From Plateau Pastures to Urban Fringe: Sedentarisation of Nomadic Pastoralists in Ladakh, North-West India

by

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Declaration

This work contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text.

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Abstract

The sedentarisation of nomadic pastoralists in Ladakh, north-west India, is taking place amidst a global trend toward settlement. Despite a few exceptions, where pastoralism either continues to thrive or is being revitalised by market reform, many nomadic pastoral communities are facing a period of unprecedented change, as they are increasingly drawn into national and international economies.

This study focuses on the migration of Ladakh's nomadic pastoralists from their traditional grazing lands to the rapidly urbanising capital Leh. Three separate communities were studied to determine their levels of out-migration and settlement and to explore the causes and consequences of the decision to settle. The research design encompassed both sending and receiving communities and uses a multi-level approach to assess the combined influence of macro-level (structural) and micro (individual and household-level) factors on the decision to migrate.

Data from a survey of 103 migrant households and in-depth interviews conducted in each of the three nomadic pastoral communities shed light on the complex nature of population mobility. The data reveal the communities to be characterised by distinct forms of mobility (large scale, permanent out-migration from one community, seasonal circulation from the second, and low-level traditional forms of out-migration from the third). It is argued that the community-level differences in out-migration are not indicative of a progressive decline of nomadic pastoralism in the region. The nomadic communities are facing substantial pressure from external socio-economic change and migration to the urban area is seen as a strategy for survival and security optimisation. However, the extent to which the communities utilise this strategy is influenced by locally specific normative and regulatory factors.

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List of Abbreviations

CMO	Chief Medical Officer
CHW	Community health worker
IALS	International Association of Ladakh Studies
J&K	Jammu and Kashmir State
LAHDC	Ladakh Autonomous Hill Development Council
LBA	Ladakh Buddhist Association
LEDeG	Ladakh Ecological Development Group
LNP	Leh Nutrition Project
MAC	Medical Aid Centre
NGO	Non-Governmental Organisation
PHC	Primary health centre
PPP	Purchasing Power Parity (used in tables in chapter 2) UNDP reports. An attempt to adjust for price differences between countries. So $US PPP1 in the domestic economy has the same purchasing power as 1US$ in the US. Preferable measure to GDP per capita.
SECMOL	Students' Educational and Cultural Movement of Ladakh
SC	Scheduled Caste
ST	Scheduled Tribe

Indian Currency

During the period of fieldwork, one Australian dollar was equivalent to 23 Indian Rupees (Rp).

Glossary Of Terms

Note about spelling: place names, Ladakhi words and people's names are based on the local pronunciation of the words rather than the written forms in the Ladakhi script.

Abi	grandmother
Amchi	traditional doctor using techniques based on traditional Tibetan system of medicine
Brog-pa/ brok-pa	literally high pasturage ones. Term used in reference to Tibetan nomadic pastoralists
Changpa	literally meaning northerner. Reference to semi and full nomadic pastoralists who live in the Ladakhi Changthang.
Cho-lo	dice
Chomo	nun
Chu	river (literally water)
Drimo	female yak
Gompa	monastery
Goncha	traditional woollen overcoat worn throughout Ladakh
Go-ba	village head-man, chief
-pa	suffix added to a place name to signify a person's origin (-ma for females)
rigs.nan	'low caste' or scheduled caste
khaun	term used by Changpa of Rupshu-Kharnak to describe khang-chung
khang-chen	big house (main house)
khang-chung	small house (subsidiary house)
khag-gnyis	break in two – reference to splitting of household into kaun and kangchen.
Khrel	tax
- la	pass eg. Taglang la
Lama	monk
lha	god
mani	prayer ceremony
magpa	husband – especially one brought into uxorilocal household
Meme	grandfather
Pashm	raw fibre combed from the undercoat of the pashmina goat
Pha-spun	a specific form of social organisation
Pha Lha	deity of the pha-spun
Phia	marmot
phog–srod	literally to take control
Phu	upper part of valley
Ralug	combined term for sheep (lug) and goats (rama)
Rebo	tent woven from goat and/or yak hair (as opposed to gur – white tent)
Sku rim	religious ceremonies
Tshawo	grandson
Tso	lake

Yul lha	territorial god / deity
Yul	village
Yulpa	‘villager’
Lha tho	shrine to the yul lha. Cairn-like small heap of stones topped with twigs and prayer flags.

CHAPTER 1

INTRODUCTION

1.1 The Decline of Nomadic Pastoralism

> Their past was unique considering their former role in world history, their present is precarious, and as for their future – it seems dubious at the moment, if present tendencies continue. There are more than enough people who assume that [nomadic] pastoralists simply do not have any future at all.
>
> Khazanov 1998:7

This statement by Anatoly Khazanov paints a bleak picture for the future of nomadic pastoral societies. Sedentarisation of nomadic pastoralists, that is, the shift away from a predominantly mobile form of existence to a more sedentary one, is an undeniable trend characteristic of the late 20th Century. According to Salzman, '…processes of sedentarisation are often natural responses to constraints and opportunities in the physio-biotic and socio-cultural environments' (Salzman 1980: vii). Sedentarisation is viewed by some as a natural consequence of development and progress. Governments in many parts of the world have long thought of pastoral nomadism as an archaic form of production '… that would vanish with economic development' (Barfield 1993: 126). Yet, not only does this livelihood continue among 30 to 40 million people in the Middle East, Central and Inner Asia, Africa, and the Far North (Khazanov 1998: 7), but nomadic pastoral communities often make a significant contribution to national economies through the exploitation of otherwise unproductive and

marginal lands. The importance, therefore, of documenting and investigating the changes taking place among these communities is motivated by more than just concern over what might be viewed as the loss of a way of life that has been romanticised by outsiders. Mobile pastoral societies around the world are facing unprecedented change and meeting the challenges of 'development' is a critical issue. This thesis examines the nature, causes and consequences of the urban sedentarisation of nomadic pastoralists in Ladakh, north–west India. The following chapter sets out the parameters of the study, and provides a brief overview of nomadic societies. First however, the term *nomadic pastoralism* and its use within this study will be defined.

1.1.1 Defining Nomadic Pastoralism

In the broadest sense, the term 'pastoral nomadism' is used to refer to societies specialising in animal husbandry requiring periodic movements (Barfield 1993: 4). However, there is no universally accepted definition for the term and debate continues over its application. To confuse matters, the terminology is often used interchangeably. Labels such as pastoral nomads, pastoralists, mobile pastoralists, transhumant pastoralists, and extensive pastoralists are widely used to refer to nomadic groups that share similar social and economic characteristics.

A brief review of some of the main definitions does in fact reveal some common features of nomadic pastoralism from which a working definition can be formed. Fratkin (1997: 235) defines pastoralism as a practice whereby '… human populations live on the products of their domestic animals in arid environments or areas of scarce resources …'. Barfield injects the issue of culture into the debate, arguing that nomadic pastoralism is a societal rather than an occupational phenomenon that is '… as much a way of life as a way of making a living'

(Barfield 1993: 4). By contrast however, Khazanov's definition (1984: 16) focuses entirely on the 'economic essence' of pastoral nomadism defined by the following five characteristics:

1) Pastoralism is the predominant from of economic activity.
2) Herds are maintained throughout the year on a system of free-range, extensive grazing.
3) Periodic mobility is in accordance with the demands of pastoral economy within the boundaries of specific grazing territories.
4) The participation in pastoral mobility of all, or the majority, of the population.
5) The orientation of production towards the requirements of subsistence.[1]

Khazanov argues that, as a distinct form of food-producing economy, nomadic pastoralism should be distinguished from food-extracting economies. This then excludes groups such as hunter-gatherers, and the so-called maritime nomads of south-east Asia from classification as nomads. As an aid to understanding the complexities and variants within the category of pastoral nomadism, Khazanov proposes a typology of pastoralism that follows a continuum of decreasing mobility and increasing reliance on agriculture. This general classification is summarised in Table 1.1.

Rada and Neville Dyson-Hudson (1980:18) propose a slightly broader definition. They resist the classification debate, stating that: '[a]ttempts to classify … livestock movements into categories such as "transhumant," "semisedentary," "nomadic," *et cetera* have proved … to be an intellectually sterile enterprise …'. They focus their review on groups they consider to be 'nomadic pastoralists' which include people who are primarily dependent on livestock, inhabit environments with marked seasonality, and who choose to move their livestock to

pasturage rather than provide fodder to the herd. Again, it is possible to see a similar pattern of classification combining the three essential factors of economy (pastoralism), ecology (marginal environments) and mobility.

TABLE 1.1 General Classification of the Types of Pastoralism

Nomadic

Declining Degree of Mobility ↓

Sedentary

Type of Pastoralism	Characteristics of Economy
Pastoral Nomadism Proper	In purest form there is a total absence of agriculture. Its occurrence is uncommon and usually coexists with semi-nomadic pastoralism.
Semi-nomadic Pastoralism	Pastoralism is the main activity but agriculture is used in a supplementary capacity. This form of pastoralism involves extensive grazing and periodic changing of pastures over the course of a year.
Semi-sedentary Pastoralism	Sometimes called mixed farming. Agriculture plays the dominant role in the economic balance.
Herdsman Husbandry	Also called 'distant-pastures husbandry'. A majority of the population remain sedentary and engaged in agriculture while only specialist herdsmen travel with the animals
Yaylag Pastoralism (Transhumance)	From the Turkic word *yaylag* meaning summer highland pasture. Involves migration from a permanent base. Not to be confused with vertical forms of semi-nomadic pastoralism or pastoral nomadism.
Sedentary Animal Husbandry	Animal husbandry plays only a supplementary role.

(after Khazanov 1984: 19-24)

[1] Khazanov does concede that the fifth point probably no longer applies, or only to a limited extent as, although nomadic societies were never self-sufficient and relied on trade, the majority of pastoral Footnote continued on next page

The working definition of nomadic pastoralism used in this study is based on a combination of the arguments outlined above. That is, in the broader sense, the three factors of economy, ecology and mobility are taken as important indicators of whether a community is nomadic pastoral. In addition Khazanov's general types of pastoralism help to distinguish particular types of pastoralism according to the community's commitment to pastoral activities and degree of mobility.

The three Changpa communities in Ladakh are then, according to this definition, possibly the only group of pastoral nomads in India, falling somewhere between the categories of pastoral nomadic and semi-nomadic (Table 1.1). As opposed to the herdsman husbandry, or transhumant pastoralism practised elsewhere in the country, the Changpa are engaged in pastoralism and continual mobility throughout the year. This classification challenges the claim by Ahmed that the Rupshu-pa (one of the three Changpa groups) are '… the only group of Chang-pa who are in a sense "pure nomads"…' because they do not live in permanent structures or practice agriculture (Ahmed 1996: 65). Not only can this assertion be challenged according to the broader and more generally accepted definitions of nomadic pastoralism, but also on the basis that cultivation of land, even on a very minor scale, has been carried out in all three communities, and basic, yet permanent structures have been constructed in all areas for either storage or shelter. With regard to permanent dwellings, based on their work in Tibet, Goldstein and Beall (1990: 64) conclude that, although some of the nomads have storehouses and permanent homes, this in no way challenges their identity as nomads. According to the researchers it is not the type of dwelling that is important, nor the movement, but rather, the sole reliance on pastoralism. Scholars agree that the term

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nomads have now been drawn into much closer ties with global economic markets.

'pure nomad' is no longer relevant in the contemporary context (Salzman 1971 and Spooner 1973 in Dyson-Hudson and Dyson-Hudson 1980: 18)**.** The concept is inappropriate in a world where nomadic pastoralists are incorporating new and useful technologies, such as trucks, into their daily activities (see Chatty 1996).

1.1.2 The Origins of Nomadism and Contemporary Trends

Nomadic pastoralism is commonly thought to represent a stage of evolution that lies between hunting and agriculture, and its persistence in today's world is considered by many to be a quirk of history. However, the archaeological record reveals nomadic pastoralism emerged as a specialisation *from* a 'sedentary Neolithic farming economy that relied on both agriculture and animal husbandry' (Barfield 1993: 5). Others support this hypothesis that pastoral nomadism originated from a settled mixed-farming economy, with the eventual transition among some tribes from the sedentary form of pastoralism, to a specialised mobile form (Chatwin 1987; Vajnshtein 1978).

Originating in south-west Asia, nomadic pastoralists are at present, represented in varied geographical situations throughout the world. The global distribution of nomadic pastoralists includes the arid plains and deserts of Africa, the Middle East, south and central Asia, the highland areas of Tibet and the Andes, and Arctic Scandinavia and Siberia (Figure 1.1). In India, the main groups of interest are the Raikas in Rajasthan (Agrawal 1999) the Gujars in Gujarat (Gooch 1992) and the Bakrwals in Jammu and Kashmir (Fratkin 1997: 250). As previously discussed however, these groups are largely transhumant or semi-sedentary pastoralists.

Prior to the mid-1900s, nomadic pastoral societies had been dominant in a variety of geographical, social and cultural contexts throughout the world (Gharakhalou-Narrei 1996). However, while it continues as a practice in many parts of the world, there is agreement among observers that a general decline in the prevalence of the pastoral way of life has taken place (Khazanov 1984; Barfield 1993; Fratkin 1997). Apart from Mongolia and China, where decentralisation of economies and growing markets are encouraging a return to pastoralism, in most areas, nomadic pastoralism as a livelihood strategy is facing unprecedented change and decline.

FIGURE 1.1 Indigenous Nomadic Populations

(Evans 1991: 23)

When discussing change in any society it is important to place it in its historical context. Barth (1961: 109-111) has illustrated that sedentarisation is not a new or recent phenomenon, as out-migration through extremes of wealth and poverty has always existed in nomadic societies. Salzman (1980) and Chatty (1996) also present evidence of sedentarisation as early as the 7th Century and through to the 18th Century. Much of the recent attention on the trend of sedentarisation has focused on the period since the 1960's.

This particular period of sedentarisation is notable for its magnitude and impact on nomadic pastoral societies around the world.

Three major causes of sedentarisation can be identified: 1. Socioeconomic, internal forces. 2. Socioeconomic and political, external forces, and 3. Ecological forces or resource limitations (Grossman 1992: 92). External causes of sedentarisation include factors such as growth and prosperity among neighbouring societies (particularly the growth of opportunities in adjacent urban centres), government-instituted programs of forced settlement (widespread in the Middle East), and competition over traditional pastures from outside interests, for example, for mineral resources or tourism. Examples of internal causes of sedentarisation include demographic processes, changes in the local economy, ecological changes and social change brought about by external influences such as education and tourism. In many LDCs, the benefits of 'development' are largely focused in urban centres. Thus health care and education, particularly for mobile populations, are only accessible in the larger settled areas. This inequality engenders dissatisfaction among many pastoralists and presents another motivation for out-migration and settlement.

Where nomads were once held in awe by settled populations, or envied for their apparent freedom, they are now considered, in most situations, to be unsophisticated, dirty and backward by their settled neighbours (Chatty 1996: 19; Miller 2000: 99). This is the case in Ladakh, where the term 'Changpa' has taken on a pejorative tone, through its use by the general community to imply that a person is dirty and simple.[2]

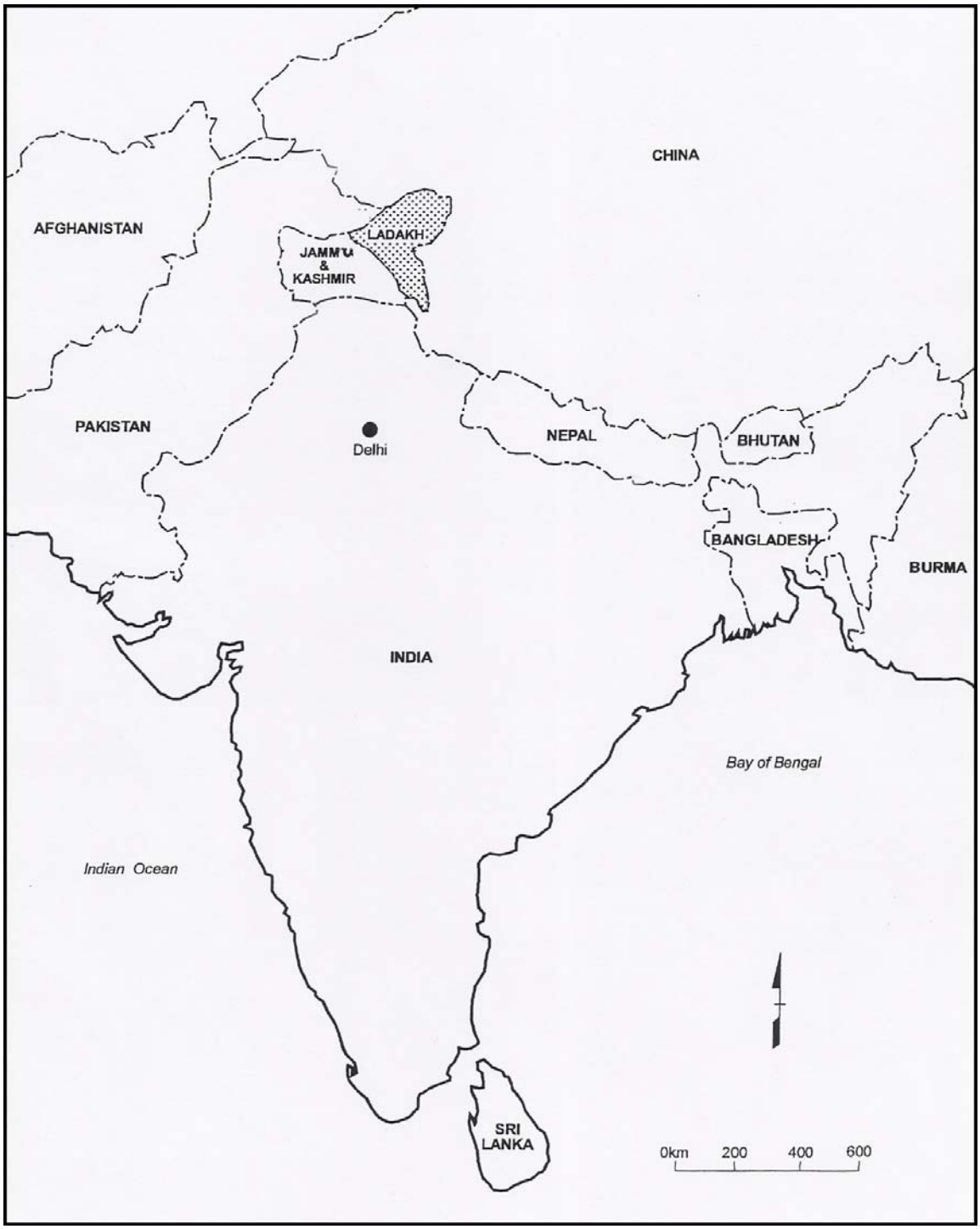
[2] Despite negative use of the term Changpa, it is used throughout this work to refer to members of the three nomadic pastoral communities. I persist with the term because it is still widely used among the nomadic population in self-reference. Where referring to one particular community, the ending '–pa' is added to the place name to signify a person's origin. Eg. Kharnak-pa is a person from Kharnak.

1.1.3 Sedentarisation in Ladakh

The 'Changpa' nomadic pastoralists traditionally inhabit the high altitude plateau region in the south-east of Ladakh, bordering China (Figure 1.2). The area is known locally as Changthang (meaning northern plain), although the home pastures of the Changpa are more specifically referred to as Rupshu-Kharnak. With a population of approximately twelve-hundred, and comprised of three, independent mobile communities, the Changpa have grazed their sheep, goats and yaks in the pastures of Rupshu-Kharnak for many hundreds of years. While they constitute only a small percentage of Ladakh's population, they contribute significantly to the local and state economies. Locally they provide meat to the urban population, and at the state level, they contribute between 33 000 and 40 000 kg of the highly sought-after pashmina fibre to the Kashmiri shawl industry each year (Darokhan 1999). As with most cases of pastoral specialisation, the Changpas of Ladakh effectively utilise what are some of the harshest and most marginal lands in the world, free from the competitive advances of agriculturalists. Similarities exist between the Changpa and the Tibetan nomads, or *Brokpa*. However, although they share the same religion and livelihood, the Changpa are an ethnically distinct group, speaking a separate dialect of Ladakhi with their own cultural identity.

General texts on nomadic societies make no mention of the Ladakhi Changpas (Barfield 1993; Fratkin 1997; Galaty and Johnson 1990; Khazanov 1984). In relation to central and south-Asian pastoralism, references are usually limited to Mongolian and Tibetan pastoralists. Pastoral groups such as the Raika and Gujars are given occasional mention in relation to occurrences of pastoralism in India (Fratkin 1997). However, in his well respected review of nomadism, Khazanov (1984) disputes the inclusion of these groups, stating that the form of pastoralism they practice can only be regarded as 'herdsman

FIGURE 1.2 Location of Ladakh in the Northern Indian State of Jammu and Kashmir



husbandry' because the migrations between summer and winter pastures do not involve all members of the community. He goes so far as to state that: 'There are evidently no pure nomads in India today, just as there are no sizeable groups of semi-nomads.' (Khazanov 1984: 68). The problem with this statement lies partially with definition, and partially with scale. The Changpas are rarely recognised due to their relatively small number. However, according to Khazanov's own definition of pastoral nomadism, the Changpa are not only pastoral nomads in the economic sense, but they also exhibit the forms of social organisation characteristic of nomadic pastoral societies (Barfield 1993).

Two recent reviews of nomadic pastoralism highlight the absence of information on Indian pastoralists. Blench (2001) notes that while pastoral groups in the Rajasthan desert have been extensively covered (Agrawal 1992; Casimir 1996; Kavoori 1991; 1996; Sansthan and League for Pastoral Peoples 1999), less has been written about the 'Tibet-style' transhumance typical of the Himalayan region (Downs and Ekvall 1965; Ekvall 1968; Garwahl 1981; Goldstein and Beall 1990). He goes on to identify twenty-two different pastoral groups scattered throughout the country. Rao (2003) comes to similar conclusion in a review of nomadism in South Asia. Describing the general lack of research on nomadism in the region, Rao adds that even in most parts of India nomadic pastoralists remain undocumented, particularly those living in the Indian border areas shared with China, Pakistan and Nepal.

At the commencement of the present study a review of the relevant literature revealed only anecdotal evidence of the sedentarisation of the Changpas in Ladakh (Ahmed 1996; Chaudhuri 1999; Dollfus 1999; Jina 1995, 1999). Although the process of rural-urban migration is clearly evident, with two significant settlements of migrants at the edge of Leh town, there has been no quantitative effort to document or trace the process spatially or temporally. Thus very little was known about the magnitude of the sedentarisation, the

characteristics of the migrants or how the origin communities were being affected. In the case of the Changpas, the term sedentarisation refers to the drift away from the traditional lands toward the urban centre, as opposed to rural villages. This trend can be associated with the growth and expansion of the district capital Leh since the 1960's. The movement of families and individuals from the nomadic communities toward Leh is, on one level, another example of the general rural to urban migration affecting rural villages throughout the region. However, it is useful to make a distinction between migrants from the villages and those from the nomadic communities on the basis of their differing origin livelihoods.

Where the trend of rural to urban migration of villagers to Leh differs from that of the nomadic population is in the somewhat obvious fact that out-migration from the nomadic communities involves a shift from a tent-dwelling mobile existence to a sedentary lifestyle. This is a process, which by its nature implies a set of factors that are particular to, and will shape the experience of, those involved. Unlike other similar situations, the sedentarisation has not been forced or overtly encouraged by the local administration. Similarly, there have been few attempts to monitor or restrict the movement. It is a voluntary process involving individual decision-making and household initiated migration.

In assessing the effects of the voluntary migration on the Changpa community this thesis aims to counter the cultural preservationist assumption that sedentarisation is inherently negative or in some way lamentable. For the Changpa of Rupshu-Kharnak, sedentarisation is their response to the changing world around them, and is not simply limited to households facing economic hardship.

1.2 Aims and Objectives of the Study

This study contributes to the broader theoretical understanding of sedentarisation of nomadic pastoralists around the world. The sedentarisation of nomadic pastoralists in Ladakh is used as a specific case study with which to evaluate past and contemporary theoretical approaches to the study of rural-urban migration in the context of a non-agricultural, mobile society.

This study aims to provide a clear and quantitative description of the process of sedentarisation taking place in Ladakh, and to extend this by including qualitative analysis of the determinants of the migration. In recognition of the dual importance of individual (human) and contextual (structural) factors in the decision to migrate, analysis of the determinants of migration will include both micro-level (community, household, individual) and macro-level factors (political, social and economic changes at the regional and national scale). The study will also provide an assessment of the consequences of out-migration and settlement. The impact analysis will include those directly involved in the migration, that is, the migrants and their families, as well as those indirectly affected, the non-migrants and return migrants in the communities of origin.

The specific aims and objectives of the thesis are summarised by the following set of questions.

- What patterns, types and rates of out-migration have been occurring from Rupshu-Kharnak, and over what period?
- How selective is out-migration and settlement on the individual, household, and community levels?

- How are these shifts related to particular processes of socioeconomic change at the local, regional and national levels?
- What are the main consequences of out-migration for the migrants and migrant households?
- What are the main consequences of out-migration for the households and communities of origin in terms of adaptive strategies and the continuation of pastoral activities?

This study is characterised by a flexible approach, which acknowledges the value of combining quantitative and qualitative research methods. Analysis is based on a household survey conducted among the migrant population in the destination area. This quantitative data is complemented with in-depth interviews, case study material and detailed observation of migrants and non-migrants in both the origin and destination areas. Secondary sources were utilised where available, to place the processes of change within their relevant historical, cultural, and economic context. The inclusion of each of the three 'source' communities in the analysis brings a comparative aspect to the research and broadens the extent to which generalisations can be drawn. This was particularly important given constraints on the availability of population census data for the origin areas. The theoretical framework of the research does not limit itself to a single approach. Rather, it makes use of the diversity of opinion that exists among migration theorists, to review the applicability of contemporary migration theories to this particular situation of urban sedentarisation. In doing so, this research brings a new approach to the study of sedentarisation, which has hitherto predominantly been the domain of anthropologists. The discipline of geography, with its emphasis on human-environment interactions and its close association with demography, is well placed to make a valuable contribution to the study of sedentarisation.

1.3 The Study Area: A Brief Introduction

Ladakh is located between the Karakoram and Himalaya ranges in the north-eastern part of the state of Jammu and Kashmir in India (Figure 1.2). Due to its strategic border location, Ladakh is a highly sensitive region for India. In the north lies the disputed border zone with (Pakistan occupied) Baltistan. To the east lie China and the Tibetan Autonomous Region of China. The Chinese also claim a large area of eastern Ladakh (Aksai Chin 37 555 km^2) which they have occupied since the Sino-Indian war in 1962. The military presence in the region is pronounced, although less intense along the Chinese border than to the north and north-west.

Ladakh lies on the edge of the Tibetan Plateau and is geographically distinct from the rest of the Jammu and Kashmir State. Due to the altitude, which ranges from 2700m to 4500m, the region experiences extremes of temperature such as -35°C in winter to 30°C in summer. The region is also situated in the rainshadow of the Himalayas, and subsequently receives very little rainfall. However, the skilful channelling of meltwater from glaciers supports over one hundred small villages and creates oasis-like settlements in an otherwise barren landscape.

The population of Ladakh is primarily rural-based, although there is clear evidence of increasing urbanisation in the district capital Leh. In 2001 almost one-quarter of the district's total population (117,000) was located in the urban centre as opposed to only 13 percent in 1981 (Indian Bureau of Statistics 1981 and 2001). At the edge of Leh is a large 'housing colony' of rural migrants that has been expanding steadily since the 1960's, and 10km from

the capital, adjacent to a permanent township of Tibetan refugees, is 'Kharnakling', a sprawling settlement comprised entirely of migrants from the nomadic communities.

The basic elements of human mobility are the same the world over: space, time and purpose (Parnwell 1993: 27). In this particular study, it is not only a migration pattern which is taking place within a developing world context, but one which is taking place among a nomadic pastoral society, with its own economic, social and cultural specificity. A study that attempts to examine the patterns of urban sedentarisation, the context in which it occurs and the causes and consequences is long overdue in Ladakh.

Studying this process is important for the development of an effective and equitable urban policy for the migrants and to address the needs of those remaining in the origin areas. In formulating such a response, Ladakh's authorities are in a somewhat advantageous position to learn from the past experiences of government and NGO initiated development programs in other countries. These efforts, largely undertaken in countries of Africa and the Middle East during the 1980s, have been widely viewed as failures (Chatty 1996). According to Fratkin (1997: 251) '…government interventions, ostensibly for economic development and for improving range management and livestock, have been uniformly negative and frequently disastrous'. The approach of the local government to the urban sedentarisation in Ladakh has exhibited a sense of benign neglect rather than paternal intervention. It is hoped that by drawing attention to this process, this thesis might initiate discussion and interest among the relevant stakeholders, government and non-government bodies, and ultimately contribute to the development of policy to equitably address the needs of the pastoralists and the negative consequences of urban sedentarisation.

1.4 Migration Research in Ladakh

The steadily increasing flow of migrants from Ladakh's villages toward the capital Leh has not received the attention from the research community that one might expect given its significance as a driver of social, economic and environmental change. This is despite intense interest from foreign and Indian academics in Ladakh, and a proliferation of NGOs in the region. A paucity of adequate population data from secondary sources such as the census or district level surveys is the probable cause for the absence of quantitative research dealing with population mobility in the region.[3] Due to the political sensitivity and internal communal problems in the state of Jammu and Kashmir (J&K), the census record for the whole region is incomplete. In 1981 a nationally coordinated, decennial census was completed by the Indian Bureau of Statistics (IBS). However, in 1991 'disturbed conditions' meant that only projected figures were released. The most recent national census for 2001 was conducted throughout the state. Apart from population totals and basic demographic indicators such as sex, age group, and number of households in each village, the data collected have limited utility in the examination of population mobility. It is almost certain that the mobile populations of pastoralists were not directly enumerated. It appears that population data were compiled from existing village registers and therefore, do not provide the necessary level of disaggregation for further analysis. The Census of India generally provides good migration data, however, questions on migration have not been included in the case of Ladakh, thus greatly restricting efforts to research population mobility issues in this area. [4]

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[3] This is with the notable exception of Crook and Osmaston's (1994) comprehensive and detailed study of villages in Zangskar.
[4] For an overview and appraisal see K. Narayanan Unni (1992).

Among the studies that focus specifically on the nomadic communities in Ladakh, the issue of urban sedentarisation is at most, dealt with briefly in discussions on contemporary change (Ahmed 1996; Dollfus 1999). Such research has largely been qualitative and ethnographic in nature. There are however, two studies that are of particular importance to this research. The first is a documentary account of change among the nomadic population in Ladakh, carried out by a team of researchers for the UK-based NGO ACTIONAID (Chaudhuri 1999). Their report dealt briefly with the issue of sedentarisation but more importantly, included some primary population data for the nomadic communities. Such data are extremely rare in what is a virtual void of population data for the origin communities. Chaudhuri's report was limited to the identification and broad description of the sedentarisation trend, with the main focus on carrying out a broad baseline study to identify community needs. What the report revealed was the need for a description of the migration patterns, with a stronger, more systematic documentation of the process over time and space, in addition to a rigorous investigation into the causes and consequences.

The second relevant study, an MA dissertation, dealt specifically with the rural to urban migration of Changpa to Leh (Blaikie 2001). This particular study focused on only one of the three communities affected (Kharnak) and was largely a destination-end, qualitative study. The author used case studies to identify specific causal factors in the decision to migrate. The results of the present research lend support to Blaikie's findings. Where the present study differs, however, is in its ability to compare and contrast the migration behaviour of the three nomadic communities in order to examine more fully its causes and consequences. This is in addition to bringing a quantitative component to the subject for the first time. Due to the greater scope of this research, it is also possible to expand upon the theoretical aspects

in the interpretation, both in terms of a review of other cases of sedentarisation and in relation to contemporary rural-urban migration in a developing world context.

1.5 Outline of the Thesis

This thesis is organised into eight chapters. Chapters 2 and 3 set out the theoretical and methodological approaches used in the study. This is followed in chapters 4 and 5 by details of the particular context of the case study population. The empirical findings of the study are presented in chapter 6. Chapter 7 discusses the causes of the migration before implications and conclusions are drawn in chapter 8.

A substantial part of chapter 2 is devoted to a review of relevant migration theories and a discussion of the trends and patterns characteristic of rural-urban migration in the South-Asian context. The relevance of these theories to the nomadic situation is then critically assessed. This discussion leads to the formulation of a conceptual framework for the analysis of sedentarisation that is informed by contemporary migration theory and evidence from case studies of sedentarisation. Chapter 3 begins with a general discussion on the approach taken, including the ethical and social justice considerations. Details of the sources of data and the research techniques utilised in the collection of primary data are provided.

Chapter 4 takes a macro-level approach to provide a regional perspective on social and economic transformation in Ladakh. This establishes the context for the subsequent analytical chapters. The first of three sections in this chapter provides details on the regional economy, biophysical environment and population. The second section examines mobility

and development issues in Ladakh including an overview of socioeconomic change, rural to urban migration, and urbanisation.

The first of three sections in chapter 5 deals describes the three research communities to provide a comparative assessment of their demographic characteristics, resource constraints and access to services. The second section outlines aspects of the communities' social and economic organisation that are particularly important in attempting to understand aspects of the migration behaviour. The final section of this chapter deals specifically with the issue of change. Sedentarisation of nomadic pastoralists is seen as a response to both internal and external changes. There are a number of changes that have directly and indirectly affected the Changpas of Ladakh, each of which will be identified and discussed.

Chapter 6 presents the findings of a household survey of migrants. This chapter describes the major spatial, temporal and structural patterns of the mobility, and the characteristics of the migrants, including the selectivity of migration, household composition, and employment details. Results for each of the three migrant sending communities reveal the varied response strategies of each to the similar conditions of internal and external change.

Chapter 7 analyses the determinants of the migration based on motivations reported by migrants, but also based on a macro-level interpretation of the structural and socioeconomic changes outlined in chapters 4 and 5. Case studies of non-migrants will be used to address the important question of why some people do *not* move.

Chapter 8 deals with the implications (social and economic) of out-migration. This is presented in two parts, the first relates to the migrant population in the destination and the second focusing on impacts for the sending areas. In conjunction with the survey data, case

studies are used to illustrate migrants' personal experiences. Part of this chapter addresses the concerns raised in Ladakh and elsewhere, for the future of nomadic pastoralism as a livelihood strategy. It is important to examine such concerns due to the potentially damaging effects for the regional economy if pastoral production in Changthang were to cease. This final chapter also provides a summary of the study's main findings, and an evaluation of the extent to which the specific aims and objectives of the thesis were met. Policy implications and development alternatives are presented, as are further avenues for research on urban sedentarisation of nomadic pastoralists.

1.6 Conclusion

This chapter has provided an overview of nomadic pastoralism and described the trend of sedentarisation affecting these communities around the world. The specific aims and objectives of the thesis have been outlined and a brief introduction to the study area given. A justification for the study was offered on the basis of the need for research to document this important trend and to suggest some policy alternatives to deal with the negative effects of urban sedentarisation. A review of rural-urban migration research in Ladakh also revealed an absence of detailed quantitative research on population mobility in the region. Indeed, in studies of urban sedentarisation of nomadic pastoralists conducted in other situations, it was shown that they rarely include quantitative analysis or contemporary migration theory in their analytical framework. It is toward the important aspect of conceptualisation that we now turn.

CHAPTER 2

SEDENTARISATION THROUGH THE LENS OF MIGRATION THEORY

2.1 Introduction

Much of the literature concerning sedentarisation is ethnographic in nature, and focuses on socio-cultural change (Galaty and Salzman 1981; Jakubowska 1985; Goldstein 1990, 1991; Renfrew 1991; Sellato 1994; Humphrey and Sneath 1999). Contributions have also been made to the field by geographers, and sociologists who have tended to focus on spatial and demographic aspects associated with population redistribution (Meir 1986; Neupert 1992; Randall 1993; Gharakhalou-Narrei 1996; Robbins 1998; Hampshire and Randall 1999). Studies examining the process of sedentarisation tend to be theoretically informed by, and situated within, the development literature. However, as De Haan (1999) has argued, those working within this paradigm have consistently ignored the links between development and migration. As a consequence of their theoretical positioning, many studies have failed to view sedentarisation as a form of internal migration in response to broader socio-economic transformation, and thus to employ migration theory as a lens through which to examine the process. Moreover, those that have drawn on theories of migration to examine sedentarisation, have tended to limit their analysis to just one aspect of migration theory, eg.

push-pull models of decision-making, resulting in a uni-dimensional explanation. No examples can be found in the literature of studies that have taken a multi-level approach in examining sedentarisation. This chapter provides a brief review of theoretical approaches to the determinants of migration and demonstrates the salience of a multi-level conceptual approach to the analysis and explanation of out-migration from Rupshu-Kharnak. First however, a definition of migration will be provided.

2.1.1 Defining and Measuring Migration

> Migration is arguably the most complex of demographic variables. … The volume of migration depends not just on the incidence of movement itself but on the definitions adopted by those who seek to measure it.
>
> Skeldon 1987:1074

Migration is essentially the movement of a person between two locations over a period of time. This basic definition of migration includes both temporal and spatial criteria, however for greater accuracy consideration needs also to be given to social and cultural factors (Boyle *et al.* 1998). For nomadic pastoralists communities, there is a need to distinguish between traditional forms of mobility, that is mobility as a livelihood tradition involving cyclical movements between encampments within a prescribed area, and migration that involves a change in 'cultural and social setting' (Prothero and Chapman 1985). This is a useful distinction for the study of rural to urban migration of nomadic pastoralists as such a move is associated with a significant readjustment in the everyday lives of these migrants, not to mention a reduction in the overall level of mobility. A distinction must also be drawn between

migration, which is often considered to be a discrete event with a degree of permanency, and *mobility*, which can encompass a wide range of movements across space.

Using the criteria of distance travelled or duration of stay, it is possible to identify a broad range of mobility types from Rupshu-Kharnak, including intra-rural (pastoral to pastoral, or pastoral to rural village - predominantly for marriage), inter-district, inter-state (pilgrimage/ religious training), international (historical trade movements), and the more recent phenomenon of rural to urban migration (ostensibly labour migration). An important component of identifying different mobility types is recognising the different degrees of permanency, which is so often neglected in the study of sedentarisation.

A common typology, based on the work of Petersen (1958) relies on the motivational factors behind the migration. This commonly involves identification of the degree of choice or free will that a migrant has exercised, resulting in movement that is either voluntary, impelled or forced. While this division is still popular in contemporary studies of migration (Parnwell 1993; Agozino 2000), McDowell and De Haan (1997) question the usefulness of typologies, suggesting that rather than a discrete boundary, there is a continuum between voluntary and involuntary migration. Generally, the out-migration from Rupshu-Kharnak toward Leh can be characterised as voluntary, in the sense that it has none of the features of the politically-motivated forced sedentarisation that has been witnessed in the Middle-East (Salzman 1980; Barfield 1993; Khazanov 1998; Blench 2001). However, there is certainly evidence to support McDowell and De Haan's (1997) argument, given that in some cases, the migration is both voluntary and impelled.[5]

[5] The use of the term *impelled* is not intended to imply migrants were forced to move in the sense that refugees might be.

Identifying different types of migration is the first step to their measurement. However quantification demands a high degree of rigour in the process of definition. Censuses and surveys conducted at an aggregate scale rely on measurements of time, such as the duration of stay, or space, such as the distance travelled, including social distance (family factors), and residential criteria (change of permanent address) as indicators of migration. Due to the absence of census data on population mobility from Rupshu-Kharnak, this study relies on primary data from a household survey to examine the out–migration from Rupshu-Kharnak. While this has limitations of its own, it does allow for a greater degree of control over the problems of measurement and definition of different types of mobility, and indeed, for the detection of different forms of mobility (Hugo 1988).[6] In defining a migrant for the present study, a combination of temporal and spatial criteria was used to distinguish different types of migrants (long term, temporary, seasonal circular, return). However, one of the most important defining characteristics was a migrant's degree of commitment to the urban area. This involved identifying the degree of investment (financial and social) made by a migrant or migrant household, including the division of household resources between origin and destination areas, rather than relying on a migrant's self-assessment or restrictive definitions based on duration of stay. Hugo's (1983) commitment-based typology, developed for the West Javan context, has been successfully adapted to the study of South Asian rural to urban migration (Afsar 1995) and is utilised in the present study to aid in the identification and measurement of different types of mobility from Rupshu-Kharnak. Using the concept of commitment, which is defined according to the local situation and livelihood context, permanent and non-permanent migrants can be more accurately identified.

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[6] See Section 3.5 'Data Limitations' in the following chapter.

2.1.2 Parameters of the Study

This study is concerned with the rural to urban stream of migration from the communities of Rupshu-Kharnak, particularly to the regional capital Leh. While the research strategy adopted was primarily focused in the urban area, fieldwork was carried out in each of the pastoral communities to determine the range of destinations of migrants. In doing so, the magnitude and direction of out-migration from the communities of Rupshu-Kharnak was established and the primacy of the rural to urban (Leh-directed) migration stream was confirmed (chapter 6). Cases of intra-rural migration to Zangskar, the Markha Valley, and villages in the Indus Valley were also identified. However, cases of migration to larger towns such as Nyoma, or to traditional trading centres located to the south, such as Lahul or Manali were not identified. Evidence from the pastoral communities in Rupshu-Kharnak points clearly to Leh as the primary destination for the majority of migrants. This migration signals an important shift away from traditional, low-level forms of intra-rural migration, towards larger-scale, urban-oriented migration taking place in parallel with the development of the urban area. The migration is associated with the availability of wage employment and services such as education and health care that are found lacking in rural areas of Ladakh and particularly Rupshu-Kharnak.

It is common for studies of urban sedentarisation to restrict their focus to permanent settlers and to just one end of the migration process, usually the destination. The research design of the present study, while focusing on the rural to urban migration stream, is specifically aimed at detecting, if not measuring, different *forms* of mobility within that stream, not simply permanent migration. This is facilitated by the inclusion of both origin and destination communities in the research design.

2.2 Theoretical Approaches to the Determinants of Migration

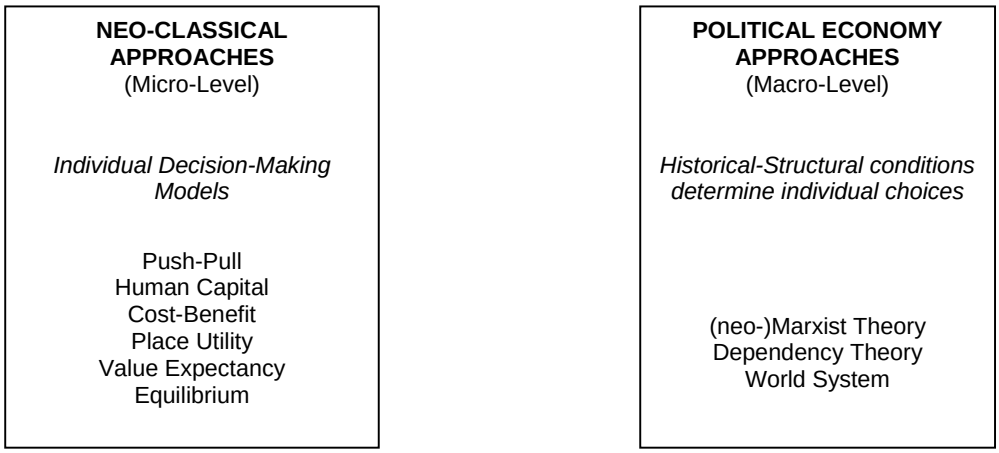
As the discussion on the problems of definition has shown, typologies of migration types and motivations are useful at an exploratory level for identifying broad patterns. However they have limited application in understanding the determinants of migration. Forbes (1981:61) has argued that they are of little epistemological value, as endless descriptive categories generated by individual studies do little to advance theory. A simple categorisation of migration as either forced or free is grossly insufficient to explain the complex set of causal factors that lie behind each decision to migrate. While broad generalisations will be identified in the present study, these will be complemented by case studies and more personalised accounts of migration that acknowledge the heterogeneity within the migrant population.

The purpose of this section is not to provide an exhaustive review of the literature on rural to urban migration in developing countries, but to provide a general theoretical background and justification for the approach taken in this study. This section outlines the most salient theoretical approaches to the study of the determinants of migration, and concludes with a conceptual framework adjusted to suit analysis of rural to urban migration from Ladakh's nomadic pastoral communities.

Migration theory can be crudely separated into those theories that regard migration behaviour as determined by the individual and those which place the determinants within broader structural forces. The following discussion uses this simple dichotomy, which is essentially a micro / macro division, to introduce the various theoretical approaches that have characterised migration research (Figure 2.1). This has been represented as the division

between migration studied by psychologists as an individual phenomenon, and migration studied as a group phenomenon by sociologists. In reality, the study of migration is undertaken by a range of disciplines: demography, anthropology, geography, economics, history, political science – each with their own epistemological assumptions and methodological approaches. After reviewing the major developments within these two main schools of thought, the discussion will turn to more recent efforts to develop an integrated approach to the study migration which attempts to bridge the theoretical tension between the micro and macro perspectives.

FIGURE 2.1 Basic Conceptual Approaches to Migration in the Social Sciences



2.2.1 Individual Behavioural Models

Traditionally migration was seen primarily as an individual matter (Findley 1987: 29); understood to arise from an individual freely evaluating the characteristics between her or his current location and possible alternative destinations with the objective of income or utility maximisation. This assumption translates to philosophical and methodological approaches that focus on migration behaviour at the micro-level. That is, focussing on the behaviour and decision-making processes of the individual.

Ravenstein (1885) is commonly cited as the pioneer of contemporary migration theory and his work has played an important formative role. Almost a century after Ravenstein published his 'laws' of migration, two highly influential papers were presented which built upon this work. The first was Sjaastad's (1962) human capital theory of migration, which proved popular among economists. In this model, migration is viewed as a rational response of individuals to spatial differentials in wages and employment. The decision is viewed as largely driven by economic forces and involves weighing up the costs of migration against the expected returns. Importantly this model also includes a temporal dimension, so that migration can be regarded as an investment decision for an individual based on short and/ or long-term benefits. There is nonetheless a strong emphasis in this model on capital maximisation as the underlying cause of migration. This model was applied to a developing world context by Todaro (Todaro 1969, 1976; Harris and Todaro 1970), and extended to include a measure of the *probability* of finding employment in order to explain the persistence of migration despite increasing rates of unemployment in urban areas. However, while important, wage and employment differentials have since been shown to be poor determinants of migration (Boyle *et al*. 1998:61).

The second theoretical approach to emerge around the same time was Lee's (1966) push-pull theory of migration. Drawing also on the work of Stouffer (1940), Lee's model of push-pull decision-making explains migration as the result of a combination of negative (push) factors in the origin and positive (pull) factors in the destination. An important contribution made by this theory was the recognition that migration is selective. Taking into account 'intervening obstacles' such as distance, family obligations and costs of moving, as well as individual characteristics of the migrant, Lee drew attention to the non-economic factors that can constrain or stimulate migration.

Wolpert's (1965) 'place utility' model went beyond the economic rationalisation of the push-pull models to incorporate the concept of utility maximisation. He depicted migration as satisficing, rather than optimising, behaviour in which migration will occur if a certain threshold of dissatisfaction or stress is reached in the place of origin. Another model to give greater emphasis to the decision-making process of individuals, rather than description and measurement of observable patterns, included the value expectancy model of De Jong and Fawcett (1981). In this model migration is seen as a response to wage and employment differentials as well as to the expected (monetary and non-monetary) costs and returns of migration.

These models share a common focus on the individual and a preoccupation with the decision-making process. Influenced by neo-classical economics, many of the models also view migration as an equilibrating mechanism and they are therefore, largely positive in their assessment of the consequences of migration. A major criticism of the wage equilibrating models, or capital maximisation approaches, is that they assume homogeneity within the migrant population with regard to skills and attitudes. Another implicit assumption is that all migrants have equal access to jobs in the urban sector and to accurate information concerning wages and amenities (Oberai and Singh 1983).

2.2.2 Historical-Structural Approaches

During the 1970s a different approach to the study of migration emerged to challenge the apparent reductionism of the neo-classical theorists. Based on the notion that migration is fundamentally a social phenomenon, the structuralist, or proponents of a political-economy approach, argued that migration is directly related to structural processes and cannot be explained by individual motivations alone (see Amin 1974; Portes 1978). The behavioural

models were criticised for ignoring the political, socioeconomic, and historically specific factors that constrain an individual's freedom of choice. In contrast to the neo–classical approaches, which are based on quantification of the subjective reasons for migration, structuralists view migration as a response to the broader socio-structural changes wrought by the uneven penetration of capitalism (Hugo 1982:71). As capitalism replaces traditional modes of production there is an associated redistribution of labour from the underdeveloped or developing regions (referred to as the periphery) toward the industrialised or developed regions (the centre). One theory within this school of thought is dependency theory, which largely views the process of capitalist development and the relationship between centre and periphery as uni–directional and exploitative. Another is world system theory, which also relies on the analytical division between centre and periphery, but which regards the relationship between core and periphery as less determined (Amin 1977; Wallerstein 1974, 1979, 1983; Taylor 1989). However, the underlying assumption remains that migration is not an isolated process but rather the result of historical socioeconomic transformation involving the uneven development of capitalism (Spaan 1995:27).

Structuralists tend toward a pessimistic view of migration, which stems from their critical view of capitalism and what they see as a fundamentally exploitative relationship between capital and labour. They argue that the associated structures have helped to shape existing spatial inequalities in access to resources, political power and prestige which, in turn act to constrain individual migratory behaviour (UN 1996:40). From the structuralist perspective, the determinants and consequences of migration are grounded in class-relations and must be examined with regard to the social and spatial division of labour, capital and modes of production (Shrestha 1987). The role of class is important determinant of out-migration. The appropriate unit of analysis is therefore considered to be the migration stream, rather than the individual.

Taking a diachronic perspective, structural theory views migration as inextricably linked to the process of societal transformation. An attempt was made by Zelinsky in 1971 to advance a spatio-temporal understanding of the relationship between migration and development. His hypothesis of the mobility transition, published in 1971, depicted five phases of modernisation, from a 'pre-modern traditional society' through to an 'advanced' or post-industrial society, with each phase corresponding to changes in the type and level of mobility. However, the concept of 'modernisation' was only vaguely defined and Zelinsky's mobility transition has been widely criticised for its determinist and universalist assumption that developing countries with follow the same path to 'modernisation' as that of western industrialised countries (Chapman and Prothero 1985; Boyle *et al*.1998). However, Skeldon (1990:31) has argued that rather than rejection, Zelinsky's hypothesis requires modification. He adapted the model to a framework that is better suited to the context of migration in developing countries. He undertakes to combine the spatial and temporal structure of mobility (the micro-level) and to place it within a macro–level context using world system theory. The important contribution made by both Zelinsky and Skeldon is the identification of different forms of mobility and their association with particular phases of development. Whilst care should be taken to avoid a deterministic view of the process of development, efforts to identify broad patterns of association between migration and development should not be dismissed simply on account of a post-structuralist aversion to generalisation. Skeldon's mobility transition provides an important step toward understanding the complex and inextricable relationship between migration and development and it is difficult to disagree with his assertion that uneven development is, in effect, the cause of migration. As Skeldon states (1990: 150), '[p]atterns of population mobility are … intimately related to the overall process of development and any explanation of mobility becomes in a sense an explanation of development'.

Theories within the historical-structural approach have generally been criticised for overplaying the role of structural forces while underplaying the role of the individual and human agency (Forbes 1984). '[I]t is an overly abstract and generalised explanation that ignores the complexity of human society…' (*ibid* :155). Despite their very different political orientations, the historical-structural and neo-classical approaches share a deterministic view of migration that has attracted criticism from those working from a humanist perspective (Boyle *et al*. 1998). The two approaches also share the underlying assumption that spatial economic disparities are the cause of material-based migration streams (Shrestha 1987:331). The fundamental distinction between the historical-structural and neo–classical approaches, is that the former conceptualise migration as an inevitable response to a particular set of circumstances, whereas the latter regard it as the result of wholly individual action (Wood 1982:302; Boyle *et al*. 1998:59).

2.2.3 Multi-level Models: Working Toward Integration

Wood (1982) argues that it is possible to combine the two paradigms and that they are in fact complementary. It is not the case that either the behavioural models or the structural models have been discredited, but rather that if used in isolation, they provide only a partial explanation of migration. The present study contends that, in combination, the micro and macro perspectives have much to contribute to an understanding of out-migration from nomadic pastoral communities. The following discussion outlines appropriate conceptual and analytical methods to achieve this integration, as suggested in the literature.

The Role of Context

An early advocate of macro-micro integration was Mitchell (1970; 1985) who drew attention to the dual importance of the broader economic and political context, which he termed the *setting,* and the particular socio-cultural context of the migrant, referred to as the s*ituation.* While he still focused on the decision-making process, Mitchell stressed the importance of viewing the migration of individuals as a form of adjustment to changes occurring within the broader social system.

Structuration Theory

The divide between the structural and human capital perspectives is one that is not limited to the study of migration, but reflects an enduring problematic between human agency and social structure that confronts all those working in the social sciences. Structuration theory (Bourdieu 1977; Giddens 1979; 1984), has more recently, presented a way forward for migration theorists attempting to overcome the determinist-humanist divide (*cf.* Forbes 1984). According to this theory, individual action (human agency) is selectively influenced by the broader structural forces which constitute society. However, because society is the product of human agency, primacy cannot be accorded to either the individual or society, as each is locked into a recursive process of transforming and (re)producing the other (Forbes 1984:160; Boyle *et al*. 1998:79).

Household-Level Analysis

In recognition of this dialectic relationship, a number of authors have proposed the use of larger social units of analysis, such as the household or family, as a way to bridge the 'false dichotomy' between society and the individual (Hugo 1981; Wood 1982; Findley 1987; Billsborrow *et al.* 1987; Massey 1990; Guest 1993). It is argued that migration should be viewed as a broader group strategy as households and families are the 'principal agents of

decision-making' (Massey 1990:4). As the decision to migrate is increasingly viewed as a household or family strategy, attention has also turned to the issue of power relations along gender and generational lines, which reflect the cultural values of a society (Boyd 1989: 657; Chant 1991).

New Economics of Labour Migration

Also viewing migration as a family-linked phenomenon, Stark and Bloom's (1985) 'new economics of labour migration' conceptualises migration as a strategy, not aimed solely at increasing income and wealth, but more importantly, as one which aims to minimise risk to the household economy. Risks to the household's economic wellbeing are reduced through the allocation of household labour resources and diversification of the household income. This explanation of migration is particularly relevant to countries in the developing world where income insecurity, due to insecure labour markets and limited capital and credit markets, can be met through diversification of the household labour resources. Risk aversion arguments have been central to the explanation of circulation and other forms of non-permanent migration in developing countries (Hugo 1982).

Cumulative Causation

An excellent synthesis of the major developments in migration theory is presented by Massey (1990). He expands the multi-level models of migration by reintroducing Myrdal's (1957) concept of *cumulative causation* and shows how feedback mechanisms operate at the micro- and macro-levels to reinforce the self-perpetuating character of migration. Crucial to the development of self-perpetuating migration flows, and to the view of migration as a household risk minimisation strategy, is the facilitating role played by social networks.

Social Networks

Massey *et al*. (1993: 198) define migrant networks as '… sets of interpersonal ties that connect migrants, former migrants, and nonmigrants in origin and destination areas through ties of kinship, friendship, and shared community origin'. Networks operate at both the origin and destination by providing information about opportunities available in the urban area as well as providing newly-arrived migrants with financial or social support and assistance finding employment and housing. Social networks have been shown to increase the likelihood of migration through lowering the costs and risks of movement for subsequent migrants (Hugo 1981). Evidence of their vital role in migration in the developing world has come from numerous studies conducted in Africa, South-east and South Asia, and Latin America (Caldwell 1969; Hugo 1975; Connell *et al*. 1976; Skeldon 1977).

Community-level Characteristics

It is not sufficient however, to simply replace the focus on individual decision-making with a focus on the household or family (Skeldon 1990:23). Indeed, there is an inherent risk of reification of the household or family, which is after all, a culturally determined social grouping with its own internal dynamics of conflict and power relations (Boyd 1989:657). Drawing on Mitchell's concept of *setting* and *situation,* a number of authors have argued that characteristics at the place of origin must also be included in an integrated model of migration because the socio-economic context will significantly influence the decision-making of individuals or households (Gardner 1981; Findley 1987; Bilsborrow *et al*. 1987). According to Hugo (1988: 392), '… the community offers a meaningful and manageable unit in which both micro and macro influences on migration can be considered together'. This effectively adds a meso-level to the integrated model of migration. Findley (1987) argues that it is critical to include the community-level factors, because objective indicators of a community's level of development can be used to explain the spatial variability in migration patterns. In contrast to

Zelinsky's (1971) and Skeldon's (1990) perspectives on the relationship between migration and development, she argues that the relationship is spatial rather than diachronic. That is, communities respond differently within a similar context of socio-economic transformation, because of the way in which community-level factors mediate structural change. This challenges the concept that development, or the process of socio-economic transformation, is a linear or universal process that will be replicated in all peripheral areas or developing countries alike (Chapman and Prothero 1985).

Including the community as an additional level of analysis permits the livelihood context and socio-cultural factors to be taken into account. This is particularly relevant for the present study due to the influence of socio-cultural, political and socio-economic factors associated with the pastoral livelihood. Existing theories concerned with internal migration in developing countries emanate almost entirely from studies conducted in agrarian settings. In the context of nomadic pastoralism, there are issues of governance, access to and distribution of resources, labour requirements *et cetera,* which are expected to influence (both constrain and stimulate) out–migration from Rupshu-Kharnak in ways that differ from societies based around agricultural modes of production.

Furthermore, the literature on rural to urban migration has largely come from empirical analyses of lowland areas. A number of authors have convincingly argued however, that characteristics particular to high mountain areas, such as inaccessibility, resource limitations and sensitivity to population change, lead to trends in population mobility that differ from the models developed for lowland areas or in Western settings (Conway and Shrestha 1980; Grötzbach 1984; Skeldon 1985; Smethurst 2000). While Kreuzmann (2004) has highlighted the danger of geographical or ecological determinism that can result from such an

association, consideration will nonetheless be given to the particular environmental constraints as they form an integral part of the contextual framework.

Systems Approaches

Of further importance to the analysis of migration, is the view of migration as a system in which places are linked, not only by the movement of people, but also by diverse flows of information, goods, services and ideas. A community's linkages with external economies must also be viewed within a historical context (Grötzbach 1984; Fawcett 1989). The key features of a migration systems approach include a focus on both ends of the migration process, examination of stability as well as mobility, an emphasis on the interconnectedness where change in one sector effects change in other parts of the system, and the assumption that migration is a dynamic process involving a sequence of events occurring over time (Fawcett 1989).

According to Bilsborrow *et al*. (1987:191), a model that incorporates both micro-level (household and individual) factors with the areal, or macro-level, factors is particularly important if one hopes to derive policy implications from the findings. An integrated approach to migration also recognises the methodological constraints of previous neo-classical and historical-structural approaches, which have been criticised for being overly deterministic and positivistic. This has led to calls for greater use of migrant histories and other qualitative research techniques, which do not strive to quantify or establish generalisation, but rather to gain depth of information through the more personalised accounts of migrants. Toward this aim, Massey (1990) advocates the need for a multi-disciplinary approach. Not only to advance the theoretical understanding of migration through enhanced communication and collaboration, but to improve upon the methodological techniques used by researchers in the field.

2.3 Conceptual Framework for the Study of Out-Migration from Rupshu-Kharnak

Based on the preceding discussion, migration is conceptualised as a 'social and economic process that involves inherent relationships across time, space and levels of analysis …' (Massey 1990:19). Households and social networks are viewed as integral elements of this system. Boyd (1989:642) describes the relationship between macro and micro-levels of analysis more explicitly when she states:

> Whether migration occurs or not, and what shapes its direction, composition and persistence is conditioned by historically generated social, political and economic structures of both sending and receiving societies. These structures are channeled (sic.) through social relationships and social roles which impact on individuals and groups.

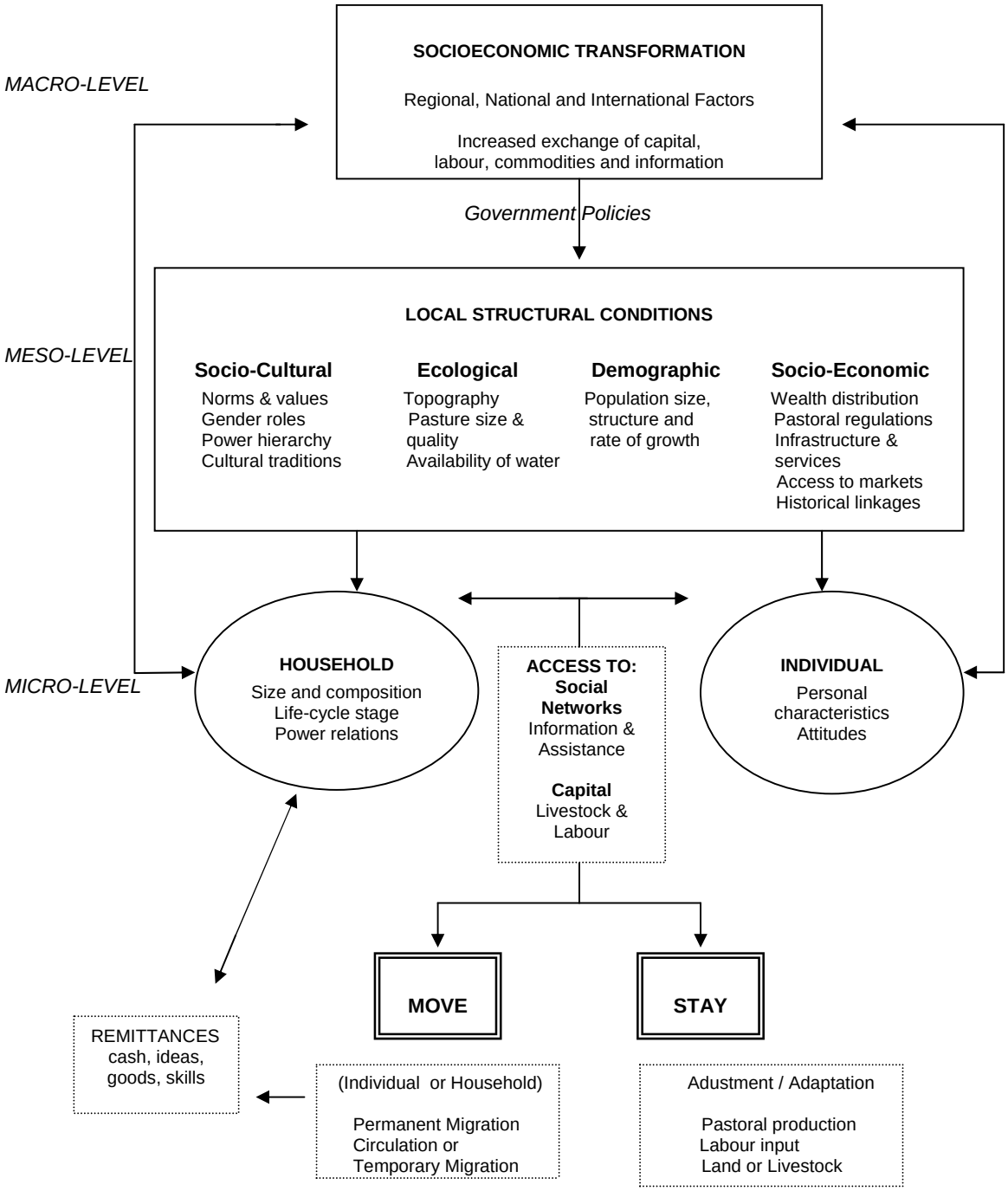
The multi-level approach taken in this study is reflected in the organisation of the thesis, as the perspective shifts from the macro 'setting' through to the micro 'situation' of migrants. chapters 4 and 5 establish the context of socio-economic transformation at the regional and community levels, while chapters 6 and 7 sharpen the focus to include details of migrant characteristics and personal experiences. It is clear that the opportunity for unskilled migrants to obtain wage labour employment in the urban area has underpinned the movement of migrants from the nomadic pastoralist communities toward Leh. However, socio-cultural, political and economic conditions at the village level must be conducive for the out-migration to take place. Not only this, but a migration stream requires information flows and networks of actors operating between origin and destination areas to facilitate (and

perpetuate) the flow of migrants. In this way, the macro causation (structural context) is used to explain *why* the migration is occurring, but importantly, the micro stimuli are also explored, including personal traits, gender ideology, power relations, socio-economic and community level factors, which will determine *who* takes part. Figure 2.2 summarises the conceptualisation of migration from Rupshu-Kharnak. Migration is depicted as a system in which change at one level can effect change in another part of the system. Remittances and social networks play a crucial role in fostering this recursive process. Remittances do not simply refer to the flow of money from the urban area back to the rural community, but rather, to the exchange of information, goods, cash and ideas between the two locations (McDowell and De Haan 1997). The specific factors to be considered at each level of analysis, in the context of out-migration from Rupshu-Kharnak, will now be briefly outlined.

Macro-level Factors

The process of socio-economic transformation draws rural areas into the urban and national economy through an increase in the flow of commodities, labour, information and capital (Spaan 1999). With greater integration, new opportunities arise for members of rural communities, which can lead to increased mobility. These changes can affect local production, social relations and resource distribution. Establishing the broader structural context of migration involves careful analysis of the institutional framework within which the processes are taking place. That is, consideration of the direct and indirect effects of government policies on mobility (Shrestha 1987).

FIGURE 2.2 Conceptual Framework of the Determinants of Out-Migration from Rupshu-Kharnak



Source: Adapted from UN 1996:45 and Spaan 1999:56

Meso-level Factors

> Population movement involves individuals and families making a decision in a social and economic environment, and hence is profoundly influenced by the specific context in which the decisions are made …
>
> Hugo 1988:378

The way in which communities respond to changing socio-economic conditions depends also on the community context, or local structural conditions, which are expected to mediate the macro-level changes and result in spatial differentials in the level of out-migration. The various factors operating at the community level are grouped into four main categories: socio-cultural, ecological, demographic and socio-economic factors. To deal with each of these in turn:

- Socio-cultural factors are expected to influence (both positively and negatively) the potential for migration. This would include factors such as local traditions relating to marriage, inheritance, gender roles, as well as social obligations and power hierarchy within the community. It is also important to consider the local perspectives and attitudes toward migration. In their study of seasonal labour migration in the Sahel, Hampshire and Randall (1999) found that the prevalence of this particular form of migration among different pastoral communities was determined by the degree of social acceptance of the strategy. Social stigma associated with labour migration had constrained its uptake in one community. However, in an adjacent community there was a high degree of participation in circular labour migration, which was widely viewed as a positive, optimising strategy.

- Ecological conditions at the community level have the potential to impact upon pastoral productivity. Factors such as topography can affect the microclimate and severity of

snowfall events. It is necessary to compare local ecological conditions in each of the communities to determine whether there are significant differences in terms of the quality or quantity of the natural resources - pasture and water - which govern the level of pastoral productivity.

- Demographic factors are fundamental to understanding levels of out-migration. It is necessary to examine evidence of population growth in each of the communities, given that recent developments such as the decline in polyandrous marriages, improved food security, and improved access to health and medical services may reasonably be expected to have resulted in population growth. Given the constraints on available pasture, it is assumed that any significant increase in population would have serious implications for local resource use and thus result in out-migration.

- Socio-economic factors at the community level include: access to resources (pasture, water, agricultural land, non-pastoral employment opportunities), local governance and pastoral regulations, infrastructure and services (ie. observable measures of 'development'), and historical linkages (trade networks). In addition, the distribution of wealth has been found to be a significant factor in rural out-migration. Greater socio-economic differentiation within a community has been found to correlate with higher levels of out-migration (Findley 1987). This occurs in a curvilinear pattern, so that the poorest and wealthiest households are most likely to migrate (Connell *et al.* 1976; Lipton 1982; Findley 1987). The issue of wealth, or social 'class' among pastoralists will be discussed in greater detail in the following section dealing with micro-level factors. The local economic organisation and historical trade relations are also important. In his comparative study of Iranian pastoralists, Bradburd (1989) found that out-migration was not determined by socio-economic stratification *per se*, but rather by a community's social

and economic organisation of production. He found that labour displacement, brought about by a shift in commodity production, was a significant cause of out-migration.

Micro-level Factors

Both household and individual level factors are included within the analysis conducted at the 'micro-level'. The household, which is defined in chapter 5, forms an integral part of the economic activity, social organisation and cultural life of the Changpa, and therefore exerts a strong influence over the individual. Within this context however, the propensity for migration is also influenced by the personal characteristics of individuals. These factors include demographic characteristics, such as age or sex, as well as more subjective characteristics, such as perceptions, values, and attitudes.

The way in which a household or individual responds to socio-economic change is determined by access to resources. In contrast to an agrarian setting, where socio-economic status is determined largely by ownership of, or secure access to, land, among pastoralists the 'means of production' (ie. pasture and water) are a common property resource to which all community members have equal access. In this context, wealth is determined by ownership of livestock and access to labour resources. Hampshire and Randall (1999; 2000) have pointed to extra-household social networks as an additional source of household wealth for potential migrants, as these networks constitute a vital resource in providing access to information as well as material and psychological support in the destination.

Of course, access to resources is a reflection of socio-economic status, or one's position relative to others in the society. Marxist-inspired theorists have shown migration to be a class-specific phenomenon (Arizpe 1981; Shrestha 1987). Different social classes are affected in different ways as the capitalist mode of production expands into rural and

peripheral areas (Spaan 1999). It is argued that the resources upon which a household can draw in response to socio-economic change leads to different migration behaviour among different classes. For example, wealthier households are in a position to send their children as permanent migrants to the urban area for education and secure employment and this ultimately acts as an accumulation strategy for the household. For households with average incomes, migration to urban areas is part of a consolidation strategy aimed at supplementing household income, which is commonly achieved through the circulation of household members. Migration to urban areas among the poorest members of a community is often a survival strategy and can involve either permanent or circular migration for employment in the informal sector. The relationship between class and out-migration among nomadic pastoralists is, however, ambiguous. Barth's (1961) seminal work among the nomads of South Persia forms the basis of the often repeated claim that sedentarisation is most common among the poorest and wealthiest members of the community (Salzman 1980; Barfield 1993; Chatty 1996). However, more recent studies have arrived at a conclusion that more closely reflects that of the political-economy migration theorists, finding that socio-economic status does not determine participation in out-migration but instead, influences the nature of mobility (Bradburd 1989; Hampshire and Randall 1999). Chapter 5 deals with the issue of socio-economic stratification among the Changpas in greater detail.

Other important factors operating at the household level that are expected to influence mobility, include household lifecycle stage, size, and composition, as well as intra-household power relations. Household lifecycle stage is expected to influence mobility in ways that contrast to agricultural settings due to the particular labour requirements associated with nomadic pastoralism. Vulnerability, and thus propensity for out-migration, is expected to be higher for households in the incipient stage of formation, rather than increasing with maturity of the household as has been found in studies conducted in agrarian settings (Afsar 1995).

It is important to recognise that migration is just one possible response to stress or change. Alternative responses to sedentarisation will also be examined, including analysis of non-permanent forms of migration (circulation, temporary migration), as well as non-migration and in-situ adaptation or adjustment. The opportunity for adaptation through technological improvements in Rupshu-Kharnak is somewhat limited due to the inherent constraints on pastoral production in such an inaccessible and marginal environment. Options for supplementing household income within the pastoral communities, such as contract herding, local wage labour, or engaging in commerce, are similarly limited in Rupshu-Kharnak. Issues of adaptation involving the use of hired labour, livestock development programs and economic programs (trading cooperatives), will nevertheless be examined. Efforts by the government or local NGOs that have attempted to improve, or 'develop', pastoral production and reduce the level of risk in the livelihood have so far proven unsuccessful. There are numerous examples in the literature on nomadic pastoralism of well-intentioned pastoral development projects that have aimed to increase productivity through technological innovation, yet which have led to unsustainable herding practices due to a failure to recognise the internal logic of traditional pastoral management practices (Mace 1991; Fratkin 1997; ICIMOD 1998; Bauer 1999; Miller 2000).

2.4 Conclusion

By providing a brief overview of the significant developments in migration theory, this chapter has established the theoretical grounding for the present study in addition to providing a conceptual framework that is tailored to the analysis of out-migration from Ladakh's nomadic pastoral communities. While McKendrick (1999) has stated that one should not expect an

essentialist progression from epistemology to methods, the emphasis on an integrated approach to migration outlined in this chapter nonetheless progresses quite naturally to a mixed-methods approach to fieldwork and data collection. The following chapter provides details of the methods of inquiry and sources of data utilised in this study.

CHAPTER 3

DATA AND RESEARCH METHODS

3.1 Introduction

With the positive move in the social sciences toward a more reflexive approach to research, there is an inherent danger that the associated terminology becomes a screen for what has actually taken place on the ground. As Eriksen (1995: 16) warns: '… a vaguely defined research technique, may serve as a convenient blanket term to conceal both ethical and methodological shortcomings in the actual research process.' The purpose of this chapter is to describe in detail the sources of data used in this study and the methods of data collection, processing and analysis. We begin with a discussion of the context within which the research took place. As Stratford (2000) points out, the importance of doing this is to demonstrate that the work was undertaken for intellectually and ethically justifiable reasons.

3.1.1 Methodological Approach

The most effective means for obtaining good quality information is to employ a flexible (and varied) methodology in order to enhance the quality and reliability of the data. For the present study, quantitative research techniques such as household surveys were used in conjunction with qualitative methods of data collection including unstructured informal interviews, case studies and detailed observation. Influenced by the approach of McKendrick

(1999) Graham (1999; 2000) and Findlay and Li (1999), this study has utilised a multi-methods approach that has combined qualitative and quantitative sources of data.[7] To a large extent this reflects the essence of geographical inquiry, which is to employ a range of relevant techniques in order to comprehend varied and often complex phenomena. This approach is particularly well suited to a study of this nature, which sets out to document changes in a nomadic pastoral society in a context of limited statistical data. As Hampshire and Randall (1999: 369) discovered in their study of nomadic pastoralists in the Sahel, studies of an exploratory nature often involve an iterative process of determining what indeed the right questions are. Qualitative research techniques are best suited to this situation and for exploring causal factors in migration behaviour. The combination of qualitative and quantitative research techniques in a mixed methods framework can lead to better (stronger) inferences and can incorporate a greater diversity of views (Tashakkori and Teddie 2003).

3.1.2 Ethical and Social Justice Considerations

Ethical considerations in research are not limited to the researcher/ subject relationship, although this will be discussed later with regard to positionality.[8] Rather, a broader conceptualisation of research ethics involves the identification and justification of the epistemological assumptions that underlie the approach taken. This study is set within an empiricists or interpretivist research paradigm which is characterised by a belief that reality is measurable to some extent, but by its nature, reality is also multiple and constructed. Events are understood in relation to a subject's intentions within a social context, not simply as cause

[7] As distinct from multi-method research, which can be restricted to quantitative or qualitative sources of data, the term *mixed*-methods highlights the combination of two types of data.
[8] Baxter and Eyles (1997: 520) emphasise the need to make explicit the relationship between the interviewer and the interviewees as this has a profound effect on what becomes the 'data'.

and effect (Smyth 1994). A distinction is often drawn between research that is political in its intent and research that is oriented toward generating explanations. This implies that connecting research to social justice goals is only possible with criticalist methodologies such as action research. This research attempts to address some of the apparent limitations of the interpretivist approach, including the question of relevance of the research to the participants' own lives; and the possibility of perpetuating power imbalances between developed/ developing nations through the use of research methods that rely on so-called 'extractive' techniques and what might be seen as an externally-generated research question

It was possible to address these concerns without simply rejecting the empiricist/ interpretivist approach. No approach to social research is free of shortcomings; the challenge is how to minimise these. Techniques employed in the present study, included: reflexivity in writing, ethical conduct in the field and in data handling, and ensuring that the dissemination of findings was an integral part of the research plan.[9] Furthermore, the research question was emerged from debate among local and international academics and NGOs. During the ninth colloquium of the International Association of Ladakh Studies (IALS), there was general agreement of the lack of research documenting social change and the absence of socioeconomic data to support this. In this way, this study fosters an informed policy debate in Ladakh concerning rural development, socioeconomic transformation and migration.

[9] Providing informal english classes and tutoring to school students in Leh, where I was based, proved to be a rewarding and very practical way to reciprocate the good will that the migrant community had shown toward the project.

3.2 Fieldwork: An Overview

Fieldwork was divided into three separate stages and spread across a ten-month period between 2000 and 2001. The main reason for this relates to Ladakh's dramatic seasonal shifts in climate, which have implications for the efficacy of fieldwork. Due to its altitude, Ladakh's climate is essentially reduced to two main seasons, a long and very cold winter, and a brief but mild to hot summer. The summer period (approximately June to September) is the peak tourist season, which also coincides with the busy harvest season. It can therefore prove difficult to find translators, or to carry out interviews with people for whom spare time is so limited. In winter however, (approximately November to March) the contrast is marked. The three-month school holidays fall during this time, government offices keep restricted hours, tourism-related businesses close, and the Kashmiri traders close their shops and follow the tourists to warmer climes. The streets of the usually bustling main bazaar are lined with roller shutters and wooden doors securely padlocked shut. The only two land routes into Ladakh remain blocked by snow on the high passes for up to six months and, although it is still possible to fly into the capital during this time, tourist numbers are vastly reduced. With little or no agricultural work to be done, locals have more time to spare.

Timing the fieldwork during the winter proved highly effective, particularly for the destination-end work. Many of the migrants based in and around Leh rely on harvesting and construction work that is limited or unavailable during the winter. Thus it was more common to find respondents at home during the day. Staging the household survey of migrants during the winter also ensured that the maximum number of migrants would be included. This is because a significant number of migrants engage in seasonally-based, circular migration,

spending only the winters in Leh and herding their livestock in Rupshu-Kharnak for the remainder of the year.

In a study which aims to examine both the causes and consequences of migration, not only is the size of the sample important but also adequate representation of the types of movers. This is because the type of mobility influences the impact of that migration, not only for the migrants and their families but also for their places of origin and destination (Hugo 1982: 190).

In contrast, the summer months proved to be the best time to carry out work in the origin communities of Rupshu-Kharnak. Although temperatures can still drop to freezing during this time, the financial, physical and logistical difficulties of attempting to work beyond the summer period excluded it as an option.[10] Apart from the extreme cold during the winter months (down to minus 40 degrees Celsius), changes in the migratory patterns also present problems. For example, the Korzok Changpa move their livestock to pastures close to the Tibetan border, an area of high security that is strictly prohibited to non-Indian nationals. It is also common for each community to divide into smaller satellite migratory groups, further complicating access. An important consideration when planning the present study was the permit system operating for foreign nationals. Due to political sensitivity, many of the border areas of Ladakh have only recently been opened to tourists and movements are tightly controlled through a one-week permit system. The area of Rupshu-Kharnak is included in this regulatory system with Korzok being the more difficult area to access due to a check-post

[10] Fieldwork was carried out by a research team in Rupshu-Kharnak during the winter of 1998 (Chaudhuri 1999), however it necessitated a large support team of cooks, drivers, translators and other experienced leaders from a local NGO. The effort also required generous financial support from an Footnote continued on next page

located on the main access road.[11] The limitations imposed by the permit system reinforced the need to carry out fieldwork in these areas during the summer when work conditions maximised the efficiency of progress.

During the summer there is a reasonable flow of traffic on the Leh – Manali Road that passes between the areas of Kharnak and Samad. Local buses and trucks travelling along this road provided a cheap and reliable form of access to and from the study areas. Reaching Korzok was more difficult as it involved taking an eight-hour bus trip to a branch road, then hiking in over two and a half days.[12] During visits to the origin areas we were self-sufficient, trekking in from the road without pack animals, and bringing our own stove, fuel, tent and food supplies. We were often invited to a meal with a family and brought eggs, spices, and fresh vegetables from Leh to offer in return for their hospitality.

Prior to the commencement of fieldwork in 2000, a brief visit was made to Ladakh to coincide with the 9th Colloquium of the International Association of Ladakh Studies (IALS). This is a multi-disciplinary group comprised of local and international researchers whose specific focus of research is Ladakh. This meeting provided an opportunity to discuss and fine-tune the proposal for the present study with IALS members. During this visit a brief trip was also made to the Changpa community at Korzok to gain an understanding of the logistical demands and general conditions to be encountered when working in the origin areas. While

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international aid agency. Despite the technical assistance and funding, problems were still encountered gaining access to the communities due to passes blocked by snowfall.

[11] It is therefore very difficult to bypass the check-post or to overstay in the area. It was easier to enter and remain in Kharnak and Samad as check-posts were fewer and both communities can be accessed via the Leh to Manali road.

[12] Traffic between the main road and the settlement of Korzok is very sparse. We were lucky on one occasion to get a ride in the back of a truck, which increased our working days in the community from just three to five.

in Leh contact was made with local NGOs and potential sources of population data were investigated. It was determined that a survey would be necessary due to the absence of data. However, due to the absence of a sampling frame, a survey of the whole migrant population would need to be attempted rather than a sample survey. Initial estimates for the number of migrants based in the urban area suggested that a census-type survey would be feasible within the time constraints of the study.

The first stage of fieldwork took place the following year between February and April, working from a base in Leh town. Activities were focused at the destination and included language training, carrying out exploratory interviews with key informants and searching for relevant secondary data. During this period data collection commenced for the household survey of migrants. Work initially centred on the large migrant settlement, Kharnakling, which is located 10km from Leh. Every occupied household in the settlement was included in the survey, yielding a total of sixty surveys. The search for migrant households was then extended to the larger and more mixed migrant settlement adjacent to Leh town, known as the Housing Colony. At this time, a further fourteen Changpa households were located and interviewed. Because this stage of fieldwork took place during the winter, it was not expected that any visits to the origin areas would be possible. However, an opportunity arose to join a local NGO with a long history of involvement in Rupshu-Kharnak, the Leh Nutrition Project (LNP), on a ten-day health camp in Rupshu-Kharnak.[13] Travelling with such an experienced and highly respected team provided an invaluable introduction to each of the origin communities, in addition to providing a glimpse of winter conditions in Changthang. It was possible during

[13] LNP organised the visit to Rupshu-Kharnak accompanied by health professionals and also a veterinarian. Vaccinations and general health checkups were provided in each community. Although irregular and dependant upon funding, these visits were often the only opportunity for the nomadic populations to get access to basic health care during the winter months.

this visit to establish contacts in each origin community for the approaching period of summer fieldwork.

The second stage of fieldwork commenced in June 2000, lasting five months. This included both the peak summer period and also the early winter to allow for work in both the origin and destination areas. Between July and August, all three of the origin communities were visited and a total of four weeks was spent in the nomadic communities. In addition to detailed observation, a total of thirty-two in-depth interviews were conducted in these communities. During the summer period a series of unforseen disruptions were encountered that confined the research activities to Leh. These included strikes and curfews in Leh town due to communal unrest, and unusually heavy rainfall that caused wide-scale damage to the road system throughout the region and prevented access to Rupshu-Kharnak for three weeks. As winter approached, work continued in the destination tracing the longer-term migrants for inclusion in the household survey. An additional seventeen migrant households were located in the housing colony, in sub-divisions of Leh town and also in villages in the Leh District.

The third stage of fieldwork was undertaken almost a year later in October 2001. In the intervening period, analysis of the household survey data was carried out. The data analysis revealed a sub-set of cases to be revisited and interviewed at greater depth upon returning to the field. Prior to returning to the field in October, a paper including preliminary results of the analysis was presented at the IALS conference in Oxford (Goodall 2001). This provided an important opportunity to receive feedback before commencing the final stage of fieldwork. Fieldwork during the final stage was limited to the destination. The household survey was concluded with the identification of twelve longer-term migrants located in villages near Leh. A sub-set of migrants, purposively selected from the household survey, was revisited and twelve in-depth interviews and case studies were recorded. Techniques of purposeful

sampling are particularly useful for exploring patterns or theories as they emerge from the data (Patton 1990). In the process of revisiting the migrant settlements, the household survey was checked for errors, and new cases of migration or return migration were noted.

Collection of secondary data took place during each stage of fieldwork. This included data from government departments, NGOs, and libraries in Leh to provide background information relating to Changpa population, regional history and social and economic changes. During the final stage of fieldwork all of the major hostels and residential schools in Leh were surveyed to identify the number, age and sex of children from the nomadic communities.[14] Table 3.1 presents a summary of both primary and secondary data collected during each stage of fieldwork.

3.3 Secondary Data

A variety of secondary data sources were utilised in this study. As discussed in section 1.4, macro-level data on the out-migration and settlement of nomadic pastoralists in Ladakh is essentially non-existent. The traditional source of data on population mobility, the population census, has in this instance proven inadequate for the purpose of identifying patterns of migration. Dealings with the district level census office did not instil confidence in the accuracy of the published figures. It is possible that the mobile communities were only enumerated indirectly, for example, by using data collected by government offices in Leh.

TABLE 3.1 Chronology of Fieldwork and Data Collection

Stages of Fieldwork	Season	Focus Area	Work Undertaken
I. 2000 Feb. - April 3 months	Mid to Late Winter	Destination + Reconnaissance in Origin	• Language training • Key Informant Interviews • Household survey of Migrants N. 74 • Reconnaissance to Rupshu-Kharnak • Secondary data collection
II. 2000 June – Nov. 5 months	Summer through to Winter	Three Origin Communities + Destination	• Case studies and in-depth interviews conducted in Origin areas N. 32 • Household survey of migrants in Leh – tracing longer-term cases N. 17
III. 2001 Oct. – Nov. 2 months	Early Winter	Destination Only	• Household survey updated and checked Tot. N.103 • Case studies and Migration Histories recorded N. 12 • Secondary data collected

This would explain the inconsistency between population data generated by independent researchers in the field and the official census totals for 2001.

> Census materials, particularly those from developing countries and those carried out in remote locations, tend to be of uncertain quality. They are often plagued by under-reporting of individuals and vital events (births and deaths). There is no reason to believe that the Ladakh census is immune to such problems.
>
> Wiley 1998: 463

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[14] It was hoped that similar data could be collected from Nyoma, the town closest to the nomadic pastoral areas and block HQ. However a permit to travel there could not be obtained and subsequent attempts by my field assistant (AJ) to collect the information were unsuccessful.

Sander (1983:188) encountered similar difficulties in relation to looking at population growth among Ladakh's Buddhist and Muslim populations. He found the data to be too problematic to be useful for long-term trend analysis. Problems included shifting political boundaries which affected enumeration, inaccuracy due to non-enumeration (estimates obtained from villagers). An important point raised by Sander in his critique of the census questionnaire is that it does not allow for the identification of the *kangchen* (main household) and *kangchung* (the subsidiary household) in Ladakh. Jina's (1999) work on the nomadic pastoral communities of Rupshu-Kharnak provides a case in point, where a failure to distinguish between the main and subsidiary households led to wildly inflated population estimates.

Given these problems, a range of alternative sources of data indicating population size and characteristics was sought. Reliable population data were available for one of the three origin communities from an unpublished ACTIONAID report (Chaudhuri 1999). One reliable source of supplementary population data used in this study was the unpublished population records kept by various NGOs and government departments in Leh. In many cases, organisations conduct their own village census prior to initiating a development program. Such studies were usually formulated around a single-issue, and conducted over different spatial and temporal contexts, yet they often held quite detailed information.[15] Examples of such sources of data include immunisation records for the nomadic communities from the office of the Chief Medical Officer (CMO) in Leh, and records from LNP, which included data on livestock numbers, economic ranking of households and population records for each of the Changpa communities.

Another reliable source of information is the library of the long-running local NGO Ladakh Ecological Development Group (LEDeG). This library acts as a centralised bank of information where copies of inaccessible items, such as dissertations and unpublished reports are kept. A review of historical references was also made in the search for pre-migration population figures. Observational accounts of the Changpa communities made by early European explorers were located in the LEDeG library in Leh, and at the Indian Institute Library at Oxford's Bodleian Library.

As migrants were identified for the survey according to the household unit, there was the potential for excluding migrant children who are sent to hostels and boarding schools in Leh or other main towns, while the rest of the family remains in Rupshu-Kharnak. For this reason, hostels and residential schools in and around Leh were checked for children from Rupshu-Kharnak. A number of cases were revealed, particularly in Leh, however not at levels to significantly interfere with the results of the household survey. It was important to investigate this issue however, in order to determine its relative importance, and to investigate the possibility of gender-selective bias in sending children to school.

3.4 Primary Data

Primary data for the present study consist largely of a household survey, interviews and case studies that were conducted among migrants in the destination area. In addition, non-migrants and return migrants in each of the three origin communities were interviewed.

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[15] To bring this kind of information together would be a very useful but extremely challenging exercise. Retrieving such records was often complicated by the lack of an adequate filing system. It often proved
Footnote continued on next page

3.4.1 Selecting the Study Areas

A key stage in the planning of any research project involves defining the boundaries. The final balance achieved between breadth and depth of information is determined by restrictions of time, funding and technical feasibility. An additional consideration when studying processes of mobility is to determine where, among the spatial contexts of migration, the research efforts are best focused. The majority of studies of migration conducted in developing countries have a destination, or urban focus (Hugo 1981: 216). However, critical to understanding why people move, is investigating why others do *not* move (DeJong and Gardner 1981)**.**

Not only is it important to include both origin and destination communities in a comprehensive study of migration behaviour, but Hugo (1981) goes further to suggest that the intermediate stages of migration, such as those en-route, or potential migrants who are still in the planning stages, should also be included. For the present study, no en-route migrants were located, as migration from the nomadic communities tends to involve the relocation of the entire household as a discrete event in time. Moreover, periods of time spent in the origin areas during fieldwork were not of the duration required to witness such events. It was possible however, in the course of fieldwork in the origin communities, to identify and interview households that were in the pre-migration, planning stages.

Restrictions on how much data could be collected in the origin areas included time, funding, climate, and accessibility, as discussed in section 3.2. It was considered important, despite these difficulties, to include the origin in the present study of migration, as a destination-end

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difficult to locate even recent reports at offices of the relevant organisations.

survey alone would not have provided an adequate picture. Although the collection of quantitative data was limited to the destination, the more intensive methods of data collection in the origin provided material of a richness to compensate for the inability to draw statistical generalisations from the data.

In weighing up whether to include all three origin communities in the study, or to simply focus on one at greater depth, there were two considerations. The first was that the study by Blaikie (2001) had used Kharnak as a case study. The issue of sedentarisation from Rupshu-Kharnak has not yet been approached using comparative analysis, which has the potential to provide greater insight into the process. The second consideration was that the source, or origin areas of migrants was limited to the three communities of Rupshu-Kharnak, with a total population of less than 1200. This, and the relative accessibility of the areas, made it feasible to include each origin community. This was seen as important, particularly because the household survey had identified substantial variation in the level of out-migration from the three origin communities. Table 3.2 provides a summary of the final distribution of research between the origin and destination.

TABLE 3.2 Identifying and Locating Types of Respondents

Area	Specific Location	Selection Techniques	Respondents
(Origin) Mobile Communities	• Kharnak • Samad • Korzok	Purposive sampling, and Tracing	Non-migrant households, Return migrants, and Prospective migrants
(Destination) Urban Area	• Leh town • Urban settlements • Villages in Leh District	Census of main migrant settlement, and Tracing	Recent and Longer-term Migrants Permanent, Seasonal and Temporary

The semi-nomadic pastoral community at Sumdo (8 households) and the nomadic pastoral community at Angkung (14 households) are located within the focus area of Rupshu-Kharnak. No formal origin-end studies were undertaken in either of these two tiny communities as only one case of migration was recorded from Sumdo. The small village at Korzok, although a permanent settlement, was included however, because of its close links with the adjacent nomadic community, and the need to investigate possible step-migration. Semi-nomadic communities located beyond the boundaries of Rupshu-Kharnak were not included. Given the constraints of access and time, purposive sampling was chosen as the method to locate cases of non-migrants, return migrants, and prospective migrants in each origin community.

In the destination it was decided to limit the search for migrants to Leh and to villages along the Indus valley within the Leh District. This was based on information from key informants in both origin and destination areas on the range of destinations of out-migrants from Rupshu-Kharnak. Cases of migration to areas not encompassed by the household survey were identified, including migration to Zangskar, the Markha Valley, and Nyoma. However, this intra-rural migration of individuals for marriage or monastic training was not investigated, as it represents a traditional form of mobility with distinctly different patterns, motivations and impacts than the main focus of the study – sedentarisation. Migrants were located in subdivisions of Leh town, in the Housing Colony adjacent to Leh, in the 'Kharnakling' settlement, and in the villages of Shey, Thikse, Matho, and Stok. A total of 103 migrant households were surveyed which included a population of 306 first generation migrants. All attempts were made to include the maximum number of cases, although the survey cannot be said to be exhaustive. It does however, represent an accurate depiction of the out-migration process since the 1960s, as well as provide a demographic 'snapshot' of the migrant population in the Leh District in 2000.

Through the use of a household reconstitution methodology (after Wrigley 1966 in Hugo 1981: 218) in the survey of migrants in the origin and destination, it was possible to identify alternative destinations for migration. A small number of individuals had, for reasons of marriage or employment, migrated to Zangskar, and evidence was available to indicate a larger number of individuals were involved in inter-community migration between the nomadic communities, again for marriage. There were however, no cases identified during the study, of sedentarisation in the 'traditional' sense. That is, the phenomenon referred to by Dainelli (1933) of Changpa nomads settling at the fringes of the pastoral lands to practice agriculture.[16] Because the focus of this study is on the documentation and investigation of the urban sedentarisation of nomadic pastoralists from Rupshu-Kharnak, other types of migration (inter-community, inter-district, and inter-state), while they were documented, were not investigated. The only other semi-urban area adjacent to Rupshu-Kharnak is the town of Nyoma. However, reports from the origin communities, and from other sources indicate that, due to employment opportunities, the main destination of migrants is Leh.

3.4.2 Baseline Survey of Migrant Households

In situations where there is a significant absence of population data in the secondary sources, small-scale, detailed surveys are a highly effective means for discerning migration behaviour (Goldstein and Goldstein 1981). The present study aimed to document the process of urban sedentarisation and to investigate its causes and consequences at both the origin and

[16] Dainelli's observations are based on the assumption that the settlers were once nomadic. It is possible that such an assumption was based on the now outdated opinion that agriculture is the next stage on an evolutionary progression from nomadic pastoralism. See discussion on the origins of nomadic pastoralism in section 1.1.2 of chapter 1.

destination. However, not only were there no data to confirm the significance of the migration, but there was no sampling frame from which to draw an appropriate sample population. A household survey was therefore designed to meet the basic requirements for demographic, spatial and temporal information and was conducted as a census-type survey of migrants at the point of destination.

Unit of Analysis

The household was chosen as the basic unit of identification for the destination-end survey of migrants, with information collected at the level of the individual. According to Khazanov, (1984: 127) the family and household almost always coincide in nomadic pastoral societies, and these tend to be of a nuclear rather than extended form due to the separation of the elderly parents from the main household. As common in many less developed countries, the family in Changpa society operates as an autonomous economic unit, which forms the basis for decisions regarding production, consumption and labour allocation. Furthermore, the family as a social unit is most commonly the level at which a decision to migrate is made (Wood 1982; Boyd 1989; Spaan 1999). In relation to the rural-urban migration of nomadic pastoralists in Ladakh, the migration flows are characterised by relocation of the household as a unit. This is due to the importance of labour to the viability of nomadic pastoral households. Unless there is a surplus of adult members, it is extremely uncommon for a household to engage in circular migration strategies that divide their labour resources simultaneously between origin and destination.[17]

[17] This is separate from the form of circular migration utilised by some households where the entire family circulates between origin and destination on a seasonal basis.

Survey Design

The United Nations' ESCAP manuals (ESCAP 1982) were used in the design of the household survey, with adjustments made to account for the specific local situation and objectives of the study. The fundamental questions that must be addressed in any study of migration are summarised by Chan (1982: 306) as follows:

- Who are the migrants?
- Why do they move, stay, or return?
- How and where do they move?
- When do they move?
- What are the effects of such actions on the migrants and on others?

A range of options is available to researchers with which to approach these questions. According to Hugo (1981) the ideal strategy would involve studying the same individual as s/he passes through the various stages of mobility between origin and destination.[18] However, time and funding constraints often exclude this strategy as a viable option. Other alternatives include sampling different individuals with similar backgrounds at the various stages of the migration process, or using secondary data from one end of the migration process to supplement surveys conducted at the other. An approach, which presents fewer logistical and time constraints, involves surveying individuals from one, or all, of the three spatial contexts of migration, ie. origin, en route and destination, and asking them to 'reconstitute' their migration experience. This strategy was chosen for the present study (with the exception of migrants en route), utilising a 'snapshot' study of migrants at the destination, and case studies of non-migrants and return migrants in the origin.

There were two reasons for attempting a survey of the whole migrant population. First, anecdotal figures for the total population of migrants indicated that it would be logistically possible to carry out a basic survey. Second, a door-to-door survey can reveal much more about the population than if a sample is used. This not only provided the vital demographic information required for the migrant population and information regarding their migration and settlement, but it also provided the opportunity to meet with and explain the research to each migrant household. Conducting the survey also helped to establish links with migrants' relatives and friends in the places of origin, thus facilitating subsequent fieldwork in those communities. The household survey was an effective mechanism for the purposive selection of case studies and informants that were of particular interest, which would not have been possible using a random sampling technique. The household survey represents a 'snap-shot' of the migrant population for the year 2000. The limitations inherent in this method are discussed toward the end of this chapter (3.5.1).

The household survey included a *de jure* record of household members. Using a household reconstitution methodology (after Wrigley 1966 in Hugo 1981: 218) all members ever born into a household could be traced. This ensured the inclusion of non-migrant family members, return or semi-permanent members, those who may have since died, and also any that had moved to alternative destinations (such as younger members sent away for religious training, education or work). All residents of the household, regardless of kinship, were included in the survey.

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[18] Hugo (1981: 214) identifies a series of eight stages at which persons involved in any type of population mobility will be found. These include stayers, prospective migrants and return migrants in
Footnote continued on next page

At the commencement of the household survey, only rough estimates of the total number of Changpa migrants in Leh were available. Apart from the large settlement of migrants from Kharnak at *Kharnakling*, 10km from Leh, it was not clear how feasible it would be to attempt to locate migrants from the other nomadic communities, or indeed, how the respondents might react to the survey. For these reasons, the household survey was intentionally limited to take no longer than fifteen minutes to complete, with the option of asking more open questions if appropriate. The main objective of the household survey was to obtain base-line data for the migrant population, however, the iterative nature of research meant that the data emerging from the household survey itself threw open more and more questions, some of which would ideally require measurement. However, time constraints excluded the possibility of conducting a second quantitative survey and it was not possible to quantitatively measure indicators such as household income or fertility rates among the migrant population. If such questions had been included in the initial household survey it is unlikely that the data would have been reliable. In a study of Fulani pastoralists in the Sahel, Hampshire and Randall (1999) found that data on household assets and income was highly unreliable when gathered in a first-round survey where there had been limited opportunity to build rapport. Questions of an intrusive nature are likely to be met with a refusal to answer, deliberate obfuscation, or worse, may even cause offence. Such issues were only raised with informants with whom a level of comfort and trust had developed.

Each interview was conducted with an adult representative of the household, which, due to their greater presence in the home during the daytime, was predominantly female (70.6%), the majority of whom were between the ages of 21 and 50 (58%). A data sheet was used for

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the origin and at the destination, migrants who are en route, permanent, or circular.

every household survey (Appendix 1) to record the name of each member of the household, their relationship to the household head, age and sex, current (or recent) employment, education level, date of migration, and place of origin. In addition, a series of open-ended questions was asked of the respondent to establish a sense of the family's migration history; including their reasons for leaving, the problems faced prior to moving and those they face now, feelings about the move, and the social and economic links maintained with the place of origin.

Identifying and Locating Migrant Households

In the absence of a sampling frame, the household survey aimed to achieve total coverage of the migrant population at the destination. For the large migrant settlement at Kharnakling, it was possible to conduct a door-to-door census of the area. However, in terms of tracing longer-term migrants, who were less spatially concentrated, the objective for a complete census was less achievable. Techniques used to identify households or individuals from the nomadic communities of Rupshu-Kharnak included tracing the relatives and friends of migrants previously interviewed, and engaging in community liaison in the sub-divisions of Leh town and in villages throughout the Leh District. The technique of 'asking around' proved effective in locating relevant cases. This is because migrants from villages throughout Ladakh maintain a strong, village-linked identity, even after many years of absence, and occasionally even as second generation migrants. A similar phenomenon has been identified in many parts of the developing world, where even permanent migrants with a strong level of commitment to an urban area have been found to maintain equally strong ties to their villages of origin, be they social, economic or cultural (Geertz 1963; Gugler 1969; Hugo 1981).

Conducting the Survey

As is so often the case when conducting fieldwork, what was planned in the initial stages constantly came under revision in the field to accommodate a variety of unforseen circumstances. An opportunity to gather baseline data on the migrant population arose very early during the first stage of fieldwork. A young girl from a migrant family living in the main migrant settlement of Kharnakling was available during her school holidays to help me collect information from every household in the settlement. Her experience in such work and her English language skills were both limited. However, the relative simplicity and repetitive nature of the survey meant that we both learnt quickly and developed a good system of communication.[19] The overriding advantage of working with YC, was her familiarity with each household, which provided access, perhaps not otherwise permitted on such short-term acquaintance. The first ten interviews were conducted with a professional translator from the Tibetan community. He explained in detail to YC what was required with each question and was able to confirm that she fully understood her role and what my expectations of her were. My initial reservations regarding the prematurity of conducting the survey and of YC's inexperience were not borne out. There were, of course, additional questions that could have been included in the survey. However, the decision to proceed was proven wise, given the time constraints encountered during the latter stages of fieldwork. The information collected in the household survey provided the baseline data that was necessary for the further development of the study. Upon completion, we had surveyed sixty households in the Kharnakling settlement, a figure that is almost double the number expected. The final total for all surveys of migrants located in and around Leh was 103 households. This included a

[19] Initially, it was YC's lack of confidence that made translating more difficult. With time however, this improved.

total population of 504 people, of whom 306 were first generation migrants from the nomadic communities of Korzok, Samad, and Kharnak.

3.4.3 Case Studies and Household Migration Histories

The household survey of migrants in the destination generated a substantial amount of data for both the household and individual levels of analysis. The main 'gap' left by the survey was in relation to community-level data. It has been suggested that an effective way to address such a 'gap' is through detailed community case studies that can be linked to the survey data (Hugo 1981).

The collection of qualitative data was undertaken during the second and third stages of fieldwork. In the origin communities interviews were conducted from June to August during the summer of 2000. A series of one-week visits were made to each of the origin communities where respondents were purposively selected to participate in unstructured interviews lasting between one and two hours. A total of four weeks was spent in the nomadic communities. During visits to the Kharnak community, then located at their summer camps of Zara and Spangchen, seven interviews were recorded, including three cases of return migration. In Korzok fourteen interviews were conducted at the *phu* (high pasture) above Korzok village. In Samad, at the camps of Tagaseru and Nyorchungun, eleven interviews were recorded which included one return migrant, one family planning to leave and an elderly seasonal migrant. While the total number of interviews conducted in each location was limited, the patterns they represented were widespread.

Since respondents usually insisted on serving butter tea as a matter of hospitality, the interviews were generally conducted sitting around the central cooking fire inside the family

tent (Plate 3.1). Following basic questions regarding the size and composition of the household and the number of livestock, a series of informal questions was asked around the topics of out-migration, children's schooling, knowledge of Leh, questions concerning land tenure and access to grazing and agricultural lands, the annual migration cycle in the past and present, and problems and difficulties experienced by the family. The questions were tailored to the specific household circumstances, and a separate set of questions was used for interviews with return migrants. For a full list of questions used in the informal interviews see Appendix 2.

Given the limited time spent in these communities, people were surprisingly welcoming and forthcoming with information. In many cases, particularly in Kharnak, contacts had been established prior visiting the areas through migrant kin in Leh. However, there was a noticeably different feel in the community at Korzok where we experienced our first (and only) refusal to participate in an interview. The reason we completed more interviews in this area than in the other communities is largely due to their brevity.[20] The majority of those interviewed in Korzok were however, as congenial and generous with their time as informants elsewhere.

[20] Not wishing to speculate upon the reasons for the more reserved nature of the informants in Korzok, I do however, note similar observations made by Dr Alka Sabharwal (*pers. comm.* 2001) who spent considerable time working in Korzok and also Sopher (1980: 262) who noted that people from India's more remote communities tended to be more guarded in their responses to inquiries from outsiders.

PLATE 3.1 An interview being conducted at Zara, Kharnak, July 2000.

In-depth interviews with migrants in the destination were conducted during the final period of fieldwork. By this stage, the household survey was complete and preliminary analysis had been carried out. A basic typology of migrants generated from the household survey data was used to identify a subset of the migrant population to be re-interviewed at greater depth. Analysis of the household survey suggested new lines of inquiry that could be investigated using case studies. The areas of interest included explaining the migration of single females, investigating the relationship between household type, labour availability and migration, and investigating the consequences of migration in relation to the experience of recent and earlier migrants. Twelve households were located to represent a range of migrants, taking into

consideration the variation within the migrant population (Table 3.3). The diversity of categories negated the possibility of systematically including all combinations. However, cases were selected to represent the main groups of interest.

TABLE 3.3 Selection Criteria for Migrant Case Studies

AGE GROUP	SEX	ORIGIN	MIGRATION TYPE	HOUSEHOLD TYPE	DATE OF MIGRATION
< 30 yrs	Male	Kharnak	Permanent	Nuclear	< 10 yrs
30 – 55 yrs	Female	Samad	Seasonal	Extended	10 to 20 yrs
55+ yrs		Korzok	Temporary	Female head	> 20 yrs

The interviews were informally structured and included questions recording a household's social and economic situation pre- and post migration, with particular reference to livestock numbers, herd composition, and availability of labour in the household. Historical information on trade, polyandry, migration, land tenure, and community governance was also collected from some of the older respondents. Issues regarding fertility and childbirth were discussed with women informants. (See Appendix 3 for the full range of questions).

Due to the type of the data collected in this study, it is unlikely that any details of a personal nature would be revealed if the informants' names were used. Nonetheless, the anonymity of respondents has been preserved with names changed wherever an informant is directly referred to in the case studies and migration histories.

3.4.4 Key Informant Interviews

The opinions and views of key figures were sought throughout the study. This included project leaders from LNP who had many years' experience working with the communities of Rupshu-Kharnak, the Councillor representing Changthang on the Ladakh Autonomous Hill

Development Council (LAHDC), who was himself from Korzok, and the *goba* for the settlement of Kharnakling. However, a conscious effort was not made to seek informants on the basis of their position. Anthropologists have often been accused of directing their fieldwork to the more privileged parts of society which 'fail to be representative of the society as a whole' (Eriksen 1995: 16). In most cases, community leaders, teachers and other members of the elite are in a position to offer assistance to a researcher. However, these positions are most often held by males, in positions of power or influence, and generally those from the more affluent parts of society.

In the Changpa communities, the *goba* is selected from among the males via the throw of a dice. It is therefore, a random decision that is binding, regardless of the person's wealth, status, or willingness to assume the role. While this could provide the opportunity to avoid the problems of elitism, it is also true that the *goba* in each community does not automatically represent a reliable or accurate source of information. As an alternative, a number of the key informants were identified through the household survey according to their willingness to share information. Other informants were useful for their specific knowledge or experiences. For example, longer-term migrants could often provide valuable insights into the history of the migration and other community-level information.

3.5 Data Limitations

Limitations of data used in this study can be discussed in relation to two main areas: issues arising from the methodological techniques used in the collection of primary data, and potential problems associated with a reliance on interpreters. Each of these areas will be dealt with in turn.

3.5.1 Primary Data

With reference to the main source of quantitative data, the household survey, there are a number of issues for consideration. The first relates to the use of a destination-end 'snapshot' survey technique. An aim of this study is to establish a historical / temporal perspective on the process of out-migration. However, this is problematic if relying solely on a discrete survey of the current migrant population. The household survey of migrants included only living migrants who could be traced and located. This therefore, excludes any migrants that have passed away, thus leading to the under-representation of earlier cases of migration. To address this concern, discussions were held with migrants and non-migrants in both origin and destination to determine evidence of early rates of out-migration. Furthermore, secondary sources, such as historical references and photographs, were located to indicate past population numbers. The household survey also employed a family reconstitution methodology to account for family members who were not present at the time of the survey due to various reasons such as engaging in circular migration, they had migrated elsewhere, or had since died.

An additional concern associated with the household survey of migrants relates to the method of sampling. Due to the absence of a sampling frame, the selection of respondents relied on door-to-door surveying and tracing of migrant households through kinship connections and community liaison. This has the potential for seasonal, temporary, return, and longer-term migrants to be under-represented in the 'sample'. This was addressed first, by matching reports of the numbers of out-migrants from the origin communities with the number actually

traced.[21] This provided a certain degree of confidence that the longer-term migrants are not significantly under-represented in the household survey. Indeed, it is believed that the survey came to within ten cases of complete coverage of the migrant population. With regard to the return, seasonal and temporary migrants, conducting the household survey during the winter maximised the number of seasonal migrants located at the destination. The number of return migrants was determined during fieldwork in each origin community. Evidence for the significance of temporary migration (aside from those included in the household survey) was provided by questions in the household survey regarding visits from friends and relatives from the origin areas, in addition to information gathered from respondents in the origin communities regarding visits to Leh.

In a study of migration that aims to investigate causality, it is both natural and informative to inquire after the reasons for migration from the migrants themselves. According to Fawcett and De Jong (1982: 111), '… questions on reasons for moving represent the simplest and most direct method for assessing motivational factors that underlie migration behaviour'. However, determining causality via the articulated motives of migrants has been criticised by many in the field (Goldstein and Goldstein 1981; Hugo 1981; Pryor 1975). One problem commonly highlighted relates particularly to longer-term migrants. The reasons given for a decision made in the past may be rationalisations influenced by subsequent events or may simply have become obscured over time. Another criticism is that asking a migrant for a reason, or reasons, implies a process of individual decision making, ignoring the role of

[21] Longer-term migrants are more difficult to locate. Not only are they fewer in number, but they tend also to be more socially and economically integrated into the urban society. Often the connections to their village of destination, through land ownership, are stronger than the network connections with the community of origin.

others in the decision, or the influence of circumstances of which the individual may not be fully aware.

The criticisms are numerous, however a number focus on the problem that analyses for the reasons for migration are often not linked to the pre-move context (Fawcett and De Jong 1982: 115). It is argued that the historical, normative, structural and ecological factors which often exert significant influence on the decision, are rarely reflected in the response of migrants to the direct question: '*why did you move?*'. Because it is not possible to reconstruct the exact cultural, economic and social environment in which the decision was made, an alternative is to explore the reasons why others in the origin decide *not* to migrate, or, in the case of return migrants, why they decided to return.

The present study included an open-ended question on the reasons for migration in the household survey. However, to address the criticisms outlined above, the study has extended the analysis of motivation to include the context in which the decision is made by using case studies of non-migrants, return and failed migrants in the places of origin. Analysis of the migrant survey data generates additional insights into possible causal factors, through indicators such as the selectivity of the migration and place of origin. Combining the qualitative and quantitative sources of information from both origin and destination provides a more balanced view of the motivational factors involved in the decision to migrate.

A crucial consideration for determining the reliability of the data collected relates to the position of the researcher to the researched. Foreign sponsorship of individual children is relatively common in Ladakh, particularly so among the community of Tibetan refugees. In the adjacent migrant settlement of Kharnakling, residents have, understandably, developed an association between foreigners and sponsorship. Despite explaining the purpose of the

research at the commencement of each interview, there was often a tendency of respondents to tailor their responses according to what they believed might benefit them. Not unexpectedly, it was common for respondents to play down their financial status. However, in some cases, the interview was used by informants to focus on their economic predicament by emphasising the children's school fees, illnesses, lack of work *et cetera.*

It would be unfair to state that this was a widespread problem as, in many cases, families were indeed in a desperate situation. However certain experiences indicated the potential for the economic hardship of migrants to be somewhat overstated due to informants' perceptions of the researcher and/ or the project. For example, during one interview with an elderly migrant couple in the settlement, *Meme-le* (grandfather) clearly saw the interview as an opportunity to make a case for sponsorship of his grandchildren, and he single-mindedly kept turning the conversation to his family's need for more money. This would not have been so unexpected, had he not been the patriarch of one of Kharnak's wealthiest families. Such experiences only served to reinforce the need for gathering information from multiple sources.

3.5.2 Research Assistants

The researcher, with the aid of an interpreter, conducted all interviews and surveys. This level of involvement meant that it was possible to closely supervise the data collection and the quality of the data collected. The necessity of involving assistants for the purpose of interpretation does however, have the potential for introducing a degree of error through obscuring or influencing the information collected. Research assistants were employed for two main reasons. The first was obviously, the language barrier. Time constraints inhibit

language take-up, particularly when the language cannot be studied from the home country.[22] Despite living with a family in Leh where only limited English was spoken, as well as taking informal language lessons with a local teacher, when it came to carrying out the research, my ability to speak the local language, *Ladakhi,* was limited to introducing myself, engaging in small talk and asking a few simple questions. I was unable to understand everything being said during the interviews. However I was able to follow the gist of the conversation and could identify when an informant said something of particular interest that warranted further discussion. It became clear that it was not going to be possible to become fluent within the time allowed for the study. In addition, opportunities had arisen, such as the chance to commence the household survey during the first stage of fieldwork, which could not be delayed on account of my own linguistic nescience. It could be argued, that even if one were fluent in the local language, there would still be a need to work with an interpreter or an assistant as fieldwork goes beyond the issue of verbal communication. Culturally specific nuances and inferences in the language are invisible to an outsider, and would take many years to become familiar with. The need for a 'cultural mediator' was especially important in the origin areas of the migrants, not only for myself. When asked about their contact with foreigners, a group of women in the nomadic community at Samad stated that if strangers come alone, without a local guide, they feel wary and suspicious of them.

A common weakness in fieldwork is limited knowledge of the local language (Eriksen 1995). However, this does not necessarily render the research less valuable or informative. In a candid account of her own fieldwork experience, an anthropologist working in the south of

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[22] Although Ladakhi and Tibetan are essentially the same languages, studying Tibetan in preparation for fieldwork would not have been useful as the pronunciations are vastly different. One researcher recently wrote that, to a Tibetan, Ladakhi sounds like Chaucer's English (Pirie 2002). The dialect in Rupshu-Kharnak is different again from that in Leh.

India, describes how after struggling for months with Malayalam, she decided to give up trying to formally learn the language.

> For them [informants], as well as for myself it seemed, proper conversation and full discussions with the aid of a translator were far more satisfying than stumbling though simple broken sentences of no great interest to anyone.
>
> Busby 2000: xviii

Four different interpreters were used during the study, which included three females and one male. The initial preference was to limit the number of different interpreters and to work mainly with females. The reasons for this included consistency of style and familiarity with the project. However, circumstances determined that such an ideal could not be achieved. Three of the assistants obtained employment as teachers during the course of the research and the fourth left the state to complete her studies. In relation to the preference for working with females, this was considered important both in terms of how I was perceived by the respondents and also for the comfort of women informants when discussing more personal issues related to gender and child rearing. As the survey was conducted during the day, women comprised the majority of respondents in the household survey. Locating an appropriate research assistant proved difficult at times. It was particularly challenging to find an assistant for work in the origin communities. The suitable person required effective communication skills, a sensitivity to issues of discrimination, an understanding of the aims of the research, and an ability to meet the physical demands of getting to, and working in, Rupshu-Kharnak.

As discussed earlier, YC assisted with conducting the household survey in the migrant settlement of Kharnakling. Although only in tenth class at the time and relatively

inexperienced, her familiarity with the settlement was of overriding importance for the collection of baseline household data. The second interpreter was CD, was a male in his late twenties. Originally from a small village in the Nubra valley, CD had spent his school years up to the 12th class in Leh, including a number of years spent at the SECMOL campus (Students' Educational and Cultural Movement of Ladakh) where he developed exceptionally good English language skills. He had also developed excellent interviewing skills through his involvement in a diverse range of development projects with local NGOs and foreign researchers. CD assisted with conducting the fourteen household surveys of longer-term migrants based in the Housing Colony.

During the second stage of fieldwork, which involved work in the origin communities, I was first assisted by AJ and then TJ, both females in their mid-twenties. Unlike the other three assistants who were all buddhist Ladakhis, AJ is a muslim Ladakhi. This did not however, present any problems.[23] AJ accompanied me enthusiastically to Kharnak, and work which involved accepting food and drink from our hosts, and speaking with male only groups did not pose any problems. Later in 2001, AJ assisted with the follow-up, in-depth interviews with migrants. She also assisted with tracing long-term migrants in villages around Leh, and with the task of checking the household survey data for accuracy. TJ was younger and less experienced, yet was also of a determined and strong character. Her familiarity with Tibetan (in addition to Ladakhi, Hindi and English) helped her to quickly adapt to the dialect in the origin communities. Because of her inexperience, we first worked around Leh, collecting data from longer-term migrants for the household survey (n.19). TJ belongs to a 'scheduled caste'

[23] While tensions between muslim and buddhist Ladakhis still erupt, the situation has improved dramatically when compared to less than a decade ago, when a social boycott of the muslim community was instituted by the Ladakh Buddhist Association (LBA).

(SC) (*rigs-nan*). A traditional caste system still operates in Ladakh[24]. While these beliefs are being challenged by the introduction of ideals of social equality, discrimination among Ladakhis according to traditional caste distinctions does persist. As Erdmann notes:

> … marked differences persist between the recent ideal of social equality and actual behaviour. The rigs-nan are still considered unclean and treated accordingly. Commensality and intermarriage are still carefully avoided. But here too some beginnings of change can be found.
>
> Erdmann 1983:159

For TJ, this has led to her exclusion from participating in door-to-door surveys conducted by a local NGO due to concerns that it might anger potential informants who would not allow her into their homes.[25] For a number of weeks I was unaware of TJ's 'low caste' status, and was not aware of any hesitancy or reluctance on the part of informants. Once I became aware of the issue, did notice that, if asked by interviewees, TJ only gave vague details of where she lived or her father's name and occupation. [26] She handled the inquisitions politely, and was able to subtly steer the conversation in another direction. Throughout our work together, the issue of caste was never raised and certainly did not interfere or restrict the research to any measurable effect.

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[24] Somewhat confusingly, Rizvi argues that while class distinctions are strong in Ladakh, there is a 'virtual absence of a caste system among the Buddhists' (1996:132).

[25] Although more 'progressive' sectors of Ladakhi society claim that caste does not matter, discrimination continues to limit the opportunities of people from Scheduled Castes (SC) in relation to work and marriage prospects. Although members of SCs are usually at the lower end of the socio-economic spectrum, this is not necessarily so, as it is determined by heritage. There are of course no obvious indicators to suggest one's caste, and this possibly explains why people engage in questioning each other's village and father's name soon after meeting as a way to 'situate' the stranger.

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For the majority of interviews, informants' responses were interpreted during the course of the interview and the notes were entered into a word processor later that day. For the longer, more in-depth interviews, where the respondents often had very long responses, AJ would take her own notes, in addition to summarising the main points for me at the time. At the end of the day we would compare notes and, if necessary, revisit the informant for clarification. A tape recorder was used vary sparingly for some of the in-depth interviews at the destination. Using a tape-recorder reduced the amount of interruption and also the possibility of compromising the detail of interpretation due to time pressure. This was also found to be useful for more complex discussions, where the exact meaning was critical. It should be noted that where the response of an informant is reproduced in this thesis, the text is a reconstruction of what was said rather than a direct translation.

3.6 Data Processing and Analysis

Coding and processing of quantitative data from the household survey was done using the computer program Statistical Package for the Social Sciences (SPSS). The relatively small size of the data set (504 entries) made it possible to work very closely with the data. Any contradictions or errors were identified through manual checking and cross checking of the data sheets. The SPSS program was used mainly for descriptive purposes, including cross-tabulating variables. Other techniques of analysis, such as correlations and multi-variate analysis were not appropriate due to the selection process of the population 'sample' used in this study. The coding and analysis were carried out between the second and third stages of

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[26] This only became apparent via a third party. As Erdmann (1983) notes, any reference to low-castes and their status has become taboo within the context of the new rules of social behaviour.

fieldwork, from the end of 2000 and into 2001. On completion of the third and final stage of fieldwork in November 2001, the data set was updated and the analysis revised.

The qualitative data consisted of thirty-two in-depth interviews conducted in the three origin communities and twelve case studies in the destination. This material comprised approximately one hundred pages of typed notes and was analysed manually in 2002. The possibility was investigated of using a computer-based program, such as Q.S.R NUD.IST, for the analysis of the qualitative data. However, the size and manageability of the data set made manual forms of analysis possible. Following established techniques for the analysis of qualitative data (Denzin 1994; Glaser and Strauss 1967; Miles and Huberman 1984), topics and recurrent themes were identified and a system of coding and filing was created on a word processor. Mason (1994: 95) reminds us that indexing data and organising methods of retrieval '… do not represent the analysis in and of themselves.' This, often long and arduous, process was only the first step in the analysis of qualitative data. Once organised into the more manageable form of analytical categories, the unstructured material derived from interviews, discussions and field notes was analysed. It was also important to re-read and analyse each interview transcript as a whole to allow for contextual interpretation.

3.7 Conclusion

This chapter has presented the sources of data used in the present study and has critically assessed the methods of collection. It has been argued that, although a small-scale survey of migrants is an effective means to study the causes and consequences of urban sedentarisation of nomadic pastoralists, the inclusion of case studies and interviews from both origin and destination is critical to the development of a broad interpretation of the

processes taking place; taking into account not only the individual level of analysis but also the social, economic, and environmental context in which the decision to migrate is made. Having presented the theoretical approaches to the study of sedentarisation in chapter 2, and described the methods of investigation in the present chapter, chapter 4 will outline the context within which the sedentarisation is taking place.

CHAPTER 4

POPULATION AND SOCIO-ECONOMIC CHANGE IN LADAKH: A REGIONAL PERSPECTIVE

4.1 Introduction

> … any explanation of migration failing to take account of the broader socio-economic developmental processes within which it takes place and of historical cultural specificities of the region under scrutiny, is unbalanced and inadequate.
>
> Spaan 1999: 30

Migration literature has, in the past, focused heavily on the motivations of individuals and families as determinants of migration behaviour. However, the causality of migration involves more than individual-level factors. To properly investigate the causes of population mobility, it is first necessary to understand the social, cultural and economic context within which the process takes place.

The context assists with the interpretation of these processes and enables comparison with similar cases. As previously discussed, this study recognises the dual importance of

individual (human) and contextual (structural) factors in the decision to migrate. The purpose of this chapter is therefore twofold. First, to provide the background information necessary for subsequent chapters which attempt to explain the urban sedentarisation (6 and 7); and second, to describe the macro-level context within which the families and individuals from the pastoral communities are making the decision to migrate. The ultimate aim is to situate individual or household decision-making and migration behaviour within the broader political, economic, and social context. The first of two sections in this chapter provides details on the regional economy, biophysical environment and population of Ladakh. The second section deals specifically with the issue of socioeconomic change in Ladakh; thus establishing the aggregate and individual factors that influence the sedentarisation of nomadic pastoralists in Ladakh.

4.2 Ladakh: The Physical and Human Landscape

4.2.1 Physical Environment

Located in the temperate latitudes between the Karakoram and Himalaya Ranges, Ladakh's character is largely determined by its altitude, which ranges between 2800 and 5900 meters above sea level. Situated In the rain shadow of the Himalaya range, the region is also characterised by extreme aridity (< 100mm per annum) and marked variation in diurnal and seasonal temperatures (Figure 4.1). The landscape is comprised of a complex system of valleys and mountain ranges, and with close to 68 percent of the total land area over 5000 meters above sea level, human settlements and agricultural activity are restricted to the Indus River valley and subsidiary river valleys. The Indus valley is divided into three zones according to elevation. These are the lower (*Sham*) region to the north-west, the central

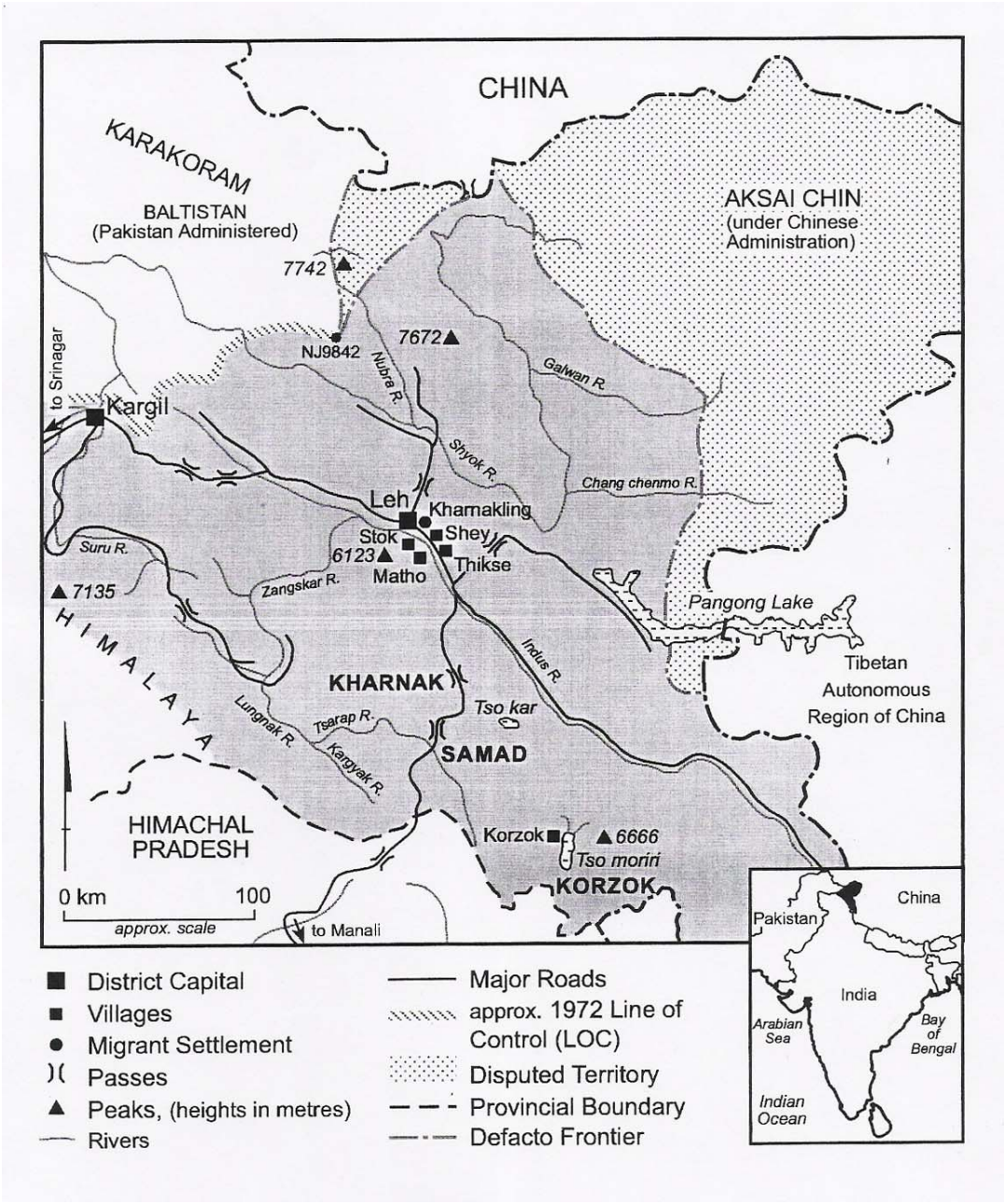
(*Zhung*) region, which includes the capital Leh, and the upper (*Stot*) region to the south-east. (Figure 4.2).

The Indus River travels through Ladakh in a north-west direction toward Baltistan in Pakistan. It roughly corresponds to the suture zone where the Indian plate is being forced under Asia, the action responsible for the formation of the Himalaya range itself (Humbert-Droz 2000). A series of almost parallel mountain ranges cut across the region, running in a north-west, south-east direction. These include the northern face of the great Himalaya Range to the south, followed by the Zangskar Range, the Ladakh Range, the Saltoro Range, and furthest to the north, the southern face of the Karakoram Range.

FIGURE 4.1 Average Monthly Temperatures in Leh (3445m asl.)

Source of Data: Thomas and Tsetan, 1997:7.

FIGURE 4.2 Map of Ladakh, Jammu and Kashmir State



4.2.2 Historical and Political Background

Situated between two of the world's highest mountain ranges, it would perhaps be easy to imagine that Ladakh has developed in relative isolation. Prior to Indian Independence however, the capital Leh was a key centre for trade between the Indian subcontinent and Central Asia. As in many regions of the Himalaya, limitations of the environment necessitated trade between the highland and valley communities. In Ladakh this largely centred on the exchange of food grains produced in the valleys for wool and salt from the high altitude plateau regions of south-east Ladakh and Tibet. Leh was an important mid-point in the trade of pashm fibre between Tibet and the weaving industry in Srinagar, and was also a major stop along the long-distance trade route between the Punjab and eastern Central Asia (Sinkiang) for caravans hauling textiles, carpets, dyes and narcotics (Rizvi 1999). These trade routes brought outside influences to Leh long before the advent of tourism in 1974. This is reflected in the mixed ethnic composition of the population (Indo-Iranian and Tibetan) and in the language that, although derived from Tibetan, includes numerous foreign words, particularly Urdu and Persian.

Ladakh was once an independent Himalayan kingdom, which shared linguistic and religious affinities with Tibet. In 1834 the Hindu ruler of Jammu ordered an invasion of Ladakh and the region, including Baltistan to the north, came under Dogra rule until 1947.[27] Following Indian independence and partition, Ladakh remained a part of the northern Indian State of Jammu and Kashmir (J&K), while Baltistan became part of Pakistan. For administrative purposes the State Government of J&K divided Ladakh into the two districts (or *Tehsils*) of Leh and Kargil (Figure 4.3). The Leh District is divided into three sub-divisions: Nubra, Nyoma, and Khaltsi,

and the villages are organised into six community development blocks: Khaltse, Nubra, Leh, Kharu, Nyoma and Durbuk. The nomadic pastoral communities, which are the focus of this study, are located in the Nyoma subdivision. Samad and Korzok belong to the Nyoma community development block, while Kharnak falls within the Leh community development block.

Rizvi argues that although 'Ladakh no longer exists in any formal or administrative sense' (1996: 2), a certain kinship continues to unite the composite parts of the region, through the language, shared history, and family ties forged through inter-village trade and marriage. The population of Ladakh is almost equally divided between the two districts. However, at 45,110 km^2, the Leh district is three times larger than the Kargil District and is, in fact, India's largest.[28] Buddhists hold the religious majority in Leh, while Kargil is predominantly Shia Muslim, with a Sunni minority. A smaller number of Christians, Hindus and Sikhs are also represented in Ladakh.

In 1995 the Leh District was successful in achieving a degree of political independence from the State government in Srinagar, whom the largely Buddhist population in Leh, accuse of bias toward the State's Muslim majority. Creation of the Ladakh Autonomous Hill Development Council (LAHDC) has provided the district with semi-autonomous rule.[29]

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[27] The Dogra Gulab Singh, Raja of Jammu, aimed to conquer the entire pashm producing area and secure control over the trade of this lucrative fibre.
[28] This figure excludes the large eastern area of Aksai Chin (37,555km^2) which was annexed by the Chinese during the 1962 Sino-Indian conflict.
[29] Rather than empowerment of the 'local' through community representation, the LAHDC has, to date, made little progress and has been described as elitist and exclusive of Ladakh's village, farming and nomadic populations (Van Beek 1997).

However, the Leh District continues to demand further independence from the State by calling for Union Territory status.[30]

FIGURE 4.3 Administrative Divisions of Leh (Ladakh), Jammu and Kashmir

[30] Such an arrangement would effectively bypass State-level governance and involve direct dealings between Leh and the Central government in Delhi.

4.2.3 Socio-economic and Demographic Indicators

Its geo-political position as part of India and South Asia has implications for understanding Ladakh's current socio-economic situation. With an ethnically diverse population exceeding one billion, the Indian nation faces immense challenges in relation to development. A cursory glance at some key development indicators shown in table 4.1 reveals the extent of such challenges.

TABLE 4.1 Selected Development and Health Indicators 2001

Indicator	India	South Asia*	Australia
Population (millions)	1 008.9	1 423.9	19.4
GDP Per Capita (PPP US$)	2 840	2 816	25 370
Percent Urban	27.9	27.4	91.1
Life Expectancy at Birth	63.9	64	79
Infant Mortality Rate /1000	67	59	6
Total Fertility Rate	3.3	4.3	1.7
Adult Literacy Rate % 15yrs+	58	62	> 95**
Physicians Per 100 000 People	48	38	260
Gini Inequality Index***	37.8	34.7	35.2

*This includes Afghanistan, Bangladesh, Bhutan, India, Iran (I.R.), Maldives, Nepal, Pakistan and Sri Lanka. Averages compiled from 1995-2002 data, figures for Afghanistan and Nepal not available in some cases.
** According to UNESCO, illiteracy is less than five percent.
*** A value of 0 represents perfect equality, and a value of 100 perfect inequality.

Source of Data: UNDP 2003a; 2003b.

In India, State and Union Territory Governments exercise jurisdiction over their respective health, education and social welfare policies, thus creating regional disparities in social development outcomes. In order to examine Ladakh's position within this context, the following indicators have been selected for the Leh District for comparison with the state and national figures: level of urbanisation, population growth rates, sex ratio and literacy rates. The first of these is shown in table 4.2.

TABLE 4.2 Comparison of population growth rates and level of urbanisation (1981-2001)

	Total Population ('000)		Annual population growth rate (%)	Urbanisation (%)	
	1981	2001	1981-2001	1981	2001
Leh District					
Rural	59.7	90.1	2.08	12.7	23.4
Urban	8.7	27.5	5.92		
Total	68.4	117.6	2.75		
Kargil District					
Rural	62.5	105.3	2.64	5.3	8.6
Urban	3.5	9.9	5.34		
Total	66.0	115.2	2.82		
State of Jammu & Kashmir					
Rural	4730	7565	2.38	21.0	24.9
Urban	1260	2505	3.50		
Total	5990	10,070	2.63		
India					
Rural	523,870	741,660	1.75		
Urban	159,460	285,355	2.95	23.3	27.8
Total	683,330	1,027,015	2.06		

Source of data: Census of India 1981 and 2001

The degree of urbanisation in the Leh District is similar to that found at both the state and national levels. Urbanisation is comprised of natural increase (excess births over deaths), net migration gain and reclassification of rural areas to urban. Despite the immense size of India's urban population, the country's overall degree of urbanisation is low at around 25 percent and the nation remains predominantly rural in character (Mathur 1994; Pathak and Mehta 1995).[31] The Leh District may only have a moderate level of urbanisation, yet the pace of this transformation has serious implications for the region. Due to 'disturbed conditions' the 1991 Census of India was not conducted in the State of Jammu and Kashmir. Population growth rates must therefore be calculated over a 20-year period to enable comparison with

[31] Interestingly the pace of urbanisation in India has been steadily declining since 1971 (ESCAP 1995:14).

national figures. Between 1981 and 2001 India's urban population grew at an average annual rate of 2.95%. During the same period, the urban population in Leh grew at an average rate of 5.92% each year. In the last two decades, the population of Leh town has more than tripled in size.[32]

Leh District, and Ladakh as a region, has a population growth rate well above the national average. In 2001, the average rate of population growth across India was 2.06 percent. In the Leh District this was 2.86 percent (Table 4.2). In rural areas of Leh District men comprise 54% of the total population. By contrast males comprise 61% of the urban population of Leh. These figures suggest a pattern of male dominated mobility toward the urban area, a pattern characteristic of cities in South Asia (Jetley 1984; Parnwell 1993).[33] Compared with a national average of 53% for males in urban areas, this trend is particularly high in the Leh District (Census of India 1981 and 2001).[34]

The sex composition of a population is an important social indicator for measuring the extent of equality between males and females in a society at a given point in time. Changes in sex ratios can reflect the underlying socio-economic and cultural patterns of a society. Factors which can influence the sex ratio include sex differentials in mortality, sex selective migration and sex ratio at birth. Table 4.3 shows the sex ratios for India between 1981 and 2001.

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[32] Urban populations are often significantly under-enumerated and this is undoubtedly the case in Leh, where a sizeable 'floating' population exists, comprised of circular migrants, tourists and defence-related personnel.

[33] More recently however, females have come to dominate rural to urban migration at a national level in recent times (ESCAP 1995).

[34] Corresponding figures for the Kargil District reflect a similar pattern with males comprising 52% of the rural population and 61% of the population in Kargil town.

TABLE 4.3 Sex Ratios for India

	Sex Ratio (Females per 1000 Males)	
	1981	**2001**
INDIA	934	933
JAMMU & KASHMIR STATE	892	900
KARGIL DISTRICT	853	901
LEH DISTRICT	886	805

Source of Data: Indian Census 1981; 2001

India's low sex ratio is not unusual for the region. With the exception of Indonesia and Japan, where females outnumber males, countries in Asia generally exhibit low ratios of females to males. However, India is somewhat unique in the fact that the national sex ratio has shown a long-term declining trend over the past fifty years, while the majority of countries around the world have shown steady improvement in this area. At the beginning of the twentieth century the sex ratio in India was 972 females per 1000 males and has been declining in successive censuses. The lowest level recorded was 927 in 1991, and the sex ratio for 2001 stands at 933. Reasons often cited include the neglect of girl children resulting in reduced life expectancy, high maternal mortality, sex selective female abortions, female infanticide and a change in sex ratio at birth (Census of India 2001). However Mayer (1999) disputes many of the broadly accepted explanations which view sex ratios, or trends in sex ratios, as indicators of women's position in society relative to men. He instead argues that the present increasing masculinisation is an 'artefact' brought about by past levels of discrimination that reduced the life expectancy of women. According to his argument, the gender differentials are amplified with the drop in mortality as India passes through the demographic transition.

As shown in Table 4.3, sex ratios for the State of Jammu and Kashmir and the two districts of Ladakh fall below the national average. Leh District is notable for having a sex ratio of only

805. The District's sex composition has been declining since 1921, with the most dramatic reduction occurring in 1971 from 1002 to 886. One hypothesis put forward for this imbalance is that there has been male dominated migration to the District. This is supported by decennial population growth rates for the period corresponding to the drop in sex ratio (Tondup 1993: 297). However, sex ratios have been found to be similarly unbalanced in the communities of nomadic pastoralists in Rupshu-Kharnak (Chaudhuri 1998), where large-scale gender selective migration can be excluded as a significant factor altering the sex composition of the community.[35] A very high maternal mortality rate and possibly earlier female mortality certainly play a role in the region's low sex ratios.[36] However previous studies have found no evidence of female infanticide or other negative gender-specific practices in the area (Crook and Shakya 1994: 708; Chaudhuri 1998: 78).

According to the 2001 Census of India, the literacy rate in the Leh District is closer to the national average than rates in both the State of Jammu and Kashmir and the Kargil District (Table 4.4). [37] The literacy level is nonetheless low at sixty-two percent. In addition, fifty percent of women in the Leh District are literate compared to only 41% and 42% in the Kargil District and the Jammu and Kashmir State respectively. Literacy, by definition, does not require formal education and should not be taken as a measure of the efficacy of the region's education program. In fact, strong criticism has been levelled at the State government for the

[35] Inter-village marriage migration is not selective on the basis of gender.
[36] Data for maternal mortality were not available for the Leh District. However, a study conducted in the Suru Valley, Kargil District (Grist 1998) found similar gender imbalance, which the author attributes to high maternal mortality and low life expectancy for women. In India 540 maternal deaths are reported for every 100 000 live births. This figure is equal to that of Nepal, and second only to Afghanistan as the highest rate of maternal mortality in South Asia (UNDP 2003).
[37] Literacy is defined as a person aged 7 years and above who can both read and write with understanding in any language. The literacy rate shows the number of literates as a percentage of the population aged 7 years and above.

continuing problems associated with the provision of education throughout Ladakh. Despite some of the highest per-student expenditure in India and a high teacher to student ratio, the inadequacy of the government education system is clear. The government schools are plagued by high drop-out rates and a matriculation failure rate of greater than 90% (Ladags Melong 1997: 39).

TABLE 4.4 Literacy Rates in 2001

NOTE: This table is included on page 98 of the print copy of the thesis held in the University of Adelaide Library.

Source of Data: Indian Census 2001

4.3 Population Mobility and Development

Having provided an overview of the physical environment and socio-demographic characteristics of the region, the discussion now turns to examine the structural context of socioeconomic change and development in Ladakh, including discussion of population mobility in the context of the changing environment.

4.3.1 Socioeconomic Change and Development

Ladakh's recent history is one of rapid transformation and development. The influence of border conflicts with Pakistan and China (1947-1948 and 1962 respectively) propelled Ladakh into the national political consciousness in terms of its strategic importance (Rizvi 1996: 91). The trade routes passing through Leh and connecting India to central Asia and Tibet were severed with the closure of the international borders due to hostilities in the post Independence era. Ladakh has since been host to a large and permanent military presence. According to Rizvi (1996) the cessation of trade might have destroyed Ladakh's economy if not for the associated militarisation, development efforts, and the advent of tourism.

The injection of defence personnel and spending on infrastructure formed what is commonly seen as the first 'phase' of Ladakh's development (Gokhale-Chatterji 1994). In a pattern observed in other geographically remote mountain areas, research and development projects have followed the construction of major roads (Chambers 1983; Kreuzmann 2000). The second and equally important phase followed the opening of the region to tourism in 1974. As a consequence of these events, Ladakh's economy has undergone a significant shift from a subsistence based, rural economy toward greater economic differentiation.

Opportunities for wage labour have accompanied the military presence and the associated infrastructure development. Local labourers compete with a pool of up to 4000 skilled and unskilled itinerant workers from Bihar, Orrissa and Nepal (Assistant Labour Commissioner's Office Leh, 2000; Bishop 1998).[38] The growth of tourism has created a heavy seasonal

[38] This figure does not include the significant number of labourers working for the army or the road construction force *Himank*, as this information is classified.

demand for labour in the services and construction sectors. The tourism sector is constrained by a limited season and, while it has benefited from the decline of tourism in the Kashmir valley, the industry is still subject to the fragility of regional politics. Aside from tourism, and the products of small cottage industries, pashmina and apricots are the only exports of any significance to the district economy (Rizvi 1996).

The establishment of government administration in Leh has also created positions that are highly coveted due to their security and social prestige. It has become the hope of many parents that their children's education will ultimately lead to a government job, however limited these positions may be. Concurrently, Leh has experienced negative side effects of rapid development, with the emergence of unemployment, environmental pollution, unprecedented income generation by some, and rapidly expanding housing colonies situated on the outskirts of the capital (Goldstein 1981; Norberg-Hodge 1991; Rizvi 1999). As part of its development effort in the region, the central government does not collect taxes, instead providing very generous subsidies at rates higher than the national average (Bhasin 1999). Ration depots in each village provide salt, rice, wheat, sugar and kerosene at subsidised rates. This has served to undermine local agricultural production as well as traditional trading practices.

4.3.2 Rural to Urban Migration and Urbanisation in Ladakh

Rural to urban migration in the Leh District is taking place in a setting marked by limited industrial but rapid commercial development. Rapid expansion of the commercial, transport and construction sectors is drawing people from rural areas in the Leh District, as well as from further afield. Data limitations restrict our understanding of population mobility in Ladakh and detailed information on migrants and migration streams is not readily available. As discussed

earlier (in section 4.2.3) it is clear that there is a strong masculine bias in the urban population of Leh, and according to available data regarding population age structure (Table 4.5) the urban area of the Leh District has a higher proportion in the age group 0-6 yrs (9%) compared with rural areas (5%). Not only is this the reverse of trends found at state and national levels in India, but the Leh District has a significantly lower proportion of its total population aged 6 years and under compared with national figures.

TABLE 4.5 Percent of Total Population Aged 0-6 Years by Location

NOTE: This table e is included on page 101 of the print copy of the thesis held in the University of Adelaide Library.

Source of Data: Indian Census 2001

The incomplete census record in Ladakh complicates research on demographic change. Due to problems conducting the 1991 census, only estimated figures have been released at the district level.39 In the absence of the 1991 data it is very difficult to discuss contemporary demographic change with any authority. Indeed, the inadequate census record in Ladakh was the main motivation for conducting a household survey of migrants for the present study.

39 The 2001 Census data for village population totals was not released until 2006.

Increasing levels of urbanisation usually accompany the shift in a developing economy away from an agricultural basis (primary sector) to an industrial (secondary) and services (tertiary) basis (Jones 2004). Due to the particular historical and political developments in Ladakh, the region has come into 'development' at a latter stage, arguably skipping the secondary industrialisation phase. This view concurs with Grötzbach's (1984) assertion that urbanisation in mountainous areas takes a different form to that of lowland areas. In reference to the centre-periphery model and Zelinsky's mobility transition (1971), Grötzbach points to their limited application to understanding urbanisation in high mountain areas. He points to examples such as the Alps, where labour migration and integration of the periphery preceded industrialisation by centuries. Or the example of the western Himalaya, Hindu Kush and Karakoram, where mobilisation of labour is a recent phenomenon resulting from opening up of valleys since the 19th Century and rapid population growth.

A number of authors have convincingly argued that characteristics particular to high mountain areas, such as inaccessibility, resource limitations and sensitivity to population change, result in a differential path of urbanisation to that implied by models developed in lowland areas or in a 'western' setting (Conway and Shrestha 1980; Skeldon 1985; Khawas 2003). Karan (1987) and Bätzing *et al.* (1996) draw attention to the high degree of variability that exists within high mountain areas. MacDonald (1996) makes that point that while some regions are experiencing depopulation others are seeing a concentration of population around market towns.

Policy approaches toward urban growth can range from those that promote rural to urban migration, to those that attempt to redirect population flows (Shrestha 1997; Skeldon 1998). An alternative approach is to encourage rural populations to remain in rural areas through rural development initiatives. This latter approach characterises the current thinking among

Indian policy makers, where efforts to address urbanisation and rural to urban migration have been directed toward rural development programs in the belief that rural poverty is the underlying problem. However, efforts to slow rural to urban migration by improving conditions in rural areas have often had the reverse effect through labour displacement and by raising skills and expectations beyond that what can be satisfied in rural areas (Parnwell 1993).

In any discussion of urbanisation, some assessment of the relative contribution of the components of urban growth must be attempted. Data limitations permit only a tentative assessment of the significance of rural migrants to the growth of Leh. Fertility data is a prerequisite to establishing a case for natural increase. However, fertility tables from the 2001 Census in Ladakh are not currently available.[40] In the absence of the 1991 Census data for Ladakh it is not possible to discuss changes and trends in fertility in the district based on anything more than anecdotal evidence. A number of authors (Goldstein *et al.* 1983; Attenborough 1994; Elford 1994; Wiley 1998; Kapoor *et al.* 2003), have used small sample surveys to determine fertility rates in villages in central Ladakh and Zangskar. However these data have limited utility in establishing temporal trends for the wider region, or more specifically, in explaining demographic changes in the nomadic pastoral communities.

This discussion has provided an overview of the broader context of population mobility in Leh. The relative contribution of rural to urban migration to the urban growth in Leh is at present unclear. Even at a national scale, there is no consensus amongst scholars on the exact contribution of rural to urban migration in India. However, there is general agreement that rural to urban migration is of secondary, and declining, importance to the role of natural

[40] These will be published in 2008.

increase in explaining urban growth (Mathur 1994; Pathak and Mehta 1995). In Ladakh, a more extensive examination of the urbanisation process is required. This will involve the complex task of establishing the relative contribution of each of the components of urban growth in the absence of a complete census record. Nonetheless, migration from Ladakh's rural villages to the capital Leh has been a highly conspicuous factor in the town's rapid expansion. In absolute terms, the contribution of migrants from the nomadic pastoral communities to the growth of Leh is small. However, given the economic, demographic, and social implications for both sending and receiving regions, this form of migration is of tremendous importance (Bose 1980).

4.4 Conclusion

Despite rapid development and socioeconomic change occurring throughout Ladakh in the past four decades, and modest improvements in health care and food availability, the nomadic pastoral communities in Rupshu-Kharnak remain in state of relative disadvantage compared with other areas throughout Ladakh, particularly the urban area of Leh. This is not an uncommon situation for some of the more remote areas in Ladakh where extreme terrain has slowed the rate of inclusion in these processes of 'development' and access to services (Grist 1998). The shift away from subsistence agriculture toward a heavy reliance on goods imported and subsidised by the central government has led to a reliance on external economies, particularly tourism, and has exposed the local economy to fluctuations in regional and international markets. As in many mountainous areas Ladakh is now an example of an 'internal periphery' (Michaud 1996) whose destiny is largely controlled by a centralised, lowland political power (Skeldon 1985; Ives and Messerli 1989). The next

chapter examines how these, and other changes, have affected the lives of the nomadic pastoral communities of Rupshu-Kharnak.

CHAPTER 5

THE CHANGPAS OF RUPSHU-KHARNAK:

COMMUNITY AND LIVELIHOOD CONTEXT

5.1 Introduction

The previous chapter outlined the broader socioeconomic changes and historical events that have taken place in Ladakh in recent decades. This chapter examines how these events have affected each of the communities of Rupshu-Kharnak, focussing on the observable, localised effects of this socio-economic transformation. This chapter is divided into three sections. The first deals with the social organisation of Changpa society, the second focuses on the pastoral economy and the third section outlines the some of the key changes in the recent history of the pastoralists of Rupshu-Kharnak.

In discussing the social organisation and pastoral economy of the Changpa, this chapter describes some of the elements that are essential to the viability of pastoralism as a livelihood in Rupshu-Kharnak. This provides the necessary background for further discussions on change in the pastoral communities. This thesis does not purport to present a detailed analysis of the pastoral production system. The focus is on determining what

factors, if any, distinguish the communities of Rupshu-Kharnak from one another, and what role these factors play in relation to out-migration.

According to Forbes (1981) community analysis must include a range of issues concerning the village economy. Areas to be examined here to establish the 'community context' include: religion, governance, socioeconomic distribution, climate, resource availability, degree of (or opportunity for) technological innovation or non-pastoral enterprises, and demographic factors. These factors fall within the four broad categories of socio-cultural, ecological, demographic and socio-economic characteristics. This information will later be used in the comparative analysis of the three communities in chapter 7 to identify the local structural conditions that have influenced the migration patterns.

5.2 The Research Communities

Rupshu-Kharnak lies in the elevated south-east region of Ladakh. This region forms part of the western extension of the great Tibetan plateau, or 'Changthang', which stretches east over one thousand kilometres from Ladakh to the Chinese province of Qinghai. The topography of Rupshu-Kharnak is characterised by broad, undulating valleys, up to 13km in width and at altitudes ranging from 4200m to 5200m. Peaks in the range of 7000m surround these valleys. Precipitation is approximately 50mm annually, most of which falls in the form of snow during winter. Temperatures range between O^0C and 30^0C in the summer and -40^0C to -10^0C during winter. The region has its own complex internal drainage system, whereby the surface run-off from springs and snow melt collects to form large brackish lakes.

The combined effects of low precipitation, extreme temperature fluctuations, low nutrient and poor soil conditions (salinity and wind erosion) limit the natural vegetation of Rupshu-Kharnak to various species of grasses and small woody shrubs and make the area unsuitable for agriculture or permanent settlements. The wide, open valleys and plains are, however, well suited to mobile pastoralism and have been utilised as such for thousands of years. Little is known about the exact nature of the emergence of nomadic pastoralism in Rupshu-Kharnak. However, it is thought that the Changpas are descendants of nomadic pastoralists from Tibet. According to Franke (1901: 17), philological reasons support the theory that Tibetan nomads were the earliest inhabitants of Ladakh, preceding the arrival of the Mons and Dards, possibly as early as the first century BC. It is also believed that this ancient Tibetan tribe may have extended as far as Gilgit to the north-west, before being pushed back to the high pasturelands of Rupshu-Kharnak with the expansion of the Aryan agriculturalists (*ibid*).

Situated between the Indus and Sutlej watersheds, the area of Rupshu-Kharnak is bounded to the south by the Himalaya range. This also marks the state border with Himachal Pradesh. To the north and west, the area is enclosed by the Ladakh and Zangskar ranges, the passes of which can remain snow bound for up to seven months of the year. Including the permanent settlements at Korzok, Sumdo and Angkung, the total population in Rupshu-Kharnak constitutes a little over two percent of the Leh District's population. The language spoken is a localised dialect of Ladakhi, and a majority subscribe to Tibetan Buddhism influenced by animistic conceptions of nature (Erdmann 1980:156; Bhasin 1996).

Demographic indicators for the nomadic pastoral population show a similarly low sex ratio to that of the district.[41] Due to the remoteness and inaccessibility of Rupshu-Kharnak, the state of health in the nomadic communities is poor. Health workers working in the area report very high rates of infant and maternal mortality.[42] Some of the most common health problems in Rupshu-Kharnak include cataracts, birth complications, respiratory infections, and vitamin and mineral deficiency. The delivery of education is complicated by the twin obstacles of remoteness and climate. As is commonly the case for nomadic pastoral populations, attempts to establish formal educational facilities are complicated by the difficulty of finding qualified teachers prepared to endure the hardship of living, year-round, in remote and difficult conditions (Närman 1990; Chatty 2001; Larsen 2003).[43] Some of the wealthier nomadic families are able to send one or more of their children away to boarding schools. However, basic literacy and numeracy skills are lacking among all community members, particularly women and the elderly.

Several thousand semi-nomadic pastoralists are located in the Nyoma and Durbuk blocks, north east of Rupshu-Kharnak, who graze their herds along the southern shores of Pang-gong Tso and in the valleys to the north around Tangtse. These groups also herd yak, sheep, and goats and produce pashmina, but this is of a significantly reduced quantity, and some argue quality, than that produced in Rupshu-Kharnak.[44] The semi-nomadic pastoralists

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[41] There is a paucity of detailed population data for the nomadic pastoral populations of Ladakh. Secondary data have been collated from the intermittent population surveys carried out by various NGOs and government departments.

[42] Information based on discussion with Dr Dolma Tsering during LNP Health Camp in Rupshu-Kharnak, March-April 2000.

[43] Apart from purely logistical difficulties associated with the long winters and need for mobility, the fact that the community is widely scattered at times of the year presents perhaps the greatest challenge.

[44] Personal communication with Tsering Tundup, officer with the Watershed Development Project. Interview conducted 8/10/01 at the office of Leh Nutrition Project (LNP) in Leh.

live in permanent dwellings, grow a meagre amount of barley, and only certain members of the household move with the livestock on a seasonal basis. Other groups of agro-pastoralists are found in the areas adjacent to the lands of Rupshu-Kharnak. These semi-nomadic groups are also referred to as *Changpa*, yet the nomadic pastoralists from Rupshu-Kharnak are quick to point out that *they* are the 'real' Changpa due to their constant movement. As one man in Samad stated during the course of fieldwork: 'We are the real Changpa. Those from Durbuk and Tangste call themselves Changpa, but they don't live this way of life, moving like we do'.[45]

Rupshu-Kharnak was opened to tourism in 1994 and entry is controlled via a permit system.[46] Only designated areas are open, and foreign nationals are not permitted near the highly sensitive border zones, such as the Indo-Tibetan border area adjacent to Korzok. Trekking groups and four-wheel drive tours are organised by agencies based in Himachal Pradesh or Leh. Apart from the unsealed vehicular tracks that provide access, infrastructure for tourism in Rupshu-Kharnak is practically non-existent.[47] Tourist groups are largely self-sufficient, providing very few opportunities for locals to engage with, and benefit financially from, the industry (Ghosal 2005). The short summer period and highly seasonal nature of tourism in Ladakh tends to concentrate its negative environmental impacts. Two issues of particular concern are stream contamination near popular campsites in the Tso Moriri area, and overgrazing by the pack animals of travelling parties. The lakes, bogs and wet meadows found in Rupshu-Kharnak provide key habitats for many species of water birds. For example,

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[45] Interview in Tagaseru 28/08/2000.
[46] Permits of seven days' duration are issued by the District Commissioner's office in Leh with the requirement that there must be a minimum of four in the party.
[47] In 2000 a privately owned guesthouse was constructed in the permanent settlement of Korzok adjacent to Tso Moriri lake.

the Tso Moriri area is the only breeding ground outside China for the globally threatened Black-necked crane, *Grus nigricollis*, and the only breeding ground in India for the Bar-headed goose, *Anser indicus* (Humbert-Droz 2000).

5.2.1 Samad

Samad Rokchen is situated between the pastures of the Kharnak and Korzok communities, and to the east of the Leh-Manali road. Vehicular access can be gained along dirt tracks from the direction of either the Leh-Manali road or via the upper Indus valley at Mahe Bridge and over the Polo Kongka pass (4920m). The community headquarters is located at Thugje along the northern extent of the Tso Kar. This settlement is comprised of a gompa, and a small cluster of stone storehouses and dwellings for the elderly members of the community who choose to remain sedentary. South of the Tso Kar is a smaller, fresh-water lake called Startsabuk Tso and adjacent to this, at Nuruchan, are a small number of fields for growing barley.[48]

Samad is commonly referred to as Rupshu. Originally, Rupshu covered a vast area extending east from Samad to include, amongst others, the villages of Korzok, Hanle and Nyoma. The region was governed by a local chief, the Rupshu Goba, who was based in Korzok. For administrative purposes Rupshu was divided into two areas, the lower (Samad) and upper (Satod) which included Korzok village. Over time, the upper region, through its association with Korzok village, took the general name Korzok, while Samad became Rupshu (Ahmed 1996: 75). However, because examples of the 'old' nomenclature are still in popular

[48] Community members interviewed reported that these fields are no longer in use.

use, the present study continues to use the name Samad in place of Rupshu to avoid any confusion between the Samad and Korzok Changpa communities. The Rupshu Goba's rule over Samad ended around 40 to 50 years ago (*ibid*: 79). However, mutual ties between the communities of Korzok and Samad are maintained through religious affiliation. The Thugje gompa comes under the authority of the Rinpoche at Korzok. [49] The Samad community make financial contributions to the Korzok gompa, and send young boys from their community to Korzok for religious training, while the Korzok gompa provides lamas for Samad's important religious events.

Drew noted in 1875 that the Samad Changpa moved camps four times a year and stayed two to three months at each site. The situation has since changed dramatically with up to fifteen shifts required annually.[50] The duration of stay at each encampment is determined by the availability of pasture and water. During the summer, the Samad community moves between pastures near the Leh-Manali road and during winter they move in a clock-wise direction around the Tso Kar basin. In winter and spring, when water is particularly scarce, the community divides and moves separately, forming groups of between five and fifteen tents. However, in summer and autumn (July to October) when the glacial streams are at their greatest flow, the community is able to regroup. The Samad community shares its pastures with approximately one hundred and thirty Tibetan refugees and their herds (Ahmed 1996).[51] They also share their traditional grazing area at Zara with the Kharnakpa, as part of an inter-village dispute settlement negotiated in the late 1980s.

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[49] This is also known as Rale Gompa.
[50] This is due to loss of pastures through the Sino-Indian conflict combined with the arrival of Tibetan refugees since 1959.
[51] The herd size for Tibetan Refugees is restricted and they are required to pay the Samadpa an annual tax for the use of their pastures.

Few historical records exist to provide details on the earlier population size of the nomadic pastoral communities in Rupshu-Kharnak. In 1875 Drew estimated a population of one hundred households in Rupshu.[52] Population enumeration in the contemporary situation is also problematic. Difficulties arise because the populations include a significant number of absentee and part-time pastoralists who cause the community size to fluctuate. For example, Table 5.1 shows a range of population figures for Samad between 1981 and 2001. As discussed in chapter 3, the census data for the nomadic communities is of questionable accuracy. As the table demonstrates, a range of independent studies has consistently provided estimates of population that are substantially lower than the Census of India figures. The present study uses an estimated figure of 70 households in Samad, with a population of just over 300, as the basis for demographic analysis.

TABLE 5.1 Sources of Secondary Population Data for Samad

Year	Population / (households)	Source of Data
1981	499 (110)	Census of India 1981
1990	339 (73)	Independent Census (in Ahmed 1996)
1992	375	Leh Nutrition Project Report (LNP 1992)
1993	346 (70)	Education Board (in Ahmed 1996)
1998	316 (69)	NGO report (Chaudhuri 1998)
2001	515	Immunisation records (Chief Medical Officer 2001)
2001	517	Census of India 2001
2003	300 (60)	Survey data (Hagalia 2004:28)

[52] It is assumed that the term 'Rupshu' as used by Franke does not include the communities at Angkung, Sumdo and Korzok. On this basis, the population did not change dramatically prior to 1981. This would support the assumption that there is limited opportunity for population expansion among nomadic pastoral groups due to resource restrictions imposed by the characteristically marginal environments in which they reside.

The Samad community falls within the Nyoma Block, with Nyoma being the closest major town. Although there is a Primary Health Centre (PHC) in this town, serious cases require transfer to Leh. The situation with regard to health care in Samad is very poor. For much of the past two decades, the community has not had a traditional doctor (*amchi*) or community health worker (CHW). The state of education is similarly poor. A mobile primary school operates in Samad during the brief summer period, however during this time the dispersal of the community prevents access for a majority of the children.

5.2.2 Korzok

The community at Korzok is comprised of two parts, the permanently settled population (Yulpa) located in the village of Korzok and the nomadic pastoral population (Changpa). The mobile population is the primary focus of the present study, however the proximity of the Korzok village to the Changpa community, and the relationship between the two, necessitates a brief description. The Korzok area falls within the Nyoma block and also includes the semi-nomadic villages of Sumdo and Angkung. The village is one day's journey by vehicle from Leh (233km) and is accessible by an unsealed road from Mahe Bridge via the small settlement at Sumdo and crossing the Namshang la (4800m). The village of Korzok is at an altitude of 4540m, and is sited on the elevated north-western shore of the vast Tso Moriri lake. The village consists of low stone and mud brick storehouses, and a number of large, traditional two-storey homes clustered beneath a 600 year-old gompa. This permanent

settlement is home to around twenty-five households or 100 people (LNP 1995).[53] Facilities in the village include a primary school that provides instruction up to the 8th class. There is a MAC, which despite being fully equipped and having both a salaried medical officer and assistant, remains locked and unattended for most of the year. The nearest Primary Health Centre (PHC) is in Nyoma, a distance of 95km. However, for four months during winter the Namshang-la is impassable and the Korzok villagers rely solely on the local *amchi*. Korzok village has fields where barely, peas and oats are cultivated, although in recent years many fields have been left fallow. It has been argued that the introduction of the Public Distribution System (PDS) has been responsible for a shift away from the labour intensive work of agriculture toward the more lucrative area of pastoralism (LNP 1995:33). There is a ration store in the village and, more recently, a guesthouse and tea stall. Another recent development in Korzok has been the construction, adjacent to the village, of a permanent camp for the Indo-Tibetan Border Force (ITBF).[54] It is anticipated that the increased traffic and population associated with this facility present both positive and negative implications for the villagers and the local environment.[55]

The Changpa community at Korzok is the largest of the three nomadic pastoral groups in Rupshu-Kharnak. Their total population in 1994 was recorded as 389 people in approximately 90 households (LNP 1995). The Census 2001 figure for Korzok is 1,209.

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[53] Census of India 1981 data for Korzok are not used here as they do not discriminate between the settled and mobile population and also show figures far in excess of all other population data sources for Korzok. Sander (1983:190) documents similar discrepancies in Census of India data for Ladakh.

[54] The ITBF is a paramilitary force with camps situated along India's border with China. The Korzok camp was established in the summer of 2000, in response to reports that the Chinese Government was constructing a road into Indian territory.

[55] Previously no radio facilities existed in Korzok for the purpose of medical assistance or evacuation. The ITBF camp has the potential to provide this, in addition to possible medical assistance, and transportation. The camp's position, on the banks of the Tso Moriri, raises serious concerns of water contamination and other ecological disturbances to the immediate area.

However, the figure does not distinguish the mobile from the settled population. The annual migration pattern of the Korzok Changpa involves fewer shifts than the Samadpa and the community stays together for much of the year. Approximately five months during winter are spent in the valleys around Teygajung and Chumur near border with the Tibetan Autonomous Region of China. In early June, the community divides into two groups, one moving around the Tso Moriri and the other heading south. They regroup one month later at Korzok Phu, where they spend the next two months enjoying the relative warmth and abundant grass characteristic of the short summer.[56] In mid September, they recommence their movement, shifting to the Tatsang Tso basin, north of Korzok village, where they remain for a further two and a half months. With the approach of winter, the community begins the month-long migration around the Tso Moriri toward their winter pastures at Teygajung.

Despite their winter isolation, the Korzok Changpa are in a better situation regarding medical facilities relative to the communities at Samad or Kharnak. At their winter camp near Chumur, medical assistance can be sought from either a MAC or the defence facilities of the ITBF. The border forces in this area have a proven record of providing helicopter evacuations for critically ill patients. The community also benefits from a resident *amchi* who travels with them to Teygajung each winter.

In both the Chumur and Korzok encampments, the Changpas have stone storehouses, livestock pens, and fields for growing fodder crops. A mobile school once serviced the Changpa community, however this proved ineffective and resources were instead directed toward running the primary school at Korzok village. In a study conducted in 1994, only 40

[56] This is the upper most part of the valley located behind Korzok village.

percent of Changpa children were found to be attending school compared to 69 percent of children in Korzok village (LNP 1995: 29). Very few of the Changpa households utilise the school facilities at Korzok due to the difficulty of finding accommodation for the children when the community moves on. Alternative arrangements for families who do decide to educate one or more children include sending them to hostels and residential schools in Chumur, Leh or Nyoma. As part of the present study, a survey of residential schools in and around Leh was conducted in 2001. Admission records from nine hostels and residential schools found a total of 54 children from Rupshu-Kharnak, with twice as many males as females (see Table 5.2).

TABLE 5.2 Number of Children from Rupshu-Kharnak in Boarding Schools in Leh, November 2001

Community of Origin	Boys	Girls	Total
Kharnak	11	8	19
Samad	9	3	12
Korzok (includes Yul)	16	7	23
Total	36	18	54

Source: Survey of 9 boarding institutions in Leh, November 2001

Falling within the Korzok jurisdiction are the two small settlements of Angkung and Sumdo Gongma (also known as Ribil Sumdo). The village of Sumdo Gongma is situated 25km from Mahe Bridge along the road to Korzok. This is one of the poorest villages in the area and is comprised of only eight households (Chaudhuri 1999). The Sumdo community engages in semi-nomadic pastoralism and barley is cultivated in fields adjacent to the village. The livestock are herded collectively from the permanent village base. The community at Angkung is comprised of fourteen households and is located in the Puga valley on the road between Mahe Bridge and Rupshu. They are also semi-nomadic and cultivate barley. The Sumdo and Angkung villagers have year-round access by road to the hospital in Nyoma as well as to a basic health centre in the nearby Tibetan Refugee encampment that is also

functional throughout the year. This study found very little evidence of migration to Leh from either of these two settlements.[57] Sumdo Gongma and Angkung were excluded from the present study due to the small size and semi-nomadic character of the settlements. While the destination survey of migrants sought to include any cases of migration from these villages, fieldwork was not conducted in either location.

5.2.3 Kharnak

The traditional pastoral lands of the Kharnakpa are defined geographically by the Leh-Manali road to the east, the mountains leading to the Markha valley to the west, and the Zangskar mountains to the south (see Figure 4.2).[58] Kharnak falls within the Nyoma block of Leh District. Although, geographically speaking, Kharnak is closer to the district capital than the other Changpa communities at Samad and Korzok, it is arguably the most isolated during the winter months due to the snowbound passes which prevent access to medical facilities. There are no significant bodies of water in the area, however a number of glacial streams and springs provide water during the summer months. During the winter when these sources are frozen over, snow is melted for household use. The Kharnakpa were originally a semi-nomadic people based in Samartse and Ldad, engaged in a mixed economy of farming and pastoralism not unlike that of the Shunpa and others located in areas adjacent to Rupshu-Kharnak.[59]

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[57] The Household Survey of migrants conducted in Leh included one case of migration from Sumdo Gongma. Two sons and three daughters from the one household moved separately to Leh following the death of their parents in the early 1970's. No cases from Angkung were found, however this is not to discount their existence.
[58] Completed in 1987, this is one of only two roads connecting Ladakh with the rest of India.
[59] Pascale Dollfus, personal communication 26/11/03.

The pastoral migration follows roughly the same pattern each year. However, each spring, when the community regroups at Yagang, decisions are made concerning the timing of movements, who will graze where, and the duration of stay, all depending on the seasonal conditions and subsequent pasture quality. The current migration cycle of the Kharnakpa consists of annual movement between five main camps. With the exception of one, the camps are separated by less than a day's walk. At most sites there are stone storehouses, pens for the sheep and goats, and rectangular pits of approximately one meter in depth, over which the tents are pitched. For around five months during winter (November to March) the community divides, with one group heading for the pastures over the Yar la toward Ldad, the other moving towards Lung, and the camps at Zhabuk and Sangtha. This is done to conserve water and pasture resources.[60] During this time the groups carry out *sku-rim* (religious ceremonies) to placate and honour the local deities.[61]

According to the Census of India, in 1981 Kharnak comprised 95 households with a total population of 445 people. Estimates by community members of the population size prior to this date indicate that the number of households had remained fairly constant, numbering around 75 to 80. Estimates for 2001 indicate that the population in Kharnak has dropped by approximately 50 percent, with around 45 households (250 people), choosing to remain on a full-time basis. The estimated population is based on information from Blaikie (2001), population survey data from the Office of the Chief Medical Officer in Leh (2001), and interviews and household survey data collected as part of the present study. This is contrasts with the 2001 Census data that recorded a population of 335 people in Kharnak.

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[60] Water is most scarce in spring as the temperature rises enough to melt the snow but not to thaw the glacial streams and springs.

[61] A number of territorial deities, or *yul lha*, are believed to protect the lands of Kharnak. *Lha tho* are cairn-like structures made to honour these local deities (Brauen 1979).

The official headquarters for Kharnak, located at Yagang (4500m), is comprised of a small cluster of stone dwellings. There is a hermitage for nuns, known as Tshams-khang, a Medical Aid Centre (MAC), storehouses, and a non-functioning middle school.[62] There is a monastery, or gompa, located at one of the main camps, Ldad. Thought to date back to the beginning of the 18th century, this gompa is affiliated with the wealthy Hemis gompa.[63] The Kharnak community has a large proportion of nuns and monks, although most maintain a mobile existence with their family and many of the lamas are married (Dollfus 1999). Fields are located in Khar, Samartse, Lung, Ldad and Kharnak where individual households can grow fodder and barley crops. Grass is cut from standing pastures in September to be stored as fodder to supplement the herd during winter, although if there is heavy snowfall, these stores will not be sufficient to maintain the yaks. Many reported that they no longer cultivate their fields for fodder due to a lack of water and problems with marmots (*phia*) digging up the crop. Labour shortages due to out-migration and changing herd composition have also contributed to this decline. Previously older members of the community were responsible for watching over the crops, but there are fewer people available to do this on account of migration to Leh. In addition, fewer yaks are being herded than in the past following the shift toward goats and pashmina production. Given that yaks are the main consumers of fodder, supplies can instead be purchased from the Jammu and Kashmir Sheep Husbandry Department at subsidised rates and stored ahead of the winter months.

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[62] Mobile primary schools have been in operation in Rupshu-Kharnak for a number of years. However they are plagued with problems including absentee teachers, lack of facilities, they are operational only in summer, and are unable to reach all children as families migrate in different directions.

[63] Hemis gompa is one of the largest monasteries in Ladakh and is located within the Indus valley, south of Leh.

As is the case throughout Ladakh, the village is an important social locater. Personal identity is strongly connected with place of origin and, while the Changpa communities may share a unique form of 'village' organisation, in that it is defined by movement within a specific area rather than a fixed settlement, locally specific traditions and beliefs differentiate each of the three communities. The social and economic ties between the communities of Rupshu-Kharnak are no greater or less than those they maintain with neighbouring villages. This is particularly noticeable in relation to the Kharnakpa who, unlike the Samad and Korzok Changpa, share the same clan names and clanic gods (*phu lha*) with adjacent semi-nomadic communities of the Shunpa located along the Tsarab chu (river) in the direction of Zangskar to the south (Dollfus *ibid*). For the Kharnakpa this involves marital, cultural and material relationships with communities in the Rong, Markha valley, Zangskar, and Samad.[64]

5.3 The Livelihood Context

Nomadic pastoralism as a livelihood strategy presents its own specific opportunities and constraints in the face of socio-economic transformation. The following sections outline key aspects of the social organisation and pastoral production system in order to establish this context.

5.3.1 Social Organisation

The following discussion focuses on four aspects of social organisation and governance of the nomadic pastoral communities of Rupshu-Kharnak including: the pastoral 'household'

[64] *Rong* in Ladakhi refers to a deep gorge. However the term is used to refer the agricultural lands along the Indus valley and areas adjacent to Rupshu-Kharnak.

unit, polyandry, the *pha-spun* support networks, and the role of *go-ba*, or village leader. These aspects of social organisation are characteristic of villages throughout Ladakh, and play a fundamental role in social and economic life of the Changpas.

5.3.1.1 The Household

The tent (*rebo*) forms the most basic level of economic and social organisation in Rupshu-Kharnak. The main unit of production is the 'autonomous' nuclear household, as is the case in most nomadic pastoral societies (Khazanov 1978). Households are classified into *kang–chen* (big house) and *kang–chung* (small house). The two represent composite parts of the one household. A 'household' is defined here after Sander (1983:190), as people sharing common resources, the same *Lha, pha-spun*, and house/family name.

According to tradition in Rupshu-Kharnak, the main tent and most of the livestock are passed to the eldest son at a time determined by the current household head, usually following the son's marriage and the birth of a grandchild.[65] The parents and any unmarried siblings establish a *khang-chung* or *khaun* which, although physically separate from the main tent, remains tied to it through the obligations of the new head of household toward his parents and siblings. A ceremony (*phog–srod* or *khag-gnyis)* marks the son's inheritance of the *khang–chen* and his transition to head of the household. Division of the household into *khang-chen* and *khaun* is not only useful in situations where the household has grown too large. It also serves as a means to settle inter-familial grievances.[66] An additional form of

[65] In the absence of a son in the family, a husband is brought into the household (*magpa*) for the eldest daughter (uxorilocal marriage), however he does not have the right to establish a *kang–chen* (Ekvall 1968: 27).

[66] In one example in Kharnak, a *khaun* was formed by an elderly woman and her daughter in order to separate her from her spouse, with whom she was constantly fighting. The elderly patriarch remained in the *khang-chen* with their eldest son and the son's wife. Informants also cited inter-generational

Footnote continued on next page

household division is the *grong-sar*, or 'new tent'. Younger brothers who are not involved in fraternal polyandrous alliances have, in more recent times, begun to establish these breakaway households (Erdmann 1983:158). In accordance with the tradition of inheritance by primogeniture however, the younger brothers are not entitled to any of the household wealth and it remains with the head of household to determine whether the breakaway unit will receive any assistance.

5.3.1.2 Polyandry

One form of household structure that receives a significant degree of attention in the literature on Ladakh is the polyandrous household. Societies that permit polyandry are uncommon in the ethnographic and historical record (Wiley 1998: 458). However, fraternal polyandry has long been practised among the high-altitude Himalayan populations, including Ladakh. Some of the complexities surrounding this issue will be explored later in this chapter in relation to household structure and migration. As a precursor to this discussion however, it is noted that while polyandry, and indeed polygyny, have featured strongly in traditional Ladakhi society, they have never constituted the universal form of household organisation (Attenborough 1994). Indeed, Sander (1983) argues that polyandry has been singled out for undue focus on account of its rarity:

> The 'polyandrous' as well as the 'monastic' society as described in the literature has never existed as such. Both social institutions' dimensions were exaggerated due to their 'exotic' character in the ethnocentric perspective of Western observers.
>
> Sander 1983: 193

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conflict between the daughter and mother-in-law, within patrilocal marriages, as a common reason for division of the household.

It is important to question the assumption that polyandrous relationships were ever the dominant form of marital relationships in Rupshu-Kharnak. Too frequently an imagined 'traditional' polyandrous community of the past is juxtaposed with a contemporary community of 'nuclear' households. The corollary being that a shift away from polyandry toward monogamous household structures is the cause of critical labour shortages that have forced so many households out of Rupshu-Kharnak (Chaudhuri 1999; Blaikie 2001; Hagalia 2004). Evidence will be presented in chapter 6 to challenge this assumption.

Since its censure by the government of India, with the Buddhist Polyandrous Marriages Prohibition Act of 1941, polyandry has become somewhat stigmatised and, therefore, more difficult to identify (Crook and Shakya 1994; Attenborough 1994:315). In addition, some poly-androus/gynous relationships are informal arrangements (Levine and Silk 1997). Taking these considerations into account, the household survey conducted in this study did not attempt to define households according to their marital arrangements, instead focused on measuring household labour availability and number of dependents as more reliable indicators of household viability.

5.3.1.3 The *Pha-spun*

Another important feature of social organisation found in communities throughout Ladakh is the *pha-spun.* Translated literally as 'father's brothers', *pha-spun* are groups of between four and six households who share a mutual tutelary deity known in Rupshu-Kharnak as the 'tent god' (*phug-lha*; Leh: *pha–lha*) (Brauen 1980; Ahmed 1996:198). The members have a duty to provide assistance to one another, particularly for important rituals associated with the events of birth, death and marriage. Households are reliant upon the economic and social support

provided through this mode of cooperation.[67] Intermarriage within the same *pha-spun* was previously not permitted (rule of exogamy), and birth or marriage determines membership.[68] If a household leaves the community their *pha-spun* connections are commonly severed. It is possible for such households to join existing *pha–spun* in their new location. This has serious implications for the remaining *pha-spun* members who, in the case of the nomadic pastoral communities, face a shrinking network of support.

5.3.1.4 Local Governance

A third and important level of organisation among the Changpas of Rupshu-Kharnak relates to community governance and representation. The village leader or chief is known as the *go-ba*. A small group of men are selected to assist him in his role, which involves administrative, judicial and representative responsibilities (Chaudhuri 1999: 67). He ensures that households have equal access to common resources and that community responsibilities are equitably distributed among households. The duration of office and method of selection vary between villages. In Samad, the post operates on an annual rotation and determined by the roll of a dice (*cho-lo).* In Korzok the community nominate a *go-ba* every three years. Each *khang-chen* is required to pay tax (*khrel*) and contribute labour to meet the community's obligations toward the *gompa* and expenses incurred by the village administration. The amount of tax is calculated on the basis of herd size. The money raised is used for maintenance of the *gompa* and for expenses incurred during religious festivals. Community-

[67] It is argued that the households forming each *pha-spun* share a common ancestor (Franke 1904, Geary 1948, Heber 1976, *in* Brauen 1980; Riaboff 1997). However, in reality the households are rarely consanguineous which is important when it comes to death within the group as it is taboo for the close relatives of the deceased to touch the body or view its cremation (Brauen 1980:56).

[68] For example, children automatically become members of their father's *pha-spun* (or mother's in uxorilocal marriages) and when a person marries into another household they will join the *pha-spun* of their spouse.

level obligations include grazing the *gompa's* livestock, and providing meat and transport to visiting dignitaries.

5.3.2 The Pastoral Economy

> Pastoral production involves a relationship between factors of land… livestock, and labor. In this equation, livestock - a capital good - serves as a technology for transforming otherwise unpalatable cellulose into consumable products.
>
> Galaty and Johnson 1990:3

This section outlines key characteristics of the pastoral economy in Rupshu-Kharnak.. The discussion will focus on the three key aspects of pastoral production: land, labour and livestock. Where they exist, differences between the three communities will be discussed with consideration to their potential role in influencing migration.

5.3.2.1 Land

Land in Rupshu-Kharnak is managed as a common property resource. The land is owned by the State, and in theory, communities are required to pay tax to the Government. In practice this is rarely collected. Pastures in Rupshu-Kharnak are regulated by well-defined communal rights of access. A community's pastures are closely guarded and locals exercise the right to fine any outsiders who illegally graze their livestock on them. The boundaries separating the pastures of one village from the next often follow natural features of the land such as rivers or spurs. Strategically positioned cairns also help to distinguish boundary lines. Transgressions of the inter-village boundaries do occur (accidental or otherwise) and disputes are not uncommon (Ahmed 1996). Unresolved disputes can be mediated by members of the

administration at either the Block or District level, or more commonly, by members of the Ladakh Buddhist Association (LBA).

Changes to community boundaries were brought about with the annexation of Aksai Chin by the Chinese during the Sino-Indian War of 1962 (see Figure 1.2). Beyond this vast and barren area, lay rich winter pastures used by the Samad and Korzok Changpa. As a result, the communities of Samad and Korzok were forced to alter their migration patterns, find alternative pastures and decrease herd sizes. This has resulted in an increase in the frequency of moves for the Korzok and Samad Changpa.

The Kharnakpa were required to forgo their use of the pastures in the Tso Kar basin during winter to allow for the return of the Samad-pa. While this was a comparatively minor adjustment to their migration cycle, it has been argued that the local topography in Kharnak lends itself to more difficult winters (steeper valleys mean less winter sunlight and thus deeper snow covering the pastures).[69] For this reason, the annexation of Akasai Chin had ramifications for all three communities of Rupshu-Kharnak.

In addition, approximately one hundred Tibetan pastoralists now live in Rupshu-Kharnak as refugees. Samad has the largest number of Tibetans with whom to share their pastures and they claim it is necessary to charge the refugees a fee to compensate for the added pressure on their resources. There are fewer refugees in Kharnak and Korzok, and informants in each location did not consider that the Tibetans herds compromised their own productivity.

[69] This is based on anecdotal evidence presented by Hagalia (2004).

5.3.2.2 Livestock

Pastoralism is a strategy aimed at utilising areas too marginal for alternative production such as plains, deserts, steppes, mountains, or tundra. The degree of mobility and the livestock densities reflect the land's potential. As with most specialised pastoral groups, milk is a key component of production; most of which is used for household consumption. The accumulation of large herds by pastoralists is in part a strategy to sustain a breeding herd with a sufficient number of females in milk at any one time. In Rupshu-Kharnak the herds are primarily comprised of sheep and goats. Yaks (*Bos grunniens*), yak-cattle hybrids (*dzo*) and, to a lesser extent, horses are used for transporting people and possessions.

A diversified herd makes optimum use of the available resources as different species graze on different plants within the pasture. It also ensures a range of products are produced for local consumption or for sale. During the summer yaks are set free in mountain pastures. The female yaks (*bri*) ewes and female goats are kept with household and taken out each day for grazing. Herding is more demanding in winter as the herd must be taken further up the mountains to find accessible pasture.

Rangeland Management and Risk Mediation

Livestock numbers are limited by the availability of pasture within existing 'village' borders. Unlike nomadic pastoralists in south-west Asia, there is no need to travel great distances to find pasture, as the surrounding lands have the same short growing season. As is the case for nomadic pastoralists in other parts of Central Asia, herds rely almost entirely on standing forage during winter (Goldstein and Beall 1990). The central management strategy is therefore to fatten the livestock as much as possible during the summer so they can withstand the long winter with only senescent vegetation (Mearns 1993; Potkanski and

Szynkiewics 1993; Neupert 1996). Changpa pastoralists supplement feeding during the winter with fodder that has either been cut locally or purchased and stored ahead of winter.

One of the most common criticisms levelled at pastoralist is that of overstocking. It is true that herd maximisation is a fundamental driver for pastoral households. However, the idea that pastoralism aims to maximise herd size at the expense of others and the environment has been challenged by more thorough analyses which take into account the complex strategies employed by pastoralists to cope with the inherently unstable system where storms, disease or predation can quickly decimate a herd (Hardin 1968; Mace 1991; Miller 2000b). A number of authors have shown that nomads in the Tibetan Plateau have adopted flexible livestock production strategies that allow greater responsiveness to the prevailing conditions and the available forage which is neither uniformly distributed across the rangeland nor of a consistent quality and quantity from one season to the next (Goldstein *et al.*: 1990; Miller 2000). Using an opportunistic management approach, herders are able to adjust their livestock numbers to the wide spatial variability of forage, ensuring the maximum return from the available resource in the knowledge that they will need these returns as reserve for when conditions are less favourable.

A characteristic of nomadic pastoralism in marginal environments is the occurrence of extreme climatic events which must be factored into pastoral management strategies. According to Miller (2000a.) the periodicity of these so-called 'bad years' is approximately every six or seven years. Bradburd (1989) reported that meteorological estimates for Iran showed that one in every four years brought drought conditions severe enough to affect production, and that a catastrophic event causing the loss of up to 50 percent of livestock, could be expected once every 25 years.

Risk aversion is an essential characteristic of nomadic pastoralism, as practised in marginal areas (whether it be the Asian steppe or African rangelands). That is, attempting to decrease the level of inherent uncertainty and risk (of predation, climatic extremes, illness) through anticipation (MacDonald 1996;1998; Bauer 1999; Mishra 2003). Viewed in this way, herd maximisation is a rational response to environmental risk factors rather than a strategy aimed solely at income maximisation.

Sporadic heavy snowfalls provide a much needed input of water for the pastures in addition to a period of time for the range to recover from grazing pressures (Miller 2000a). Depending on when it falls, and the duration, it can also lead to catastrophic losses due to starvation of the herd. Periodic herd reduction through such events is also part of the cycle that is seen as critical to maintaining rangeland health. Drought or heavy snowfalls are both natural periodic events that affect pastoral production in marginal environments. However, such events are often described as 'disasters' or used to bolster arguments that pastoralism is not viable in these areas. NGOs have acknowledged that use of the term 'disaster' to describe the intermittent events in Changthang can be effective in stimulating donor investment for relief programs (Chaudhuri 1999).

A household's capacity to recover from these natural 'shocks', depends on the size and composition of the remaining herd, personal wealth, support of kin networks, and the possibility of obtaining a loan from wealthier members of the community. A government program to compensate households for livestock losses has been available for members of the Samad community. However, this program of support has not been extended to Kharnak or Korzok.

Herd Size and Composition

According to elderly informants from Rupshu-Kharnak, during the 1960's the wealthiest households had herds of up to 1000 sheep and goats, around 100 yak, and 15 horses. In Korzok, around this time, there were approximately 15 households with herds of this size. At the other end of the scale, the poorest households during the 1960s had between 150 and 160 sheep and goats, four yak and one or two horses. These figures are closer to what now constitutes an average herd in Rupshu-Kharnak. In 2001, a wealthy household in Kharnak had between 250 and 350 sheep and goats, 15 to 20 yak, and three or four horses.[70] The annual income from a herd of this size (given good conditions and prices) could be over Rp100,000 (Blaikie 2001; Hagalia 2004). A household with an average herd (170 to 200 sheep and goats) could expect to make Rp30,000 to Rp40,000, while the poorest households (with less than 70 sheep and goats) might only earn Rp 9,000 to Rp10,000 each year. As Blaikie points out (2001:14), the estimated average income for a good year in Kharnak is almost double that of an agricultural household in Ladakh and favourable for India as a whole.

For pastoralists, who live constantly between risk and gain, it can be difficult to estimate exactly the number of livestock needed support a household in terms of sufficient milk, meat or trade value (Bradburd 1989; Fratkin 1989). According to informants from Kharnak, the minimum subsistence herd for a household would be fifty sheep and goats. For an individual, ten to fifteen would be at the low end of the scale. As the primary means for transporting loads, most households have at least one yak.

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[70] Based on information from Nawang Chosgyal (Kharnak), Konchok Tashi (Korzok *Phu*) and Jamyang Tsering (Korzok *Phu*).

With the increased value of pashmina over recent years, the proportion of goats to sheep in herds throughout Rupshu-Kharnak has increased (Sheep Husbandry Department 2002). Goats can be more damaging to the environment than sheep as a result of their grazing habits (Aronson 1980), and the possibility that this shift could be contributing to a decline in pasture quality through degradation of the rangeland cannot be discounted. It has also been noted that the mortality rate for goats is significantly higher than that of sheep, a factor that has the potential to increase the level of risk to individual households (Hagalia 2004). According to a recent survey goats comprise a greater proportion of the herds in Kharnak (>50%) compared with those in Samad (30%) (Hagalia 2004).

Nonetheless, there is a lack of empirical evidence in relation to rangeland health, stocking rates, and grazing pressure. In the absence of this information, it is very difficult to determine the precise effect of different resource endowment between the three communities. It is interesting to note, however, that informants did not identify poor or declining pasture quality in Kharnak as a significant factor in household failure and out-migration. At present, there is little evidence to support the assertion that pastoralism is more profitable in any one of the three communities.

Pastoral Products

The herds provide the total source of income as well as much of the food consumed locally (Dollfus 1999). The milk from the yak, goat and sheep is made in yoghurt, cheese and butter, which are consumed locally. With cheaper alternatives now available in Leh, the demand for butter has declined and what is produced in Rupshu-Kharnak is used locally. During the winter when the goats and sheep are dry, powdered milk is commonly purchased from Leh to supplement the household consumption. Sheep wool is sold or traded for grains. The skins

and wool from the livestock are used to make a wide range of items including clothing, blankets, ropes and traditional tents.

Pashmina and sheep and goat meat are the principal sources of cash income for the Changpa. Live sheep and goats are sold for meat just prior to winter. In most cases butchers from Leh visit Rupshu-Kharnak and negotiate with individual households, although some households in Kharnak have hired trucks to transport their livestock to the market in Leh. Pashmina is sold to traders from Himachal Pradesh, Srinagar or Leh who also visit seasonally. The price is usually negotiated on a collective basis.

The decline in demand for traditional products such as butter and salt has been offset to a large extent by the increased value of pashmina. Despite some volatility in the price for pashmina, the trend has been generally upward.[71] In 1994 one kilogram of raw pashm fibre sold for Rp 800 to 1000. The price had increased to Rp 1700 by 1996 before dropping to just Rp 650 by the end of 1997. By 2003 the price was back up to Rp 1200 per kilogram.

Most goats produce pashmina as their soft winter undercoat, but only those that produce it in marketable quantities are called pashmina goats, or *Changra*. The extreme cold in Rupshu-Kharnak promotes the growth of pashmina. With its relatively long fibres and high tensile strength, Ladakhi pashmina is considered by some to be among the highest quality in the world. Ladakh's annual production of pashmina is around 33 000kg. At 2003 prices, this equates to earnings of Rp 39 million.[72] The fibre, which is combed from the goats, is sold in its unprocessed form (Plate 5.1). Grading, dehairing and cleaning the fibre would add

[71] A serious drop in prices was caused a failed attempt by the local authorities to establish a cooperative.

significantly to its value, but at present, efforts to establish processing facilities in Leh have not been successful. The trade is also subject to competition from illegal cross-border trade from China.

NOTE: This plate is included on page 134 of the print copy of the thesis held in the University of Adelaide Library.

PLATE 5.1 Combing pashm from the *Changra* goats in Spangchen, Kharnak July 2000

Wealth Distribution

Pastoral societies are traditionally viewed as having a high level of egalitarianism with wealth not typically concentrated in the hands of an established elite (Barfield 1993). This is true of communities in Rupshu-Kharnak where the cumulative effects of intermittent snowfall events or predation act as levellers on the community (Bradburd 1989). Wealth ranking exercises

[72] Equivalent to AUD 1.17million at the current exchange rate (2007)

conducted by separate studies in Kharnak and Samad revealed a relatively even distribution of wealth in each community (LNP 1995; Chaudhuri 1999:62).

5.3.2.3 Labour

Alongside land and livestock, labour is the other critical ingredient in the pastoral economy. Success is dependent upon a household's ability to generate, or gain access to, sufficient labour resources (Irons 1989). Phillimore (1982:167) asserts that, 'below a certain (family) size it becomes so difficult for a household to manage a flock that one finds flocks being sold off and shepherding abandoned'. Indeed, studies conducted in parts of the Middle East and Africa have demonstrated how the absence of household members, due to wage labouring or education, lead to the overburdening of women and the elderly and ultimately, failure of pastoral households (Birks 1985; Hampshire & Randall 1999). In contrast however, a study of pastoralists in the Western Himalayan State of Himachal Pradesh found that household labour did not correlate with households 'selling out' or settling down (Saberwal 1999). Instead, the author argues that, although labour is a critical component of herding systems, like property or wealth, labour alone does not influence whether a herder stays on in herding. Labour must be understood in terms of dependency ratio, not simply the total number comprising a family.

It is also vital to consider a household's access to networks of social support. Mechanisms to deal with labour shortages include reciprocal labour pooling arrangements; hiring labour from households within the community or from other pastoral or settled communities (Ekvall 1968; Bhasin 1996; Saberwal 1999; Blench 2001). In addition, household lifecycle stage is also an important consideration, as households at an earlier stage of development, with a typically

higher dependency ratio, have greater difficulty functioning independently than more established households with a lower dependency ratio.

Children contribute to household labour resources from an early age and can begin herding by the age of ten. This means that many of the first or second born children in a household are less likely to attend school compared with their younger siblings, due to the need to contribute to the domestic work and herding. By the time there are enough children to assist, the eldest have reached an age at which they are considered too old to begin schooling.

An interesting development in recent years is the decline of patron/client shepherding arrangements in Rupshu-Kharnak. The benefits of these relationships are mixed. Barth (1961) has argued that such arrangements provide an opportunity for social mobility. Others however, claim they are exploitative. For example, Bradburd (1989) found that among the Yomut, the poor were locked into a cycle of poverty. The patron/client relationship functioned to keep poorer members from leaving the pastoral sector but did not enable them to prosper. Discussions with elderly Changpa revealed positive examples of shepherding arrangements (see case study #1 in chapter 6). Elderly informants did indicate however, the decline of such arrangements in recent times, particularly in Kharnak and Korzok.

5.4 The Context of Change

When discussing change among nomadic pastoral groups, care must be taken not to imply a shift from a static state of equilibrium (usually described in positive terms) toward externally imposed change that is generally viewed as unstable and negative. Adapting to change has long been a part of life to nomadic pastoralists (Chatty 1996). Some have adapted their ways

and continued on, while others have left pastoralism behind (Khazanov 1998). There are certain events in Ladakh's recent history that are commonly highlighted for their role in the supposed decline of nomadic pastoralism in Ladakh (as evidenced by the out-migration). The four most commonly cited in explanations of out-migration from Rupshu-Kharnak are: shift from an exchange economy to a cash-based economy, demographic factors (population growth), the viability of pastoralism; and the level of integration with the urban economy (distance and accessibility). Each of these factors will now be addressed.

Introduction of the Public Distribution System

The Public Distribution System (PDS) was introduced to Rupshu-Kharnak in 1983 and has played a significant role in the decline of the traditional exchange relationships between pastoralists and agriculturalists. Traditionally, pastoral products such as butter, wool, meat and salt were traded for grains and other agricultural products. With the availability of grains at the depots there is no longer any need to travel vast distances for basic goods. 'The old networks still exist and operate to some degree, but are losing significance and dependability year on year' (Blaikie 2001: 10).

Chaudhuri (2000) has argued that the PDS has increased household vulnerability due to the need for cash and the impact that price fluctuations in the PDS can have on the household budget. While this is true, it must also be viewed in the context of the trade in pashmina. The Changpa have not simply been thrust into a cash economy with no means of earning an income. As discussed earlier, the income now generated by pastoral households, particularly through the sale of pashmina is unprecedented.

When viewed in a historical context, the PDS has also improved the food security of pastoral households. Elderly community members from Korzok and Kharnak spoke of times when the

threat of starvation was a reality. The PDS is viewed by the pastoralists as a positive development. The monetisation of the pastoral economy marks a significant shift from the past, the effects of which will always be complex and varied. The point to note in relation to its potential effect in relation to sedentarisation is that all three communities of Rupshu-Kharnak have been brought into this system.

Population Growth

It is commonly assumed that a decline in polyandry in the communities of Rupshu-Kharnak has resulted in population growth, which according to Chaudhuri, has led to:

> … increasing poverty within the community as household assets and people are divided across generations leading to uneconomic herd sizes and low labour availability within households. This, in turn, is a major cause of increasing migration to Leh. It can be seen that Korzok, which is still predominantly polyandrous, does not have a record of permanent migration to Leh.
>
> Chaudhuri 1999:61

The final part of statement is in fact erroneous. Korzok is neither resolutely polyandrous nor disassociated from the phenomenon of out-migration. The 'over population' hypothesis is an inadequate explanation for the out-migration observed. It might be reasonable to expect an increased birth rate within the nomadic population due to improvements in health care, food security and an overall decline in polyandry (Goodall 2004). Yet there is little evidence to suggest there has been any significant change in the rate of population growth in these areas.

The assumption that polyandry was singularly responsible for low population growth in Ladakh is often repeated in the literature (Norberg-Hodge 1991; Blaikie 2001; Hagalia 2004).

However, this ignores key research that has cast serious doubt over the actual demographic effects of polyandry. Sander (1983: 193) argues that neither polyandry nor the monastic system would have acted as population checks in Ladakh, in the form that they were practised, (ie. leniently). Furthermore, in her study of low natural fertility in Ladakh, Wiley argues that the factors for which there are little to no data, such as infant mortality and sterility, may have a greater role in low natural fertility in Ladakh than the traditions of polyandry or lamaism (Wiley 1998).

Changes in Pasture Availability

Some observers of the out-migration (Fox *et al.*1994; ApTibet 1999) view it as evidence that livelihood is becoming less economically viable as a result of overstocking and pasture degradation. Discussions were held in each of the origin communities to identify whether changes to the migration cycles or access to pasture have led to a decrease in the viability of pastoralism, with a particular focus on Kharnak. Although this is a highly complex area, the anecdotal evidence did not suggest any substantial difference in resource endowment between the three communities, nor evidence to indicate that Kharnak faces particular challenges when compared with Samad and Korzok. Research into resource availability is, of course, needed to determine whether ecological determinants influence the viability of pastoralism in each area. This would include testing for pasture degradation, establishing past and present stocking rates, and tracing the history of different migration patterns in Rupshu-Kharnak. In the absence of this evidence the claim of livestock-induced degradation of the rangelands remains unsubstantiated.[73]

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[73] It has been suggested that a process of desiccation is taking place throughout the Tibetan plateau with a shift toward more drought tolerant plant species, reduced plant productivity and loss of Footnote continued on next page

Change in access to pasture is an important area for consideration. Since the Chinese invasion of Tibet, approximately one hundred Tibetan pastoralists have entered Rupshu-Kharnak as refugees. Samad has a larger number of Tibetans with whom they share their pastures. Kharnak does share some grazing areas with Tibetans, however the numbers do not indicate substantial grazing pressure, and pastoralists from Kharnak report that competition with Tibetans over pastures does not directly affect their own production.

Following the loss of rich grazing lands in Skagjung as a result of China's annexation of Aksai-Chin, the Kharnak-pa had only to make comparatively minor adjustments to their migration cycle, more to accommodate the changes of the Samad-pa. It was the communities of Samad and Korzok that were forced to reduce herds and make significant changes to their annual migration cycle. Although much work is needed to fully investigate the role of resource changes, this brief discussion tends to suggest that the communities of Rupshu-Kharnak share similar level of resource endowment. There is no evidence to suggest rapid deterioration of pastures in recent years that might explain migration from one or more of the communities. A comprehensive analysis is beyond the scope of this study. However, based on evidence currently available, resource limitations are not considered to be a determining factor in the large-scale out-migration from Kharnak. This is not to undermine the continuing need for research into the complex relationship between socioeconomic change and changing resource use.

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vegetation cover. If confirmed, the potential ramifications for pastoralism and wildlife in the region are serious (Miller 2000a:101).

Integration with the Urban Economy

The distance decay model is commonly used to explain varying levels of migration toward an urban centre. According to this model, the level of migration to an urban centre decreases as the distance between the village and urban destination increases. Chaudhuri (1999) draws on this to explain the lower levels of out-migration from Korzok. However, in doing so, he depicts the Korzok Changpas as more 'remote' and physically removed from exposure to Leh and other 'outside' influences such as tourism. Unlike Kharnak and Samad, Korzok does not have a major road bisecting its pastures. There is nonetheless, greater access to Leh than in previous times and the summer period also sees a significant number of tourists and trekkers visiting the area. As in the other nomadic communities, it is not uncommon for males to frequently travel to Leh or other towns for business. In addition, such a theory fails to explain the significantly higher level of out-migration from Kharnak, when both Kharnak and Samad experience very similar 'distance' and accessibility criteria.

A related consideration is the presence of a village within or adjacent to the pastoral lands. As early as 1885 Ravenstein identified the influence of intermediate villages on migration using the term 'intervening opportunities'. In Korzok, reports of migration from the nomadic population to the small village of Korzok are mixed. Sabharwal (1996:5) maintains that migration to the village does occur. However migrants and non-migrants from among the Korzok Chang–pa disagree, stating that there is very limited scope for migration to the village due to land shortages and limited opportunities for employment. They point out that even the oldest members of the nomadic community remain with them, and are transported by animal between camps. If not a destination for settlement, however, the village of Korzok undoubtedly provides a base of support for the nomads, with a large monastery, economic exchange with the villagers, a medical centre, ration depot, school, and point of transport to other towns. In Samad there is a small cluster of permanent dwellings at Thukje where the

elderly can retire.[74] This has the potential to reduce migration to Leh for retirement and helps to maintain social and cultural connections between the generations. In contrast, Kharnak does not have a permanent settlement within its pastoral area where people stay throughout the year.[75] Their permanent settled base is now Kharnakling in Leh.

Some observers (including the Changpa themselves) have used this spatial variability in out-migration from Rupshu-Kharnak to describe it as an ongoing process of population decline in response to the growth of Leh, the influence of which is diffusing from the centre outwards (Chaudhuri 1999). Implicit in this argument is the assumption that distance from Leh determines the onset of this process of decline. As the process is viewed as linear, it is argued that the effects on even the most remote communities will be felt eventually. It is a time/space conceptualisation of development involving a centre (urban) and periphery (rural) that can be criticised for assuming that geographical distance translates to a measure of accessibility. It fails to take account of the availability of transportation and road networks, travel time, and importantly the cost of transport (Pryor 1971: xiii).

5.5 Conclusion

This chapter has discussed key aspects social and economic organisation of the nomadic pastoral communities of Rupshu-Kharnak. None of the communities has been insulated from

[74] Despite being fully equipped and having a salaried medical officer and assistant, this medical facility remains locked and unattended for most of the year.
[75] With the exception of a hermitage located at Yagang where only celibate nuns reside permanently (Dollfus 1999: 97).

the effects of the broader process of socioeconomic transformation. From this discussion we have seen that the three communities face these external changes from a shared structural context. livelihood, religion, social organisation, ecology, resource constraints, and accessibility. Doubt was cast over the some of the more commonly cited reasons for out-migration that are based on apparent distinctions between the three communities. These included: the question of population growth, resource availability and the level of exposure to, or integration with, external markets. The next chapter presents the empirical evidence for out-migration from the three pastoral communities.

CHAPTER 6

THE PATTERNS AND PROCESSES OF OUT-MIGRATION

6.1 Introduction

One of the research aims specified in chapter one was to quantitatively document the process of out-migration from Rupshu-Kharnak. Fundamental to any study of migration is establishing *who* is moving, *where* they are moving to and from, and the mechanisms that facilitate this. Placing the mobility within its historical context is also vital to avoid overstating, or conversely, underestimating the significance of contemporary patterns of mobility. This chapter addresses these substantive questions of scale, time, and space. The first of three sections in this chapter, establishes the patterns of out-migration: temporal, spatial, and structural. The second section examines the characteristics of the migrant population – using survey data to determine the selectivity of migration at both the individual and household levels. The third section presents case studies of migrant experiences, in an attempt to not only outline the processes of migration (from decision-making through to settlement), but to also illustrate the different types of migration strategies utilised by individuals and households.

As discussed in section 3.4.3 the household survey was designed to provide the empirical evidence from which to develop in-depth understanding of the out-migration and settlement process. Unlike a larger study where statistical significance and the ability to form generalisations drive the analysis, in the present study, due to the particularities of the data generated by the household survey, the data is used to establish the broader trends and patterns of out-migration. While the sample is relatively small (504 cases), there is value in including the 'small numbers' generated through analysis.[76] First, because the sample itself is strongly representative of the total migrant population in Leh; and second, because, in the study of mobility, the behaviour of a small number of individuals or households can have far-reaching consequences for the community at large.

6.2 Patterns of Mobility

The following section includes analysis of the household survey data to determine the temporal and spatial characteristics of the rural to urban migration from Rupshu-Kharnak, in addition to identifying the different forms of mobility at the individual and household levels.

6.2.1 Rural to Urban Migration over Space and Time

The household survey of migrants in Leh collected information from 103 households, which encompassed a population of 504 individuals. Of these people, 306 were 'first generation'

[76] The sampling process involved a non-random selection of migrants in Leh, and while the coverage is estimated to be within 95% of all migrants at that point in time, it is not strictly a census.

migrants from the nomadic communities of Rupshu, Kharnak and Korzok.[77] This figure is estimated to be within 95% of the total number of Changpa migrants in Leh at the time of the survey, with the underestimation of cases relating largely to longer term migrants from Korzok and Samad (estimated to be less than ten cases).

The survey shows that one-quarter of the total population of Changpa from Rupshu-Kharnak have settled in the urban area. The following table (Table 6.1) reveals that almost half of the Kharnakpa are now sedentary, approximately one-fifth of the Samadpa have settled (or one-quarter, depending on estimates of origin population), while just over 10% of the population from Korzok has settled in the urban area.

TABLE 6.1 Migrant and Non-Migrant Population from Rupshu-Kharnak 2000-2001

	Non-migrant Population*	**House-holds (N)**	**Migrant Population (Urban)****	**House-holds (N)**	**Urban Migrants as % of Total Community**
Kharnak	250	45	201	52	45
Samad	320	70	78	28	20
Korzok (Phu)	389	90	27	12	12
Total	959	205	306	92	25

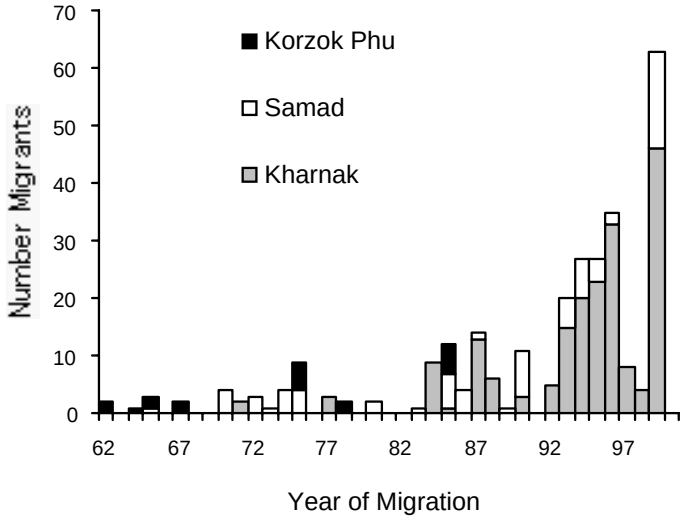
*Population estimates for 1981-1994, see Section 5.2 for more detail
** Figures based on first generation migrants from Rupshu-Kharnak recorded in household survey
Source of Data: Household Survey 2000-01

The earliest migrant traced for the household survey left Korzok with his family in 1962. In this particular case, as with others around this time, migrants were taking advantage of the availability of wage labouring jobs offered by the Indian army, which was actively engaged in

[77] The figure of 306 migrants was obtained by excluding children born after migration and spouses from non-nomadic communities from the total population recorded in the household survey.

the Sino-Indian conflict. This study takes the position that out-migration is not a new or recent phenomenon but rather, that sedentarisation has a long history among nomadic pastoral societies. However, in broad terms, the identification of the 1960's as the 'beginning' of out-migration from Rupshu-Kharnak by both Changpa informants and previous researchers, indicates a notable increase in urban-oriented migration and settlement during this period (Chaudhuri 1999, Blaikie 2001).

FIGURE 6.1 Reported Year of Migration from Rupshu-Kharnak to Leh 1962-2000



Source of Data: Household Survey 2000/01
N=285

As Figure 6.1 shows, the substantial increase in out-migration from Rupshu-Kharnak over the last ten to fifteen years. Annual peaks in the number of migrants can be related to years with heavy snowfall that often cause large-scale livestock losses. For example, in the early 1980's there was substantial loss of livestock due to bad weather and this is reflected in the first major surge in the number of migrants. In November 1998 the region experienced a snowfall,

described by some pastoralists as a '*once in thirty-year event*', which resulted in the largest influx of families to Leh. While it is informative to view the actual dates of migration, it is prudent to assess the levels of out-migration averaged over longer periods due to the potential for inaccurate recall. Table 6.2 shows the number of migrants in ten-year periods for each sending community.

TABLE 6.2 Number of Migrants from Rupshu-Kharnak 1962-2000

	Kharnak	**Samad**	**Korzok**	**Total**	**% Total**
1960-1969	0	1	7	8	3
1970-1979	5	16	7	28	10
1980-1989	29	15	5	49	17
1990-1999	157	43	0	200	70
Total	191	75	19	285	100

Note: missing cases for Kharnak=10, Samad=3, Korzok=9 due to absence of date of migration

Source of Data: Household Survey 2000/01

The level of out-migration from Rupshu-Kharnak has been increasing steadily over the past four decades with the most dramatic increase evident over the last ten years. Figure 6.2 reinforces how closely the temporal and spatial characteristics of the out-migration are related, with phases of migration associated with particular sending communities. The early phase (1960s) is clearly dominated by migrants from Korzok and out-migration from this location remained relatively steady over the following decades, tapering off to no recorded cases in the 1990s. Migrants from Samad came to dominate the levels of out-migration in the 1970s. This level also remained relatively constant through to the 1980s before increasing dramatically in the 1990s. Kharnak was slower to begin, with the first notable increase in out-migration taking place during the 1970s. By the 1980s however, the greatest number of migrants from Rupshu-Kharnak was coming from Kharnak. In 1984 a group of eight migrants from this community established themselves in the Kharnakling settlement and were followed

in 1987/88 by a group of thirteen. During the 1990s a further 157 migrants relocated to the settlement. In the early part of that decade the number of migrants settling in Kharnakling was steadily increasing. However, it was following the 1998 snowfall event in Rupshu-Kharnak that the numbers reached their peak, with 46 migrants moving to the settlement in 1999 alone.

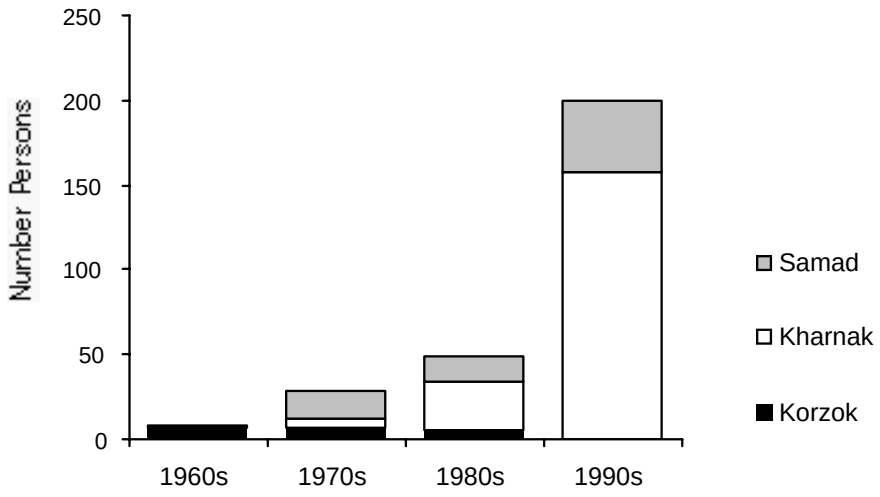


FIGURE 6.2 Out-Migration from Communities of Rupshu-Kharnak 1962-2001

Source of Data: Household Survey 2000/01
N=285

Seventy percent of all migrants traced in the survey migrated during the 1990s. Of these recent migrants, over three-quarters (N=157) were from Kharnak, the remainder migrating from Samad (N=43). Given the methodological constraints associated with reconstructing events through a survey, it was necessary to check the reliability of this data against alternative sources. The trends identified generally support those of Blaikie (2000) and Chaudhuri (1999), while adding a significant level of detail to the documentation of the

process. In addition, the total population figures and patterns of out-migration correlate with trends in out-migration identified by members of the communities involved.

As a component of total population mobility, rural to urban migration in India, as in most of the developing world, plays a relatively small role (ESCAP 1995). By comparison the level of intra-rural migration is high. In the case of mobility from Rupshu-Kharnak it is, however, important to stress the distinction between traditional levels of out-migration and more recent forms. The nomadic pastoral communities, although tending to have low natural increase (due to low natural fertility and high mortality), were never insular or static populations. Intra-rural migration of individuals, for marriage or religious training, has had a long history throughout Ladakh (Attenborough 1994). Indeed, evidence from the household reconstitution carried out with migrant and non-migrant households revealed moderate levels of intra-rural migration of individuals.[78] Analysis of the temporal and spatial patterns of out-migration has shown however, that while intra-rural migration has, and continues to, play an important role in the overall levels of population mobility, the rate of urban directed out-migration from Rupshu-Kharnak indicates the primacy of rural to urban migration for the communities of Kharnak and to a lesser degree Samad. This signals an important shift away from traditional, low-level forms of mobility to more large-scale urban-oriented migration taking place in parallel with the development of the urban area.

[78] A small number of households from Kharnak and Korzok were located in the rural villages of Shey, Thikse and Matho. This rural relocation of households was initiated either through marriage of a son or daughter and subsequent family reunification, or purchase of land by the household head.

6.2.2 Structural Characteristics

The survey sought to include all persons from Rupshu-Kharnak located in Leh regardless of their degree of permanency. Inclusion simply required that a person's place of origin or last place of residence was Rupshu-Kharnak. In addition, all households interviewed were asked to provide information for absent or non-migrant household members, including children born after migration, a non-Changpa spouse, as well as any other persons sharing their accommodation on a temporary or permanent basis. This type of destination-end, snap-shot sample cannot accurately *quantify* the various forms of migration. Yet, the identification of different types of migration has important implications for policy (ESCAP 1984).

Respondents can be grouped into three broad categories according to their degree of permanency in the destination. That is, making a distinction between migration involving permanent relocation, and other forms of less permanent mobility such as temporary and circular migration. Each is described in detail in Table 6.3.

TABLE 6.3 Description of Migrant Categories for Individual Migrants

Category of Respondents	Description
Permanent Migrant	Sedentarisation ie. pastoral activities abandoned as primary mode of production combined with urban settlement. Social, cultural and economic ties may or may not be maintained with origin. Migrant's labour and capital resources are invested in destination.
Seasonal Circular Migrant	Winters spent in urban area, summers in origin. Social, cultural and economic ties maintained to origin. Time, capital and labour resources divided between two localities.
Temporary Migrant	Short period/s spent in urban area for purpose of buying and selling goods, illness, attending a religious event, child-birth, or visiting relatives and friends. Labour and capital resources primarily invested in origin.
Non-Migrant	For classification purposes this included any member of migrant household who remains in Rupshu-Kharnak; or a child born after migration; or a spouse from a place other than Rupshu-Kharnak who joined the household after relocation.

There are conceptual problems associated with distinguishing between different types of mobility when these ultimately rely on the declared intentions of movers (Bedford 1981). To determine whether migrants were permanent or non-permanent, the present study relied not only on the self-assessment of movers, but also on the indicators of a migrant's level of commitment to (or investment in) the origin or destination. The social, cultural, and economic factors that indicate a migrant's commitment to the origin or destination are adapted to the specific context from Hugo's commitment-led typology (1983:87-89) and are described in Table 6.4.

TABLE 6.4 Indicators of Migrants' Commitment to Origin and Destination

Indicator of Commitment	Destination – Urban	Origin – Pastoral
Economic	-Capital investments in land/property/business -Investment in education -'Taxes' to origin community not paid -non-pastoral income generation	-Pastoralism as main activity -Capital invested in livestock -Financial contribution to community maintained
Social	-Obligations to *phas-pun* cease. New networks of social support established in destination	-Obligations of social support maintained to kinship network (*phas-pun*) -Visits to friends/family
Cultural	-Religious events observed in destination, eg. Kharnakling Gompa	-Participation in / or contribution to religious ceremonies

According to the categories described in Table 6.3, eighty-six percent of all migrants surveyed can be classified as permanent. Sedentarisation is the dominant form of migration from all three communities of Rupshu-Kharnak. Among these permanent migrants however, a distinction can be made between those who maintain social, cultural and/or economic commitments to their place of origin and those who do not. The majority of permanent

migrants from Kharnak (74%) and Korzok (83%) no longer return to their place of origin, even for short visits or religious ceremonies. By contrast, 71% of permanent migrants from Samad reported regular return visits to the origin of one week or longer. Irrespective of the degree to which these migrants maintain ties to the origin, they are characterised as 'permanent' due to their relocation to the destination *and* the reorientation of their daily productive and consumptive activities from the origin to the urban destination.

The second category of individual migration identified from the survey, was seasonal circular migration. This form of mobility, utilised by 12% of all migrants, involves living in Leh during the winter period and returning to Rupshu-Kharnak for the summer. In many developing countries seasonal circulation from rural to urban areas is often driven by slack periods in agricultural production cycles and a desire to re-allocate and exploit surplus household labour (Parnwell 1993). In contrast to economically motivated circulation however, much of the seasonal circulation of Changpa can be seen as a response to the extremely harsh winters experienced in Rupshu-Kharnak, which place the weaker members of the community at greatest physical risk.

Seasonal circular migrants have commitments that span both the origin and destination areas (Table 6.4). This 'bilocality' is more common among migrants from Samad (19%) than Kharnak (11%), while no cases were reported from Korzok (Table 6.5). The popularity of this form of mobility has increased in the past decade. Home ownership among this group was very high, indicating the degree of investment in the destination made by of these migrants (and their families). Among the adult population of seasonal migrants only 38% were engaged in income generating activities during the time spent in Leh. The income earned from irregular wage labouring work or various self-employment activities is used to

supplement household expenses in the destination, but is insufficient for remittances (Table 6.6).

TABLE 6.5 Comparison of Migrant Type by Origin Communities

	Kharnak %	Samad %	Korzok Phu %	Total N (%)
Permanent	86	81	100	253 (86)
Seasonal Circular	11	19	0	37 (12)
Temporary	3	0	0	5 (2)
Total Number	201	75	19	295 (100)

Source of Data: Household Survey 2000/01

TABLE 6.6 Occupations of Seasonal Circular Migrants in Leh

Main Occupation	Percent
Not Working	39
Weaving (for home)	23
Daily Labouring Work	16
Self-employment: tailor, trader, local doctor (amchi), scripture reading	22

Source of Data: Household Survey 2000/01
N=26

The third category, temporary migrants (Table 6.3) comprised just 2% of the surveyed population.[79] Migrants in this category are engaged in pastoral activities full-time and visit the urban area only intermittently and for short periods of time. Those included in the survey were staying with friends or relatives. While their number is certainly underestimated in this survey, these individuals represent part of the floating population present in Leh at any point

[79] The survey was conducted during winter to maximise the number of seasonal migrants located. As a consequence, short-term visitors have been under-represented due to the closure of passes into and out of Rupshu-Kharnak during this time.

in time and illustrate how migrant households or settlements attract, and provide a base for, visitors from the origin. These temporary visitors also act as an important conduit of information and goods between the migrant and non-migrant communities.

So far, we have examined the various types of migration utilised by individuals. However, individuals are embedded within households not only in terms of economic production, but also with regard to social obligations, decision-making structures and resource allocation. One of the limitations of neoclassical economic theories in developing countries is the almost total emphasis on the individual rather than the household (Massey 1988). The important role that families play in migration decision making is now widely acknowledged (Harbison 1981; Wood 1982; Boyd 1989). Because individual migration behaviour can be seen, in most cases, to be part of a broader household strategy, it is vital to examine migratory behaviour at the level of the household.

Migrant households can be classified into three different groups according to the forms of migration that households engage in along a continuum of permanent to non-permanent forms of mobility (Table 6.7). Of the 92 households surveyed, the majority were permanently settled with all household members located in the urban area (77%). Of these sedentary households a small number from Samad and Korzok (7%) still own livestock in the origin (Table 6.8). [80] However, for the majority, this type of migration tends to involve a severance of economic ties with pastoral production, and investment of the household labour and capital resources in the urban destination.

[80] For these migrant households, ownership of livestock in the origin was more of an investment than a direct responsibility, as the livestock had been under the care of friends or family for some years.

TABLE 6.7 Types of Household Migration

Category of Household Migration	Description
Permanent (Sedentary) Households	All members of household relocate on permanent basis to urban area. A small number keep livestock with relatives or friends as form of investment. For most, economic ties with pastoralism are cut.
Divided Households	Household is divided between those who are permanently settled in the destination and those who continue pastoralism in origin. Household may have seasonal circular migrants who oscillate between the two permanent bases. Two components of household are economically integrated.
Seasonal Circular Households	All household members relocate to destination in winter. Livestock cared for by friends or relatives until owners return for summer.

The second category of household migration involves dividing members of the household between the origin and destination. One-quarter of all migrant households maintain a permanent presence in both the origin and destination. There was a slightly higher proportion of divided households from Samad (32%) than Kharnak (27%), while there was none from Korzok. Some divided households have members who move seasonally between the two locations (seasonal circular migrants) others operate more independently of one another. However, while not all divided households maintain the same degree of economic integration between the settled and pastoral components, all members of the household benefit through the diversification of the resource base and minimisation of risk faced by the household (Stark and Bloom 1985; Katz and Stark1986).

The third category, seasonal circular migrant households, refers to only two cases, both of which were from Samad. In such cases, the entire household relocates to the destination for the winter period. Although exceptional, this illustrates a strategy of ‘part-time’ or ‘absentee’

pastoralism, which is not permitted in Kharnak.[81] Both cases involved more recent migrants (1994 and 1999). For the earlier case, the strategy of seasonal circulation led to permanent settlement in 2000 suggesting that the circulation of the household was a precursor to making the commitment to settle.

TABLE 6.8 Types of Household Migration from Rupshu-Kharnak

Type of Household Migration	Kharnak (%)	Samad (%)	Korzok (%)	Total (%)
Permanent / Sedentary (no Livestock)	73	43	83	66
Permanent / Sedentary (Livestock in Origin)	0	18	17	8
Divided Households	27	32	0	24
Seasonal Circulating Households	0	7	0	2
TOTAL % (N)	100 (52)	100 (28)	100 (12)	100 (92)

Source of Data: Household Survey 2000/01

Thus far in the analysis it has been shown that there are two main types of migrant: permanent and seasonal circular. In addition, it has also been shown that these individual migrants belong to households that are engaged in one of two main migration strategies: either permanent household settlement, or division of the household between origin and destination. Divided households utilise a strategy similar to that identified among agricultural households in developing countries, whereby household members engage in labour circulation (and other forms of temporary migration) as part of a diversification and risk minimisation strategy for the household. Yet the difference lies in the fact that divided

[81] New rules imposed for Kharnak following the 1998 snowfall event, which caused massive livestock mortality, prohibit the continuation of absentee pastoralism. This community-imposed regulation is designed to minimise stocking rates and grazing pressure and to prevent such large rates of livestock mortality from occurring again under similar conditions of stress.

households from Rupshu-Kharnak maintain a permanent base in both the origin and destination. The important question arising from this is whether this 'bilocality' ultimately leads to sedentarisation of the whole households, as Connell *et al.* (1976) and Skeldon (1977) have suggested, or whether it is a sustainable adaptation (Hugo 1982). This question will be revisited in chapter 7.

6.3 Patterns of Selectivity

It is well established that migrants do not generally 'represent a random cross-section of the population' of origin (Oberai and Singh 1983: 51). Who moves can yield important information to aid in understanding the processes of migration as well as the consequences. Migrants' characteristics provide vital information in the planning and provision of appropriately targeted services. The following section deals with the selectivity of migration from Rupshu-Kharnak at both the individual and household levels.

In order to establish the selectivity of migration, migrant characteristics can be compared with those of the general population as well as the non-migrant population. Having knowledge of migrants' socio-economic and demographic characteristics at the time of migration is the ideal way to achieve this. Yet, this is often complicated by limited sources of secondary data and time constraints. The main limitations of the analysis are outlined below.

Establishing demographic characteristics pre- and post-migration

One of the primary constraints for the present study is the limited availability of data for the non-migrant population. As outlined in chapter 3 the only reliable source of population data was limited to just one of the three origin communities. These secondary data were collected

in Samad during 1998, prior to the large-scale out-migration caused by heavy snowfall at the end of that year. Despite their limited nature, these data do provide an important and contemporary reference point for examining differentials in the migrant population.

The second limitation relates to the nature of the survey data. The household survey of migrants in Leh attempted to capture the size and nature of the rural to urban migration over living memory. Not only is the information therefore limited to surviving migrants, but the dates of migration span almost forty years. As Hugo points out: 'it is unlikely that the factors making for the selectivity of migration will remain constant in nature and strength, over time.' (1975: 330). In an attempt to address this problem, only the most recent migrants are included in the comparative analysis. This was defined using residence of less than five years to distinguish recent from long-term migrants (after Bilsborrow *et al.* 1984).

Establishing socio-economic characteristics pre- and post-migration

Information concerning herd size and composition (the primary indication of wealth) is notoriously difficult to elicit with any level of confidence during single-round surveys or interviews of relatively short duration (Hampshire and Randall 1999). For this reason, the socio-economic status of households will be examined using the more detailed data generated through interviews. [82]

Differentials examined in the following analysis will include age and sex, dependency ratios, and household structure at the time of migration. The characteristics of individuals and

[82] The broader context of socio-economic change, in which the decision to migrate is made, was presented in the previous two chapters.

households engaging in the different types of migration (eg. permanent or non-permanent forms of mobility) will also be examined.[83]

6.3.1 Characteristics of Individual Migrants

Earlier studies of migration in Oceania, South Asia and Africa tend to characterise rural to urban migrants as relatively young, predominantly male, more highly educated and from larger families (Caldwell 1969; Connell *et al.* 1976; Oberai and Singh 1983; Jetley 1984). These generalisations have been challenged however, particularly with regard to the gender selectivity of migration (Fawcett *et al.* 1984; Chant 1992). While females have long dominated short distance and intra rural migration streams in India (largely due to marital migration) (ESCAP 1984) studies have shown that since 1981, there has been a feminisation of the rural to urban migration stream (Singh 1984; ESCAP 1995). Geographical variations persist however, with rural to urban migration in Ladakh, and many other parts of India, still dominated by males (Racine 1997).[84]

With regard to the literature on sedentarisation of nomadic pastoralists, as discussed in chapter 2, the selectivity of migration depends largely on the reasons for the mobility. Jakubowska (1985) showed that social stratification played a significant role in determining which households among the Bedouin were forcibly settled. In relation to voluntary sedentarisation, economic stratification has also been shown to influence urban settlement (Chatty 1996; Barfield 1993). A common theme to emerge, however, is the settlement of the

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[83] Level of education and prior occupation are generally considered important in determining who migrates. These are not relevant to this context however, due to the lack of educational services, and the universality of herding as a livelihood in Rupshu-Kharnak.

[84] The male selectivity of rural to urban migration in Ladakh was inferred from extreme sex ratio differences between rural and urban areas (see Chapter 4.2.3).

household as a unit. It was generally only under conditions of voluntary labour migration that independent migrants were found to migrate to urban areas, and in most cases, this involved younger males, generally engaged in non-permanent forms of mobility (Galaty 1981; Birks 1985; Hampshire and Randall 1999). Among these studies, it was consistently found that, with the increasing absence of men, the burden of work has fallen on women and the elderly in pastoral communities.

More recently, the issue of household 'failure' as a cause of sedentarisation has been raised in the literature (Phillimore *in* Saberwal 1999; Chaudhuri 1999). The influence of household composition, and particularly life-cycle stage, in determining whether pastoral households stay or leave will be examined in the next section (6.3.2) in an attempt to address an area which has largely been overlooked in empirical studies of sedentarisation.

Given that the propensity of people to migrate changes at different stages in the life-cycle (Bogue 1959), a person's age at the time of migration can point to possible causes of the mobility. In the case of Changpa migration to Leh the age at migration, reconstructed from the survey data, shows a mean age of 25 years. The propensity for the young to migrate is reflected in the fact that 80% of all migrants moved before the age of forty, while 46% migrated before the age of twenty (Table 6.9).

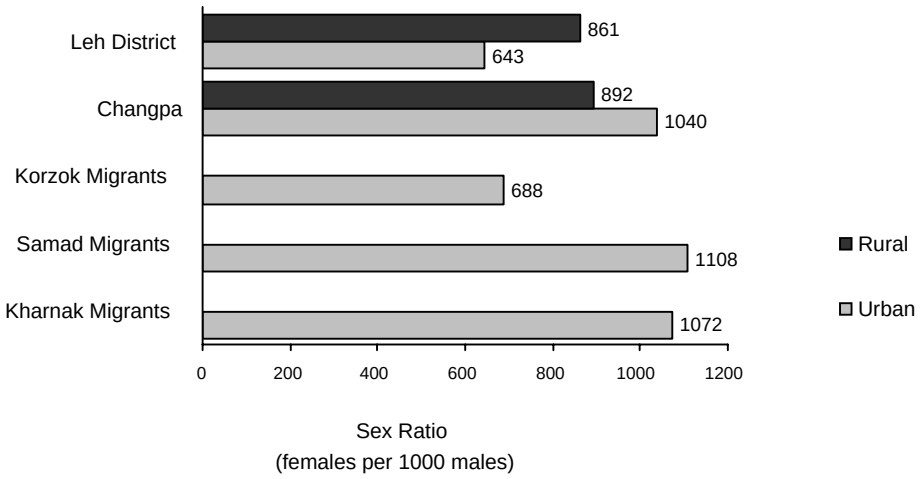


FIGURE 6.3 Comparison of Sex Ratio of Migrant Population from Rupshu-Kharnak

Source of Data: Household Survey 2000/01;
Chaudhuri 1999; Census of India 2001

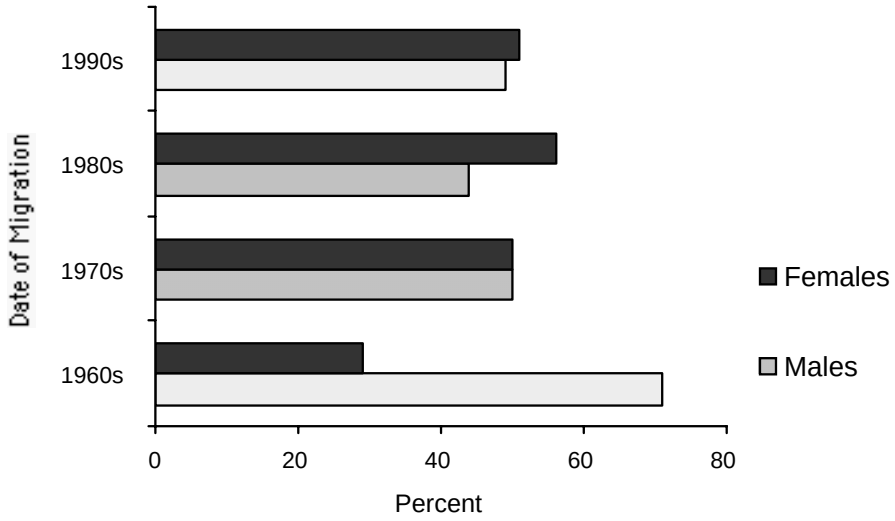
Note: Secondary population data collected in Samad during 1997/8 (Chaudhuri 1999) is used to represent the 'rural' or non-migrant population of Changpa from Rupshu-Kharnak
The category of 'urban' Changpa includes 'first generation' migrants only (N=306)

According to the household survey of migrants in Leh, out-migration from Rupshu-Kharnak is moderately selective of women. Females comprised 51% of all migrants leaving Rupshu-Kharnak, a figure which accrues greater significance when the low ratio of females to males in the sending communities is taken into account (Figure 6.3). Females dominate the rural to urban migration from both Kharnak and Samad. By contrast, migration from Korzok is

notably masculine. Throughout South Asia urban areas tend to have lower sex ratios than their rural counterparts, reflecting male dominated migration to cities. The reverse is true for cities in East and South East Asia (ESCAP 1984). The sex ratio in the urban area of Leh District is very low at only 643 females per 1000 males, compared with 861 in rural areas (Census of India 2001). In a reversal of this trend however, the urban population of migrants from Rupshu-Kharnak has a sex ratio of 1040 females for every 1000 males, compared with 892 among the non-migrant population (Chaudhuri 1999; Household Survey 2000/01). It is interesting to note that the gender selectivity trends from Rupshu-Kharnak correspond to the growth in independent female migration to urban areas throughout India since 1981 (Figure 6.4).

With reference to the age distribution of the non-migrant population, migrants' age at migration shows a similar distribution across the three broad age categories of (<15), (15-59), and (60+), suggesting that the migrants represent a reasonable cross-section of the community of origin. There is however, a slightly higher propensity for migration among those in the dependant age groups. While female selectivity is evident across all three age groups, this is strongest among those of working age or physical retirement when compared with the same age groups in the origin (Table 6.9). The age-sex profile of migrants at the time of migration is nonetheless, remarkably balanced for a migrant population and is largely a reflection of 'whole of family' movement (Figure 6.5).

FIGURE 6.4 Gender Selectivity of Migration from Rupshu-Kharnak 1960-2000



Source of Data: Household Survey 2000/01
N=306

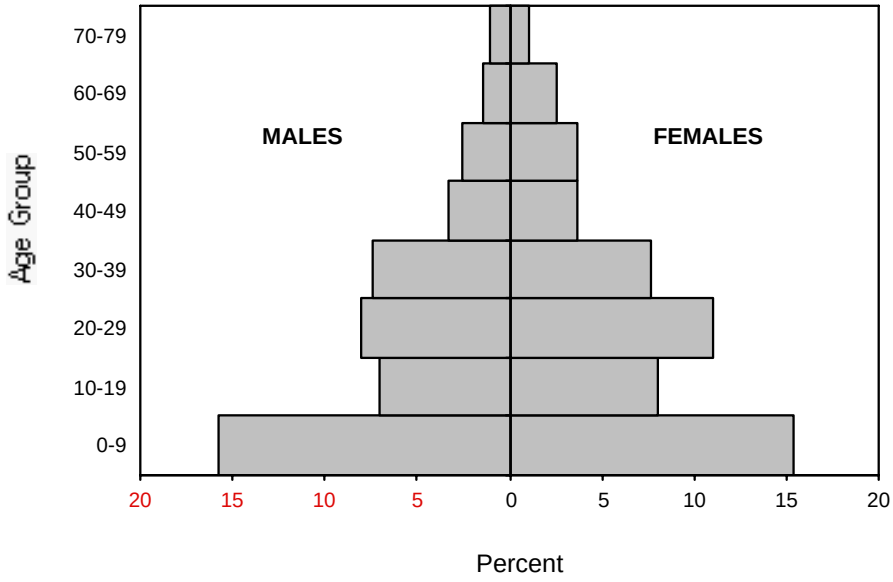
TABLE 6.9 Migrant and Non-Migrant Age and Sex Distribution at Time of Migration

Age-Group	Non-Migrants* %				Migrants** %			
	Males	Females	Total	Sex Ratio***	Males	Females	Total	Sex Ratio
<15	21	16	37	800	20	20	40	1035
15-59	29	28	57	946	25	27	52	1114
60+	3	3	6	1000	3	5	8	1400
Total Number				316				143

*Population data for Samad in 1998 are used to represent the non-migrant population
** Using recent (1995 onwards) migrants only
*** Sex Ratio represented as number of females per 1000 males

Source of Data: Household Survey 2000/01; Chaudhuri 1999

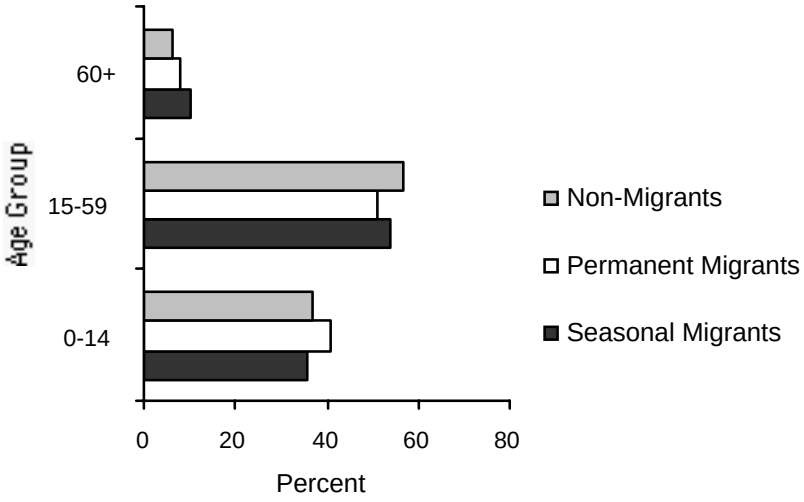
FIGURE 6.5 Population Profile of Migrants at Time of Migration



Source of Data: Household Survey 2000/01
N= 272

The age group (10-19 years) does appear to have a lower propensity for migration (Figure 6.5), although requisite age-specific data for the origin is not available for comparison. If this group is under-represented among migrants, two possible explanations can be advanced. The first is based on interviews conducted with non-migrants, where it was commonly stated that teenagers in the household were 'too old to begin schooling', and therefore remain in Rupshu-Kharnak where they contribute to the household labour force or earn money through herding for others. The second explanation relates to the pre-migration context, and more specifically, the household composition and lifecycle stage. The hypothesis that households at an 'early' stage of the family lifecycle (nuclear family with young children) will have a higher propensity for migration will be tested in the next section that deals with selectivity of migration at the level of the household.

FIGURE 6.6 Age at Migration of Recent Migrants (1995-2000)

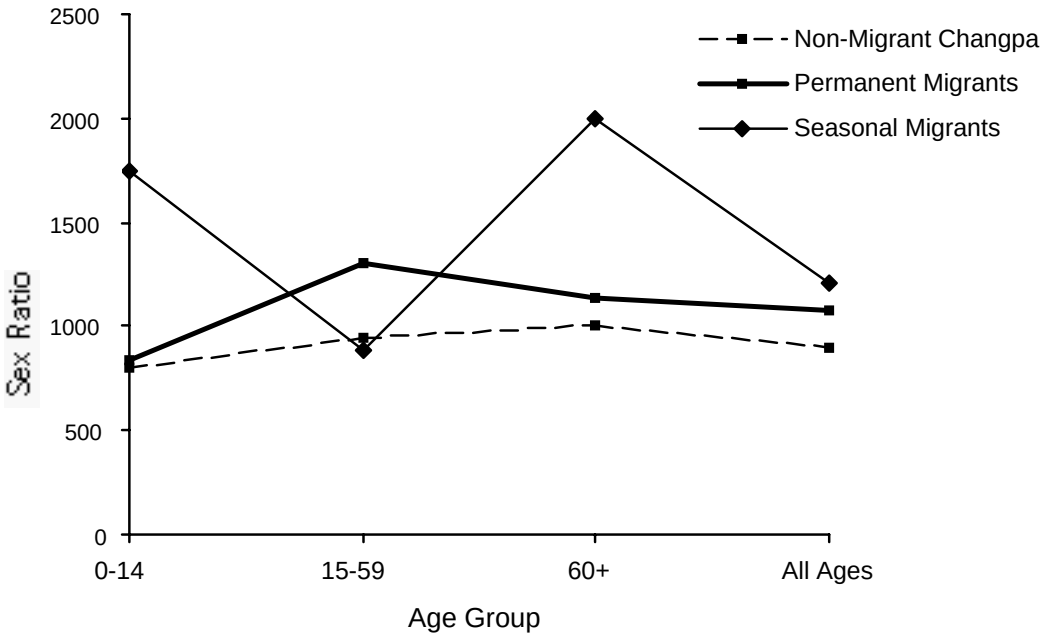


Source of Data: Chaudhuri (1999) and Household Survey 2000/01
N=300

Overall it has been shown that the rural to urban migration from Rupshu-Kharnak is moderately selective of females, and of those in the dependent age groups. However, given that the migrant population is dominated by permanent migrants, originating mostly from Kharnak, it is important to test whether this selectivity differs according to the type of migration. Figure 6.7 reveals that there is stronger gender selectivity among seasonal circular migrants. While the population of permanent migrants tends to be slightly more feminine across all three age groups than the origin population, the sex ratio of seasonal circular migrants shows extreme female selectivity in the dependant age groups (0-14) and (60+), pushing the sex ratio for seasonal circular migrants higher than that of permanent migrants (to 1235: 1000 cf. 1079). Increased mobility among elderly females is expected given the longer life expectancy of females in India and increased mobility of elderly women following the death of their husbands (Hugo 1975). However, it has not been possible to

determine why the sex ratio for circular migrants aged less than fifteen is so heavily biased toward females.[85] There is minimal gender selectivity however among seasonal migrants of working age. This indicates the minimal social constraints to female labour migration, and as analysis of employment of seasonal circular migrants has shown, (Table 6.6), income-generating activities are often supplementary to the role of carer/ guardian in the urban settlement. It is important to discern the implications of these patterns of age and gender selectivity for the places of origin and destination. A useful measure for determining this is the dependency ratio.

FIGURE 6.7 Comparison of Sex Ratio by Type of Migration



Source of Data: Household Survey 2000/01 and Chaudhuri 1999
N=143

[85] The actual number of cases in each age category for seasonal circular migrants was less than ten and this has tended to exaggerate the gender differentials.

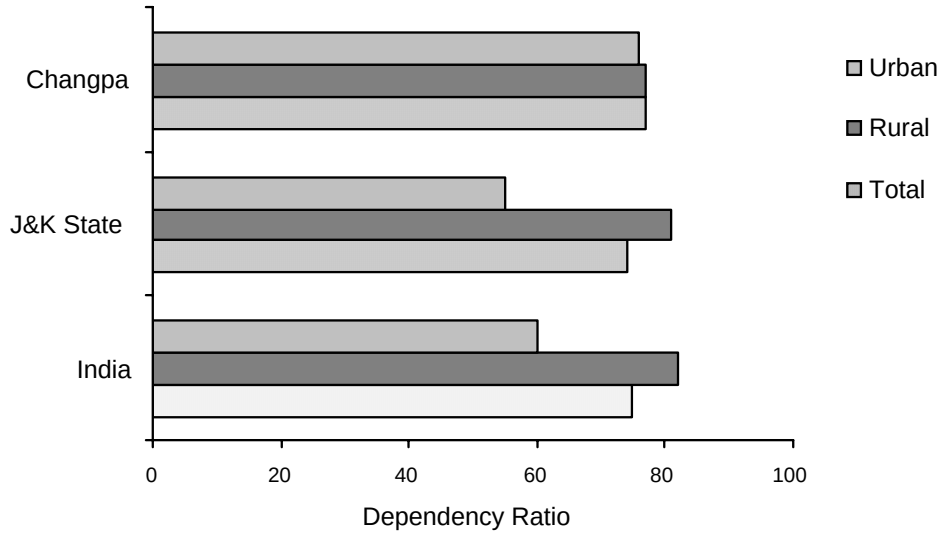
The dependency ratio is generally considered to be an effective indicator of the degree of ageing or youthfulness of a population (Siegel and Swanson 2004). It is expressed as the number of economically inactive persons for every 100 economically active persons in that population (Pollard *et al.* 1974). In the present study, the ratio has been calculated by showing the total number of people in the 'dependent' age groups (0 – 14 years) and (60 + years) as a proportion of those of working age (15 - 59 years).[86] The ratios are calculated for the migrant population in the urban area and compared with the pastoral population in Samad, as well as with the patterns of dependency for rural and urban areas at the state and national levels. This measure is useful for determining whether the patterns of rural to urban migration from Rupshu-Kharnak are leading to changes in the burden of responsibility for households in the destination or for those left behind.

Dependency ratios tend to be lower in urban areas than in rural areas due to the age selectivity of migration. This is evident for India as a whole and for the State of Jammu and Kashmir (Figure 6.8). However, when compared with the non-migrant population in the origin, the dependency ratio of migrants and their families at the destination is only marginally lower. It is also worth noting that the Changpa communities in both rural and urban settings have dependency ratios slightly higher than the national average. While the dependency ratio among migrants and their families in Leh is very similar to that of the non-migrant population in the origin, the age-specific dependency ratios reveal that the ratio of elderly dependents is higher for the migrant population (Table 6.10). This is in contrast to the national trend for urban areas, which tend to have a lower ratio of elderly persons to working-

[86] While the convention regards 64 as the upper definition of dependency, this study regards Chaudhuri's use of 60 years in the Samad data set to be appropriate, given the low life expectancy and small number of aged persons in this population. A person of 60 years or over can be seen as a dependent given the labour intensive livelihood context of nomadic pastoralism.

age than rural areas. In the context of nomadic pastoralism in Ladakh, field observation has revealed that there are potential benefits for having higher aged dependency among the migrant population in the urban area. Not only does such a strategy relieve the burden of the elderly on the mobile households, but it also has the potential to reduce the risks and discomfort associated with living in Rupshu-Kharnak, in addition to increasing access to services such as health care.

FIGURE 6.8 Comparison of Dependency Ratio



Source of Data: Census of India 2001; Chaudhuri 1999; Household Survey 2000/01

TABLE 6.10 Comparison of Age-Specific Dependency Ratios

		<15 Years	>60 Years	Total
India	(rural)	68	14	82
	(urban)	49	11	60
Changpa	(rural)	65	11	77
	(urban)	56	20	76

Note: Data from Samad used to represent rural population (non-migrants) from Rupshu-Kharnak

Source of Data: Compiled from Census of India 2001; Chaudhuri 1999; Household Survey 2000/01

Analysis of the household survey has shown that overall, permanent migration from Rupshu-Kharnak is not strongly selective of either age or gender. This can be explained by the predominance of complete household relocation. The migration stream can however, be characterised as moderately feminine, (in contrast to district level patterns of rural to urban migration in Ladakh), as well as having a slightly higher representation of elderly and young than the origin communities. The significance of this 'u-shaped' age selectivity has previously been overstated however (Dollfus 1999; Blaikie 2001). Analysis of dependency ratios, and age at migration indicate a relatively balanced age structure among the migrant population. It was also found that, while it is a relatively less common form of mobility (12% of total), seasonal circular migration is not strongly selective of age, although retirees are slightly over-represented. In terms of gender selectivity however, seasonal circular migration was found to be selective of females, and particularly in the dependent age groups (0–14) and (60+). Among working age circular migrants, there was no notable gender selectivity. The analysis of migrants' characteristics has tended to suggest that individual migrant behaviour can be explained in terms of broader household or family strategies of migration. Given that migration of individuals, including females, is heavily influenced by household factors (Chant

1992a; UN 1996), attention will now be turned to the characteristics of migrant and non-migrant households.

6.3.2 Characteristics of Migrant Households

As outlined in the theoretical discussion in chapter 2, analysis of out-migration at the level of the household is a key component in the analytical framework of the present study. Characteristics of households, such as demographic composition and lifecycle stage, are important explanatory variables in any multi-level approach to migration (Harbison 1981; Guest 1989; Bilsborrow *et al.* 1987; Spaan 1999). A broad typology of migrant households was outlined in an earlier section of this chapter (6.2.2). The present section examines how household composition and lifecycle stage affect migration from Rupshu-Kharnak.

Of the two main types of household migration identified, permanent out-migration (sedentarisation) was shown to be dominant in each of the three communities. The strategy of household division has gained popularity since the 1970s. While it is only utilised by one-quarter of all migrant households, this strategy is relatively more common among households from Samad than those from Kharnak. It is not unusual for villages to specialise in particular types of migration due to the influence of historical factors and social networks in shaping the form and direction of mobility (Hugo 1975; Guest 1989; Spaan 1999).

Household composition, or structure, is highlighted as an important factor in determining the viability of pastoral households, due to the high demand for labour (Khazanov 1984; Blench 2001). It is therefore expected to have a significant influence on migration, and indeed, the *form* of migration. It has been argued that increasing nuclearisation of households in the communities of Rupshu-Kharnak is a significant cause of migration to Leh due to their

subsequent failure due to labour shortages (Chauhduri 1998). At present, empirical evidence to support this argument is extremely limited and, as argued in chapter 5 (section 5.3.1), many of the underlying assumptions are erroneous. It is nonetheless important to examine the role of household structure and lifecycle stage on migration.

Surveyed households were classified into three types according to their structure at the time of migration: 'joint /extended', 'nuclear', and 'single- headed' households (Table 6.11). These categories also allow broad comparisons to be drawn between the migrant and non-migrant populations using secondary data for Samad.[87] According to the population census conducted in Samad (Chaudhuri 1999), the majority of households are nuclear (65%), followed by joint/ polyandrous (25%) and female-headed households (10%). This is consistent with Khazanov's findings from a review of nomadic pastoral societies that households are predominantly nuclear, and the communities of Kharnak and Korzok are not expected to deviate significantly from this distribution (see discussion 5.3.1.1).

TABLE 6.11 Structure of Migrant Households Leaving Rupshu-Kharnak

Household Structure	Definition
Joint / Extended	Migrant is part of larger household unit that may or may not have settled. There are three generations present at a minimum.
Nuclear	Household represented by two adult members, with or without dependents. Household operates as independent economic unit. Usually a 'khaun' (subsidiary household) of retirees or second or third male sibling of household striking out on their own ('grongsar').
Single	Household headed by single male or female, with or without dependants. Includes widowers and independent migrants of both sexes.

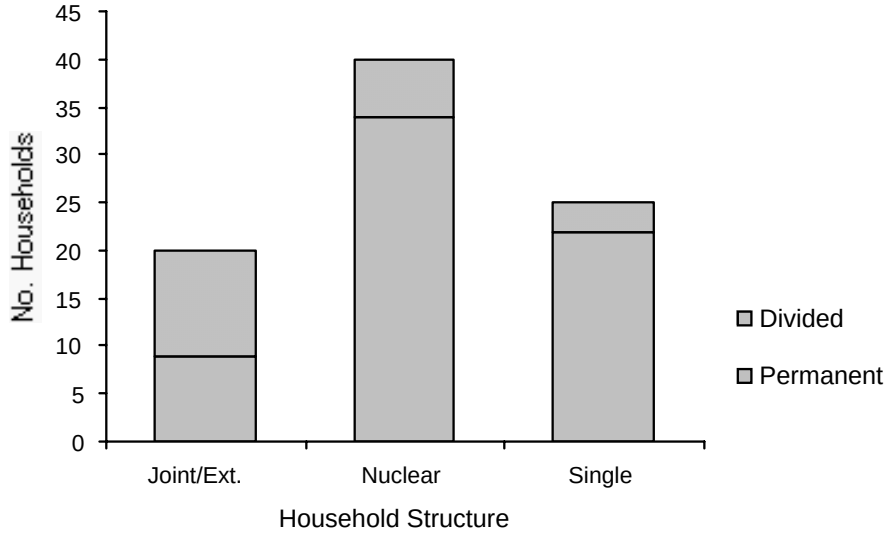
[87] The author acknowledges Harbison's statement (1981: 249) that households and family structure change over the family or individual lifecycle. For the purpose of examining migration decision-making within the family context, the household composition at the time of migration is used.

Among the surveyed population of migrants in Leh, 48% of households were nuclear, 29% were single (male or female head), and 23% were joint/extended. While the data for household structure among the migrant and non-migrant populations are not directly comparable, they do suggest possible selectivity for migration among single-headed households. There is evidence in the literature to support such a trend. Among female migrants to India's urban areas, it is estimated that up to 19% head their own households (Buvinic and Youssef 1978 in Singh 1981: 101). Similarly, Pryer (1992) notes the increasing numbers of female headed households in rural to urban migration in Bangladesh, which she explains in terms of an intensification of rural poverty that has 'eroded the ability of the patriarchal family system to maintain women as dependents' (*ibid* :139). Furthermore, in a study of rural to urban migration among the Turkana nomadic pastoralists, Renfrew (1991) found that more widows and single women with children had settled in the town, adding that such vulnerable households would have previously been cared for in the pastoral sector. This issue of female-headed households is an important component in understanding out-migration from Rupshu-Kharnak and will be revisited in the final section of this chapter using migrant case studies.

While reliable data on migrants' pre-migration economic situation is not available for the present study, it has been shown elsewhere, that demographic traits of households can have relatively more explanatory weight than the indicators of economic prosperity (Spaan 1999:271). As shown in Figure 6.9, over half of all households that have migrated on a permanent basis are nuclear in their structure (52%), and a further 34% are single headed households. By contrast, over half of all households engaged in a divided strategy of migration are joint/ extended (55%). This suggests that the household dependency ratio, and subsequent availability of labour, does influence the form of mobility. The higher propensity

for joint households to engage in less permanent forms of mobility is supported in the literature (Hugo 1975; Guest 1989; Afsar 1995; Spaan 1999).

FIGURE 6.9 Comparison of Household Structure at Time of Migration with Household Migration Strategy



Source of Data: Household Survey 2000/01
N=85

However, while joint households appear to have greater capacity for the strategy of household division (ie. non-permanent mobility) than nuclear or single households, this was not the case for all communities (Table 6.12). In Samad, the majority of households who divide their members between origin and destination are, in fact, nuclear in structure (66%). A degree of caution is required in interpreting this finding, as the number of cases referred to

is less than ten. However, the households involved were characteristically at a later stage of development with comparatively low dependency ratios.

TABLE 6.12 Household Structure of Permanent and Divided Migrant Households

	Permanent Households				Divided Households			
	Joint %	Nuclear %	Single %	Total % (N)	Joint %	Nuclear %	Single %	Total % (N)
Kharnak	18	53	29	100 (38)	72	14	14	100 (14)
Samad	12.5	37.5	50	100 (16)	17	66	17	100 (6)
Korzok	0	73	27	100 (11)	0	0	0	100 (0)
Total % (N)	14 (9)	52 (34)	34 (22)	100 (65)	55 (11)	30 (6)	15 (3)	100 (20)

Source of Data: Household Survey 2000/01

The literature shows that while household labour resources are critical to the viability of pastoralism, they, along with wealth and assets, are not the sole determining factor, given alternatives such as hiring labour and sharing grazing duties, to ease the burden on labour-poor households (Saberwal 1999). The vulnerability of households to failure increases at particular *stages* in the lifecycle - indicated by the ratio of dependents to working age. Labour plays an important role in household viability, but low levels can be mediated by networks of social support and mutual assistance. In Kharnak, support systems for labour-poor households have been depleted by large-scale out-migration. By contrast, efficient labour sharing arrangements were found to be common among labour-poor households in Samad.

The fact that nuclear households from Samad can engage in a strategy of household division between origin and destination supports the case that nuclearisation does not necessarily equate to labour deficiency. Typically, these households have progressed beyond the

incipient stage of household formation, and have children who are old enough to make a significant contribution to the household workload.[88] In addition, labour-poor units, such as female-headed households, comprise 10 percent of non-migrant households in Samad (Chaudhuri 1999), which suggests that deficiencies in labour resources do not solely determine the viability of a pastoral household as these can be met through networks of social support. It is argued that the higher proportion of divided households from Samad is not a reflection of the greater prevalence of joint household structures (or polyandry) in this community as asserted by Blaikie (2001), but rather as an indicator of the functionality of social support mechanisms in the pastoral communities.

As the discussion has shown, a high dependency ratio within the household, combined with a low level of social support in the community of origin, is a significant cause of out-migration. Such a pattern of household failure leads to settlement, not just of the elderly and young members of the community, but of an age- and gender-balanced cross-section of the community as previously shown (section 6.3).

The demographic description of households and individuals, while important, still only provides a partial explanation of migration in the absence of social and cultural factors. The final section of this chapter now turns to focus on the processes of out-migration, including consideration of the decision-making process, social networks, and the normative context of migration.

[88] As discussed in Chapter 5, section 5.3.2.3, some children begin herding at the age of ten and prior to that they help with the domestic work.

6.4 The Processes of Out-Migration

In detailing the processes of out-migration, this section draws upon qualitative research material and establishes an important foundation for the subsequent discussion of the determinants of migration in chapter 7. Migrant case studies serve a dual purpose of demonstrating the processes of out-migration, from decision to relocation, as well as illustrating the different household migration strategies described in earlier sections of this chapter.

6.4.1 Case Studies of Migration

The following four migrant case studies have been selected because they represent a broad range of experiences, although they are not intended to represent typologies in any way. An effort has been made to include longer-term and more recent migrants, households of varying composition, and with different socio-economic backgrounds. Each case outlines the decision making process; detailing how this was made, by whom, and under what context. Also discussed are the sources of information and assistance utilised in the resettlement, as well as the migrants' own reflections on the decision to settle.

Case #1. 'Tashi' – 65 year-old male. Head of a nuclear *khang-chen* from Korzok. Household migrated permanently to Thikse during the 1960s.
[Interview #7 2001]

Tashi was born in 1936 in the nomadic community at Korzok. He was an only child of an elderly couple with whom he lived until he married and took over the *khang-chen*. He inherited 150 sheep and goats and seven yaks; an average size by today's standards, but small at that time given that it was not unusual for households to have herds of one-thousand

sheep and goat and one-hundred yaks. He was a strong and fit man and enjoyed the lifestyle. "We had everything we needed: butter, cheese, milk – life was *skidpo* (enjoyable)".

Tashi's parents died when he was in his early twenties, and the 60 sheep and goats belonging to the *khaun* were passed on to him. To build up his herd, Tashi took on additional herding duties for another household in return for which he earned one rupee per month plus a reward of one sheep or goat each year for good work. In just three years of doing this, he increased his herd by 15 animals. This labour sharing arrangement between wealthier and poorer households was common at the time and made it possible for labour-poor households to maintain large herds if they could afford to hire help. However, Tashi states that these days, such arrangements are rare, claiming that the cost of hiring labour is now prohibitive (Rp 1500 per month).

By the age of 27, Tashi and his wife had three daughters, aged 5, 7, and 10. In the early 1960s however, an exceptionally severe snowfall caused massive livestock mortality throughout the community. He relates how the pastures were buried under waist-deep snow and how they resorted to burning the tent supports, as all the fuel was buried. Although all households suffered livestock losses, it was those with smaller herds that were hardest hit. Tashi was left with just ten goats, the remaining animals had all starved and the yaks had literally been lost in the snow – he could not even recover their skins. Unable to meet their basic needs, Tashi decided to join a small group of five families who were relocating to Leh. There was labouring work available in Thikse with the army (then active in the 1962 Sino-Indian conflict), and not knowing where else to settle, he and a number of other families settled in the village. Others went to either Leh or Stok.

Through his work with the army, Tashi earned a reputation as a strong worker and was proud to tell us that he was known locally as '*Dara Singh'.*[89] He was able to obtain agricultural land in Thikse by watering the plantation of poplars owned by the Gompa. Learning how to do agricultural work was difficult, but people in the village were very kind and gave him a lot of assistance. He and his family were readily accepted into the community and joined a local *phas-pun*.

[89] Reference to historical figure renowned for his strength and power.

After many years of physically demanding labouring work Tashi and his wife had established themselves well in Thikse. They have a large two-storey house and have sent all of their girls to school. In almost forty years, Tashi has only returned to Korzok once, for a festival in 1988. Reflecting on his decision at the age of sixty-five, Tashi says he had no other choice at the time and that they have made the best of the situation. He used to miss life in Changthang, but never seriously considered returning once his girls began school and they had settled into their new community.

Case #2. 'Rinchen' – 64 year-old male from Samad. Head of a nuclear khang-chen that has engaged in a divided household migration strategy since 1986. [Household survey #67]

Rinchen is the head of a nuclear family from Samad. At the age of 29 he married Lamo who was then 18. Prior to migrating to Leh in 1987, Rinchen, his wife and six children formed a *khang-chen* household and had a large herd of 300 sheep and goats and 20 yaks. Managing the herd was not difficult with the contribution from the older children. The three daughters were then aged 20, 17, and 12, and the boys were 11, 7 and 4. In 1975, at the time of inheritance, Rinchen had purchased some land in the housing colony, on the outskirts of Leh, where he built a small house for somewhere to stay during his trading visits. He had heard about this from friends in Samad who had either purchased land there or been given land by the government. He thought the investment could also provide them with good insurance for the future in case of illness in the family.

In 1986 there was a heavy snowfall in Samad, and the family's herd was reduced by 50%. Rinchen and Lamo, now expecting their seventh child, decided to sell the remaining livestock and to shift the family to the house in Leh. They knew a number of families who had already settled and obtained good jobs, and thought that if they could get their children through school they would be able to get work with the government and secure the family's future. They also expected that life would be a lot easier in Leh, without the extreme winters and the need for constant movement.

After just two years in Leh however, Rinchen and Lamo decided to return to Samad. Although their eldest daughter had secured labouring work and four other children were attending school, Lamo disliked living in Leh. It was too hot, the food tasted different, everything cost money, and there was nothing for her to do. They returned with the eldest two daughters, then aged 19 and 22, as well as their 9 year-old son and 18 month-old boy. The three children remaining in Leh (girl: 14 years, boys: 13 and 6 years) were cared for by relatives and continued their schooling.

Back in Samad, Rinchen purchased seventy sheep and goats with part of his savings, and began to rebuild the herd. There was enough money to also invest in another property in Skara, closer to Leh. After a year or two, the eldest daughter moved back to Leh, to live in the house in Skara and to care for her younger siblings. She has since married a man from Leh, has two children, and runs a busy restaurant near the bus stand. A few years later, the second daughter also moved back to Leh for marriage, leaving her younger brother in Samad to help their parents. The eldest son, now 25 has not been able to find employment in Leh, despite completing the 11th Class, and he has been suffering from depression. He is married, but must rely on his eldest sister for financial support. The youngest daughter has repeatedly failed the 10th Class exams and is now also unemployed. The family members are hopeful that the second to youngest son will have greater success. At the age of 18, he has recently commenced training with the police force. The youngest boy, now 13, has foreign sponsorship and attends the respected Moravian Mission School in Leh.

Over the years, Rinchen has invested heavily in their two houses in Leh, and both are imposing two-storey properties. Rinchen counts his good fortune that he purchased the land years ago, as it is now worth many times what he paid for it. While they have their health, he and Lamo will stay in Samad. Even when old age makes the life in Samad too difficult, they will pass their herd on to their son who has remained with them, and they will be able to stay with their children in either location. Although they consider that the children have benefited from their education, in terms of increased awareness and knowledge, Rinchen and Lamo feel that overall, the return on this investment has been disappointing due to the lack of employment opportunities.

Case #3. 'Padma' – a 37 year-old female from Kharnak in a polyandrous khang-chen household that migrated permanently to Leh in 1999/2000.
[household survey #50; Interview #11]

In her early twenties, Padma married into a household consisting of two brothers and their elderly mother. The family had an average sized herd, with 150 sheep and goats, ten yaks, and three horses. Despite their relatively good position with regard to household labour availability, and sufficient livestock, the decision was made to settle permanently in Leh. While this was discussed among the adults, the ultimate decision about where to go and who to contact for assistance was taken by the head of the household, Sonam (the elder of the two brothers). Sonam considered that it was best to move to the Kharnakling settlement: "to be among our own people". Getting land in the settlement was not easy however, as it is becoming harder to find and more expensive. It was through an elderly relative based in the settlement that Sonam finally obtained a small block, on which they constructed three small buildings at a cost of almost 1.5 Lakh.

Initially, they planned to divide the household between the settlement and Kharnak. In 1999 Padma, Sonam, and their two younger children (aged 9 and 3) moved to their new home in Kharnakling. The second husband, twelve year-old daughter, and 73 year-old mother-in-law (*Abi-le*) remained in Kharnak to care for the livestock. While in Leh, Padma gave birth to a son, and the following summer, all five returned to Kharnak. However, in their absence, *Abi-le* had suffered due to the cold and increased workload. It was then decided that they would all shift to the settlement before winter returned.

While Padma initially spoke of labour shortages and of the difficulty of moving as motivations for settling, more in-depth discussions revealed that the decision was heavily influenced by concerns for their children's welfare. Padma has a tragic, but unfortunately not uncommon, story of child-bearing. At the age of 37, she has given birth to eight babies, yet only four have survived. Her first six pregnancies occurred in quick succession and four of the babies died as a result of premature birth or neonatal complications. After this, she began to use contraception to increase the interval between pregnancies, and she has since had a two more sons (now aged 3 years and 6mths). For the last two deliveries, Padma came to the hospital in Leh. However, the previous deliveries all took place in Kharnak and were only assisted by her mother-in-law, and on some occasions, she had to deliver on her own.

Padma described how the trauma she experienced in losing so many babies has caused her to become over-protective of her four children, and unwilling to put them at risk, especially when moving to Leh is a viable alternative. She and her husbands also expressed a desire to educate the children to provide them with a 'better life'. The herd was sufficient for their needs, but they had suffered losses due to snowfall in 1998, and were aware that having a modest herd made them more vulnerable. It was thought that to invest their wealth in Leh and in their children's education was a safer option. When asked why they did not choose to divide the household, Padma said that this would require both her husbands and the eldest daughter to remain in Kharnak, which they were not prepared to do. Their daughter needs education, and Padma is also unable to do labouring work in Leh due to backache and caring for the young children, so the men are needed in Leh to help subsidise expenses with wage labour.

Sonam is involved in selling wool and other products from Kharnak in the Leh market. The younger husband does labouring work in building construction. He found this very difficult at first because he had problems communicating and was also unfamiliar with the type of work. A friend in the settlement took him to a job, and from there, one job has led to another. It has taken 18mths to get the two daughters admitted to school, and Padma worries about the ongoing fees and expenses (Rp 2000 for admission, then Rp 250 each month). Padma is concerned about their future, particularly if the children can't get good (government) jobs. She says that returning to Kharnak would be very difficult now as they have sold everything to come here. Given that Kharnakpa are no longer allowed to leave animals with relatives, they have no fall-back position. When asked why so many people are coming from Kharnak as opposed to Samad or Korzok, Sonam said that there were various reasons, including the cold, a desire for education and an easier life. But the large numbers are because there is a chain reaction as people see others move away, they too want to go. He says every year more and more families are leaving and before long, there will be no one left.

Case #4. 'Dolkar' - A 68 year-old female head of khaun in Kharnak. Migrated permanently in 1995.
[Interview #3 / Household Survey #41]

Dolkar was part of an extended *khang-chen* household in Kharnak, which she shared with her husband, their four daughters and one son. Their son married and he and his wife had two sons of their own. Three of the daughters left the household: one for marriage within Kharnak, one became a nun, and the third went to work in Shey as a domestic servant. This left the household with seven members, comprised of four adults of working age, as well as Dolkar's ageing husband, and the two young boys.

With their labour resources, the family was in a good position to expand their modest herd. However, serious tensions developed between Dolkar and her daughter-in-law. Inter-generational conflict is not uncommon, and was cited by many interviewees as a significant cause of early household division. It was decided however, that because the father was quite frail at this time, he would remain with their son in the *khang-chen*, and only Dolkar and her teenage daughter, Tsering, would form the *khaun*. At first, Dolkar was relieved to be free of the terrible fighting. They received their share of the herd, one young female yak (*drimo*) and ten sheep and goats. Even with so few livestock however, Dolkar and Tsering struggled to manage on their own. Dolkar was suffering from arthritis and much of the work (in- and outside the tent) fell to her daughter who was then only thirteen. Moving camps was the most difficult part as there was no one to help with the heavy lifting and they constantly fell behind the rest of the group.

Knowing that the burden on her daughter would only increase as she grew more frail, Dolkar called on her *tshawo* (literally 'grandson', but reference to distant relation) whom she knew had good contacts in Leh. He is part of a wealthy polyandrous household that is divided between Thikse and Kharnak. He arranged a room in Kharnakling for Dolkar to rent and accepted Tsering into his own family in Kharnak. The daughter, who had previously migrated to Shey, moved in to care for her mother. When she was married a year later, Dolkar brought Tsering from Kharnak to the settlement for support. With the meagre amount she can earn through labouring - Rp120 per month) Tsering pays for their food and rent. However, because this work is only intermittent, they rely heavily on the goodwill of friends and relatives who can offer them temporary accommodation. They live in a state of uncertainty, never knowing if

there will be enough work and unable to earn enough to escape the cycle of debt and poverty. Despite their insecurity, Dolkar says life is better in Leh. She tries not to think of the past and says she would not have lasted long in Kharnak. 'At least here, Tsering can earn a few rupees during the day so we can eat together in the evening and go to sleep without worrying.'

6.4.2 The Context of Migration Decision-Making

Migrants from Rupshu-Kharnak can be divided into two very broad categories based on the context in which the decision was made. The four case studies illustrate the motivational factors that can lead to a decision that is either *impelled* or *strategic* in nature. For both Tashi (#1) and Dolkar (#4), the decision to move permanently to Leh was largely one of survival. Both were poor in terms of household labour resources and livestock. They also lacked material support from kin in their respective communities. Dolkar's move to the *khaun,* as a result of conflict with her daughter-in-law is not uncommon in pastoral society, according to Ekvall (1968: 25). Furthermore, intra-household conflict has been identified as an important cause of out-migration in developing countries (Connell *et al.* 1975; Hugo 1981). For Dolkar, this led to a situation where her household was not equipped with sufficient labour or livestock resources to be viable. In Tashi's case, the combination of having a small herd, high dependency ratio, and no parents or siblings from whom to draw support, meant that his household was not able to withstand the impact of an exceptionally harsh winter. The availability of labouring work with the Indian army was fortuitous. However, it was Tashi's relatively tenuous position in Korzok that provided the impetus for him to take up that opportunity.

Similarly, case studies #2 and #3 demonstrate that household type (eg. nuclear or polyandrous/ extended) alone does not determine labour availability. Case #2 is a good

example of a nuclear household that, because it was at a latter stage of the family life-cycle, had good labour resources, and was therefore able to allocate household members between origin and destination. Case #3 was a polyandrous household that faced moderate labour deficiency, due to having young children whom they wished to educate. Due to their more favourable economic and /or labour situation, both households were not impelled to settle, but rather were able to use permanent or non-permanent migration to Leh as a strategy of resource diversification and risk minimisation. The decision to invest in property in Leh, as well as in education for their children was seen as a strategic investment in the family's future stability. The decision to settle was also seen as a way to reduce the level of risk to family members, in addition to improving the family's long-term prospects for prosperity.

The four cases provide a more detailed indication of the link between household failure and out-migration and negate the overly deterministic assumption that nuclear households are more vulnerable to failure (Chaudhuri 1998), or that *khauns* comprise the greater number of migrant households (Blaikie 2001). The cases illustrate the importance of family life-cycle stage, herd size, labour availability and kinship support networks in determining household viability and resilience.

6.4.3 The Role of Women in Migration

The case studies show that the decision to migrate tends to involve input from all adult members of the household, with each contributing their views and information to a collective decision. Respect for one's elders and the household head (usually a male) is an important cultural factor that influences this process of deliberation between family members. In Rupshu-Kharnak, community governance, decision-making and representation generally fall within the male realm to the exclusion of women. However, women do provide input within the context of the household setting and through informal networking (Reis 1983; Ahmed

1996). Disagreement over the decision to migrate between husbands and wives, or between different generations was not uncommon. However, no cases were identified where the move was made under duress, reflecting the process of negotiation between male and female family members.

Unlike trends identified for northern India and many parts of South Asia, relating to *purdah* and the seclusion of women (Singh 1984), there is no strong cultural prescription against independent female migration or workforce participation among buddhist Ladakhis. While independent female migration for marriage or religious training has had a long history in the region, the example of independent female labour migration identified in case #4 was not unusual in the migrant population studied. Follow-up interviews with independent female migrants revealed that intra-rural and rural to urban migration of single women for employment, rather than marriage, is not a recent or unusual phenomenon. In most cases, the move was economically motivated, and aimed at assisting the pastoral household either through remittances, or by simply by relieving the household of a consumer.[90] The women also reported that they migrated in connection with other female migrants, suggesting the role of personal and family networks in facilitating this small, but not insignificant, migration stream. This follows the findings of numerous studies of migration decision-making in the Asian context which suggest that independent labour migration is more commonly a result of a household-level decision relating to the allocation of labour, than a result of individual decision-making (Findley 1987; Guest 1989; Hugo 1992). Independent female migration from pastoral societies has not been accorded much attention in the literature and would benefit from further detailed research.

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[90] Food shortages experienced prior to the introduction of government rations in 1981 were frequently mentioned as a cause of female out-migration.

Among the pastoralists in Rupshu-Kharnak there are clearly defined gender roles. The domestic work is seen as the female sphere, while the work outside the home, including trade and cash handling, is carried out by men. As a result, women have less familiarity with Leh, and often experience greater difficulty adapting to the urban area. Both pragmatism and necessity result in a high level of female workforce participation however. There are minimal gender-based social constraints to the type of work that women engage in, although the higher proportion of women than men in the category of 'not earning' reflects the continued role of women in the domestic sphere (Table 6.13).[91]

TABLE 6.13 Employment of Male and Female Migrants of Working Age (15-60 yrs)

Employment	Females %	Males %
Not Earning	46	23
Labourer	31	18
Self-Employment	15	32
Army (incl.labourer)	8	13
Government	0	7
Other Skilled	0	7
	100 (N=94)	100 (N=90)

Source of Data: Household Survey 2000/01

It was also found that male migrants engage in a far greater range of employment opportunities than female migrants, and no women have managed to secure the few government jobs on offer. Employment for female migrants is predominantly in the area of labouring (agricultural and construction), followed by self-employment opportunities such as weaving carpets or running small restaurants or shops. In addition, secondary income

[91] There were however, households where, due to incapacitation of the male, these roles were reversed, with the husband caring for the children while the wife went out to work.

generating activities were recorded for men and women, and ranged from trade with their pastoral community of origin and scripture reading (for males), to weaving (females). It should also be noted that up to one-third of migrants, aged over 60, were engaged in income generating activities, including traditional medicine (*amchi*), scripture reading, shopkeeping, and weaving.

6.4.4 Social Networks

A key theme connecting the four case studies is the role that trusted friends or relatives played in providing information and access to housing and employment in the urban area. With the exception of pioneer migrants, all migrants surveyed in the present study indicated that they were following in the footsteps of kin or friends from their place of origin. These contacts were able to provide potential migrants with information on employment opportunities and housing availability in the urban area. They were also able to facilitate the adjustment of recently arrived migrants by providing material and social support, temporary accommodation, and access to the job market. Numerous studies have confirmed the significance of social networks in directing and encouraging migration flows; particularly in developing countries (Caldwell 1969; Pryor 1975; Ritchey 1976; Hugo 1981; Boyd 1989; Skeldon 1990).

It is interesting to note that the social networks between the communities of origin and destination did not lead to the patterns of 'occupational clustering' among migrants from particular villages as found for example, by Landy (1997) in India and Hugo (1975) in Indonesia. This is possibly due to the limited opportunity for specialisation within the informal sector in Leh, as well as the dominance of wage labour work for unskilled migrants.

The pioneer migrants from Kharnak comprised a small entrepreneurial group who already had good contacts in Leh through trade networks and frequent visits. The particular group of eight families who migrated from Kharnak in 1984 were not the 'first' people to leave Kharnak (as discussed in section 6.3.4), but they can be identified as the pioneers of a subsequent chain of migration because they were responsible for establishing the Kharnakling settlement. These families had the financial resources to invest in Leh, as well as connections with Tibetans in Choglamsar from whom they purchased their land. The fact that the pioneer migrants constituted a group of families supports the evidence suggested by Connell *et al*. (1976) that the initial acts of out-migration from a village may involve larger units than the household or family in the process of decision-making. Whereas, '[s]ubsequent migration flows … are more clearly focussed on the needs and desires of individuals or families.' (*ibid*: 26).

In an interview with one of the pioneer migrants from Kharnak, he argued that newcomers to the settlement should be charged a fee in recognition of the hard work and financial investment made by previous migrants in the establishment of infrastructure and facilities.

> It was difficult – we had to work everything out for ourselves. We faced difficulties getting the land, building our homes. We lobbied the government for services and we have even built a gompa [monastery]. Those who move here now [from Kharnak] have it easy.
>
> [Interview #1, 2001: Male aged 50, pioneer migrant from Kharnak]

The idea of cumulative causation articulated by Massey (1988; 1990) is particularly relevant to the explanation of out-migration from Kharnak. 'Migration flows become self-sustaining as information flows, patterns of assistance and obligations develop between the two locations.' (Boyle *et al.* 1998: 77). Currently, with over half of all community members now settled in

Kharnakling, the flow of information between the pastoral and settled communities is facilitated by the movement of temporary and seasonal migrants. More striking, is the heavy investment among non-migrants in property in the Kharnakling settlement. It was estimated by Kharnak-pa that among the thirty-five to forty households still practising full-time pastoralism in Kharnak, only ten do not own land in Kharnakling. Such a high level of investment in the urban area among non-migrants from Kharnak is partly a reflection of the availability of land in Kharnakling. There is also however, a general acceptance among non-migrants in Kharnak that investing in property in Leh provides insurance for the future, even if there are no immediate plans to settle. Hugo has argued (1981: 205), that particular beliefs, values and norms within villages can act to constrain or encourage migration. This concept will be explored further in chapter 7 through comparative analysis of the three communities.

6.5 Conclusion

This chapter set out to answer the fundamental questions of *who migrates*, *where*, *when* and *how.* To summarise the main empirical findings:

- The selectivity of migration: In contrast to rural to urban migration trends for the northern States of India, there is a slightly higher concentration elderly, young and women among the migrant population from Rupshu-Kharnak. However, the predominance of family migration tends to negate the singular importance of age or gender in determining an individual's propensity to migrate.
- The level of out-migration has indeed been increasing over time, but not at a uniform pace. The three villages show very different patterns, rates and types of mobility, and this differentiation by origin suggests the influence of community-level factors.

- Support and information from relatives and friends was crucial for the majority of migrants in finding work and land in Leh. The corollary however, is that those who do *not* move, lack access to personal networks. To determine whether this is the case, chapter 7 will examine case studies of non-migrants and returned migrants.

This chapter has also tested some important hypotheses relating to household structure, labour availability and the propensity to migrate. It was found that household lifecycle stage, dependency ratio, social support networks, and herd size, play a greater role in determining household viability than household type (ie. polyandrous or nuclear, *khaun* or *khang-chen)*. The next chapter examines the causes of, and constraints to, out-migration from Rupshu-Kharnak. The contextual factors outlined in chapters four and five will be drawn back into the discussion in an attempt to situate the individual and household level factors within the broader context of macro-level socioeconomic change.

CHAPTER 7

OUT-MIGRATION FROM RUPSHU-KHARNAK: CAUSES AND CONSTRAINTS

7.1 Introduction

The previous three chapters have examined out-migration from Rupshu-Kharnak at three different levels of analysis. Chapter 4 established the macro context of socioeconomic transformation taking place in Ladakh, while chapter 5 examined how social and economic changes have affected each of the communities of Rupshu-Kharnak. In chapter 6 the focus shifted to the micro-level, where patterns of selectivity and the processes of migration decision-making were analysed. This chapter presents a synthesis of the various levels of analysis, at the foundation of which, lies a conceptualisation of migration as a multi–dimensional phenomenon resulting from the complex interplay between individual decision making and structural forces of change. It is argued that only through consideration of a wide variety of social and economic factors can a satisfactory interpretation of out-migration from Rupshu-Kharnak be attained. While much of the discussion is devoted to the contextual analysis of out-migration, micro-level (individual) factors that cut across community boundaries, such as articulated motives and personality traits, are also explored. Within this framework, this chapter addresses the fundamental question: why are the Changpa settling down?

7.2 Determinants of Out-Migration: The Micro-Level Perspective

7.2.1 Articulated Motives

The limitations of using articulated motives to understand the determinants of migration have been widely documented (Connell *et al.* 1976; DeJong and Fawcett 1981; UN 1996). From a conceptual point of view, it is argued that a focus on migrants' stated reasons for moving incorrectly implies that a single cause of migration exists, and that once it is identified, it can be quantified. It is also argued that the methodology is flawed for, as Connell *et al*. state: 'to seek such a reason by interviewing a migrant is to place undue reliance on the memory of one relevant party to the decision to migrate.' (1976: 26-27). Moreover DeJong and Fawcett (1981) argued, the subjective responses to the question *why did you move?,* are subject to what is termed *post hoc rationalisation* and ultimately reveal little of the underlying causes.

While it must be acknowledged that the information has low response validity because it is subjective and subject to change over time (UN 1996: 44) it is important nonetheless that the articulated motives are not dismissed outright. It would be equally unbalanced to exclude the subject's own voice in a study of migration. Where caution must be taken, is in relation to how this type of information is interpreted and the significance that is placed upon it. Articulated motives are only inadequate if used without due consideration of structural factors. The techniques used to elicit the responses are also important. For example, in-depth interviews are more fruitful than a single round survey that simply asks 'why'. This is evident from the results of both forms of data collected in this study.

During the household survey of migrants located in and around Leh (N.103) respondents were asked why they had decided to leave their community. Responses followed a

consistent pattern, most commonly citing one or more of the following: heavy snowfall, loss of livestock, or illness of a family member. However, conducting follow-up in-depth interviews with purposively selected sub-groups, underscored the limitations of this form of direct questioning. While a great number of migrants, particularly the more recent movers, had indeed shifted as a result of heavy snowfall during the winter of 1999, further exploration of the household situation prior to leaving Rupshu-Kharnak revealed that the snowfall event acted as a catalyst for many families rather than the cause. This supports Hugo's finding in the Indonesian context that, "[f]requently only the circumstance which 'triggered' the move is reported and the complex set of factors which was really involved in the process is ignored." (1975: 457).

It is not uncommon for a causal link to be drawn between articulated motives and migration behaviour. In his discussion of out-migration from Rupshu-Kharnak, Chaudhuri (1999) lists the most important factors promoting migration to Leh (Table 7.1). The data were obtained through discussion with a group of six men in Kharnak, the majority of whom were non-migrants. This small group was undoubtedly cognisant of the opportunity to advocate their community's needs to a well-funded, international NGO. The dynamics of this relationship would suggest the strong possibility of bias in responses. So called 'push factors', such as the lack of health care and educational services in the pastoral areas, were then cited by the author as the main 'causes' of migration to Leh. While such an exercise is useful in the first instance for determining the breadth of factors contributing to the move, it does not explain the structural factors leading to the broader phenomenon of out-migration (Portes 1978:5).

Another problem associated with the use of articulated motives is the fact that the original conditions that first stimulate movement out of a community are unlikely to be the motivation behind more recent migrations. Migration can persist even in the absence of the conditions

that first impelled out-migration from a community (Spaan 1999: 54). This is due to the selfperpetuating nature of migration and the role of social networks. Massey's (1990) call for greater use of longitudinal data to overcome this problem was not feasible within the parameters of the present study. However an attempt was made to address the problem by interviewing migrants at different stages of out-migration. The articulated motives of long term migrants (migrated >20 years ago) and recent migrants (migrated within the last decade) were similar in that they tended to explain the move in line with the 'distress' or 'strategic' typology. This demonstrates the limitations of articulated motives and the need for more information to elicit the context of the move.

TABLE 7.1 Chaudhuri's "Comparative Chart of Reasons for Leaving Kharnak" (1999: 26)

NOTE: This table is included on page 195 of the print copy of the thesis held in the University of Adelaide Library.

In the exploratory stages it was also useful to seek the views of non-migrants regarding the motivation of those who have left their community. Again, the most common response relates to the difficulties many of the migrants faced prior to moving. However, when

respondents were asked to comment on the high rate of out-migration from Kharnak, the responses were intriguing. Among the Samadpa and Korzokpa it is commonly believed that this is due to greater wealth in Kharnak. From the perspective of Kharnakpa however, the greater number of migrants is a result of the difficulties their community faces during the winter. Winter camps in Kharnak are the most inaccessible of any of the pastoral communities. In addition, the local topography is said to increase their vulnerability to heavy snowfall, as the steep valleys receive only a short period of sunlight each day, limiting the rate of snow melt. The relationship between community-specific factors such as wealth or local conditions will be examined later in this chapter as part of the comparative analysis of the three communities.

7.2.2 Personal Traits of Migrants

Analysis of the demographic characteristics of migrants undertaken in chapter 6 revealed slightly higher selectivity among women and those in the 'dependant' age groups. Overall the selectivity was weak due to the prevalence of 'whole of household' migration. Numerous scholars have pointed to the influence of more subjective factors, such as personality traits or attitudes and perceptions, in migration behaviour (Germani 1965; Hugo 1981; Skeldon 1990). Such characteristics are undoubtedly associated with different types of migration. For example, pioneer migrants are often found to be enterprising individuals due to the greater level of risk associated with being a 'trail blazer'. Studies have found that participants in the initial stages of a migration stream tend to be from either of the two extremes of socioeconomic status, as the wealthiest are most able to afford to take the risk of migration, while the poorest have little to lose (Barth 1961; Findley 1987). However, while socioeconomic stratification and associated risk-taking behaviour may be important in the incipient stages of out-migration, the influence of socioeconomic status declines as migrant networks develop and reduce the level of risk and uncertainty associated with the move

(Findley 1987; Hugo 1981; Massey 1990). This was certainly evident among the early cases of out-migration from Rupshu-Kharnak. Among the first families to leave Korzok, as well as those from Kharnak, the migrants tended to have good access to information outside the community. Using their contacts with people in Leh or among the Tibetan community, these families were able to obtain land, and invest their wealth in and around Leh. Not all were wealthy however; some left Korzok destitute. Yet, the more developed the migration stream, the less socio-economically stratified it is expected to be. Because the present study was conducted at the 'developed' stage of out-migration, (ie. retrospectively) we would not expect to find a strong association between personality traits and attitudes to distinguish recent migrants from their non-migrant counterparts.

Personal attitudes regarding issues such as hardship and quality of life are important and subject to change. There is strong evidence that subtle shifts in perception are taking place among the communities with greater exposure to national campaigns promoting education and health care issues, as well as contact with foreign tourists. Indeed this is a trend observed in studies conducted in both pastoral and non-pastoral communities throughout Ladakh (Norberg-Hodge 1991; Blaikie 2001). While the dissemination of new ideas and information regarding alternatives to pastoralism may be slowed by inaccessibility and lack of infrastructure, information reaches the communities of Rupshu-Kharnak via radios, visits from NGOs and government officials, and most importantly from trusted kin returning from Leh. Information regarding alternative locations from kin or relatives is highly regarded and often takes precedence over other sources. It is predominantly men who have the greatest access to 'new' information as a result of more frequent travel beyond the pastoral areas and contact with outsiders. However, as discussed in the previous chapter, the dissemination of information and household decision-making are largely gender inclusive processes.

Personal traits are expected to influence how an individual might respond to certain pressures. However it is also clear that personality traits are not ingrained as broader social influences, such as peer pressure and normative contexts of migration, can act to change an individual's perceptions and attitudes. Migration does not appear to have become a *rite de passage* in Ladakh as has been observed in other contexts (Hugo 1975, Spaan 1999) but there are certainly stark differences evident between attitudes among non-migrants in Korzok to those in Kharnak. It is argued here that such differences result from a process of normalisation of migration in Kharnak, brought about by the magnitude of the migration stream from the community, and fostered by the strong ties maintained between the pastoral community and the migrant settlement in Leh.

This brings the discussion back to the distinct community-level characteristics of out-migration from Rupshu-Kharnak. The micro-level issues of decision-making, personal characteristics and articulated motives are, in themselves, insufficient to explain the distinct community-level patterns of out-migration. The community-specific strategies demand attention, given that the three communities share a common setting of macro-level socio-economic change yet exhibit such distinct patterns of out-migration.

7.3 Contextual Analysis of Out-Migration: The Community-Level Perspective

Inclusion of all three pastoral communities in Rupshu-Kharnak adds a comparative dimension to the present study. As shown in chapters 4 and 5 the three communities are subject to similar structural conditions. The very distinct variability in levels of out-migration from each community suggests that community-level factors play an important mediating or intervening

role. The local structural conditions were examined in chapter 5 with a focus on socio-cultural, ecological, demographic and socio-economic characteristics. This chapter draws on that information to compare the three communities and to identify local structural conditions that have influenced the migration patterns.

A number of theories have been put forth in the available literature to explain out-migration from Rupshu-Kharnak. Some of these have already been discussed and discounted, for example the claim that a decline in polyandry has led to unsustainable population growth (chapter 5); or the idea that nuclearisation of the household has led to increased household failure and out-migration (chapter 6). Single-factor analyses of the determinants of the migration have proven inadequate when applied to such a complex phenomenon. This study has aimed to identify the underlying causes for the population mobility, an exercise that goes beyond theoretical musing. In the most practical sense it is an attempt to foreshadow future trends in mobility, and from this, to offer some policy alternatives.

Historical factors such as the availability of wage labouring work with army in 1960s provided the initial opportunity for out-migration. This developed into chain migration along personal networks. However, this process only gained momentum in the case of Kharnak, thus begging the question 'why?'. We now turn to examine the role of community-specific factors such as community governance and normative contexts; as well as the influence of various government policies and interventions.

Intervention Strategies

Intervention strategies, both from within the communities and from the government (LAHDC), can exert significant influence over patterns of out-migration. During the early wave of out-migration from Samad (1960s) the government instituted a program of grants to encourage

pastoralists to remain in the origin. This program still operates, with financial compensation paid to households in Samad for any loss of livestock caused by snowfall or predation. While it is difficult to determine the exact influence of this form of support, or subsidisation, the policy undoubtedly achieves its aim in terms of reducing out-migration from Samad, particularly among households already facing difficulties. It also demonstrates the lack of a cohesive approach on the part of the local authorities toward the nomadic communities. The strength of representation and advocacy from within each community largely determines the extent to which their needs are met.

Community Governance

Another important distinction between the three communities relates to the specific regulations that govern pastoral practices in each community. In Samad migrants are compelled to maintain their financial and social contribution toward community affairs in Samad if they wish to retain their pastoral rights in the area. By contrast, little effort has been made to stem the migration from Kharnak. Indeed, following the snowfall event in 1999, part-time pastoralism was banned by the community in Kharnak due to fears of overgrazing, thus restricting the available choices. This recent change regarding absentee pastoralism does not affect any migrant households as there are presently no households from Kharnak that fall within the category of 'seasonal circular', or that are engaged in absentee pastoralism. Nonetheless, given that many left animals with family or friends upon leaving as a fall back position, the implication will be that those contemplating leaving now face a potentially tougher decision involving a greater level of commitment to urban area.[92]

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[92] According to Hagalia (2004) community leaders in Samad agreed in 2003 to prohibit absentee herding. This rule affects approximately 16 migrant households. However some migrants are able to circumvent the ruling by leaving animals in the care of Tibetan pastoralists in Samad to whom the rule does not apply.

Socioeconomic Differentiation

Prosperity is as much responsible for out-migration as poverty (Mathur 1994:64). Areas that have benefited from economic growth are often found to have higher mobility (Massey 1990; Afsar 1995: 64). Indeed, the belief that greater wealth among the Kharnakpa is the reason for greater out-migration from that community is not limited to views in Samad or Korzok. Some of the elderly members of the community in Kharnak stated: 'people have lot more money nowadays so they can afford to move away, we didn't have an alternative' [Interview # 2, male, 78 years old 16/07/01 Kharnak – Zara camp]. As discussed in chapter 5, there is little evidence to support the assertion that pastoralism in any one of the communities is more profitable than in any other. The Samadpa argue that their pashmina is the finest and highest quality in Changthang, but there is little evidence to support the argument that Kharnakpa are settling in greater numbers due to an overall higher level of wealth. As discussed earlier in this chapter, the influence of socioeconomic status on mobility declines with the development of a migration stream. The question is therefore not so much one of whether the Kharnakpa are wealthier now compared to the other nomadic pastoral communities, but rather, were the Kharnakpa wealthier relative to the other communities, during the period preceding the increased levels of out-migration.

Clearly, the Changpa in Rupshu-Kharnak now have greater access to cash than previously as a consequence of the shift away from exchange relationships to a cash-based economy.[93] Further, the average income in the nomadic pastoral areas is generally higher than that in

[93] The idea that nomads are wealthy is often reinforced by the fact that the men sometimes carry large sums of money in the *gonchas* (overcoats). Without easy access to banks, this is done out of necessity, more than an indication of excessive wealth.

agricultural communities in Ladakh. There is nothing to indicate that Kharnak has benefited from greater economic development in recent decades due to better access to markets or a monopoly advantage over the pashmina trade. In selling their products, whether pashm or meat or wool, the communities of Rupshu-Kharnak not only compete with each other and against Tibetans, but also among themselves, that is, between households. As a result, the benefits of economic development have been broadly distributed throughout the nomadic communities and not limited to any one group. More simply, while all three nomadic communities have benefited from economic growth driven largely by the demand for pashmina, it is argued that the Kharnakpa have an outlet for their additional earnings through investment in the Kharnakling settlement. This is not to say that it is impossible for Samadpa or Korzokpa to obtain land in Leh, as that is far from true. However, the social networks between the pastoral and settled communities of Kharnakpa facilitate migrants' access to land. Rather than reinvesting wealth in their herds or sending a child away to school, the Kharnakpa have a ready alternative and the means to access it.

Normative Context

Psychosocial phenomena, such as the normative context surrounding decision-making, are closely associated with socioeconomic or sociocultural changes. The very high rates of investment in land in Leh among the Kharnakpa is evidence of the forward planning and acceptance of settlement as part of their future livelihood strategy, be it full or partial settlement. This partly reflects the availability of land in Leh to the Kharnakpa, but it also reflects the normalisation of the very idea of settling. By contrast however, among those interviewed in Korzok, a majority did not consider that there was any realistic alternative to pastoralism, regardless of whether they were satisfied with their present situation.

Chain Migration and Kharnak's 'home away from home'

The population of Kharnak Chang-pa is now almost equally divided between Leh and Kharnak. The cohesiveness of the migrant community is expressed both spatially and socially within the Kharnakling settlement. A high level of participation in community-based religious activities is one example of this. Another is the continuation of social events, such as gatherings to perform the traditional *zhabs–bro* dance. Strong kinship and economic ties are maintained with the origin through a continual stream of visitors and traders.

In response to the question: 'why did you move away?' the three most commonly cited reasons were first because of animal losses due to snowfall; second due to the physical problems caused by the extreme cold; and third to join friends or family who had previously moved. These responses emphasise two important aspects of the migration. First, the large number of 'distress' movers, and second, the role of chain migration.

To address the prevalence of distress migration first, it must be noted that environmental conditions, such as the frequency and severity of snowfalls, do not appear to have changed significantly in recent times. Traditional survival strategies in times of stress involved reliance on extended family for support and pooling resources such as labour and livestock. Serious labour shortages have been the cause of much of the 'distress' migration, particularly in recent times. It should be noted that the high level of distress migration from Kharnak is not necessarily indicative of an increase in stress factors in the origin, but rather of a reduction in the ability of households to cope with the extreme events associated with living in a high risk environment. With the extended family members either not present or unwilling to help, there is a reduction in the ability of households to continue with pastoralism.

In many cases, and this was shown in the demographic profile of the settled population, families deciding to settle have young children and are at a vulnerable point in the household lifecycle. In weighing up the decision to move, and determining their capacity to manage and rebuild their herd, the opportunities to earn a cash income from labouring in Leh with the added benefits of access to education and health care, begin to outweigh the prospects of remaining in Rupshu-Kharnak. Migrants from each of the pastoral communities referred to the helplessness they had experienced in the pastoral areas. It was common to hear men and women describing these difficulties in terms of a shift in societal attitudes toward increased individualism and competition. It is likely that the problem of increased isolation of the family unit is taking place in all three communities. However, it was found that families in Samad had formed small informal groups to share grazing duties on a rotational basis. In the case of Kharnak, the mechanisms of chain migration influence how families respond to the changing conditions. In the absence of government or community intervention, out-migration from Kharnak continues to increase.

The foregoing discussion was intentionally limited to specific motivations and contextual factors behind the decision to migrate. This is because the combination of chain migration, historical factors, and community regulations, together provides the strongest explanation for Kharnak's significantly higher levels of out-migration, in contrast to the more commonly cited influences such as distance, socio-economic differentiation or changes to household structure.

7.4 Constraints to Migration

As DeJong and Fawcett (1981: 29) have noted: 'Addressing the question of why people do not move is as significant as the analysis of why they do in understanding migration decision-making.' There is a need to look at households that have *not* migrated. A key argument presented in chapter 6 was that households with poor networks of support in their community have a higher chance of migrating *if* they are also at a point of vulnerability in the lifecycle. This is a reference to the young, labour-poor households in Samad, who have formed small collectives in order to share the burden of grazing.

Among non-migrants in Samad and Korzok there was a clearly articulated understanding of the need for cash and a job to be able to live in Leh. There is widespread awareness of some of the problems associated with shifting to a sedentary existence within a cash economy. Although many of the women had never travelled to Leh, they had heard from others who had found it overwhelming, frightening, and uncomfortably hot. Two middle-aged sisters in Samad, who had never been to Leh, spoke of their situation vis-á-vis the possibility of moving away. 'What's in Leh for us? We have no land there and Leh is only nice if you have money. Here we don't have to pay for the wood to make a fire'. [Interview #2, females aged 38 and 50, Samad - Tagaseru camp]. Although life is hard in Changthang, and they face many difficulties, moving away is not a realistic option for them. Among non-migrants who expressed dissatisfaction with life in Rupshu-Kharnak, it was not a lack of information or wealth that was preventing them from leaving, but rather a lack of the requisite social networks and connections to make it a reality. One household of prospective migrants in Samad, who had been seriously considering moving to Leh for some time, had not yet

decided to take the first steps, as their situation was, as they put it, not bad enough to warrant taking the risk.

This study has endeavoured to recognise the diversity of situations and behaviour patterns that govern the process of decision-making in the place of departure, which as Racine (1997: 17) points out, is most often the place of attachment. In his study of migration in the south of India, Racine (1997) reminds us that amidst the tide of rural to urban migration there are those who simply choose to remain in rural areas. Indeed, despite rapid urbanisation, the vast majority of India's population is still located in rural areas. He argues that retention rationales can be strong and do not simply lead to immobility but to different forms of mobility.

It is particularly important to view cases of non-migration from the high out-migration areas. A very useful case study is that of 'Tashi Chosgyal' [interview # 9, Kharnakling 26/10/01]. This Kharnakpa has all the characteristics of a migrant. He is young (27), entrepreneurial, and despite having no formal education he is confident and articulate. Tashi has inherited the *khangchen* from his father who has recently retired to Kharnakling. He is married and lives year-round in Kharnak with his wife, elderly uncle, his younger brother, and his two children, aged three and one. He visits Leh up to five times a year for trading and is relatively well off, owning 250 sheep and goats, 20 yak, and four horses. Dressed unusually in a neatly buttoned-up white business shirt and wearing a flashy gold watch, Tashi is clearly attracted to aspects of the urban lifestyle and is acutely aware of how Changpa are stereotyped as unclean and ignorant. He has very good contacts in Leh but chooses to stay. He is an example of a strategic non-migrant. That is, while he has an eye on the opportunities in Leh, he is satisfied with his current situation. This allows him an exit strategy however, if his circumstances were to significantly worsen. He has good labour resources and the capital to be able to do this.

Tashi's story is a cautionary one that illustrates the diversity within the migration stream. It is also a reminder of the complex interaction between individual factors and broader structural forces and how these can lead to divergent responses. Its not just that he continues with pastoralism while the going is good. There are intrinsic aspects of the pastoral livelihood which Tashi considers better than what is offered in the urban area. Another example of this is 'Norbu Tsering' [Interview #10 Housing Colony] who is a nomadic pastoralists from Korzok. He is not particularly well off, and struggles to support a young family. Yet despite having close relatives living in the Colony, who could provide a base should he wish to shift to Leh, he says he does not plan to ever leave. He describes life in Changthang as *skidpo* (enjoyable) and couldn't imagine living anywhere else. Attachment to place can be strong, and in locations where the level of out-migration is still relatively low, such as Korzok, these perceptions and attitudes are less likely to be challenged.

7.4.1 Scope for In-situ Adaptation

The opportunity for *in situ* adjustment reduces the chance of out-migration (Kreutzman 2000). However, in Rupshu-Kharnak, as in other resource scarce environments, the capacity for adjustment is somewhat limited. Technological improvements in Rupshu-Kharnak are constrained by the inaccessible and marginal environment. Livestock breeding programs and pastoral development programs have had limited success. The weight of evidence from pastoral development efforts in African, Middle Eastern and Central Asian countries, indicates that science is only just beginning to understand and appreciate the complex and finely–tuned relationship between traditional pastoral production methods and the harsh, yet fragile, environments in which nomadic pastoralism is practiced (Salih 1990; Bauer 1999; Saberwal 1999; Miller 1998; 2000; Richard 1998; 2000; Scott-Villiers 2000; Blench 2001; Hagalia 2004). Notwithstanding, interventions continue to aim to increase pastoral production through technological improvements to pasture and livestock (Mir 1989).

Options for supplementing household income within the pastoral communities, such as contract herding, local wage labour, or engaging in commerce, are similarly limited (Bishop 1989: 195; Kreuzman 2003). Making blankets for sale is less common among pastoral households due to time and labour constraints, whereas this is common in the migrant settlement. Regarding the possibility of earning a supplementary income through shepherding, a generation ago, it was common for poorer households to supplement their income by providing grazing services to wealthier households. While this still occurs in Samad among 10 to 20 percent of households [*pers. comm*. Purbu Tsering, Rupshu 27/08/01], the overall prevalence is declining. Informants in Kharnak and Korzok point to greater individualism as the reason for this decline as well as the higher cost of labour.[94] Not only do many of these options have limitations and associated problems, they also do not address the changing aspirations of many migrants who simply do not want to see their children become pastoralists.

7.5 Cumulative Causation and Migration

Two of the important findings from the survey were, first, that migration from Rupshu-Kharnak is, on the whole, slightly more selective of women, children and the elderly; and second, that there are distinct variations in the patterns of out-migration from each of the three communities. With respect to the first finding, a broad typology was used to identify two categories of migrants according to the context in which their decision to migrate was made:

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[94] According to one informant who miigrated from Korzok as a young adult in the 1960s' in order to manage large herds that were common at the time, the wealthier households would pay Rp 1 per month to another person from a labour rich household. At the end of each year the shepherd would be rewarded with one sheep or goat. Nowadays, for the same job, a household would have to pay Rp 1500 per month [Interview #7 Thikse].

distress and strategic movers. On the whole, migration was found to be a decision taken as part of a household strategy of risk-minimisation and security optimisation. This was aimed at addressing the level of risk in livelihood, through the settlement of vulnerable members of the community. There was also evidence of settlement among more vulnerable households. That is, households that were not necessarily poor in an economic sense, but were lacking in the social support networks, and household labour resources, required for pastoralism to be viable.

Regarding the second major finding relating to the community-level differences in out-migration, it is argued that community-level migration strategies are operating, challenging the diachronic, and pessimistic view that out-migration and decline is inevitable. World systems theorists (Wallerstein 1974, 1979, 1983; Taylor 1989) may argue that this is part of a general pattern of decline as traditional communities come into contact with, and become more closely integrated into, market economies. Among the complex factors operating at the community-level to mediate the broader socio-economic transformation, four provided a cogent basis for explaining the patterns of out-migration from Rupshu-Kharnak. These included local institutional arrangements governing pastoral production, government policies regarding the provision of land for settlement and other forms of support for pastoralism, cultural norms and attachment to place, and the cumulative effects of out-migration (demonstration effect and chain migration).

The determinants of migration from Rupshu-Kharnak are multiple and inter-connected. For this reason the concept of cumulative causation, with its reference to feedback mechanisms and the self-perpetuating nature of migration, is useful in explaining the differential patterns of out-migration (Myrdal 1957; Massey 1990). The argument presented here is based on a conceptualisation of migration as a system. It has drawn on elements of social network

theory (role of information and social linkages), contextual migration models (community level factors), and New Economics of Labour Migration (NELM) theory, where migration is viewed as a risk-reduction and income-diversification strategy for households (Massey *et al*. 1993).

It is not the intention to overstate the influence of socio-cultural factors, as we have also seen the important role of historical factors and access to land in promoting out-migration. However, in the absence of more conclusive data, socio-cultural factors appear to exert greater influence over the decision to migrate than many of the factors commonly cited as determinants of migration to Leh (for example, exposure to Leh, decline of polyandry, access to pasture, socio-economic differentiation). The importance of social networks and historical factors (for example enterprising families who secured land in Choglamsar) have helped to shape community-specific mobility patterns not unlike those found in rural Indonesia (Hugo 1975; Guest 1989; Spaan 1999), whereby villages have been found to specialise in particular mobility types.[95]

Historical-structuralists may argue that to characterise each village according to their type of mobility is to also risk portraying their current situation as static; discounting the possibility that they are at different 'stages' of development and at different stages of decline (Amin 1974; Portes 1978). By way of example, in 1977 in an article examining the evolution of migration patterns during urbanisation in Peru, Skeldon explained spatial differences in out-migration as stages or lags. He thus inferred a continuum of development, along which rural

[95] The social networks and linkages observed between the origin and destination communities, while strongly developed in case of Kharnak, have not developed into the formalised migrant institutions that facilitate out-migration, such as those identified in Indonesia and elsewhere involving patrons, bureaucrats, 'middle men', employment brokers, or recruitment agents (Spaan 1999: 38; Massey et al 1998: 188). Migrant households overwhelming rely on kin and friends for support and information regarding their move.

communities inevitably face depopulation and decline.[96] However, socio-economic development and mobility responses are not uniform through space and time, and while it is too early to predict the future for each community with any certainty, the patterns and evidence found in this study do not suggest that all three communites are necessarily following a trajectory toward eventual depopulation and decline.

A key issue linked to this prediction is the strategy of household division and the question posed in the previous chapter regarding its sustainability. That is, the question of whether bilocality of households is a long-term adaptive strategy or rather, indicative of a gradual process of out-migration and decline.

It has been suggested that temporary forms of migration have the potential to lead to permanent resettlement as urban areas develop (Connell *et al*, 1976; Skeldon 1977). However, Hugo argues that circulation and commuting migration are more than simply 'testing of the waters' prior to permanent relocation (1982). When we examined the level of commitment to the origin and destination areas, we saw that Kharnakpa temporary migrants have a very high degree of commitment to the destination. Three-quarters of the full-time pastoral population owns land in the Kharnakling settlement. Over the course of the household survey there were three clear examples of households with part-time, divided household strategies, which eventually settled permanently. Many began their urban shift by leaving animals with friends, and later selling them off.

[96] Skeldon argues that migration stems from the growing awareness that the benefits of modern development are concentrated in urban areas – this awareness (information) stimulates movement.

In accordance with the findings of previous studies of rural to urban migration in India, (Singh 1984: 89) the vast majority of permanent migrants from Rupshu-Kharnak migrated in a single stage, rather than engaging in step migration. During follow up interviews, six cases initially involved seasonal circular migration of the households, or household division strategies, but this later progressed to permanent settlement of the household. This would tend to suggest that, unless the seasonal circulation is of a retiree moving for lifestyle reasons, the period spent in the urban area can be seen as a trial period preceding permanent settlement. This contrasts with Hugo's findings among rural households in Indonesia that have incorporated the labour circulation of one or two members into a longer-term strategy of household survival (*op cit*). The implication being that, among those who move, there is a tendency toward permanent out-migration. The extension of a prohibition on absentee pastoralism from Samad could reasonably be expected to increase the level of permanent out-migration from that community.

7.6 Conclusion

This chapter has outlined the role of community-specific factors in determining the levels of out-migration from Rupshu-Kharnak. The way in which migration flows become self-sustaining, once they reach a certain threshold, has important implications, particularly in terms of where policy efforts might best be directed. However before we can discuss policy alternatives, it is necessary to examine some of the consequences of migration for migrants, and for those left behind in order to underscore the case for policy intervention.

CHAPTER 8

IMPLICATIONS & CONCLUSIONS

8.1 Introduction

'Mobility *per se* is of little significance; it is the social and economic implications of the movement that are of importance' (Hugo 1988: 378). This study did not set out to quantitatively measure the effects of out-migration, although it was possible through in-depth discussions with migrants and non-migrants to derive some insight into the effects of migration. This chapter provides a discussion of the implications of the two main forms of migration identified in the study; permanent household settlement and non-permanent household migration strategies. The focus is largely on the household and the individuals within those units, given their importance in the decision to settle. The discussion will not only cover the social and economic effects of migration on the migrants themselves, but also on the communities they have left behind. The effort to document and examine the sedentarisation of nomadic pastoralists in the trans-Himalayan region of Ladakh was constrained by the limited availability and quality of relevant statistics. However, through combining field research and available secondary sources of information this study has added to the present limited understanding of the causes and consequences of sedentarisation in Ladakh. This chapter summarises the main findings of the study and the implications for policy makers in the region. The theoretical implications will also be outlined

which hold relevance to the twin global phenomena of sedentarisation and rural to urban migration.

8.2 Implications of Mobility for Development

There are two dominant schools of thought among theoretical approaches to understanding the effects of labour migration: the balanced growth approach and the asymmetric development approach (De Haan and Macdowell 1997:15). The former set of theories depicts the consequences of out-migration as largely positive for migrants and their areas of origin. Focusing on the remittances, skills, and new ideas that flow back into a rural village, it is argued, that out-migration leads to improved welfare and more equitable income distribution in the sending community. These benefits, it is argued, offset any detrimental effects caused by loss of labour in the village.

The contrasting school of thought, which developed in reaction to the neoclassical equilibrium theories of balanced growth, takes a more sceptical view of the effects of out-migration. It is argued that the selectivity of migration, on individuals and households, exacerbates inequality within and between villages (Connell 1981). It also depletes rural areas of their young, skilled and entrepreneurial members, which it is argued, can result in labour shortages, increased cost of labour, lack of innovation, and a decrease in productivity. As migration becomes self-perpetuating, this can over time lead to a cycle of decline. These theories are influenced by a marxist interpretation of development, in which migration reinforces, and is reinforced by, the unbalanced distribution of resources favouring labour importing capitalist regions. 'Inequality and dependency increase through capital and labour transfers from the underdeveloped

peripheral rural areas to the developed urban centres resulting in uneven development...' (Spaan 1999 :313).

The literature on rural to urban migration paints a mixed picture regarding the effects of mobility on rural communities. In the present study, out-migration from Rupshu-Kharnak was found to have specific impacts on the communities of origin due to the nature of the movement and the livelihood context in which it takes place. In contrast to agricultural villages, where seasonal workloads can result in a labour surplus, the year-round requirement for labour within nomadic pastoral households constrains the potential for individual members to engage in circular migration strategies and to 'harvest' opportunities in the urban area for the benefit of the household. [97] Some of the larger pastoral households have managed to employ this strategy, effectively spreading production risks between origin and destination. However they are the exception, and for most, out-migration of the household unit is aimed at reducing the overall level of risk and uncertainty in preserving the family's wellbeing. This it is a long-term investment strategy that often involves a high degree of commitment.

The forms of migration, and the circumstances in which they take place will largely determine the outcomes (De Haan 1999: 31). It is reasonable to expect that distress movers who are impelled to shift as a last resort will almost certainly face a more difficult transition than strategic movers, having fewer resources, and less time, to plan an exit strategy. However, De Haan argues that '…the scarce data about how migrants fare over time does indicate that they often are able to improve their position.' (1999:18). Importantly, in the case of out-migration from Rupshu-Kharnak, we are not seeing significant impacts at either end of the

[97] Some of the poorest migrant households supplement their annual income by returning to their pastoral community in the summer to earn money as herding for relatives.

migration stream due to the effects of selectivity. The migrant population is representative (socio-economically and demographically) of the sending communities. This presents quite a different scenario to that found in northern Indian villages where highly selectively migration often leaves women, children and the elderly over-burdened with agricultural work and lacking access to basic services (Singh 1984).

The impact of out-migration on the origin community depends not only on who migrates, but the proportion of the community that those migrants represent. The most obvious effects of out-migration in Kharnak are due to depopulation. In a relatively short period, half of all the nomadic pastoral households in Kharnak have settled permanently in the urban area.

Negative social consequences of sedentarisation have been revealed in a number of studies (Salzman 1980; Boneh 1983; Birks 1985; Fratkin, Roth and Nathan 1999). Poorer nutrition, substandard housing and lack of access to clean drinking water have all been highlighted as problems. Although it is argued that access to medical facilities is greater after settlement (Fratkin 1997), one study found that mortality rates were in fact higher among the settled population than the mobile due to inadequate health service provision (Meir 1986). Other studies have found that while infant mortality rates declined after settlement (Roth 1985), the nutritional status of young children diminished, largely due to the dietary changes and absence of fresh pastoral products such as milk and meat (Shell-Duncan and Obiero 2000). Unsanitary conditions within some migrant settlements can lead to the spread of diseases that were previously unheard of among the mobile population (Fratkin 1997). In addition, sedentarisation has been associated with changing gender roles, although again, the research findings are varied. For example, research among the Rendille (Fratkin and Smith 1995) and the Maasai in Africa (Talle 1988) found that sedentarisation provided women with

greater economic opportunities. By contrast however, Jakubowska (1985) found an increase in gender inequality among urban Bedouin living in high-density settlements.

The conflicting conclusions from research into the effects of sedentarisation highlight the complexity of the process and the highly context-dependent nature of the way in which communities will be affected by out-migration and settlement. It is impossible to conclude, in any case of migration, that the consequences are, on the whole, either negative or positive (Parnwell 1993). The effects of migration vary considerably with the level of analysis (individual or community), with the form of mobility (permanent or temporary), the scale and selectivity of mobility, and with the socio-cultural and political context in which it takes place.

8.3 Implications of Mobility for Those Left Behind

Negative impacts experienced by a community as a result of out-migration can include rapid depopulation or loss of population of reproductive age. The loss of human capital in sending areas and resulting stagnation further enhance the conditions for migration, a situation termed cumulative causation (Myrdal 1963).[98] In the case of Chang-pa migration to Leh, the movement was predominantly characterised as whole-of-household migration. The effects of depopulation will therefore be more immediate than in situations where, for example, only select individuals migrate. For Kharnak, rapid depopulation as a result of large-scale out-migration threatens the future viability of the community.

[98] See sections 2.2.3 and 6.4.4 for discussion of cumulative causation.

In the pastoral economy of the Chang-pas, the basic economic unit is the household. With the support of the extended family and *pha–spun*, these households can function autonomously. However, there is community-level work that depends on the cooperation and contribution of every household. This includes conducting religious events, community governance and representational duties. In Kharnak, during 2001, the community experienced serious difficulties in conducting their annual prayer event (*ma-ni*). The work associated with such an occasion is labour intensive. Households must assist by accompanying the visiting Lamas to and from the area, contribute food and cook for them every evening. Struggling with the extra financial burden and labour demands, the *ma-ni* stretched well beyond the usual two weeks. The Kharnak-pa requested those in Kharnakling to return to the community permanently, however the requests were ignored. Fears are held over what might happen if the duties to the Gompa cannot be upheld. 'Something terrible will happen in Kharnak if we do not continue the traditions of our ancestors' (Interview #1, male migrant 49 yrs old, Kharnakling). This tends to negate the assumption that out-migration makes pastoralism more profitable for the remaining households, due to greater pasture availability. Limited household labour resources and the high cost of hired labour restrict the growth of the herd. More importantly, with large-scale out-migration, the remaining households simply cannot meet the financial or labour requirements for the fulfilment of traditional and religious duties.

Remittances are often cited as a benefit of out-migration for the sending community (Findley 1992; McDowell and De Haan 1997). However, overall return remittances were found to be insignificant among the communities of Rupshu-Kharnak. This is not unusual, given the predominance of whole-of-household migration. However, it was also found that, where household members or close relatives were divided between the pastoral and urban areas,

money was sent from the pastoral household to support the migrant in Leh. After the initial costs of obtaining land and housing, the money was used to pay for school fees and to subsidise living costs. In the early stages of establishment, 'village to town' remittances are important to enable a migrant to establish him or herself in the urban area, while return remittances are usually low during this period (Connell *et al.* 1976: 101-102).

It is important to note however, that among migrants who have been in Leh for more than ten years, who are considered to be well established, none sends remittances back to their close relatives or communities of origin. The longer-term rationale of out-migration is generally one aimed at complete relocation and reorientation of the household economy. While cash may flow from the pastoral areas to the urban settlements, it is clear that remittances, in the form of food, clothing and pastoral products, are however exchanged in both directions. The importance of two-way flows of products and information has been noted in a number of other settings including India, Africa, and the Pacific (Connell *et al* 1976; Connell 1981; Keeley and Tran 1989; Findley 1992; McDowell and De Haan 1997).

With regard to the potential for skills transfer, the new skills obtained in the urban area are limited to labouring work, or basic literacy and numeracy skills in Urdu, Ladakhi and Hindi among school children. While the literacy is important, these skills do not necessarily enhance pastoralism. Indeed the aim of investing in children's education is to enable them to obtain employment in the urban area and develop a non-pastoral source of income.

Unless the out-migration is of the scale of that from Kharnak, negative social and economic effects on the pastoral communities are limited. Indirect effects on the communities of origin include the reduced support of extended family and kin networks to households left behind,

and the subtle shifts in perceptions as the experiences of migrants inform those left behind about alternatives to pastoralism, in some cases contributing to a sense of relative deprivation.

8.4 Impacts at the Destination

8.4.1 The Experience of Permanent Migrants

It is clear that for a number of migrant households, the decision to settle is made in the knowledge that they will face a substantial reduction in income, at least in the medium term. Although the potential economic returns from pastoralism can be high, it is a high-risk enterprise, dependent as much on chance as on skill and hard work. Resource diversification and risk minimisation, not income maximisation, are both central in the decision to settle.

The settlement of Kharnakling is reasonably well serviced and laid out, although it has developed without any structured planning. Over the years, community members have formed groups to lobby for services and funding. As a result, there is a community-constructed gompa (monastery), a small shop, and buses run frequently to and from Leh. The settlement is served by a traditional doctor, amchi, and is adjacent to the small Tibetan township of Choglamsar. Sanitation problems are of greater concern during the warmer months and gastric illnesses are common. However all dwellings have their own, or access to, a traditional composting toilet which are reasonably effective given the dry atmospheric conditions. Clean water is delivered to the settlement on a regular basis by tanker, and there is also a hand-operated pump for a nearby spring. This puts the settlement in a better position than many villages throughout Ladakh. According to Dr Vibha Sood (pers. comm.

1999) only six villages apart from Leh have been provided with piped water, with the rest relying on streams and springs which are often polluted. The most significant health impact for settlers is due to the dietary change. Fresh dairy products are virtually absent and meat is eaten only occasionally due to the high cost. Children's health status is undoubtedly affected by this, although offset to some degree by the greater availability of fresh vegetables.

The density of housing is not excessively high and while the settlements is a dusty, treeless place, spread out along the side of the Indus valley, it is far from what could be referred to as a slum. Most migrants start with a modest home of one or two rooms, which they upgrade and extend as their situation improves. One of the first migrant households started out with a two-room mud brick building. Fifteen years later they have extended this to a two-storey eight-room residence. Security of tenure is a great advantage for the migrants; these are not illegal squatter settlements and land is purchased legitimately.

Women in the settlement were found to have continued their equal participation in the household economy. Which members of the household go out to work is determined more by the opportunities available and a person's health than by gender. Women were the sole earners in a small number of households where the husband was either injured or sick.

School attendance is high among migrant households, and children attend a number of different institutions, ranging from government-run schools, to those funded by monasteries, missionaries, or the internationally funded Tibetan school (Tibetan Children's Village). Fees can be high, and admission difficult. Often the nomadic children are much older than their classmates, having years of missed schooling to recover, and discrimination and taunting of Changpa children are not uncommon.

An important part of considering the effects of migration is to have migrants self assess their decision and quality of life. A majority (68%) of permanent migrants interviewed expressed satisfaction with their decision to relocate, and did not intend to return to pastoralism. Only a small number stated that if they had the means they would like to return. This tended to be among recent migrants who had moved under distress conditions. According to informants in the pastoral communities, the number of people who have returned to pastoralism after migrating to the urban area is less than ten.

Migrants have, in many instances, replaced the insecurity of pastoralism with the insecurity of unemployment and underemployment. They have improved their proximity to health care and education services, only to find economic and social barriers in their way. Yet most find that settled life is an improvement, particularly if they were among the many who faced a daily struggle to survive in Rupshu-Kharnak. Prior to settling, twenty-three year old Padma struggled to care for her aged grandmother and widowed father in a *kaun* household, desperately short of labour and livestock. Reflecting on their settled life, she says:

> Here we have a small house and life is easier. For the long term, it would be good to have agricultural land, or to have someone in the family who can earn a steady income. But my father and I can earn enough through labouring work to get by. Now we can eat together in the evening and not worry what might happen tomorrow.
>
> [Interview # 12, Kharnakling 2001]

8.4.2 Impacts for migrants engaged in non-permanent mobility

Non-permanent out-migration, such as household division or seasonal circulation, can be highly successful in meeting the immediate needs of a household. For example, seasonal

circulation can improve the quality of life for elderly members of the household. The previous chapter described how a number of cases of circulation or household division led to permanent settlement of the whole household, thus throwing into question the notion that such strategies are compatible with a continuation of pastoralism. There are however examples of households who have utilised this strategy successfully for many years (see case study below).

> Following significant livestock losses in the mid-1980s one of Samad's wealthiest households decided to sell their remaining livestock and shift to Leh. After purchasing land and building an impressive house on the outskirts of Leh, Tashi and Lamo turned their attention to educating their seven children. But Lamo disliked living in Leh and after two years, she and her husband returned to Samad. One son accompanied them and he remains with them today. Apart from the eldest daughter, all of the other children in Leh have attended school. The eldest daughter runs a restaurant and, together with her husband, supports her own family and her siblings. The other children have had trouble finding employment and are left idle in Leh. They are disappointed at the lack of good jobs. If they choose, Tashi and Lamo will be able to retire in Leh and be cared for by their children and their son will be able to take over the herd. But for the remaining children they are dislocated from nomadic pastoralism and live in hope of gaining a vital foothold in the urban sector.
>
> [Household Survey #67, Housing Colony]

The strategy of household division has the potential to meet the needs of pastoral households; particularly upwardly mobile households looking to secure a more stable livelihood in the urban area. However, the promise of a secure, well paid job in Leh often fails to materialise. There is a certain disjuncture between expectations of what a good education can offer and the capacity of the urban economy to provide these opportunities. The result in many instances is dissatisfaction and a younger generation dislocated from their traditions yet

unable to get a foothold in the urban sector; a situation which is neither beneficial for the migrants nor their sending communities.

Very few of the migrants leaving Rupshu-Kharnak have become highly successful in Leh, the majority eke out a living on the margins of urban society. In relating their experiences however, migrants overwhelmingly retain hope and believe that by settling they have taken a positive step toward securing a better life for their children. For those left behind the effects of out-migration are felt most acutely in Kharnak due to depopulation. For the nomadic pastoralists in Samad and Korzok however, the direct negative impacts are minimal. Policies to address the out-migration from Rupshu-Kharnak and its negative effects therefore need to recognise and take account of the community-specific patterns in addition to the effects of different types of mobility.

8.5 Summary of Main Findings

The main objectives of the study were outlined in chapter one. The focus was on answering the key questions: Who moves? Where and when did they move? and Why? The following sub-sections capture the key findings that have emerged from this study.

8.5.1 Determinants of out-migration

National programs aimed at extending welfare services to all, including the promotion of literacy, have raised awareness of the potential benefits of education and led to changing aspirations. Despite the inadequacy of educational services provided to the mobile communities of Rupshu-Kharnak, it has nonetheless engendered a desire among pastoral household to educate their children. Households from the pastoral communities are seeking

to improve their prospects, very often through their children. Some individuals move to join family and friends, take up job opportunities or to retire in relative comfort. The majority of migrants are exercising freedom of choice while a minority are impelled to move on account of their dire situation and reduced coping capacity. For the former group, they are exercising their right to exploit perceived or actual opportunities for betterment in the city. In doing so, they are not unlike migrants from Ladakh's agricultural villages, or rural people throughout the less developed world, who have been contributing to the phenomenon of urbanisation over the past forty years.

8.5.2 Role of household structure

This study was able to confirm that a propensity for migration is not directly related to the decline of polyandry, or even household labour *per se*. Rather, it was found that a combination of the household dependency ratio, lifecycle stage and social networks of support determine the viability of a pastoral household and the propensity to migrate. Extended or joint structured households were found to be more likely to engage in non-permanent forms of migration such as household division, part-time pastoralism, and seasonal circulation. Further, it was apparent that among the non-permanent migrant households there is a tendency toward permanent settlement over time, thus dispelling the notion that this seasonal circulation represents an adaptive strategy compatible with the continuation of pastoralism.

8.5.3 Socioeconomic status and migration

Socioeconomic status did not determine participation in migration, but instead, was found to influence the nature of mobility. Out-migration was a phenomenon found to encompass all strata of the pastoral communities: *kaun, kangchens*, wealthy, average income and poor households. The motivations were different depending on available resources, as were the

forms of mobility, yet this finding dispels previous assumptions that only the poorest and wealthiest settle. Different households are migrating for different reasons. Wealthier households (in terms of livestock or labour resources) are motivated by a desire for education, improved wellbeing, and / or use migration as a diversification and risk-reduction strategy. Good labour resources also enable such households to use migration to their advantage by engaging in divided household migration strategies or seasonal migration. For the poorest however, migration is often a survival response with few alternatives. It was shown that a high dependency ratio within the household, combined with a low level of social support in the community of origin, is a significant cause of out-migration. Such a pattern of household failure leads to settlement, not just of the elderly and young members of the community, but of an age- and gender-balanced cross-section of the community.

8.5.4 Social networks and chain migration

The underlying motivation of migration was similar for migrants in each of the three communities, with the notable exception that, for many of the migrants leaving the community of Kharnak, kin-based chain migration played a significant role in inducing their movement. Out-migration from Kharnak was found to have reached a *threshold* whereby the concentration of migrants in the urban settlement is facilitating further migration. This study has argued that, in the absence of baseline data with which to compare pastoral productivity of each community, chain migration fostered by a critical mass of migrants provides a stronger explanation for the high levels of out-migration from Kharnak (and relatively low levels from Korzok) than single variables such as distance, wealth or pasture quality.

8.5.5 Consequences of out-migration

The scale of out-migration relative to the size of the community was found to greatly influence the outcome. This was starkly evident in the case of Kharnak, where the community of origin

was found to be suffering the effects of depopulation. However, a very high rate of participation of migrant children in education bodes well for their future. While the return on this investment can take many years, and is, in some cases less than was hoped for, the evidence does show that over time migrants do secure better jobs in the urban market. The trend among longer-term migrants who have completed higher levels of education is generally positive in this regard. The important question remains whether, in the absence of rapid economic growth, the economy in Leh can accommodate an ever-increasing number of migrants.

While the cost of living in Leh is undoubtedly a burden on migrants, the fact that the Chang-pa are opting to make the transition to a settled life indicates that the advantages of settled life are perceived to outweigh the disadvantages. The urban life provides greater opportunities for social and economic mobility than exists in the pastoral areas. A point that was appreciated by migrants, an overwhelming majority of whom felt their lives had improved since moving. The level of satisfaction was notably higher among those that had experienced great hardship in Rupshu-Kharnak. While acknowledging that it can be a daily struggle to get by in Leh, migrants expressed little nostalgia for the pastoral way of life.

The settlement of Kharnakling provides support to new and existing migrants from Kharnak. The *pha-spun* and family support networks that are often transplanted to the settlement assist migrants in their efforts to consolidate their position over time. The Kharnakling settlement is not a place of despair. Understanding that the settlement is, in itself, an expression of the pastoralists' own efforts at self-help is a critical element in any attempt to intervene in their lives.

8.6 Implications for Theory and Further Research

Much of the literature concerning sedentarisation overwhelmingly emanates from a geographical context that is very different to that of the trans-Himalayan region. Furthermore, few of the studies of sedentarisation apply migration theory in any systematic way and often fail to appreciate the commonalities between migrants, regardless of their livelihood. This study has attempted to bridge the gap between traditional approaches to sedentarisation and the approach of migration theory by tailoring an integrated conceptualisation of migration to the context of a nomadic pastoral livelihood. With its extensive and detailed body of case studies and empirical analyses from which to draw, migration theory provides an appropriate framework for understanding sedentarisation. At the same time, sedentarisation experiences in a broad range of locations illustrate the limits to which the theory can be applied. Care was taken however, to not over-generalise on the basis of shared livelihood or an imagined 'pastoral way of life'. Sedentarisation is no less complex in its causes and consequences than migration from rural communities. This study has gone some way to recognising this and extending the examination beyond single factor explanations.

In positioning itself across these two bodies of work, this study has shown that an integrated, multi-level conceptualisation of migration can provide a robust framework when applied to a non-agricultural livelihood. Where single factor analyses have proven inadequate in the examination of sedentarisation, this framework enables multiple variables to be examined. The approach encompasses economic, demographic, environmental, and socio-cultural factors. While constraints on the present study have not permitted exploration of this model

to its full extent.[99] The study nonetheless provides the groundwork for future research of a greater quantitative nature.

In any study involving a substantial degree of exploratory research, the information gathering is, to a large extent, an iterative process. Ideally a second quantitative household survey would have proven useful for testing some of the hypotheses generated by the study.[100] For example, detailed examination of the economic situation of pastoral households in the pre- and post-migration contexts.[101] Following are two additional areas worthy of further research in Ladakh.

8.6.1 Pastoralism versus Conservation

An important and emerging area requiring attention is that of resource allocation in Rupshu-Kharnak. That is, indigenous pastoral rights versus conservation efforts. This is a highly complex and challenging issue that has long been played out in other locations where pastoralist inhabit areas of high conservation value which is only just now coming into focus in Ladakh. There is potential for significant conflict to emerge between traditional pastoralists and conservationists, particularly in the absence of credible baseline data on the relationship between grazing and the rangeland ecology of Rupshu-Kharnak. Something that is often overlooked by those calling for rangeland conservation is the possibility that, due to co-

[99] Particularly in relation to rangeland ecology in each of the areas studied.
[100] No single study can be exhaustive, however, conducting repeat surveys also runs the risk of research fatigue among participants.
[101] One informant claimed that the need to purchase winter fodder imposes such a cost burden on the pastoral household that it offsets any higher annual income, thus making the average urban income comparable.

evolution over centuries of practice, pastoral production is actually an important component of the rangeland ecology (Fratkin 1997:255).

8.6.2 Population Mobility in Ladakh

Perhaps the most serious need is that of a systematic study of population mobility, in the context of urbanisation, in Ladakh. The migration of nomadic pastoralists is just one part of a broader process of rural to urban migration in the region that requires effort at the district level to address. The current rate of urbanisation in Leh demands the attention of policy makers and there is a need for long-term planning to deal with the negative environmental and social consequences. This will require a far more comprehensive picture of population mobility in the region than is currently available. This is a challenge faced by policy makers throughout India and indeed much of the developing world, the question of how to harness the development potential of migrants in the city when the capacity to provide services and infrastructure is already limited.

8.7 Some Policy Implications

Effective policy making is a highly complex process and is, to a large extent, determined by the availability and quality of information.[102] This study is a valuable input to the process of developing a policy response to sedentarisation from Rupshu-Kharnak. Fratkin (1997:252) summarises two opposing 'solutions' to the development challenges facing pastoralists. The first recommends abandonment of traditional pastoralism and integration into an

[102] This is not to ignore the fact that policy-making itself is a highly political process of negotiation through which policy is shaped by those who have secured advantage to represent particular interests.

industrialised market-based economy. This could involve, for example, encouraging pastoralists to plant forage crops and raise livestock in sedentary settings. The alternative view emphasises restoring or protecting pastoralism through legal rights of access to water and pastures and rights of way for travel. There is clearly a high level of interest at the District and State levels of government in promoting pastoralism in Ladakh. The main motivation being, the recognition of the economic value of maintaining and promoting production from this marginal area. Over recent years a number of sensible approaches have been put forth. The following points endorse these suggestions and offer additional issues for consideration.

- There is a need to broaden the current emphasis on pastoral development from a production-end focus on pashmina to the marketing end, including price protection, value addition and formation of a cooperative. These measures would assist in providing some stability to the main source of income for the pastoralists (Richard 1998). Pastoral development plans have been marked by a lack of consultation and failure to acknowledge that it is the pastoralists who are best placed to determine the efficacy of such programs.
- Address risks that are an inherent part of the livelihood. Periodic events such as heavy snowfall or predation of livestock play an important role in resource management in traditional pastoralism. However due to the reduced capacity of households to withstand these cyclical shocks there may be a case for providing insurance measures to cushion households against serious livestock losses. The efficacy of efforts to provide fodder stores, locally produced and subsidised fodder, and payments to assist households who have suffered serious losses, should be explored and, if appropriate, should be extended to Kharnak and Korzok. However, the potential for such intervention to destabilise the existing balance between

rangeland capacity and livestock numbers must be carefully examined. The experience in Samad may assist in determining whether this contributes to grazing pressure, as such payments have been provided to this community for a number of years.

- Human risk reduction and capacity building. Recruiting and training primary health carers from within the pastoral communities and provide medical supplies and remuneration. Support should be extended to a small-scale project run by French NGO 'NOMAD' who are funding a member of the Samad community to be trained as an *amchi*, practitioner of local traditional medicine.
- Need in the areas of health care and education could both be addressed to some extent with an effective communications system. Radio communication has the potential to overcome the barrier of distance with a 'school of the air' program, and backup advice and support for trained medical assistants in the communities.
- Health of migrants. The concentration of migrants (including visitors from the pastoral community) in the Kharnakling settlement provides a good opportunity to provide health care services and basic education programs on nutrition and health care.

There is a need to recognise that intervention often brings with it a degree of dependency. Nomads are inherently self-reliant and tend also to be highly sceptical of governments and outside intervention. This attitude has developed with good reason in Rupshu-Kharnak in the wake of numerous short-lived assistance programs. The numerous development initiatives by NGOs and government reveal the high level of interest in their activities, yet, these efforts are often marked by a lack of consultation or any broader coordination of effort.

8.7.1 What sort of approach is needed?

A recommendation often cited in development literature is the importance of working with local institutions in achieving sustainable development (Sadeeque 1999). It has however been pointed out that pastoral societies are generally characterised by weak social institutions. Blench (2001:65) argues there is need to recognise this limitation and to strengthen pastoral institutions if they are to 'defend' themselves in a new millennium.

Development approaches to nomadic populations have shifted from larger rural development projects of the past toward a greater emphasis on NGO-based extension approaches. However, Hogg (1992:142) questions whether this operational approach is suitable for tackling the longer-term environmental and resource management problems of areas where resources are scarce. The problems facing pastoral peoples and areas are often regional or national, and require involvement of relevant State authorities. Some local NGOs have achieved successful outcomes in Rupshu-Kharnak. However, the biggest challenge is the sustainability of these programs. As projects end, or funding ceases, the level of scepticism among pastoralists increases, reinforcing their need for self-reliance.

Top-down policies regarding both sedentarisation and rural to urban migration more generally have failed. Indeed, 'Internal migration has proved singularly intractable towards policy intervention' (Skeldon 1997: 202). The challenge is to strike a balance between these two approaches. Some 'top down' planning is required, and the success of all projects will depend on the level of commitment on the part of the Ladakh Autonomous Hill Development Council. The key to this process is consultation. NGOs have an important role to play in the consultation and implementation processes as part of a broader plan of action that is overseen and supported by the LAHDC through specific funding allocations and phased programs.

While they share a common livelihood there is little interdependence between the three communities of Rupshu-Kharnak. The experience of Kharnak is a result of the complex interplay of historical factors and opportunities that has developed its own momentum through chain migration. It is not necessarily indicative of an imminent demise of nomadic pastoralism across Rupshu-Kharnak. What it does illustrate however, is that policy makers can play an important role in the early stages of out-migration. While policies that attempt to slow or reverse an established stream of migration almost always fail, governments can influence migration behaviour before it develops its own momentum. This would suggest that it may be prudent to concentrate any effort to reduce migration in the least affected areas before the levels of out-migration reach a point at which they become self-sustaining. Families in communities with a history of out-migration have a higher probability of migrating. Therefore, programs aimed at reducing migration will have a greater effect in communities with smaller migrant reference groups (Findley1987:248). Part of this targeted strategy would also involve encouraging support for the forms of mobility that result in the most beneficial outcomes for migrants and non-migrants alike. That is, non-permanent forms of mobility. There is evidence to suggest that absentee pastoralism does not necessarily lead to overgrazing and this is an area that would benefit from greater investigation (Fernandez-Gimenez 1999).

In turning attention to the communities with relatively low out-migration, policy makers need to be aware that intervention itself often precipitates unintended consequences. Where there are programs to extend services, including education, to all communities, there will be knock-on effects, including out-migration, that will flow from increased human capital and changing values and perceptions. This is not to discourage the provision of these services, but rather to emphasise the need to recognise the potential effects and to incorporate appropriate response strategies.

Suggestion of a targeted, community-specific approach does not infer that Kharnak is beyond assistance. There is a responsibility to meet the welfare needs of Kharnak's pastoralists – both settled and nomadic. It is incumbent on decision-makers to foster economic growth and create the job opportunities for the migrants or run the risk of social problems inevitably follow from having a large number of disillusioned, dislocated youth in the urban area.

Pastoralism in Ladakh is attracting increasing attention from State and District authorities, international and local NGOs, and researchers. The information that is starting to be exchanged is contributing to a more comprehensive understanding of the challenges. Involvement of the International Centre for Integrated Mountain Development (ICIMOD) is encouraging and their recommendations tabled to the LAHDC in 1998 offer a clear way forward. One of the most important messages however, is that of caution when attempting to 'develop' pastoralism. We must acknowledge the limits of our understanding and appreciate that specialists have a great deal more to learn from the pastoralists themselves. It is therefore vital that pastoralists are closely involved in all program development to ensure success.

8.8 The Future of Nomadic Pastoralism in Rupshu-Kharnak

> . ... the concentrated pattern of economic activity, and deficiencies in spreading the benefits of economic growth to all areas, sectors and peoples, underpins the overwhelming majority of population movements in Third World countries
>
> Parnwell 1993:98

The problem of uneven development, that underlies much of the migration, must be addressed if the local authorities are concerned about the economic losses consequent upon the demise of nomadic pastoralism. However, as discussed this is not a straightforward process. The increased desire for education among the nomadic communities is in part due to a shift in attitudes. Many parents seek an education for their children to provide them with a 'way out' from the 'harsh and uncomfortable life of a herder'. Alternatively, some are using education for just one or two children as a retirement insurance strategy for the whole family. The challenge is not only how to provide appropriate services to a mobile population, but also how to address the shifts in perception which are causing many Chang-pas to become dissatisfied with their own livelihood.

In the absence of intervention, Chang-pas will continue to adapt their own livelihood to meet their changing needs and this may involve settling. It must be stated however, that providing schools in the origin areas – even if all logistical problems could be overcome - could simply exacerbate the problem. Doing so can reinforce the cumulative migration process by providing another incentive to move to exploit higher education levels. Similarly, whether the current State-sponsored education system, which is failing students throughout Ladakh, would benefit children from Rupshu-Kharnak or simply dislocate them from their community is a major concern. One of the earliest migrants from Kharnak, now aged in her seventies, summarised this predicament:

> My son has put everything into moving here and educating all of his children. But if the children cannot find jobs, then we will all be left with nothing - no animals, no land, no way to survive.
>
> Tsering Dolma, Kharnakling, 7/10/01

Implicit in concerns for the future of nomadism is the question of whether, as a livelihood, nomadic pastoralism is an outmoded form of production that has no place in a modern economy. As Barfield points out however, people do not persist with the livelihood because they are too poor to do anything else, but 'because pastoralism often provides a higher standard of living than subsistence farming and contributes significantly to national economies' (1993:126). Nomadic pastoralism in Ladakh's high altitude plateau of Rupshu-Kharnak remains the only effective utilisation of what are some of the harshest and most marginal lands in the world, a use which has an extremely long and lucrative history. With continued local and international demand for their products, pastoralists in Rupshu-Kharnak have a future also. Within this context, nomadic pastoralism will not easily disappear from this region. Just how or, even whether, the community's socio-cultural systems can adapt to these changes remains to be seen, particularly in the case of Kharnak.

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Appendix 1

Sample Household Survey Sheet

Household Survey No. Settlement No. Rooms Date: Time: Place of Origin Interpreter	No. Household Members 1= head	Tick if person is present	Name	Relationship to head of household	Age	Date of Migration	Occupation	Health Issues

Appendix 2

Examples of questions asked during informal interviews in the origin communities.

(General)

- Household details, number of children, schooling, herd size and composition.
- Have you ever considered moving to Leh?
- If yes, why?
- If not, why not?
- What are some of the good and bad aspects of Leh?
- If you moved to Leh where would you go?
- If you went what type of work would you do?
- Do you have any relatives or friends in Leh? If so, when did they move away?
- Have you spent any time in Leh? (during life time)
- Who from the family / community mostly goes to Leh for purchases etc?
- Do you have land, or crops anywhere?
- Optional Question –only asked to some: can you describe the migration pattern of the Kharnak community, giving place name, distance walking (hrs), duration of stay, and month of move.
- Optional Question for some in Kharnak – why have the Kharnak-pa been using the Zara campsite for the last 10 years, whereas traditionally it has been, and is still used by the Rupshu-pa?
- If you have children, have you sent any of them away to school in Leh or elsewhere?
- What do you think of people who have migrated, what do you think about their decision, was it wise or not?
- What are the reasons for why you personally have not moved to Leh?
- Do you have any plans to move in the future?
- What are some of the main problems here in the community?
- Have people always moved away, or is it something that has become more common – if yes, since when?
- Optional – for Samad or Korzok only. Why do you think so many more people from Kharnak have moved to Leh than from your own community?
- Where do you go if you get sick?
- How much contact do you have with foreigners, trekkers, NGOs – have you heard of ApTibet or LNP?
- Optional – for Korzok-pa only. How many families have moved to the village at Korzok?

(For Return Migrants Only)

1. Details on migration history: when moved away, to where, duration of absence, which members of family unit went.
2. Do/ did you have relatives/ friends in the destination?
3. Why did you choose to move?
4. Did you sell everything, animals, tent, etc. or alternative option such as keeping stock with family.
5. What was your reason for returning?

6. What was the level of social acceptance in the destination? Any problems;
7. Upon your return, was there any problem fitting back into the community, did others make comments etc.
8. How would you advise others who might be considering migrating to Leh? Are there things you would have done differently?
9. Did the move cause you economic hardship? Are you worse off now because of the move? Do you regret the decision to move?
10. Prior to moving, was your impression of life in Leh different to the reality you experienced?

Appendix 3

Examples of questions asked during in-depth interviews at the destination.

Following are two lists to provide an example of the issues and topics covered during follow-up interviews. In each case, the questions were tailored to suit the respondent's circumstances and specific experiences, although the general issues regarding migration and settlement remained the same. The questions were not necessarily adhered to in sequence, as the emphasis was also on allowing for the respondent's own focus to develop.

Example #1. (Questions for one of first migrants from Kharnak, male aged in 40's)

Traced family members in origin and destination

Household form at time of migration – kaun, kangchen, polyandrous

Number of animals at time – his judgement of economic status low/med/better than most

Were many people leaving at the time

Did he know people who had left – relatives or friends

What did parents say, other people about his decision

What did he do with animals and belongings

How did he find Leh – adjustments to a settled life

Problems faced post migration – was life in Leh what he had hoped for

Any thoughts about returning

Influence of increased price from pashmina on thoughts of returning

Hopes for his children, then and now

What gave him the idea that education would lead to better options than remaining in Kharnak

Health in origin and destination – any improvements or otherwise

He spent 36 yrs living in Kharnak – what were some of the big events or changes that he witnessed (1951-1987) – eg. Sino-Indian war in 1962, the loss of grazing lands in Skagjung, 1987 construction of the Leh – Manali Road. Rations (PDS) introduced by Government.

Social changes – a greater number of households have only one husband now compared with his parent's generation, do you consider that there has been a significant shift in household organisation and if so, what are some of the implications.

Changes in herd composition

Health care

Employing Rong-pa (lowlanders) to help with livestock

Has the number of moves in migratory cycle changed from when he was young, if so why?

If it is possible to earn 1 Lakh in a year from pastoralism and the climatic conditions have improved, and government facilities are better, (both according to his own judgement) why are more and more people leaving Kharnak?

What type of people are leaving – can they be classified in any way, poor, wealthy, young, old, households with only one husband?

Why have more people left Kharnak than Samad or Korzok

His opinion on the out-migration – the future of pastoralism in Rupshu-Kharnak

In Kharnkling settlement is there a Goba, who do you approach with problems, who is representative on the Hill Council

What is / was the cost of land / house in settlement – purchased from whom

Is he aware of any new rules for out-migrants from Kharnak re: keeping animals with relatives/ friends after moving away

Example #2. (elderly female from Kharnak, migrated for retirement)

Her age, migration story

Household composition at time of leaving – Kaun / kangchen

Number of animals

About the decision – why, whose decision, did they leave relatives behind, or return for visits, how do you feel about the decision looking back

What did they do with possessions, livestock, how did they get the land and house – what was cost

Economic status at time, had they considered settling prior to their son's decision

What did people say – at that time not many people had moved away

What did you think life would be like in Leh

what had you heard, what ideas did you have of what it would be like, where had you heard the information

Did you face problems – the good and bad aspects of moving. Do you miss anything

Change in diet? Health – did it improve / same / or worsen – that of children

role of education – why do people think education is so important – is this the case

why are people still coming – what problems are they facing or is it a decision based on desire for education and health care

are most of the households kaun (subsidary) in the settlement

why > people from Kharnak than other areas

now that 50% of population live in Leh what does this mean for Kharnak-pa – are they better off or worse

On the past: polyandry. Nowadays, most households only have one husband, what was it like in her parent's / g'parents time? Why has it changed, and when

Trade with Zanskar for *Nas* (barley) stopped 5 to 6 yrs ago due to the road and rations – do they still conduct exchange via Leh? That is, where do they get *nas* from as it is not included in the PDS of rations.

Socio-cultural changes, Gender roles and generational shifts – moving entails significant changes in outlook and behaviour. In Kharnak many young women said they knew nothing

about money, how to go to Leh for purchases – these belonged to the realm of husbands, brothers, fathers to handle. Has this changed with women who have migrated to Leh? Is it possible to see differences between recent and longer-term female migrants?

Has she seen any changes in females of her daughter's age compared to when she was of that age – in their attitudes, what they can do, what they want in life

What about the younger generation – her grandchildren's age – any differences again

Marriage – organised versus love marriages – opinions

In Kharnak what cultural and social activities used to take place – are they less common in the settlement, or so they include different activities

Level of community participation in religious events – any changes, are differences evident with the younger generation

Opinion on what constitutes a good life as opposed to a bad life – what qualities are important in a person

Medicine – amchi or allopathic – preference, why, where go first.

Change in Kharnak : what important changes have taken place there over your lifetime

The migration cycle – has it changed over time

Pasture quality, are there areas no longer visited

Herd size, composition

Fields for fodder – where, used since when

Did the Rong-pa ever come for work with Changpa

Canal construction / school/ fencing in Kharnak