakki forest that they head first. In Deso's words:

Now we have reached our permit land – from here to Chandrani up to Chakki Bank. Another shepherd tried to come here but we chased him away to the other side. . . . Local people also bring their animals to this grazing land. This isn't such a problem as they don't have so many animals. Actually for the village people it can be hard also as the Gaddi flocks may overgraze an area and leave them with nothing. We stay around here until the end of March . . . It's not enough but we make do.

⁴² The shepherds are concerned about the possibility of theft: 'when we transfer the flock it is difficult to cross the towns. A bus driver took three of our animals and then drove away'.

⁴³ An area of forest used for grazing in the winter months.

That local people are also able to enter the forest demonstrates once again that customary rights are rarely exclusive. The people of several villages around Chakki are able to graze their animals alongside with Deso's flock and claim additional rights to other forest produce. As elsewhere, 'herder rights are derived from the forest settlements conducted by the British who ensured that herder rights were not in any way made dependent upon the good will of the cultivator village communities' (Saberwal 2003, 218).

As we have seen, the shepherds are skilled at using informal arrangements to avoid or modify official arrangements.⁴⁴ However, this is not to say that they are unable to tap into formal systems when it suits them in order to ensure that beneficial *de jure* arrangements are upheld. Non-nomadic graziers and local farmers are not the only ones who want to gain full control over the Gaddis traditional winter grazing grounds. In a fine example of *bricolage*, Deso recalled the events of a decade before when an industrial group had tried to build a factory in an area that included the grazing runs of several shepherds.

Fences were put up and the shepherds told they could no longer enter. The *malundis* [of the flocks concerned] went to the *pradhans* and *sarpanches* [local village headmen and officials] and pointed out the problems that would result from the [building] project. They all agreed to give their support. Even the Forest Department had no objection and said they wouldn't intervene if shepherds encroached onto the closed land.

Faced with documented 'traditional rights' granted during the colonial period and confirmed by the Forest Department, the land usurpers were forced to back down. Despite this victory, Deso and others are worried about future encroachment. Hari Singh, the *malundi* of another of the Panj La flocks, asked rhetorically 'how can I stand in the court looking like this? . . . Where can we get the money to fight?' Though the Gaddis prefer to avoid legal action, this doesn't mean that they may not undertake it quite successfully given the right circumstances.⁴⁵ Over time the Gaddis have proved to be surprisingly adept at manipulating the political process to gain influence in the corridors of power. As a scheduled tribe, and a relatively unified 'vote bank', the political clout of the Gaddi community should not go unrecognized as a means by which they may gain improvements in access to forage (see Saberwal 2003, 214).

Despite Deso's claim to stay at Chakki *ban* until March, competing interests and tenurial complexity mean that finding grazing over the four winter months is considerably more problematic. Prithu's family hold additional 'customary rights' to graze an area of forest close to Chakki, hence easily accessible. But even the two *bans* combined cannot provide sufficient grazing for the entire winter.

⁴⁴ See also Saberwal (1999, chapter 4) for details of the Gaddi shepherds' attempts at avoiding Forest Department control.

⁴⁵ I was later to learn that despite his complaints Hari Singh had been an enthusiastic litigant on at least two previous occasions.

In contrast to the summers spent in Lahoul, in winter most groups of shepherds split up into smaller groups in order to find adequate pasturage. Additional labour is required to tend the flocks, especially as the proximity of cultivated fields requires stricter control over sheep and (especially) goats. During these months, two or three other part-time shepherds, including Deso's brother Nandlal, will come down from the Saal valley to assist Deso, Bir, Nidhia, Prithu, Mohinder and Dimu in their work. The big summer herd is split into smaller groups of about 100–150. Doing so reduces the damage caused to the trees and grass at any one location. Each day the animals are further sub-divided, with sheep separated from goats, and the young from the adults, allowing the shepherds to meet their animals' different needs and eating requirements.⁴⁶ With their permit *ban* of inadequate size to provide pasture for the full winter, these smaller groups must spread out onto lands formally held under a variety of other tenurial regimes.

Aside from the permit forest, a second source of pasture is found in farmers' fields. Based on research in Rajasthan, Robbins describes an increasing incidence of contractual grazing relations on fallow land '[t]hese contracts, while not written, are fairly formal and exclusive . . . Individual households now contract to graze on the land of large holders for a specified period each year' (2001, 208). Similar unwritten but formal contracts seem to characterize relations between Gaddis and the *jamindars* (landowners) of the Punjab border region. In this area of Himachal the agricultural calendar involves a main crop of maize which is planted in April and harvested in October; after this, the fields are either planted with wheat or vegetables, or simply left fallow. The shepherds are able to exploit this fallow period as follows:

We stay in the same *jamindars'* fields every year, as did our forefathers. To some we give manure and to some we have to pay. This arrangement is based on confidence and they keep the fields free for us only . . . Up to *Lohri* [a festival held in mid January] the farmers grow wheat so the flock stays in the empty vegetable fields. After *Lohri* when the wheat is cut then we move to the empty fields. When the maize is ready to be planted then we move back up to the hills.

Deso has developed a similar arrangement with three or four farmers,⁴⁷ one of whom, named Karanjit, told me: 'every year they come to Suliari . . . My family have known Deso's family for a long time'. The flock is rotated through Karanjit's fields over three or four days, leaving behind valuable animal droppings: 'the shit is better [than commercial fertilizers] and lasts for three years. Fertilizer has to be put down every year and the land gets degraded if you stop; [it's like] the land becomes addicted'. What is interesting in this case is that Deso only stays for one year out of every two. Deso shares the use of Karanjit's *charan* (private grazing) and fields with another shepherd from Panj La: 'one year Des Raj comes to

⁴⁶ Fodder for the goats is produced by carefully cutting branches from trees with a sickle; sheep feed on grass.

⁴⁷ Described as *mitra* (friends).

Suliari but the next year Bhagtu and Kunial will use my land – the two take it in turns. They do this because they are both from the same village and keep good relations.’ Deso says this arrangement developed from a time when his father travelled with Bhagtu. Since splitting, the increased size of their respective flocks grew too great for them to use the fields simultaneously, so they agreed to take it in turns to go there.

While not so long ago this exchange of droppings for pasture was considered a fairly equitable arrangement, recent decades have seen farmers increasingly making demands for payments from shepherds wanting to stay on their land. ‘Some amount has always been paid but it was much less before. Payment has increased a lot in the last five to ten years.’ Nidhia remembers when shepherds would be fed each night and, in return, they might help with tasks such as fence building: ‘we used to get rice and *dal* from the farmers, but now *we* have to give *them* money to stay on their fields’. Deso estimates that the group pays to farmers around Rs. 5000 to obtain adequate fodder and pasture during the four months they must stay in Punjab. A conversation with Hari Singh revealed the reason behind this extra expense:

R.A. ‘Why do farmers now charge for shepherds to use their fields?’

H.S. ‘Farmers know that there is less pasture nowadays and that shepherds have no alternative but to use their fields. One shepherd goes and offers 100 rupees, then another says that they will pay 200 rupees and so the price rises. It is only in places where only one or two shepherds go that the use of fields for pasture costs nothing.’

R.A. ‘But the farmers also need the shepherds’ flocks to provide fertilizer for their fields, don’t they?’

H.S. ‘It is more important for shepherds to get grazing than it is for the farmers to get dung.’

These answers raise a number of important points. Hari Singh makes clear, in a refrain popular among the shepherds, that ‘*ajkal jangal gaya*’ (these days the jungle has disappeared). The expansion of cultivation is frequently suggested as a factor in the decline of the Gaddis’ system of mobile pastoralism. However, as the above example show, fallow fields have developed into an acceptable alternative to jungle grazing. If prices for grazing in these fields have increased⁴⁸ it should also be remembered that the commercialization of pastoral production and a dramatic rise in the price of meat provides the means through which it can be paid (see Axelby 2005, chapter 3).

Payment for pasture is not limited to farmers’ fields. Surprisingly, the Forest Department is also willing to lease areas of forest to shepherds for grazing even where the shepherds have no customary right of use. Arrangements may also be struck in those areas of village forest to which the shepherds have no traditional right of access. ‘The permit land is our own to use but outside our permit land

⁴⁸ Paying for fodder plus the necessary bribes and penalties costs around 40–60 rupees per animal for the winter (4000–6000 rupees for a flock of 100).

we have to ask the *panchayat* to use forest for grazing.’ Where villagers hold common rights to an area of forest, the shepherds have to come to some financial agreement with the relevant village council before they can enter. ‘*Trini* [paid to the F.D.] is for the land, but the grass and fodder belongs to the *panchayat* so we have to buy this from them.’ Sometimes a *panchayat* will hold an auction and shepherds will compete to gain access. Reaching agreement with the *panchayat* ensures an additional supply of grazing, though this may be circumscribed by local rules regarding when the pastureland can be accessed and how long the shepherds can stay there. Payments to *panchayats* are likely to amount to several thousand rupees to gain one month’s grazing. Finally, though few would admit that they do it themselves, many shepherds describe how other groups are known to enter reserved or restricted forests illegally, often bribing low-level Forest Department officials in order to do so.

Given the relatively small size of ‘permit’ forest and the high cost of accessing alternative grazing, whether from farmers, village *panchayats* or the Forest Department, finding adequate winter grazing has long been a struggle for shepherds. Fortunately, in recent times, an alternative source of grazing has become available and the shepherds, ever alert to recognize a new opportunity, have been quick to exploit this. In descriptions of the legal changes introduced by the British in the latter half of the nineteenth century, the nationalization of forest and rigid attachment of areas of ‘waste’ to local villages are often (and rightly) described as complicating the Gaddis’ search for pasture and fodder. In particular, the privatization of land ownership is seen as having encouraged the expansion of cultivation and greatly reduced the land available to the shepherds’ flocks. What has received less attention is how many of these legal changes created new avenues through which migratory shepherds could enter grazing land. Noble (1987, 164) suggests that it is likely that some Gaddi families already had a toehold in this part of Kangra before these changes. However, since the time of settlement, these Gaddi holdings have certainly increased. Protected from the competition of non-agricultural groups⁴⁹ and able to quickly convert their flocks into cash, over the last century the Gaddis have been successful in purchasing much additional land in the area south of the Dhaula Dhar range. Prithu’s family is one that took advantage of the gradual drift south:

Anyone can buy land in Punjab, but only Himachali people can buy land in Himachal. Twenty-two years ago we bought this land – we have eight *bigha* on which we grow wheat, corn, rice and blackbeans. It’s nice to have a home here. Many Gaddis bought houses in the plains area 30 or 40 years ago – it’s much more comfortable. Nowadays my *chacha* [father’s younger

⁴⁹ Following the creation of a market for land in the late nineteenth century, concerns were raised about the possibility of wealthy outsiders tricking local farmers out of their holdings. In response, the Punjab Alienation of Land Act of 1900 prohibited members of castes classified as ‘non-agricultural’ from buying land from ‘agricultural castes’. What was intended to discourage money lending and parasitic landlordism proved to be a great boon for the Gaddis who were among those castes defined as ‘agricultural’.

brother] lives here mostly [rather than in Sarahan in the Saal valley]. My older brother and father also come here for some time in the winter. The flock can also graze [on our fields] here for about a week.

The advantages of owning land in Kangra are two-fold. For a week in mid-December, the sheep are penned in the fields belonging to Prithu's family to provide manure for the wheat crop planted at the end of the month. Additionally, and more significantly, local residency allows the Gaddis to access grazing that land settlement, and in particular the nineteenth-century creation of co-proprietary bodies over *shamelat* (village common pastures), were supposed to have denied to them. The attraction of buying land around this area is more than just the acquisition of a plot to build on or to cultivate (Noble 1987). For the shepherds the real advantage is that ownership of cultivated land brings with it rights over adjacent areas of waste. Land ownership entitles Prithu's family to a co-proprietor's right to use the *panchayat* or village forests. The combination of Deso's and Prithu's claims to permit grazing at Chakki, the use of farmers' fields and access to village common land around Barnda ensures an adequate supply of fodder and grazing to feed the flock for the winter months.

Chait (mid-March to mid-April)

The beginning of spring completes this account of the annual migration cycle of a typical Gaddi flock. At the start of the month the Saal valley shepherds can be found grazing their flocks in the winter pastures between Pathankot and Nurpur. Two or three weeks later, as the hot weather begins to move in, they leave their winter *bans* and start moving north. Usually the flocks will stop for a day or so around Jessor, Nurpur, Chawari and Dharmisal before crossing the Dhaula Dhar range at Basodhan Jot at the end of the month. The journey takes around 10 days in all, allowing the shepherds to return to their home villages soon after the start of *Baisakh* (late April). When I asked Deso which is the best of the locations he visits each year, he replied: 'where there is grass I am happiest. It is according to the season, that's why we move'.

Gaddi Bricoleurs

This review of how a group of Gaddi shepherds gains access to grazing resources over the course of a migration cycle reveals a wide variety of ways in which the shepherds interact with the state. First there are attempts to deal with the state in relatively formal ways, approaching it to claim due entitlements, for example petitioning to ensure adequate alternatives are provided when grazing land is closed or demanding redress in cases where farmers have encroached onto permit pasture. Second, the state can also be approached in more informal ways: I have already described incidences of bribery and informal contacts with agents of the state. Finally there is avoidance and deceit, which takes the form of manipulation or withholding of information, illegal trespass, avoiding checks and so on.

Just as relations with the state are not simple or one sided, so the institutional arrangements by which shepherds manage pasture resources exhibit a degree of complexity. Applying Cleaver's concept of institutional bricolage – borrowing from different institutions at different times according to current position – allows for an understanding of pasture use and management in contemporary Himachal Pradesh as an intricate blend of formal and informal, traditional and modern. In this respect, rather than confrontation and a simple choice of individual vs collective management regimes, it seems that communal arrangements have survived and evolved as part of a somewhat messy process of negotiation, fluctuation and borrowing and hence is ultimately 'shaped by individuals acting within the bounds of circumstantial constraint' (Cleaver 2002, 17).

CONCLUSION: RETHINKING AGENCY AND STRUCTURE ON THE COMMONS

In 'new traditionalist' discourse, agency is recognized in the form of popular initiatives that attempt to 'repudiate modernity and recover tradition' (Sinha et al. 1997, 67). Similarly, in CPR theory, reactions to Hardin's 'tragedy' scenario have tended to polarize and oppose local communities to the actions of states. Commenting on the relentless promotion of private and state ownership, Ostrom et al. describe how, 'in many countries, two centuries of colonisation followed by state-run development policy that affected some CPRs has produced great resistance to externally imposed institutions' (1999, 281). A consequence is that attention has generally focused on the strategies employed by supposedly undifferentiated communities to preserve local institutions and traditional systems. The 'thin' rationality apparent in Hardin's 'tragedy of the commons' position has been challenged by a thicker notion of rationality in which communal context is properly acknowledged. While rejecting the narrow determinism of Hardin's model we must be wary of falling into a similar limiting framework in which the solutions to commons dilemmas spring from homogeneous communities of resource users acting rationally in a vacuum. Though recognizing the possibility of agency, this position still seems somewhat limited in its characterization of the ability of local people to determine outcomes; the use of the term 'resistance' suggests a defensive or obstructive stance. With the agency of local actors seemingly limited to the retention or recovery of tradition, other aspects of their encounters with states and markets are overlooked. In emphasizing conservation, maintenance and resistance, these positions fail to recognize the ability of local people, working alone or in concert with others, to create new forms and respond in positive ways to changes in context. 'Commons' may well be embedded in local social systems but, as the Gaddi example shows, it would be a mistake to view these systems as undifferentiated, static or unaffected by external events and processes.

While conventional examinations of property regimes often deny the co-existence of multiple ownership types, a looser understanding of the roles, identities and goals of resource users is better able to explain the complicated

outcomes found in the real world. When it comes to property arrangements, all actors (state or community, local, national or international) assume multiple identities, play multiple roles and recognize different classifications of resources and of resource users. Far from being fixed and stable, the varied institutions which play a role in shaping access are often flexible and subject to negotiation. Taking this multidimensional view of property access determination – of variable and shifting forces capable of operating at different levels – entails recognizing the possibility that systems of ‘common’ use and control of resources, rather than limited to some stable and isolated ideal, are capable of operating in a wide variety of settings. ‘External’ forces may subject existing local property systems to considerable stress, but this is not to say that they inevitably displace or replace them so that they disappear. Outcomes are determined through the interaction of different local and external dynamics and competition between different claims and claimants.

Contrary to the standard alternative position, it is argued here that acceptance of, and adjustment to, change are much more typical of local responses than any simple opposition. In limiting agency to resistance, the ‘new traditionalists’ ignore the more creative outcomes of interactions between the state and local people. Commons users employ a variety of responses in the face of externally induced change; they are capable of more than covert resistance and outright opposition to change. Local agency operates anywhere along a continuum from armed uprising to willing acceptance of change with various possibilities and practices of mutual adjustment and adaptation between these extremes. This article has presented and explored a case in which communal user groups have proved capable of ensuring the long-term survival of common property management in the modern age, through adjustment and adaptation rather than a return to tradition. Instead of looking at (or for) ‘resistance’ alone, it is important to view agency as an ongoing process of engagement and adaptation, sometimes positive, sometimes negative, but never one-sided or simple.

REFERENCES

- Agarwal, Anil, 1986. *CSE: The State of India's Environment 1984–85: The Second Citizen's Report*. Delhi: Centre for Science and the Environment.
- Agrawal, Arun, 1999. *Greener Pastures: Politics, Markets and Community among a Migrant Pastoral People*. Durham, NC: Duke University Press.
- Agrawal, Arun, 2002. ‘Common Resources and Institutional Sustainability’. In *The Drama of the Commons*, eds E.T. Ostrom, T. Dietz, N. Dolsak, P.C. Stern, S. Stonich and E.V. Weber, 41–86. Washington, DC: National Academy Press.
- Agrawal, Arun and K. Sivaramakrishnan, eds, 2001. *Social Nature: Resources, Representations, and Rule in India*. New Delhi: Oxford University Press.
- Arnold, J.E.M. and W.C. Stewart, 1991. *Common Property Resource Management in India*. Oxford: University of Oxford.
- Axelby, Richard, 2005. ‘Pastures New: Pastoral Development and the Determination of Grazing Access in the Indian Himalayas’. Unpublished PhD Thesis, University of London.

- Baland, J. and J. Platteau, 1996. *Halting Degradation of Natural Resources: Is There a Role for Rural Communities?* Oxford: Clarendon Press.
- Baumann, P.C., 1997. 'Historical Evidence on the Incidence and Role of Common Property Regimes in the Indian Himalayas'. *Environment and History*, 3 (3): 323–42.
- Behnke Jr, Roy, 1994. 'Natural Resource Management in Pastoral Africa'. *Development Policy Review*, 12: 5–27.
- Behnke Jr, Roy, Ian Scoones and Carol Kerven, eds, 1993. *Range Ecology at Disequilibrium: New Models of Natural Variability and Pastoral Adaptation in African Savannas*. London: Overseas Development Institute.
- Benjaminsen, Tor A. and Christian Lund, 2002. 'Formalisation and Informalisation of Land and Water Rights in Africa: An Introduction'. *European Journal of Development Research*, 14 (2): 1–10.
- Bhasin, Veena, 1988. *Himalayan Ecology, Transhumance and Social Organisation*. Delhi: Kamla-Raj Enterprises.
- Bhattacharya, Neeladri, 1986. 'Colonial State and Agrarian Society'. In *Situating Indian History*, eds S. Bhattacharya and R. Thapar, 171–94. Delhi: Oxford University Press.
- Bhattacharya, Neeladri, 1995. 'Pastoralists in a Colonial World'. In *Nature, Culture, Imperialism*, eds D. Arnold and R. Guha, 49–85. Delhi: Oxford University Press.
- Bremner, Jan, Peter Kloos and Ashwani Siath, eds, 1997. *The Village in Asia Revisited*. Delhi: Oxford University Press.
- Bromley, Daniel and M. Cernea, 1989. *The Management of Common Property Natural Resources, Some Conceptual and Operational Fallacies*. World Bank Discussion Papers No. 57. Washington, DC: World Bank.
- Chakravarty-Kaul, Minoti, 1995. 'Upheaval in the Nomad's Trail; Survival in the Forest Commons of Northern India'. (<http://www.indiana.edu/~iascp/abstract.html>) Accessed February 2001.
- Chakravarty-Kaul, Minoti, 1996a. *Common Lands and Customary Law: Institutional Change in North India over the Past Two Centuries*. Delhi: Oxford University Press.
- Chakravarty-Kaul, Minoti, 1996b. 'Claiming the Alps: The Himalayan Commons in the Punjab and Himachal Pradesh'. (<http://www.indiana.edu/~iascp/abstract.html>) Accessed February 2001.
- Chakravarty-Kaul, Minoti, 1997. 'Transhumance: A Pastoral Response to Risk and Uncertainty in the Himalayas'. *Nomadic Peoples*, 1 (1): 133–49.
- Cleaver, Frances, 2000. 'Moral Ecological Rationality, Institutions and the Management of Common Property Resources'. *Development and Change*, December, 31 (2): 361–83.
- Cleaver, Frances, 2002. 'Reinventing Institutions: Bricolage and the Social Embeddedness of Natural Resource Management'. *The European Journal of Development Research*, March, 14 (2): 11–30.
- Cohn, Bernard S., 1990. *An Anthropologist among the Historians and Other Essays*. Delhi: Oxford University Press.
- Coward, E. Walter, Jr, 1990. 'Property Rights and Network Order: The Case of Irrigation Works in the Western Himalayas'. *Human Organisation*, 49 (1): 78–88.
- Davidson-Hunt, Iain, 1995. 'Negotiating the Commons: Land Use, Property Rights and Pastoralists of the Western Indian Himalayas'. PhD Dissertation, University of Manitoba.
- Divan, Shyam and Armin Rosencranz, eds, 2001. *Environmental Law and Policy in India*. Oxford: Oxford University Press.

- Ensminger, Jean, 1996. 'Culture and Property Rights'. In *Rights to Nature: Ecological, Economic, Cultural and Political Principles of the Environment*, eds S. Hanna, C. Folke and K. Maler, 179–202. Washington, DC: Island Press.
- Feeny, David, Fikret Berkes, Bonnie J. McCay and James M. Acheson, 1998. 'The Tragedy of the Commons: Twenty-Two Years Later'. In *Managing the Commons*, eds J. Baden and D.S. Noonan, 76–94. Bloomington, IN: Indiana University Press.
- Gadgil, Madhav and Ramachandra Guha, 1992. *This Fissured Land – An Ecological History of India*. Delhi: Oxford University Press.
- Gadgil, Madhav and Ramachandra Guha, 1995. *Ecology and Equity – the Use and Abuse of Nature in Contemporary India*. London: Routledge.
- Gilmartin, David, 1999. 'The Irrigating Public: The State and Local Management in Colonial Irrigation'. In *State, Society and the Environment in South Asia*, ed. S. Madsen, 236–65. Richmond: Curzon Press.
- Greenough, Paul, 2001. 'Naturae Farae: Wild Animals in South Asia and the Standard Environmental Narrative'. In *Agrarian Studies: Synthetic Work at the Cutting Edge*, eds J.C. Scott and N. Bhatt, 141–85. Oxford: Oxford University Press.
- Guha, Ramachandra, 1994. *Social Ecology*. Delhi: Oxford University Press.
- Guha, Ramachandra, 2000. *The Unquiet Woods – Ecological Change and Peasant Resistance in the Indian Himalayas*. Delhi: Oxford University Press.
- Guha, R. and M. Gadgil, 1989. 'State Forestry and Social Conflict in British India: A Study in the Ecological Bases of Agrarian Protest'. *Past and Present*, 123: 141–77.
- Guha, Sumit, 1999a. *Environment and Ethnicity in India, 1200–1991*. Cambridge: Cambridge University Press.
- Guha, Sumit, 1999b. 'Communities, Kings and Woodlands: Historical Reflections on Joint Forest Management'. In *A New Moral Economy for India's Forests?* eds R. Jeffery and N. Sundar, 55–74. New Delhi: Sage Publications.
- Gururani, Shubhra, 2001. 'Regimes of Control, Strategies of Access: Politics of Forest Use in the Uttarakhand Himalaya, India'. In *Social Nature: Resources, Representations, and Rule in India*, eds A. Agrawal and K. Siwaramakrishnan, 170–90. New Delhi: Oxford University Press.
- Hardin, Garrett, 1968. 'The Tragedy of the Commons'. *Science*, 162: 1243–8.
- Lyall, J.B., 1874. *Report of the Land Revenue Settlement of the Kangra District*. Lahore: Central Jail Press.
- Madsen, Stig Toft, ed., 1999. *State, Society and the Environment in South Asia*. Richmond: Curzon Press.
- McCay, Bonnie and James M. Acheson, 1987. *The Question of the Commons: The Culture and Ecology of Communal Resources*. Tucson, AZ: The University of Arizona Press.
- Menon, Ajit and Sharachandra Lele, 2003. 'Critiquing the Commons: Missing the Wood for the Trees?' *Common Property Resource Digest*, March, 64: 1–4.
- Mosse, David, 2003. *The Rule of Water: Statecraft, Ecology and Collective Action in South India*. Oxford: Oxford University Press.
- Noble, Christina, 1987. *Over the High Passes: A Year in the Himalayas with the Migratory Gaddi Shepherds*. London: Collins.
- Ostrom, Elinor, 1990. *Governing the Commons: the Evolution of Institutions for Collective Action*. Cambridge: Cambridge University Press.
- Ostrom, Elinor, Joanna Burger, Christopher B. Field, Richard B. Norgaard and David Policansky, 1999. 'Revisiting the Commons: Local Lessons, Global Challenges'. *Science*, 284: 278–82.

- Peters, Pauline E., 1987. 'Embedded Systems and Rooted Models – The Grazing Lands of Botswana and the Commons Debate'. In *The Question of the Commons*, eds B. McCay and J.M. Acheson, 171–96. Tucson, AZ: The University of Arizona Press.
- Peters, Pauline E., 1994. *Dividing the Commons – Politics, Policy and Culture in Botswana*. Charlottesville, VA: University Press of Virginia.
- Phillimore, P.R., 1981. *Migratory Graziers and their Flocks*. A Royal Geographical Society Expedition Report. London: Library of the Royal Geographical Society.
- Punjab Gazetteer*, 1908. Government of India: The Civil and Military Gazette Press.
- Ravnborg, Helle Munk, 2000. 'Principles for CPR Theory'. *The Common Property Resource Digest*, 53: 8–9.
- Robbins, Paul, 2001. 'Pastoralism and Community in Rajasthan: Interrogating Categories of Arid Lands Development'. In *Social Nature: Resources, Representations, and Rule in India*, eds A. Agrawal and K. Sivaramakrishnan, 191–215. New Delhi: Oxford University Press.
- Saberwal, Vasant K., 1999. *Pastoral Politics – Shepherds, Bureaucrats and Conservation in the Western Himalaya*. Delhi: Oxford University Press.
- Saberwal, Vasant K., 2003. 'Policy, Property, and Access: Shepherd Land-Use in the Western Himalayas'. In *Nomadism in South Asia*, eds A. Rao and M.J. Casimir, 212–46. Oxford: Oxford University Press.
- Sandford, Stephen, 1983. *Management of Pastoral Development in the Third World*. Chichester: John Wiley and Sons.
- Scoones, Ian, ed., 1995. *Living with Uncertainty. New Directions in Pastoral Development in Africa*. London: Intermediate Technology Publications Ltd.
- Scott, James C., 1998. *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*. New Haven: Yale University Press.
- Shiva, Vandana, 1991. *Ecology and the Politics of Survival – Conflicts over Natural Resources in India*. New Delhi: Sage Publications.
- Singh, Chetan, 1998. *Natural Premises – Ecology and Peasant Life in the Western Himalaya 1800–1950*. Delhi: Oxford University Press.
- Singh, Chhatrapati, 1986. *Common Property and Common Poverty – India's Forests, Forest Dwellers and the Law*. Delhi: Oxford University Press.
- Singh, Chhatrapati, 2001. 'Common Property and Common Poverty: India's Forests, Forest Dwellers and the Law'. In *Environmental Law and Policy in India*, eds S. Divan and A. Rosencranz, 16–18. Oxford: Oxford University Press.
- Sinha, Subir, Brian Greenberg and Shubhra Gururani, 1997. 'The "New Traditionalist" Discourse of Indian Environment'. *Journal of Peasant Studies*, 24 (3): 65–99.
- Stein, Nathalie, Victoria M. Edwards and Neils Roling, 2000. 'Re-designed Principles for CPR Theory'. *The Common Property Resource Digest*, 53: 1–5.
- Vasan, Sudha, 2002. 'Ethnography of the Forest Guard: Contrasting Discourses, Conflicting Roles and Policy Implementation'. *Economic and Political Weekly*, 5 October: 4125–34.
- Vira, Bhaskar, 1999. 'Implementing Joint Forest Management in the Field: Towards an Understanding of the Community Bureaucracy Interface'. In *A New Moral Economy for India's Forests? Discourses of Community and Participation*, eds R. Jeffery and N. Sundar, 254–75. New Delhi: Sage Publications.
- Wade, Robert, 1988. *Village Republics: Economic Conditions for Collective Action in South India*. San Francisco, CA: ICS Press.