Chapter 1
Introduction

The environment of western Rajasthan is shaped by predominant aridity, which is broken by moderate and irregular monsoonal rainfall. One assessment of the occurrence and perception of drought by farmers is that in every decade there are '. . . from six to nine severe drought years, from one to three good years, and hardly one average or "normal" year' (Bharara 1982:352). The problem is that no one knows in advance which will be a good year or which will be a bad year.

This study looks at some of the ways in which people survive and organise their economic activities and social lives in circumstances of great uncertainty about subsistence. The examination focuses on a particular agrarian system (or, more accurately, an agro-pastoral system) in a cluster of villages in western Rajasthan.

The focus represents a shift away from my original plan. The reasons for the shift are instructive. In January 1983 I went to Rajasthan to study migratory herdsmen, and, in particular, to look at the relationships between desertification, pastoral land use, market factors and economic strategies. A number of factors led me to change my focus. The primary problem was that I was unable to obtain permission from the Government of India to carry out my intended study. There were, apparently, a number of reasons for this, but the main one was that most 'nomads' are found, most of the time, in the politically and administratively sensitive Pakistan Border area. It is a fact, usually denied by officials, that some unauthorised border crossing by herdsmen occurs. Research in such a sensitive area, and by a foreigner at that, was apparently out of the question. In addition 'nomads' are always a sensitive administrative issue, in India and elsewhere.

Even if permission had been granted to carry out the study originally planned, there were practical and logistical problems. Before the good monsoon rains of 1983 western Rajasthan had been subject to a drought for several years. As a result of this most of the livestock, and many of the people dependent on livestock, had migrated. There did not appear to be a clear focus of study. By the time the drought had ended and the

migrant herds and herdsmen had returned I had already decided on a new direction. This involved a shift away from livestock herding nomads to an essentially sedentary agro-pastoral village.

Although there are nomads in western Rajasthan, and although livestock are of great importance to the economy, agriculture is also important. For the most part, the economy can be described as agro-pastoral. In an area where environmental conditions are harsh and rainfall is uncertain, a study of the ramifications of such an economy seemed immensely challenging.

I stayed in Rajasthan through the period following the drought-breaking 1983 monsoon into January 1984. When I returned in August 1985 the monsoon had failed. I was impressed by the dramatic contrast between the buoyant mood of the 1983 post-monsoon period and the sense of resignation evident in the 1985 post-monsoon period.

Thus, the focus of this study evolved out of a combination of bureaucratic and climatic circumstances. It was also influenced by essentially fortuitous factors. In particular, I had already established good contacts in Hinganiya, a village near Jodhpur, during an earlier survey visit. I had found Hinganiya congenial, and, when I visited it in March 1983 (during the drought) it seemed essentially pastoral - a factor which remained important, even after nomadism was abandoned as a topic. The importance of agriculture in Hinganiya impressed itself on me only after I commenced my fieldwork during the successful agricultural season which followed the 1983 monsoon.

While a number of unanticipated factors influenced village selection and, ultimately, the focus of study, there is a sense in which a focus on drought, its consequences and its social context, was inevitable. My theoretical interests have always been primarily centred around ecological anthropology. Given this interest and the timing of my stay in Rajasthan to coincide with a drought and subsequently with a drought-breaking post -monsoon agricultural season, I could hardly have failed to focus on drought and famine.

I will now turn to a discussion of previous research and to a more specific discussion of the theoretical issues which this study addresses.

Perspectives on Drought and Famine

Major themes of this study are the extent to which drought leads to starvation and famine, the reasons why it may do so in some cases, but not in others, and the ways in which people deal with the risk or actual

occurrence of famine. Rajasthan, as recently as the end of the nineteenth and beginning of the twentieth centuries, has experienced catastrophic famines. Yet, while drought continues to be a frequent occurrence, famine no longer causes massive loss of life. Chronic malnutrition, however, continues to be the lot of much of the population, much of the time.

In this century a great deal has been written about the causes of famine. Roughly, two broad and opposing views have emerged. In one school of thought, famine is seen as the outcome of the failure of crops due to natural disasters (usually drought, but sometimes flood or crop disease) or sometimes due to *abnormal* socio-political events (such as war). Famine is seen simply as the result of a shortage of available food against demand. An implied corollary of this view is that the balance between food production and population is precarious. For proponents of the opposing view, famine is the outcome of unequal distribution within the *normal* socio-political structure. From this perspective, famine may occur when natural fluctuations in climate occur, but when things get tough the poor are the first to suffer. It is also possible for famine to occur in the absence of food shortage (Amartya Sen 1982).

With reference to India there has been a long and often acrimonious debate[1] between adherents to each of these schools of thought. The historian Dutt, writing in the first years of the century (1902-1904), claimed that increases in land taxes, the replacement of subsistence crops with cash crops and the demands of British imperialism generally led to the increasing susceptibility of the Indian population to famine. Thus, even minor droughts led to huge death tolls. McAlpin (1983) disputes this account with special reference to the Bombay Presidency. She argues that famine had been known for centuries, long before the British came, and that, as the economy developed under the British, a reduced susceptibility to drought evolved. At first the British were as ineffective as the earlier rulers (the Marathas) in coping with the unreliable nature of the environment.

Later, according to McAlpin, the development of the economy under the British led to a reduction in the degree to which farmers were susceptible to drought. Among the changes identified were the development of markets and railways. The development of railways led to greater ease and efficiency in the distribution of emergency grain. The development of markets, along with improved distribution, led to greater stability of the prices for purchased grains. This freed farmers 'from the

[1] For a review of this debate see Appadurai (1984).

need to store grain as insurance against famines' (p. 154), enabling them to grow non-grain (cash) crops. As far as the agricultural sector of Bombay Presidency was concerned the period 1860-1920 was characterised by a generally improving economic situation, despite some bad monsoons and bad harvests. Transport costs fell (with the development of railways), crops achieved better prices, higher value crops were grown and there was less need for the use of crops as insurance. The increase in the demand for labour (both agricultural labour and non-agricultrual labour) in the newly industrialised Bombay Presidency and the increasing 'absorption of risk by the government' (p. 190) all worked to reduce the connection between drought and famine.

Dutt (1902-1904) argued that the very serious famines of the late ninteenth century demonstrated just how destructive British imperialism had been. McAlpin, on the other hand, argued that these were the consequences of very serious dry spells. The beginning of the twentieth century was something of a turning point after which economic development led to a situation in which serious loss of life due to drought became unlikely. McAlpin suggested that Dutt's time of writing (just after the turn of the century) prevents him from seeing these droughts in perspective. After the end of the first decade of the twentieth century famines ceased to be nightmares:

> Since that period there has been only one famine with major loss of life - the Bengal famine of 1943-1944 - and that one was due in large measure to the destruction of the very systems - transport, economic opportunities, and government relief - that had helped to mitigate earlier crises.(McAlpin 1983:218)

The extent to which McAlpin's conclusions about British Imperialism are valid is beyond the scope of this study,[2] although I must say that I believe her analysis demolishes any *simplistic* account of British imperialism as the main villain. My main concern is that she fails to deal with the distribution of the effects of famine. Some reviewers (Copland 1983; Appadurai 1984) have criticised her, in my view quite correctly, for ignoring internal differentiation within the agricultural sector. McAlpin wrote:

> Given a relatively equal distribution of land in most parts of the Presidency and relatively little tenancy in the period 1876-1889. . . these gains in prosperity were probably widely distributed through the agricultural community. Increasing cultivation of labour-

[2] As Copland (1983) says in a review, McAlpin's thesis remains immensely controversial.

> intensive crops, among other factors, probably increased the demand for agricultural labourers, insuring that they also shared in the gains of the sector. (1983:158)

McAlpin's conclusion that land was relatively equally distributed is hardly supported. In any case her figures ignore the landless, so at best her conclusion only applies to distribution of land among the landed. Furthermore, the word 'probably' appears often in the argument that agricultural labourers shared in the gains of the agricultural sector. A major problem is that McAlpin uses figures which exclude agricultural labourers and which do not show much at all about landholdings at the local level. Large scale economic data are of little relevance in showing what happened in villages.

It is odd that McAlpin so easily dismisses the equity question, because she is certainly well aware of the possibilities of unequal distribution of the risks of drought. She discusses (and endorses) material on the Tuareg of the Sahara which sees the hierachical structure of Tuareg society as explicity concerned with ensuring unequal access to resources in drought/famine conditions.

Tuareg society is highly stratified. The most powerful class is the 'noble' class, primarily concerned with camel herding (Keenan 1977). At the bottom of the hierarchy is a slave class. In the middle are goat herding nomads and tenant farmers. Baier and Lovejoy (1977), in a paper cited by McAlpin, argue that the stratification of Tuareg society was related to hierarchically based claims to resources. In good times additional people from the sub-Saharan areas were recruited into the lower Tuareg classes, becoming slaves or tenant farmers for noble Tuareg landlords. In bad times these people again crossed ecological and ethnic barriers. (At the lower levels of Tuareg society the distinctions between Tuareg and neighbouring Hausa were blurred.)

Baier and Lovejoy specifically interpret the Tuareg class system

> . .as a flexible strategy that assured the continued domination by a small class of aristocratic Tuareg of sectors of a highly competitive regional economy. (1977:408)

McAlpin brings in the Tuareg material as part of a discussion of a variety of possible strategies which have been used in drought-prone environments. Yet she fails to explore the implications, raising the question of unequal distribution (both of risks and benefits) but never satisfactorily handling it. I suggest that the primary reason for this failure is that analysis of economic data collected on a large scale tends to

disguise internal differentiation. Working as an economic historian McAlpin cannot be blamed for the absence of more detailed data, but she can be criticised for failing to recognise the implications of the absence of such data. Further, McAlpin acknowledges that the available data are not entirely reliable. Nevertheless, she appears to assume that the irregularities all average out and do not amount to systematic errors. As Polly Hill (1984, 1986) has shown in general discussions of economic statistics, this is very doubtful.

Appadurai (1984) emphasises the importance of examining famine and control of resources in terms of moral economy.[3] The emphasis is on the ability 'of an individual or group to obtain legitimately the means of subsistence' (Appadurai 1984:481). A major advocate of this view is the economist Amartya Sen, who developed what he called the entitlement approach.

> The entitlement approach to starvation and famines concentrates on the ability of people to command food through the legal means available in the society, including the use of production possibilities, trade opportunities, entitlements *vis-a-vis* the state and other methods of acquiring food. (Sen 1982:45; emphasis in original)

According to Sen the failure of specific groups to obtain food by legitimate means (as defined by the particular society) is the crucial issue in famine. In other words, starvation is a consequence of distribution, not of availability. This notion is too simple, however. As Sen puts it:

> To say that starvation depends 'not merely' on food supply but also on its 'distribution' would be correct enough, though not remarkably helpful. The important question then would be: what determines distribution of food between different sections of the community? The entitlement approach directs one to questions dealing with ownership patterns. . . .(1982:7)

In arguing that entitlements enable people to 'command' food, Sen stresses that the recognition of the legitimacy of entitlement is specific to a given society. What is a legitimate entitlement in a socialist system may not be so in a capitalist one.

My purpose in undertaking the above discussion is to emphasise the importance of considering the factors which affect the distribution of resources. While overall food availability may be one aspect of famines

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[3] Moral economy can be defined as the set of mutual expectations affecting use of and access to resources.

in some cases, there is no doubt that inequalities of access to resources are crucial. My analysis in this study is heavily concerned with inequality and hierarchy as intrinsic parts of the village agrarian system.

I have been discussing the phenomenon of famine. I will now take a step back from this. In the sense that famine implies catastrophe, then the situation in western Rajasthan in recent years is not famine, although the word 'famine' is used administratively (see Chapter 2). I will be applying the ideas of McAlpin and Sen (among others) to a situation of frequent but irregular scarcity rather than to catastrophic famine. In this context unequal access to (or, in Sen's terms 'command of') subsistence still applies. In fact, an important question is why, despite high and increasing population and great inequality, the catastrophic famines of the past are not being repeated.

Much of the discussion in the literature works at a macro-level, as I have previously pointed out with regard to McAlpin. It is essential to examine the processes of reaction to drought (including distribution and risk management) as they occur in a village setting. That is the justification for this study. The examination of famine or famine avoidance in a village setting is an emerging theme in anthropology. Maclachlan (1983) and Richards (1986) both deal with adaptive responses to drought. Richards examines the way a particular African rice farming system copes with scarcity conditions. Maclachlan deals with agricultural intensification as a way to cope with drought, in the context of high population growth in a south Indian village. I will be referring to his work in greater detail later (particularly in Chapter 8). My approach aims to examine adaptation to drought in the context of inequality. Nevertheless, the emphasis is, as with Richards and Maclachlan, on the micro-level.

In addition to the inequality and hierarchy aspect, there is a second theme related to famine and risk reduction. All people in drought prone areas, whether poor or less so, have strategies for reducing the risk of a bad year (or a series of bad years) turning into food shortages. These strategies will be discussed at various points throughout this book.

An Ecological Perspective

This is a study in ecological anthropology. I use the term to refer to a broad subject area (the interrelationships between human social behaviour and environment), not to define a particular theoretical approach. The most crucial characteristic of the environment in question is the unpredictable rainfall. Not only is rainfall unpredictable, but the human

population is rapidly increasing and wider economic and political contexts are changing. For these reasons it is difficult to apply theoretical approaches that have evolved out of simpler contexts. For example, the neo-functionalist approach of Rappaport (1968), depending on more or less repeated cycles with feedback mechanisms, is not appropriate when some variables (population) are changing unidirectionally.

Further, as Orlove (1980) points out, the neo-functionalist approach has generally been applied to small-scale societies rather than 'complex state societies'. The villages of western Rajasthan are certainly part of complex state societies and have been for centuries.

Orlove argues that ecological anthropology has gone through three stages. The first derived from cultural evolutionism and the second included neo-functionalist and neo-evolutionist ecology, epitomised by the work of Rappaport (1968) and Harris (1979) respectively. Orlove calls the third stage processual ecology. In this school the concern is with 'the importance of diachronic studies in ecological anthropology and. . . the need to examine mechanisms of change' (p. 245).

Processual ecology really is very broad in approach and methodology. In fact it is very much what Dwyer (1985) refers to as 'methodological individualism'. As Orlove's review shows, contemporary ecological anthropology consists of a large number of differing approaches, rather than an overriding theory. I believe that this is a healthy situation and reject the view that anthropologists must go to the field to test a particular theoretical perspective. My view of the discipline is that it is problem-oriented or question-oriented. This does not lead to theoretical and methodological anarchy, but rather to an eclectic approach which treats method and theory as tools, not goals.[4]

The essence of the ecological approach which is used in this study is an emphasis on holism. Social behaviour and the environment are not seen as separate interacting systems, but rather as a single system.

Gregory (pers.comm.) points out that interpretive approaches which focus on the interaction between 'nature and culture' suffer from the same limitations as approaches which emphasise the primacy either of culture (idealism) or nature (materialism). Both single-sided and two-sided approaches assume the dichotomy between nature and culture to be 'unproblematic'. Gregory stresses the value of a 'many-sided' approach.

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[4] Eclectic approaches to ecological anthropology cover a whole range of methodologies and issues. See, for example, Kennedy and Edgerton (1982).

The holistic ('many-sided') approach has a long history in anthropology. Mauss's study of Eskimo 'social morphology' (1979) was described by Fox, in the Foreword to his English translation, as '. . . the first ethnographic attempt to adopt a holistic, ecological approach to the analysis of a society' (p. 6). Evans-Pritchards' work on the Nuer (1940) is similarly eclectic and holistic, and Fox's own study of ecological change in Indonesia (1977) follows the same tradition.

A holistic approach takes into account the physical environment, resources, resource use, social organisation, politics and anything else which is relevant. It does not assume causal primacy of one factor over others.

In the largest sense, social behaviour and environment are parts of a single system. Nevertheless, analysis must have a starting point. I have taken Beteille's concept of an agrarian system (Beteille 1972) as the basis of my approach, because it seems most readily to identify most of the elements involved in an analysis of drought in an agrarian society. Beteille identifies technology, the work cycle, the organisation of production and the agrarian hierarchy, as topics of particular relevance. He mentions ecology and systems of land tenure as additional factors. I would add the wider (state and national) political and economic context. Beteille states:

> These major topics are mutually related and each one of them is related to others not listed here.... I have been able to give only a broad indication of these relationships. I doubt that it will be very helpful to go much beyond this because the task of anthropological investigation as I conceive it is to establish the precise nature of such relationships *after* and not *before* field investigation. (1972:171; emphasis in original)

In addition to these focuses of attention there are two further elements in my approach. These relate to two conclusions which arose out of my feel for the field situation.

Firstly, because the physical environment, demography and socio-economic behaviour are all changing, the perspective must, to the extent that the data permit, include an element of historical analysis. The ethnographic analysis must be, to a large extent, historically specific, because the processes under examination are historically specific.

Secondly, the perspective must take account of the fact that the uncertainties of the environment are almost the only thing that the farmer can be certain about. Farming in the semi-arid part of western Rajasthan involves very uncertain subsistence. Thus, we are talking about the

ecology of doubt. The anthropological study of such an ecology must be concerned with the strategies used to cope with this uncertainty and with the way people react to specific events.[5]

Anthropological Research and the Study of Agrarian Systems in Rajasthan

In the last thirty years there have been a large number of sociological studies of various aspects of rural life and economy in western Rajasthan. Significant work includes research carried out by scholars associated with the Central Arid Zone Research Institute (CAZRI) at Jodhpur. (See, for example, Bharara 1980, 1982, 1993; Bose *et al.* 1963; Bose and Saxena 1965, 1966; Malhotra and Trivedi 1981; etc.) Some studies have also been done by scholars at the Department of Sociology, University of Jodhpur, although that Department has generally concentrated on urban sociology

These studies deal with a variety of sociological and socio-economic issues, including household composition, status of and attitudes to the child population and the factors involved in the dispersal of dwellings. Important work has also been done on the relationships between social factors and the environment, including the consequences of drought (Bharara 1980, 1993; Malhotra 1977). Some research on the relationships between ecology and social factors has also been done by foreign scholars (Rosin 1968, 1978, 1993).

While much of this work has been useful and important, there are some significant gaps in the research done to date. The crucial point is that most of it has been of a survey nature. The studies have provided a great deal of statistical data, but what is missing is the complementary perspective which requires intensive village-level research - in other words the perspective obtained by anthropologists using the method of 'participant observation' and spending lengthy periods observing day-to-day events and interactions.

In addition to the assistance the field perspective gives to the understanding of the dynamics behind statistical averages, a crucial role of fieldwork is in the way it forces the accuracy of statistical data to be

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5 This concern with individual action is important. Haaland (1991:14), in a discussion of the work of Fredrik Barth, points out that: 'To understand these patterns it is necessary to develop a perspective which allows [Barth] to connect the analysis of macro-level ecosystem dynamics with the micro-level analysis of the intentions and perceptions of individual actors.'

called into question. Polly Hill (1984, 1986) has pointed out that economists (she was referring particularly to developmental economists) rarely question the data on which they base their macro-theories and she argues that such macro-theories fail to take account of systematic statistical errors and local variations. My own experience in gathering statistical data in the field led me to an extreme awareness of the arbitrariness of many of the assumptions used in gathering and analysing statistical data. Where I use statistical data in this study I do so because I believe my detailed knowledge of a small area enables me to be fairly confident about their validity.

The relatively small amount of detailed fieldwork carried out in Rajasthan is similar to the pattern for India as a whole. Srinivas (1975) argues that the social sciences in India have generally ignored the importance of field research and that the poor understanding of rural life has had significant effects on policy and administration.

Beteille (1972) has pointed out that Anthropology has an important role. He regrets the fact that some advantages in the anthropological approach have not been fully exploited in India:

> . .anthropologists in this country seem to be ready to abandon their own discipline in order to try their hand at political sociology, the history of civilizations, or something else. This is in many ways unfortunate because the anthropological approach has its own contribution to make to the understanding of the world in which we live. What I consider to be distinctive in this approach is the monographic study of the material culture and social organization of particular communities based on intensive fieldwork. I believe that studies of this kind can tell us much that is of value about human societies and cultures and that no other discipline can take the place of anthropology in making them. (Beteille 1972:151)

In asserting the usefulness of anthropology as a means of gathering valuable information, Beteille argues that anthropology in India can usefully turn to the study of culture, technology and organisation of production in the context of the ecological setting. He calls this the study of agrarian systems.

Very little work has been done at this level in western Rajasthan. One exception is the work of Rosin (1968, 1978, 1981), whose unpublished PhD thesis (1968) is the only substantial anthropological study of anything resembling an agrarian system in arid or semi-arid western Rajasthan. Looking at Rajasthan as a whole, I am aware of no published monographs dealing with an anthropological study of agrarian systems. In addition to a few tribal studies, the major anthropological studies on

Rajasthan are those by Carstairs (1957, 1983), Gupta (1974), Aggarwal (1971), Chakravarti (1975), Chauhan (1967), Erdman (1985) and Gold (1988), none of whom deal specifically with either the arid zone or with agrarian systems. Paul (1992) has written on the ethnography of the Charans who live in the arid zone, but her study does not deal with agriculture or agrarian systems.

There are also some Village Survey Monographs published in connection with the 1961 Census of India. A few of these deal with the arid zone. They are useful descriptive works, sometimes containing detailed data on various socio-economic matters in relation to particular villages. However they do not result from extended research, but from brief survey visits (of several weeks duration). Furthermore they present data and describe physical surroundings, but do not describe or analyse anything in the nature of 'agrarian systems'.

Rosin's PhD thesis (1968) focuses on changing land tenure and village polity. It falls within the tradition of holistic ecological studies and much of what Rosin has to say would apply, to some extent, to my field area. Examples of this are observations about the role of outside employment and about the difficulties involved in determining land ownership. Most importantly, Rosin argues that various castes have different forms of social organisation and that these have differing applications as the basis of strategies for obtaining economic advantage. This argument is similar to one pursued in this study, particularly in Chapters 4 and 9.[6]

It is against the general background of very sketchy anthropological literature and, in particular, an absence of studies of agrarian systems, that this study was conceived. The underlying objective is to describe and analyse the nature of an agrarian system in a rural community in arid western Rajasthan.

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6 My argument about various castes having different forms of social organisation which provide opportunities for differing economic strategies, was developed before I saw Rosin's thesis. In fact, when I first saw it and read the abstract, I decided to defer further reading until my own argument was fully developed. I did not read it until after I completed the second draft of my own thesis. Rosin's argument partly confirmed some of my own observations, particularly the general observation about the importance of differences in the structures of various castes. However, there are differences in interpretation which will be discussed in Chapter 4.

Methodology and Fieldwork

(a) Geographic Focus

This study has a number of shifting geographical foci. On the widest level it is concerned with that part of Rajasthan to the west of the Aravalli Mountains. The next level is Jodhpur District and the former Rajput state of Marwar which included all of the modern district and parts of adjacent districts.[7] At a narrower level, the focus is on a cluster of four villages in Jodhpur District. These four adjoining villages are all in a similar ecological setting and, in each case, the economy is a mixture of pastoralism and monsoonal agriculture. Furthermore, three of the villages are linked administratively, being part of the same *gram* (village) panchayat. Within this cluster I have focused very closely on a single village, Hinganiya, the smallest of the four villages. Discussion shifts backwards and forwards between the various levels throughout the study. However, unless otherwise indicated all statistical data refer to Hinganiya.

The purpose of shifting between levels is to develop an understanding of the region as a whole while maintaining a clear perspective on a specific case study. A more detailed introduction to my fieldsite is presented in Chapter 3, following a discussion of environmental conditions in western Rajasthan as a whole (in Chapter 2).

(b) Methodology

The underlying methodology was participant observation. Most interviews, both with villagers and with officals, were unstructured. Apart from a small number of taped interviews I usually relied on notes, taken during a meeting or event, or as soon as possible afterwards. I also collected quantitative data, using semi-structured interviews, about household size, labour migration, livestock ownership and landholdings. Separate surveys were carried out in late 1983/early 1984 and in 1985/86.

Data on landholdings were obtained from official land records held by the Patwari (the official responsible for land records). Two sets of data were obtained, one relating to the position at the time of land settlement in 1947 and the other relating to landholdings in late 1985/early 1986.

I also examined library and archival material in Delhi, Agra, Bikaner and Jodhpur.

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7 The word *marwar* means 'the region of death'. It refers specifically to the former Rajput state, but is also used more broadly to refer to the arid areas of Rajasthan.

(c) Fieldwork

My fieldwork can be broken up into several stages.

(1) Late December 1982 - early May 1983. My activities in this period included visits to Delhi attempting to arrange approval for my research permit, and also a visit to Bombay to meet my wife and son who were arriving from Australia. Basing myself in Jodhpur I made survey trips to various parts of western Rajasthan (including several days in Hinganiya).

(2) May-early August 1983. This period was spent in Nepal as I pursued my Indian research permit and the alternative possibility of working in Nepal.

(3) August 1983 - January 1984. In this period I carried out fieldwork in Rajasthan. I spent much of my time in Hinganiya but also visited other parts of Rajasthan and spent time in Jodhpur developing an urban and regional perspective. My wife and son remained in Nepal during most of this time and visited the village briefly towards the end of the year.

(4) August 1985 early February 1986. I returned from Australia to carry out follow-up work again concentrating on Hinganiya. I also did library work in Bikaner, Jaipur and Delhi and spent a few days in Manali. My family remained in Australia during this entire period of fieldwork.

(5) I returned to Rajasthan for a few days in August 1987, spending two days in Hinganiya. This brief visit gave me an impression of the effect of the most serious drought in decades.

The fact that I was able to work in, or at least visit, my field area during three separate monsoon seasons (one good, one poor and the third disastrous) has been an important factor in recognising the extent to which conditions vary. Table 1.1 indicates the pattern of monsoons and famines since 1977, and shows the conditions at the time of various stages of fieldwork.

In its combination of a wider study of western Rajasthan and a very localised village study, my fieldwork reflected the balance of the study. On the one hand I concentrated on Hinganiya, and, to a lesser extent, the other three villages in the cluster. On the other hand I developed a fairly broad knowledge of other parts of western Rajasthan. Each level illuminates the other.

Throughout my time in Hinganiya I lived with a Rajput household. The fact that I lived with Rajputs meant that I gained a more detailed

knowledge of Rajputs than of the other castes. It also meant that I was associated with Rajputs in terms of commensality. This presented some restrictions on my relationships with members of other castes (particularly with the untouchable castes - the Meghwals and Nayaks), but, in my view, did not lead to any major distortions of my understanding of these castes. I do not think that data on economic matters (such as land ownership) are less reliable for other castes than for Rajputs. In fact some Rajputs seemed less forthcoming in these matters than Meghwals or Nayaks.

Table 1.1

Conditions in Jodhpur District 1977-1987, indicating periods of fieldwork

Year	Monsoon conditions/ famine declarations	Fieldwork
1977	Good monsoon	
1978	Failed/famine declared	
1979	Failed/famine declared	
1980	Failed/famine declared	
1981	Failed/famine declared	
1982	Failed/famine declared	
1983	Good monsoon	In Rajasthan during pre-monsoon (January-April). Returned late monsoon remaining until January 1984
1984	Generally satisfactory - famine declared in some villages	Left field late January (pre-monsoon)
1985	Failed/famine declared	Arrived August
1986	Failed/famine declared	Left January
1987	Failed/famine declared	Brief visit in August

Note: The monsoon period is roughly mid-July to early-September

In personal terms, however, I found the strictures of caste rather unpleasant and inconvenient, and there was an element of subversion and some tension surrounding my relationships with Nayaks and Meghwals. To some extent my frequent visits to the other castes caused concern to my Rajput hosts. While fear that I might breach the rules of commensality were a part of this, there was clearly a concern that I would upset the power relationships between castes. Concern (and jealousy) about my giving gifts and loans was also an element.

The working and living conditions in Hinganiya were very difficult. I lived in a single-room building which doubled as a storeroom, meeting room and sleeping room for myself and a variable number of male members of the household and visitors. Written work was almost impossible at night as electricity was generally unavailable, although there were some spasmodic efforts to make temporary connections to the village power supply later in my second stay.

In both 1983 and 1985 I spent much of the period August to late October in Hinganiya. The heat during these months was deplorable. Fortunately I did not spend the period May to July in Rajasthan at any stage of my fieldwork. Even in August and September the temperature in the shade during the day frequently reached 100°F. Outside it was much worse. I frequently found my notebooks damaged by my sweat as I wrote. Water was often in short supply and very poor.

Fortunately, even in the hot months the nights were relatively pleasant. A great deal of informal 'interviewing' took place during pre-dinner talks with visitors, often over a glass of rum or *desi daru* (local liquor).

In addition to problems with heat and the absence of light, working conditions were affected by the lack of privacy. On one hand this meant that every moment of the day involved participant observation (whether desired or not). On the other hand, while I was able to write field notes (and did so continuously, much to general amusement), I was rarely able to analyse information or to write it up in report form. That sort of task had to be done during my trips to Jodhpur.Visits to the neighbouring village of Kur and Kukunda were fairly frequent, although they were day trips with the exception of a few night stops in Kur. I visited Khokhariya only a few times and also managed to visit several other nearby villages at various times.

Structure of the Book

In Chapter 2, I will describe the environment of western Rajasthan. Then, in Chapter 3, I will give a brief description of my field area. At this point the most natural thing to expect would be a chapter on agriculture and pastoralism. However, an understanding of the way in which productive activities are organised is impossible without a knowledge of hierarchical systems based on caste (Chapter 4) and landholding (Chapter 5). Consequently the description and analysis of agro-pastoral production is deferred until Chapter 6. Chapter 7 deals with demographic issues and includes a discussion of the relationships between economic conditions and population growth. In Chapter 8 labour demands and their relationship to household structure are examined. Chapter 9 examines links between the village and the wider world. Both migration and the developmental role of the state (particularly in famine relief) are discussed. Finally the concluding chapter summarises the argument.