THE POLITICAL ECOLOGY OF GRASSLAND CONSERVATION IN QINGHAI PROVINCE, CHINA: DISCOURSE, POLICIES AND THE HERDERS

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The Political Ecology of Grassland Conservation in Qinghai Province, China: Discourse, Policies and the Herders

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Declaration
I, Irene Breivik, declare hereby to the Senate of the Norwegian University of Life Sciences (UMB) that the present thesis is the original product of my own research. All sources of information used as references and material other than my own are duly acknowledged. The present work has not been submitted to any university other than the UMB for any type of academic degree.

Ås, December 2007
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Abstract
This study has explored a degradation discourse, grassland conservation policies and empowerment of herders living in Yushu Tibetan Autonomous Prefecture in the eastern part of the Tibetan plateau, Qinghai Province, China. In this area environmental conservation policies are affecting the livelihoods of livestock herders, and there is a strong emphasis on grassland degradation. The situation in Yushu Prefecture was analysed from the perspective of political ecology focusing on environmental discourses and power relations. Field work in this area, enabled assessment of a prevailing Chinese grassland degradation discourse, the conservation policies and herders’ responses, positions and participation in grassland management. Discourse analysis showed that the Chinese grassland degradation discourse largely explains grassland degradation as a problem of overgrazing. Other causes are also central, but special attention is given to the problem of overgrazing. Herding practices are blamed for causing such overgrazing, and the conservation policies revolve around livestock and grazing control. The current policies are negatively affecting herding and other livelihood practices, and as the conservation policies are causing herders to be marginalised in several ways, herders’ rights and self-determination should be addressed. The situation in Yushu Prefecture is the result of a state that is strongly interventionist and which constrains herders’ say in herding and grassland management. Central components of the herders’ practices are changing with the current policies, causing their approach to grassland management, seasonal grazing, to be lost. Therefore, as government regulations of and control over herder practices increase, the herders’ participation in decision-making in grassland management decreases. Herders’ traditional practices are, however, important for grassland management; recognising the value of their knowledge is necessary to increase their empowerment. Herders’ traditional practices may also show to be necessary for sound grassland management. If the state is to play a more constructive role in grassland conservation, it should integrate and strengthen, not undermine, the herders’ roles in grassland management.
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Acronyms

AHB Animal Husbandry Bureau
GMEG Gaduojiu Monastery Environmental Group
HCRS Household Contract Responsibility System
NGO Non-governmental organisation
NPIB Northwest Plateau Institute of Biology
PRC The Peoples’ Republic of China
SGREPA Snowland Great River Environmental Protection Association
SNNR Sanjiangyuan National Nature Reserve
UYO Upper Yangtze Organisation
YGS Yushu Grassland Station
WDS Western Development Strategy
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1 Introduction

Environmental conservation currently affects the livelihoods of people around the world. Pastoralists and other rural people often become subject to change imposed by others who want to conserve the environment that they live in (Robbins 2004: 147-171, Adams 2001: 270-277, Andersen and Grove 1987). Therefore pastoralists in many areas are facing change; processes visible in Tibetan areas of China. The issues raised by such changes relate to important aspects of development discourse and practice. There is currently increasing recognition of the importance of environmental conservation both for sustaining the world’s resources and for poverty reduction. The environment is therefore receiving greater prominence in development discourses and practices. Power struggles between those with divergent interests may determine the direction of environmental management and protection (Robbins 2004). How the balance of power determines natural resource management is relevant when conservation policies and measures are increasing, and potentially having a negative impact on groups of people, such as herders. I have a special interest in China theist minority people groups, therefore the focus of this research has been directed towards the Tibetan herders.

1.1 Environmental conservation and Tibetan herders

The problem referred to as grassland or rangeland degradation is gaining increasing attention by policy makers in the People’s Republic of China (PRC). China’s rangelands have been subject to much attention over the past decades, but measures to combat grassland degradation are currently intensifying. New policies are being directed toward grassland conservation. Grassland degradation is considered an urgent problem in western China. Estimates by the Ministry of Agriculture hold that ‘34 percent of all grasslands in China are moderately to severely degraded and about 90 percent are degraded to some degree’ (Quoted by the World Bank 2001: 23). The grasslands are receiving special attention as they are believed to face an environmental hazard, but the ecological environment of the Tibetan plateau is also gaining increased attention. Grassland deterioration in the watersheds of China’s major rivers is considered by the government to possibly become catastrophic for millions of Chinese living downstream, as it is common to see a link between upper basin degradation and lower basin flooding (Richard 2006: 83).
Along with the attention given to grassland degradation in pastoral areas, there has also been strong emphasis on pastoral development, with a shift from communal land-use to privatisation. Chinese authorities are pursuing a sedentary and individualised production system, different from the traditional nomadic production system. Such a process is largely explained to be needed for the regions’ economy to be strengthened and since many herders are facing poverty. But the changes of herding practices are also closely related to an assumed situation of severe grassland degradation.

The traditional pastoral production system revolves around certain central components, such as mobility, and the yak, that are especially adapted to enduring a harsh climate. Climatic conditions on the Tibetan plateau are harsh, with snowstorms and extremely cold weather (temperatures may sink to −40 degrees Celsius during winter). The pastoral production system of Tibetan herders has had to cope with these conditions, as the Tibetan herders have lived on the Tibetan plateau for four thousand years practising nomadic pastoralism (Miller 1998). Mobility has especially been an important feature of Tibetan pastoralism. The herders traditionally moved in organised patterns dependent on social organisation, although now often regulated by local administrative units (Miller 2005). Their seasonal movement patterns were adjusted to the topography of grasslands, and the usual numbers of moves per year were between three and eight (Ekvall 1968: 33).

The changes taking place today as grassland conservation and pastoral development policies are carried out are deeply affecting the herders’ traditional production system. But it has already undergone several shifts during the last century, culminating in a change to private production systems. Prior to the communist era in China (1956-1978), pastureland was owned by religious and aristocratic elites through a feudal estate. Pastoral estates were divided into smaller pastures. The herders paid tax, but herded their animals independently of the estate and other households (Goldstein 1971). Along with the introduction of the commune system in 1956 (−1978), all components of the pastoral production system were collectivised. Property rights were divided with respect to three different parts of the pastoral economy: the grassland, the livestock and the labour. The primary resource; the grasslands, belonged to the communes (the present-day township), the secondary resource, livestock, belonged to the brigade (village), and labour, herders, was provided by the production team (natural village) (Foggin and Smith 1996). After about 20 years of the commune system, the pastoral practices were again drastically altered.
In the aftermath of China’s Open Door Policy in the post-Mao era (1978), a Household Contract Responsibility System (HCRS) was introduced in 1985, and the communal system shifted towards a private land tenure system (Ho 2000a). The Household Contract Responsibility System (HCRS), also referred to as the Grassland Law (Richard 2006: 84), was implemented in order for private user rights arrangements to be established. Ho (2000a) argues that the HCRS has been implemented in order to gain more control over the pastures, and thereby hinder over-exploitation of the grasslands, which the government appears to consider the most important cause for grassland degradation.

There is increasing recognition of the importance of preserving the environment to allow sustained economic growth. Wageningen and Wenjun (2001: 22) state that the government’s livestock policy for Qinghai’s grasslands has two objectives; protecting the environment and maximising livestock production. In the post-Mao era (after 1978), PRC has favoured economic growth and turned towards a free-market economy. PRC launched the Western Development Strategy (WDS), which focuses on integrating the western parts of the country into the mainstream economy of China. As a result of the Open Door policy (opening up China to the outside world), inequalities have increased across the country; between the east and west of China, and also between rural and urban areas (Stockman 2000: 45-69). To address the social inequalities (and the risk of resulting social unrest) the Chinese government therefore began to focus on poverty reduction in western and rural areas of the country, with a particular emphasis on environmental protection (Foggin in press).

One area where the grasslands conservation measures are currently being implemented is in Yushu Tibetan Autonomous Prefecture on the north-eastern part of the Tibetan plateau, in Qinghai Province (see Figure 1). Qinghai Province is one of four provinces in western China that are wholly or partly situated on the Tibetan plateau, and where pastoral production is the main economic activity. Figure 1 shows PRC with overview of grasslands in China. Qinghai Province is situated in the centre of the country.
In line with the environmental focus of the WDS policies, attention to environmental problems is increasing in Qinghai Province. The Environmental Bureau stated that Qinghai Province has two main environmental aims: firstly to protect the Tibetan plateau ecosystem, and secondly to reduce air pollution (Interview, Environmental Bureau, Deputy Director). In Qinghai Province the WDS policies include the creation of a large nature reserve, but also extraction of mineral resources, promotion of eco-tourism, modernisation of pastoral practices and grassland restoration projects (Foggin 2005b: 5-6).

Yushu Prefecture is especially suitable for research on environmental conservation because it is an environmentally important area for the PRC, and grassland conservation measures are being implemented there. Yushu Prefecture is considered environmentally important because it is the source of three major rivers that run through China and supply the population with water. A nature reserve has been established in this area, and is named after the three rivers originating here; the Sanjiangyuan National Nature Reserve (SNNR) (‘the three river
headwaters national nature reserve’). The nature reserve was established in 2003 A.D. The precise boundaries of the SNNR are not yet fully fixed, but it covers about half of the Sanjiangyuan Region (see Figure 2), which has an area of 318 000 km² (Foggin 2005b: 7). The establishment of the nature reserve is a major environmental action by the provincial government. The proportions are huge, as the SNNR has a land area of 152 300 km² (it covers most of Yushu Prefecture, but extends to other prefectures as well) and a human population of 200 000 residents (Foggin 2005b: 7). It is the second largest nature reserve in the world (ibid.). Its objectives are to protect wetlands, shrub land, and wildlife and to stop desertification processes (Interview, Plateau Perspective).

Figure 2: Map of the Tibetan plateau and the Sanjiangyuan region

The government argues that the SNNR has been established as part of a broader focus on the ecological environment in the Sanjiangyuan region. The pastoralists in Yushu Prefecture may in the future be affected by the establishment of this nature reserve. In special zones of the nature reserve, human activity is officially meant to be completely restricted, although in practice herders still live throughout the reserve’s area. As it appears today, the management’s
directions are still being developed, thus the full impact for the herders’ living within the borders remain uncertain.

In addition to the pastoral development, which the Chinese government officially state that it is fostering for the sake of conserving the grasslands, the herders in Yushu Prefecture are further confronted with grassland rehabilitation measures in order to combat grassland degradation. Important measures that are carried out by the government revolve around livestock and grazing control, but also other measures to eradicate rodents and re-vegetation measures are carried out. De-stocking, that is, reducing the number of livestock grazing on an area of land, has been a major strategy in livestock control, as it reduces and supposedly regulates the grazing pressure. In recent years, relocation of herders to town centres has been carried out, ostensibly with the intention of giving the grass a chance to regenerate. Relocation affects an increasing number of people, and seems to be associated with considerable social problems. De-stocking and relocation are major grassland rehabilitation measures, employed because the government considers excessive grazing pressure to be the main cause of grassland degradation.

1.2 A political ecology approach
Political ecology is a discipline which addresses power relations in natural resource management. One area of focus is assumptions about environmental change that inform many environmental discourses. Environmental discourses are central in this discipline since the explanations of environmental problems will be central for how natural resources are managed and conserved. Political ecology studies concerning environmental discourses often direct attention toward the power that lies in explaining environmental problems. There is a relationship between discourses and political actions, and/or marginalisation of local land managers (Robbins 2004: 147-171, Williams 2002, Adams 2001: 270-277, Blaikie 1985). Where there are diverging interests in natural resource management, discourse may hold power in shaping political action. Environmental discourses are relevant for this case because the grassland conservation policies in Yushu Prefecture are informed by a discourse of grassland degradation, and which may have negative consequences for the local people. This study on environmental conservation examines the power of knowledge and power relations between actors in grassland management in Yushu Prefecture.
1.3 Objectives and main arguments
The purpose of this study is to contribute to the empirical and theoretical understanding of how conservation practices affect Tibetan herders’ lives. The specific objectives of the study are as follows:

1. To analyse the Chinese grassland degradation discourse, and show how herders’ understandings and practices are addressed in this discourse.
2. To analyse how political interventions linked to the understanding of grassland degradation have impacted herders’ practices and livelihoods.
3. To analyse the current positions of herders in grassland conservation processes, in terms of current needs and practices, and how the herders may be empowered in grassland management.

To pursue these objectives, I carried out field work in Yushu Prefecture during September and October 2006. I interviewed Chinese authorities, Tibetan herders, researchers, Tibetan and international organisations. By interviewing the local herders, their views about the situation were heard. Observations during field work were used to gain a better understanding of the situation. To supplement my findings, I have used documents concerning the scientific discussions about the situation, problematic aspects of grassland management, changing practices for herders and assumptions about grassland degradation. The findings of this study are therefore based on both primary and secondary sources.

The main arguments of the study are that since environmental conservation is based on human conceptions of the environment, there is a need to evaluate what perceptions of the environment, norms and values and environmental knowledge the conservation policies are based upon. Furthermore, as the herders are affected by the conservation policies, the social and natural consequences of such interventions should be addressed. The herders, as a group, are not actively part of directing environmental conservation practices. I argue that the herders’ knowledge is important and should be better integrated into conservation practices for their empowerment, but also because grassland conservation may in need of practices that have evolved and adapted to the local ecological conditions.
1.4 Structure of the thesis

This chapter covered background information. Chapter 2, will continue discussing theoretical perspectives on environmental discourses and introduce theories on marginalisation and empowerment. Chapter 3 covers methodology; an introduction to the study area, the research strategy and a description of how the findings will be presented and analysed. Chapter 4 and 5 contain the research findings. After some background information about the herders and grasslands in Yushu Prefecture, Chapter 4 presents and analyses the grassland degradation discourse as it appears in Yushu Prefecture, with its main narrative, political interventions and how the herders are affected by the discourse. Chapter 5 will analyse and discuss the findings in relation to the herders’ role in conservation and their ability to affect the making of decisions that directly affect their lives. All these matters are drawn together in the conclusion.
2 Theoretical perspective

This chapter focuses on environmental discourses and narratives and how they may inform conservation policies. I will discuss power relations in conservation and the empowerment of herders and then address decentralisation of decision-making and the use of local knowledge.

2.1 Environmental discourses

Epistemology (or theory of knowledge) is central when analysing an environmental discourse. The way reality is perceived and conceptualised, will inform how environmental problems are interpreted, which again will influence political decisions and interventions on how the environment can and should be managed. Leach and Mearns (1996: 16) state that: ‘It is not merely that ‘knowledge itself is power’ (Francis Bacon; cited in Davies, 1994: 1), but what constitutes knowledge, what is to be excluded and who is designated as qualified to know involves acts of power (Foucault 1971; cited in Scoones and Thompson, 1994: 24)’ (ibid.). Knowledge plays a powerful role, for example when providing explanations for environmental changes.

A discourse can be defined as ‘a shared meaning of a phenomenon’ (Agder et al. 2001: 683). Peet and Watts (1996) explain that: ‘a discourse is an area of language use expressing a particular standpoint and related to a certain set of institutions. Concerned with a limited range of objects, a discourse emphasises some concepts at the expense of others’ (Peet and Watts 1996: 14). A discourse is therefore based on a set of common understandings, narratives, concepts and ideologies. And these are expressed where social action and processes are taking place (ibid.).

Neumann (2001) closely links discourse with ‘social materiality’, as he calls it. He explains that discourses consist of theoretical discussion but are melted together with social materiality (Neumann 2001). The theoretical discussions will come to expression in the material world. This may be in the form of institutions, changing habits or political interventions, as will be the focus of this thesis. But since the social and material world is so closely related, the material expressions in turn have the potential to shape the theoretical discussions. The political interventions that come as a result of the theoretical aspect of the discourse about

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1 ‘The branch of philosophy that studies the nature, methods, limitations, and validity of knowledge and belief” (http://en.wikipedia.org/wiki/Epistemology).
land degradation may in turn influence the narratives and ideologies that constitute the discourse.

2.1.1 Political influence
A recurrent theme in political ecology is how dominant discourses have informed policies that have gained global acceptance and are affecting communities around the world. Because many of these discourses have tended to blame the local people, many policies aim to change local practices (Agder et al. 2001, Stott and Sullivan 2000, Leach and Mearns 1996).

Agder et al. (2001) address central global environmental discourses and how they have tended to inform policies. They state that discourses can be understood as a knowledge regime from which policies derive (Adams 2001). The concepts, narratives and ideologies that constitute discourse may gain high acceptance. In such a way they may, at the expense of other competing or challenging discourses, influence policies, practices and human awareness. For a discourse to become a knowledge regime, various factors and processes, such as globalisation and media, representations, may be central.

If policies lack consideration of the political dimensions of environmental change and do not take the social and natural processes adequately into account, it is likely that the conservation practices will fail. Blaikie (1985) argues that the role of the government has not been analysed in relation to the social aspects of land degradation and gives several reasons why conservation measures fail. Reasons may be conservation measures that do not fit existing agricultural and pastoral practices and lack of participation by land users in government led conservation (Blaikie 1985: 64).

2.1.2 Land degradation discourse
The term land degradation is widely used to describe deteriorating processes of different categories of land, and in many cases it is used without clarifying which deteriorating processes are being referred to. Though it often implies loss of intrinsic soil qualities, degradation is also a perceptual term (Benjaminsen 2001: 294, Blaikie and Brookfield 1987: 4). It may therefore be somewhat problematic when land degradation is used synonymously with ecological processes, such as soil erosion, or more specifically, loss of soil cover, nutrient depletion etc.
The Chinese word for degradation contains the same problematic aspect. In Chinese language, the word for degradation, *tuihua*, means a movement backward (Williams 2002: 42). Williams (2002) argues that to call something ‘degraded’, both in Chinese and English, is to give a negative moral value to a neutral physical process. This act will therefore reflect the interests of a social group, be it political, cultural or economic interests (ibid.). Robbins (2004: 92) writes that degradation may be possible to define, though it is questionable how free it can be from political assumptions. He singles out the loss of natural productivity, biodiversity, usefulness, as possible ways of understanding and defining degradation processes (ibid.). These aspects may help us grasp what is meant when talking about environmental problems, but as these authors argue, the explanations are not likely to be unaffected by political, economic or cultural interests.

When terms such as land degradation and desertification are used in environmental discourses, it is often difficult to understand what scientific meaning is being referred to. As we will see in this thesis, grassland degradation may be given specific scientific meanings, though it may not be certain that the debates and research findings refer to the same processes. I am critical to the explanations given about grassland changes taking place in Yushu Prefecture. Doing so, I stress the point that even though a piece of land may be changing, or showing signs of being in a worse state than before, it may not be the case. I do not, however, contest that land degradation processes may be taking place on the grasslands in Qinghai Province.

Land degradation discourses have largely been addressed in political ecology. Blaikie and Brookfield (1985, 1987) have been central in bringing the understanding of social influence on degrading processes further. Blaikie (1985) emphasised the importance of addressing the land managers’ role in land degradation in the wider context. These books touched upon new interesting aspects of land degradation and the role of society, which have inspired further thinking around the political and social factors (Stott and Sullivan 2000: 4). Political economy has been central in understanding the social aspect of land degradation. A line of thinking in political ecology is a degradation and marginalisation discourse according to which marginalisation practices have led land managers to over-exploit their land resources, which have then become degraded (Robbins 2004: 131-145). This discourse has attempted to explain processes and linkages between social and natural factors. Political ecologists further stress
the importance of understanding environmental problems at different scales and of seeing them in relations to political, economical, historical and cultural factors.

As these complex factors and scales are necessary to understand environmental change, environmental management is considered to always contain an element of conflict. As the environment consists of resources that are important for different actors, management implies a struggle over resources. Therefore, political ecologists argue that overlooking this aspect of environmental change misses a central element and is an apolitical and inadequate approach. The term ‘apolitical’ appears to be used among some political ecologists to emphasise that explanations of environmental changes that should have a greater emphasis on the political aspect, simply do not address this aspect or leave little room for it (Robbins 2004). Such an act may or may not be conscious, but as management implies struggle over resources, depoliticising an explanation of environmental changes, is an political act.

Neo-Malthusian reasoning is one such apolitical explanation. It sees natural limits of the environment and the natural resources it contains, and as population grows and pressure increases, these limits will be reached. Exceeding the limits will then cause processes of degradation. This narrative has led to concepts, such as carrying capacity, overpopulation, overgrazing (Adams 2001: 192). Even though this line of thinking may imply struggle over resources, the environmental problem is seen as a result of exceeding the capacity of the resources. However, the interests at stake and who determines how the resources are used are not addressed. Concepts of carrying capacity tend to implicitly treat all actors as having equal access to resources, so that in simplistic ecological models, if a population exceeds the capacity of the environment to support it, there are no mechanisms to prevent population decline.

Political ecology studies have shown that a number of environmental discourses lay the blame on the local people. One environmental discourse that has blamed local practices, is the dryland degradation discourse, which focused on overgrazing and herders’ impact on this phenomenon (Adams 2001: 200). Benjaminsen (1997) explains that this mainstream view in pastoral development discourse has considered local people to be responsible for natural resource degradation. Pastoralism is considered as economically irrational. Central in how the pastoral practices are understood is the theoretical assumption of ‘the tragedy of the commons’. Garrett Hardin (1968), who introduced the theory, presented an economically
rational way of reasoning, where common property would inevitably lead to resource exploitation (Benjaminsen and Svarstad 2002: 255). He argued that in a common property regime, a herdsman will seek to have as many animals as possible. The benefits of having one more animal will be held by the herdsman while the disadvantage of grazing pressure, will be shared among all the herdsmen. The marginal benefit is therefore higher than the marginal cost (ibid.).

The theory of ‘the tragedy of the commons’ was presented already in 1968, and around that time the ‘property right school’ saw its first days. The property right school emphasises the efficiency of private property, because the land managers’ incentives will not be affected by the marginal cost that are shared by others (Benjaminsen and Svarstad 2002: 255-257). The emphasis on property rights and the benefits of private property has strongly affected land management over the last decades, and has been central in development discourses. The political implications have been either to dissolve common property and establish private property rights, or to form regulations for the users of the commons. This has resulted in regulation of pastures by policy makers and attempts to regulate commons centrally (Benjaminsen and Svarstad 2002, Benjaminsen 1997). As a result of this focus in development discourse, competing views have evolved.

2.2 Power relations in conservation

Broadening upon the concept of conservation may aid understanding of the power relations it may entail. Benjaminsen and Svarstad (2002: 78-80) explain two ways conservation can be understood. On the one hand, there is conservation that derives from the land manager’s use of the resources with the quality of the environment in mind. On the other hand, there is conservation as an attempt from outside actors (governments, environmental organisations etc.) to conserve a piece of land.

When an environment is to be conserved, there are often conflicting interests, and conservation may affect different actors’ availability of and access to resources. When conservation is initiated from outside, conflicts between the interests of local people and the outside initiators often arise. Adams (2001: 270-277) describes what he calls the political ecology of conservation, and explains that there is often an unequal relationship in conservation, since conservation practices are implemented by actors outside the local community. Especially when addressing protected area management, he focuses on how the
unequal relationship may deprive the local people of their natural resources and may create social costs.

Robbins addresses this argument more in depth (2004: 172-186). He explains that an important political ecology argument on conservation assumes that control has largely been transferred away from the local producer in an attempt to preserve notions of ‘sustainability’, ‘community’ or ‘nature’. In this way, local systems of livelihood, production and social-political organisation have been disabled (Robbins 2004: 150). In this discourse the land manager is understood to be marginalised due to conservation. The land managers’ access to and control over resources may therefore be affected by conservation.

This conservation discourse on unequal power relation in conservation further assumes that notions such as ‘wilderness’ are social constructs and that various conservation practices may be socially and ecologically questionable (ibid.). Adams (2001) and Benjaminsen and Svarstad (2002) explain how protected area management is based upon qualitative values such as wilderness. They argue that the idea of protected areas has been shown to be based upon this notion of nature as separated from the human sphere and stems from a western value system (Adams 2001, Benjaminsen and Svarstad 2002). Even though conservationists have tried to accommodate such problematic aspects, much present day conservation still seems to be based on values that may not be shared by local people living in different cultures and societies around the world. It also shows that it is likely that there are diverging values between different actors taking part in conserving the environment.

2.3 Empowerment, decentralisation and local knowledge
We saw above that the mainstream view in pastoral development that considers herder practices to be causing grassland exploitation has been challenged. There has been a paradigm shift and a bottom-up approach has gained ground (Benjaminsen 1997).

The bottom-up approach advocates an emphasis that the herder practices are important, and instead of regulations that hinder or change these practices, they must be acknowledged not restricted (Benjaminsen 1997: 125-126). These claims are partly based on the common property school that emphasised limitations with private property rights, and how Garrett Hardin’s theory was based on a misconception of the commons. Hardin (1968) did not distinguish between open access and common property situations. Open access, where there
are no regulations, are seldom found in real life, while most common property resources will have local rules and regulations (Benjaminsen and Svarstad 2002: 257, 265).

Another aspect of the bottom-up emphasis in pastoral development is based on range science (Benjaminsen 1997: 123). Because the rangelands appear to be in a non-equilibrium state (Ellis and Smith 1998), regulations that hinder mobility and other components of flexibility in the pastoral production system may not be appropriate for the rangelands. In contrast to state regulations that favour sedentary and more ranch-like production systems, emphasis is made on the natural evolution of local ways of herding that are founded on flexibility and dynamics (Adams 2001: 199-200).

Empowerment of herders is a central issue in this study, but it is necessary to emphasise that empowerment is a concept that has been used in various ways and for various purposes. It stretches from grass-root participatory approaches, which aim to include the local people in development projects, to discussions concerning democratic processes and how different actors of society can be empowered through decentralisation, a strengthened civil society etc. In our case, empowerment is appropriate for addressing the positions of the local people in relation to outside actors, and their participation in decisions concerning their way of life and decisions in grassland management.

As the local level is emphasised, and the local people’s knowledge and level of decision-making is considered important, there are also, as Mohan and Stokke (2000) point out, dangers with emphasising the local arena too strongly. Even though local knowledge and local decision-making may be necessary for herders to be empowered, there are likely to be limitations in terms of inadequate local practices in resource management or local interests competing for resources, which cause the resources to be exploited. Robbins (2000) further argues that a separation of local knowledge from state knowledge may not always be useful, as local knowledge consist of a multitude of different understandings and opinions. But despite these dangers, and despite the fact that ‘local knowledge’ (or in our case the herders’ knowledge and pastoral practices) will seldom represent a uniform understanding, using the term seems relevant for the case of Yushu Prefecture and Chinese grassland degradation discourse. The herders’ practices do to some extent become uniform when being opposed to the changes that the government is pursuing in pastoral practices, and addressing this
knowledge in grassland management is therefore useful considering herders’ positions and participation.
3 Methodology

An investigation of environmental conservation practices and their impact on Tibetan herders was conducted through field work in Yushu Prefecture using a case study research design. The case study approach ‘investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly defined’ (Yin 2003: 13). The relationship between grassland discourses, power relations and empowerment processes is therefore a suitable topic for investigation through a case study research strategy.

3.1 The study area

Yushu Tibetan Autonomous Prefecture is situated in Qinghai Province, in the western part of the People’s Republic of China (PRC) (see Figure 1). The province is situated on the north eastern part on the Tibetan plateau, with a total area of 720 000 km². Qinghai Province has seven prefectures. Yushu Prefecture lies in the south-eastern part of the province and has a total area of 191 178 km², including the Sanjiangyuan National Nature Reserve (SNNR). The landscape is mountainous and grasslands cover most of the area. The altitude is generally between 3 600 m - 4 500 m above sea level. The climate is harsh with long winters. Average monthly temperatures lie between minus 11 in January to 10 degrees Celsius in July, and the temperature may sink to minus 40 degrees Celsius during winter. The average annual precipitation is 400-500 mm and falls primarily during summer (June- August) (Plateau Perspective 2007).

Yushu Prefecture is an important area ecologically, partly because it is the source of three rivers that are providing water for a large population in China. The rivers are the Yellow River, and Yangtze River that both flow across China, and the Mekong River, which runs through south-west China and Southeast Asia. It is also important because the Tibetan rangelands have a rich flora and fauna. Mineral resources include gold, silver, copper, iron, aluminium, molybdenum, lithium and others. There are six gold mining areas in the prefecture (Plateau Perspective 2007).

Yushu Tibetan Autonomous Prefecture is subdivided into six counties (xian): Yushu, Zaduo, Zhiduo, Chengduo, Nangqian and Qumalai Counties (see Figure 3).
The prefecture capital Jiegu is situated in Yushu County. It is the political, economic and transport centre of the prefecture. Each county (xian) is in turn made up of districts (xiang), each of which contains villages (cun). The formal organisation in pastoral areas can be divided into the macro, middle and micro level (Goldstein et al. 1990). The macro level then comprises the Central Government in Beijing, the Regional Government and the Prefecture Government. The middle level compromises the County Government (xian), the Town Centre Government (also called townships) (xiang) and the villages (cun). The micro level consists of small groups, such as herding groups and households (ibid.). This study will focus on certain administrative units at macro and middle level and relates to the households unit at micro level. Formally the government bureaus that are concerned with grassland management are the Animal Husbandry Bureau, the Environmental Bureau and the Forestry Bureau. The Sanjiangyuan National Nature Reserve Bureau is responsible for the SNNR.

The main economic activity in Yushu Prefecture is animal husbandry, making up ¼ of Qinghai Province’s total economic output (Plateau Perspective 2007). The grassland
constitutes a large portion of the total land area in Yushu Prefecture (see Table 2 in Chapter 4.1).

The population of Yushu Prefecture is 258,000 people and consists of 5 ethnic groups (Plateau Perspective 2007). The Tibetan ethnic group is the largest and makes up 97 per cent of the population, while other ethnic groups are Han, Tui, Tu and Mongolian (ibid.). The Han ethnic group make up 51 per cent of the population in the towns, while the Tibetan, Hui, Tu and Mongolian ethnic groups form the majority in the rural areas (Nori 2004: 8). The herders interviewed were Tibetan herders. Their religion is Tibetan Buddhism, which has quite strong status in Tibetan society. Historically the monasteries have had strong political power and they still play a central part in people’s lives. Tibetan is the spoken language among the herders, but Chinese is the official language. A household is centred on the family unit, in some cases the core family (two generations) but in most cases several generations live under one roof. There are many female headed households, which are often the poorest households (Nori 2004: 19; Wageningen and Wenjun 2001: 32). Men have higher status than women in the Tibetan culture and there is a high degree of respect for elders.

3.2 Objectives and research questions

The purpose of this study is to contribute to the empirical and theoretical understanding of how conservation policies along with environmental and economic change are affecting livestock herders in the mountain grasslands of Qinghai Province of Western China. The study will consider the power of discourses in informing policies and the power relation between the herders and the government in grassland conservation. The case study of Yushu Prefecture examines the livelihoods of selected herding families to give insights into the ways they are involved in and affected by grassland discourse, conservation policies and practices.

Objective 1

To analyse the Chinese grassland degradation discourse, and show how herders’ understandings and practices are addressed in this discourse.

1. How is grassland degradation understood in Chinese academic and political circles?
2. What knowledge and values are informing the discourse?
3. How are the herders’ approach to grassland management and their practices considered in the discourse?
Objective 2
To analyse the how political interventions linked to the understanding of grassland degradation have impacted herders’ practices and livelihoods.

1. What environmental conservation policies are implemented for the grasslands in Yushu Prefecture?
2. How are herders practices affected and changed by the conservation policies?
3. How are the herders’ livelihoods affected by the conservation policies?

Objective 3
To analyse the positions of herders in grassland conservation processes, in terms of current needs and practices, and how the herders may be empowered in grassland management.

1. In which ways are the herders marginalised by the conservation policies?
2. How may herders’ decision-making in grassland management be strengthened?
3. How may the herders’ knowledge and practices be mobilised for managing grasslands?

3.3 The research strategy
To pursue these objectives and examine these questions, I carried out a case study in Yushu Prefecture, Qinghai Province, China. Yin (2003) states that ‘the case study’s unique strength is its ability to deal with a full variety of evidence – documents, artefacts, interviews and observations’ (Yin 2003: 8). A field work was conducted in order to gain appropriate information.

I stayed in Qinghai Province for two months, and had a seven week stay in Yushu Prefecture from 10 September to 25 October 2006. I have previously lived in China, and studied Chinese and Chinese cultural studies. I therefore knew some Chinese and had some level of understanding of Chinese society. However, my command of Chinese was not sufficient to conduct interviews in the language (and some of the herders did not speak Chinese). However, it made it easier for me to travel in the area.
3.3.1 Research methods

Triangulation, the use of several sources, is a central aspect of case studies. The validity criteria of triangulation require at least three different sources of data collection. The research questions are answered using both primary and secondary data for analysis, gathered through qualitative interviews, observations and documents. In the present case, the primary data, based on interviews and observation, was collected in the field. The secondary data, mainly documents, were found in China (given by informants), on the internet and in libraries in Norway.

Interviews with different actors in Yushu Prefecture has given insight into the grassland degradation discourse prevailing in this area, grassland conditions, the environmental conservation policies, and the social and political situation. The interviews gave insight into how various actors in the conservation processes relate to and use the grassland degradation discourse, and an understanding of how the herders’ roles could be interpreted. All interviews were conducted in a semi-structured or unstructured manner. By semi-structured interviews I mean using a list of questions, where all questions are covered, but where the order of the questions can be changed. By unstructured interviews I mean asking interviews based on topics rather than a list of questions, which allows for more flexibility (Bryman 2004). The interviews were designed in a semi-structured way, but often the interview situation would require a shift to unstructured interviews. This would be due to time limits, or new topics would be discussed, which gave good insight, but that were not part of my questions. The interviews with government officials, researchers and NGO personnel, were conducted in both semi-structured and unstructured manner, while the interviews

Literature has been an important source of information. Research papers have been particularly useful in understanding the grassland degradation discourses. Documents about the social and political situation were used for background knowledge, but papers written by informants (researchers and NGO staff) have also in some cases been relevant to elaborate the information obtained in the interviews. I have tried to obtain policy documents, but such written information was hard to get. The language was one barrier, as these documents would mainly be written in Chinese. Furthermore, documents may not, according to common Chinese practice, be given away at local (prefecture) level, and at provincial level there are restrictions on who can receive such policy documents (for this reason, an overview over the
prevailing conservation policies had to be made based on my interviews, and supported by documents).

Field observations have provided important findings. Observations were made while interviewing (observing how people live and behave), and through informal talks in everyday circumstances, with NGO personnel etc. Staying in the field yielded invaluable information about the herders’ situation that it is impossible to obtain elsewhere. The observations have been central in forming my understanding of the situation.

3.3.2 Interviews
I interviewed herders, government officials, village leaders, researchers and non-governmental organisations (NGOs) (see Table 1). My base was in Jiegu town, and from there I travelled to interview herders. I had to make daily trips, and most of the interviews are therefore with herders in Yushu County. I was informed of places where different conservation policies had been implemented, which largely determined where I would go and who I would interview. The sampling methods were therefore snowball sampling (Bryman 2004). Through contacts I would get new contacts, which led me to people I could talk to. In China most things appears to be arranged through contacts.

I tried to get at least two interviews in the same area. It was hard to determine categories of wealth and gender, but I got some variety in level of wealth. Gender was largely beyond my control, as I could not determine who would answer questions when coming to a household. Gender and age representation in the sample was therefore to some extent determined by local culture rather than research design, but I sought to counteract this by speaking with both women and men and with both young and old family members.
Table 1: Overview of the actors interviewed

<table>
<thead>
<tr>
<th>Actors</th>
<th>Interviews</th>
<th>Title/County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Herders</td>
<td>22</td>
<td>Yushu and Chengduo Counties</td>
</tr>
<tr>
<td>Government officials</td>
<td>4</td>
<td>Environmental Bureau, Animal Husbandry Bureau (AHB), Leader for relocation, Yushu Grassland Station (YGS).</td>
</tr>
<tr>
<td>Village leaders</td>
<td>2</td>
<td>Sumo township, Village for relocated people.</td>
</tr>
<tr>
<td>Researchers</td>
<td>2</td>
<td>Northwest Plateau Institute of Biology (NPIB), Former researcher for YGS</td>
</tr>
<tr>
<td>Tibetan NGOs</td>
<td>3</td>
<td>Upper Yangtze Organisation (UYO), Snowland Great River Environmental Protection Association (SGREPA), Gaduojiu Monastery Environmental Group (GMEG)</td>
</tr>
<tr>
<td>International NGO</td>
<td>1</td>
<td>Plateau Perspectives</td>
</tr>
<tr>
<td>In all</td>
<td>36</td>
<td></td>
</tr>
</tbody>
</table>

3.3.2.1 Herders

The herders were interviewed in two of the six counties in Yushu Prefecture: Yushu County and Chengduo County (see Table 1). By herders I refer to all those inhabitants engaged in pastoral activities. I include those who only engage in pastoralism and agro-pastoralists, which are those that also engage in farming activities. Both counties have pastoralists and agro-pastoralists. The majority of the herders in these counties now have winter houses, and as the field work was conducted in September-October, most of them were in their winter sites. Of the interviewees four lived in tents, while the rest (18) lived in houses. In Yushu County herders were interviewed in the townships and villages of: Xiewu Township, Sumo villages (Jeriko, Modido, and Tzoge²), Rumbo valley, Batong village, Xianglaxiu Township and a village for relocated herders (newly built village ten minutes drive outside of Jiegu town). This village is locally referred to as the New Village, and will be referred to as such throughout the thesis. In Chengduo County interviews were conducted in Zhaduo Township.

The majority of the herders interviewed were men (16 of 22). When a person visits a Tibetan herder family, the oldest man is expected to answer the questions. To hear what the women had to say, I would need to interview the women without the men present. If the men were at home, such an arrangement had to be asked for, but because of the curiosity and the status of the men, men would often end up joining the interview. When the men were not around, it

² The village names are in Tibetan.
was easier to get interviews with only female herders. Often an individual interview would change into a group interview. Visitors or family members would often join in the interview. In the cases where the answers were rather uniform (most often one person would answer, even though there were several in the room and there was some degree of discussions among them), I have calculated it as one interview. But where there were clear differences in the answers, I have calculated it as two interviews (in only two cases).

My research plan was to use both semi-structured and unstructured interviews with the herders, but due to language and cultural barriers, the interviews with herders were conducted in a semi-structured manner. It was difficult to get a two-way discussion. In some cases this happened, mainly where there were several herders present. But where there was only one herder, or only one herder was answering questions, he or she often gave short replies and waited for the next question. The questions were divided into three categories: 1) their situation, 2) their understanding of environmental change and grasslands conditions, and 3) their views on how to protect and care for the grasslands. Questions concerning their present situation were asked in terms of numbers of animals, diet and pastoral production system. In addition, questions were asked concerning their present situation in comparison with earlier. In relation to their understanding of environmental change and the grassland condition, the questions touched upon aspects about the climate, the quality of the grass (colour, length, and problems) and soil, and the health of livestock. Since limited quantitative data was collected, the interviews were mainly used as a source of qualitative information.

3.3.2.2 Government officials

Government officials were interviewed at three different government levels, and one administrative unit, the village level. I got an interview with the Deputy Director for the Environmental Bureau at provincial level. This bureau is situated in the province capital, Xining (830 km from Jiegu town). At prefecture level, I interviewed the leader of Yushu Grassland Station (YGS), which is under the Animal Husbandry Bureau (AHB), and at county level, a government official in charge of relocated herders in Yushu County. He will be referred to as ‘Leader for relocation’. I also interviewed the leader for the AHB in Sumo Township (township level).

The questions for the government officials were adjusted to their position, but were oriented towards the conservation policies. For the Environmental Bureau, questions were asked about
the present policies, the government’s main concerns about grassland management in Qinghai (especially for Yushu Prefecture), and concerns about the future. The leader for the YGS told of the work at the grassland station, the main problems for animal husbandry in Yushu Prefecture and the condition of the grassland. The leader for relocation of herders gave information about the background for the relocation measure, the grassland management and rehabilitation policies, and concerns about and prospects for the New Village. The AHB at township level gave an account of the grassland policies that were relevant for his area and explained the concerns and problems the herders there were facing.

3.3.2.3 Village leaders
Two village leaders were interviewed; the village leader for Tzoge village in Sumo township and the village leader for the New Village. These two village leaders mainly told about the situation of the herders in their villages. They told how the conservation policies were affecting these herders, and how the herders responded to the changes following the policies and measures.

3.3.2.4 Researchers
The Director of the Northwest Plateau Institute of Biology (NPIB) (in Xining, prefecture capital) was one of two Chinese researchers interviewed. He gave ecological insights into the situation of the grasslands in Qinghai Province and the grassland research carried out at the institute. The other researcher was a former researcher of the Yushu Grassland Station (YGS). He explained the main problems for the grasslands in Yushu Prefecture, and told about other ecological problems. As the YGS is governed through the Animal Husbandry Bureau (AHB), this researcher’s answers were in accordance with the YGS and the government, and will therefore be categorised as information from the YGS.

3.3.2.5 Non-governmental organisations (NGOs)
Four environmental NGOs, three Tibetan and one international, were interviewed. The Tibetan environmental organisations were the Snowland Great River Environmental Protection Association (SGREPA), the Upper Yangtze Organisation (UYO) and the Gaduojiu Monastery Environmental Group (GMEG). The international environmental NGO was Plateau Perspectives, which has a field office in Zhiduo County (4-5 hours drive from Jiegu town). The NGO staff gave insights into their work and the environmental situation in the
Sanjiangyuan region and accounted for their understanding of the degradation processes and grassland management practices in Yushu Prefecture.

3.3.3 Methodological problems
The quality of the interviews was variable, and in some cases there were language problems. Very few people in the area of Yushu speak English well, and those who do often work for an NGO. I operated with four different translators. Two of them spoke English fairly well and had translation experience. For the actors who spoke English communication was not a problem.

Because I have a certain understanding of the concept of grassland degradation (which are the basis for my research questions), it is likely that there is a bias towards the explanations of grassland problems where power relations are especially central, e.g. where the herders are blamed for such an environmental problem. Despite this bias, the current situation in Yushu Prefecture seems to understate the theoretical perspective that I have chosen for the thesis.

The interviews, but also my data in general, are formed by my position as a foreigner going to Yushu Prefecture for a short period of time. In addition to being a foreigner, I was a young female. The information that was given was also likely to be affected by fact that many of my herder interviewees did not know my position. Even though I explained I was a foreign researcher, they did not know what I would use the information they gave me for. There may also have been communication errors in that I have not been aware of, or misread cultural codes. My cultural insights were limited, and I have likely not behaved in the correct manner at all times.

3.3.4 Analysis and theoretical reflection
Exploring the grassland degradation discourse in Yushu Prefecture and analysing power relations is done by conducting a discourse analysis, and by applying the political ecology theoretical perspective of environmental discourses on the situation. A discourse analysis may be presented in many forms, but as was introduced in section 2.1, the main essence is to include the theoretical and material aspect of the discourse (Neumann 2001). Therefore, while analysing the grassland degradation discourse, the physical manifestations that come as a result of discussions and verbal expressions are both important. Power should not be
forgotten, as discourses are struggles over territories of influence, and they influence society and people.

The grassland degradation discourse that takes form in Chinese political and academic circles will be analysed and seen in relation to land degradation narratives that may show to depoliticise the conservation issue. The herders’ explanations and practices will then be seen in relation to the mainstream Chinese discourse. Further, the conservation policies will be analysed in terms of how they affect herders in Yushu Prefecture. On the basis of these analyses, herders’ roles in grassland conservation will be discussed, considering how the conservation policies marginalise the herders, and the herders’ empowerment in decision-making.

I found it relevant and interesting to approach the case from the perspective of the grassland degradation discourse; as such a discourse appeared to be quite central for the development of pastoralism in West China. Discourse theory from the field of political ecology, with its focus on power in environmental management was relevant as the herders are facing political interventions, such as relocation, initiated from outside. Discourse analysis contains social science theory on the relationship between the theoretical and material aspects, and gives content to an analysis of the herders’ situation; facing direct changes due to the theoretical assumptions and discussions about grassland degradation.

A qualitative study will most often generate theory, as the nature of the research is directed toward gaining increased insight or understanding of social situations, and in that way develop theoretical understandings (Bryman 2004). As mentioned, the purpose of this study is to contribute to the empirical and theoretical understanding of how conservation processes are affecting herders in Yushu Prefecture. My findings, will hopefully give a certain perspective on the situation in Yushu that can contribute to the wider understanding of grassland change and the impacts of conservation practices.
4 Grassland degradation discourse and power relations in grassland management

This chapter will analyse the Chinese grassland degradation discourse and is divided into four sections. The first section will give some background information about the herders and grasslands in Yushu Prefecture. The second section will present the main narrative of the grassland degradation discourse, as it seems to take form in Chinese academic and political circles, followed by the conservation policies implemented in Yushu Prefecture. The third section addresses local perspectives on grassland changes and grassland management, while the fourth section will thereafter consider how conservation policies are affecting the herders’ practices and livelihoods.

4.1 Herders and the grasslands in Yushu Prefecture

The current pastoral production system in Yushu Prefecture is in change, but central components such as seasonal grazing and keeping yak are currently still in place. Herding is the most important livelihood activity, but alternative incomes are becoming a need in the area and there are large societal changes taking place. Most of the land in Yushu Prefecture is grasslands, but in some areas symptoms of degradation have been reported. The most severe cases may be referred to as ‘black beach’; sandy soil that has lost all vegetation covers and is highly vulnerable to wind erosion and consequent loss of topsoil.

4.1.1 The pastoral production system and societal changes

As mentioned in Chapter 1, the pastoral production system has undergone large changes during the last century. The pastoral production system is developing in a direction of becoming more sedentary, and as we will see below in section 4.2, the government is implementing policies, where the herders are encouraged to build houses and shelter for the livestock, set up fences, and in the areas where the grasslands allow for it, the herders are also encouraged to grow fodder.

The herders in the area of Yushu mostly keep yak, but some also hold sheep, horses and goats. The yak, because of its centrality for the Tibetan traditional production system, has a special status among herders, providing them with food, clothing and heating. It gives them meat and dairy products such as butter, milk, yoghurt, and cheese, and yak hair and skin is used for tents and clothing. Yak dung is used for fuel (Nori 2004: 23-25). Herding on the
Tibetan plateau is quite tough, as the herders live in difficult natural circumstances, with heavy work loads. Frequent snowstorms and cold winters have caused great losses of livestock throughout the centuries Tibetan herders have lived on the plateau, and are still doing so today. Despite being a feature that the herders on the Tibetan plateau have lived with for thousands of years, late, long-lasting, deep snow has severe impacts for the herders. During the latest severe snowstorm in Yushu in 1995/1996, 1 290 000 head of livestock died, which is one third of all the livestock in Yushu Prefecture (Nori 2004: 13).

The daily work includes letting the animals out, herding them, collecting and drying yak dung, milking, making clothes and equipment (Interviews with herders) (Figure 4 shows a female herder milking yaks). The women do by far most of the work, as they have the responsibility of housework and most chores. For this reason the women’s workload tends to be high (Nori 2004: 22-23).

Figure 4: Picture of a female herder milking yaks

In the present institutional arrangement, the land is owned by the Chinese state, but herders hold the user rights, and leasing contracts have been introduced, assuring long-term user rights of 50 years (Richard et al. 2006: 84). Even though the HCRS is introducing private ownership, herding arrangements vary. It seems as if many herding communities still manage pastures communally (ibid.).
In Yushu Prefecture, the number of annual movements for a herding family has reduced. Today the most common number seems to be two moves a year (Interviews with herders, Nori 2004: 9). The pastures are summer and winter pastures, although the winter pasture seems to be the most important grazing resource. Some herders move one or two additional times, to winter and/or spring pasture (Nori 2004: 9). Today, an increasing number of herders will have built houses in the winter pasture, and live in summer tents in the summer pasture. Some herders, however, still live in their winter tents, the ‘black tent’, which has been a characteristic of the Tibetan herders. A ‘black tent’ is made of woven yak hair, traditionally used by Tibetan herders during the winter (see Figure 5). Fences are now quite commonly used among herders. They have not been set up in all areas though, which is likely to largely be a result of money constraints (Richard et al. 2006: 87).

Figure 5: Picture of a ‘black tent’

Even though herding is the most important livelihood activity, there seems to be a current need for diversification of the herders’ livelihoods. This has been emphasised as a major need in the area, due to people being moved off many areas previously supporting pastoralism, and restrictions being imposed on the numbers of livestock allowed to be kept in the region (Worthy and Foggin 2006, Wageningen and Wenjun 2001, Interview with Plateau Perspectives). As the situation is now, most of the population in Yushu Prefecture still herds livestock, and there is some level of farming. Other livelihood activities, besides from these

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3 The author has taken all pictures in this thesis.
are low. In Chengduo, Yushu and Nangqian 27-33 per cent do some level of farming (crop cultivation), while 55-58 per cent of the population herd livestock. In the three remaining counties, Zhiduo, Qumalai and Zaduo, 85-89 per cent of the population herd animals, and there are no farming activities. The remaining 9-15 per cent (and 22 per cent for Yushu County) engages in other livelihood activities than herding and farming, (Plateau Perspectives 2000⁴).

Even though there may appear to be some current diversification of the herders’ livelihoods, opportunities for alternative means of income generation are low. Income opportunities mainly consist of construction work and, small businesses (e.g. taxi driving or sale of home-made products). However, the Tibetan herders have to compete for these limited opportunities with Han Chinese (the majority Chinese ethnic group), and Hui (a national minority traditionally engaging in trading), who have existing business networks, greater experience of operating within a cash economy, and generally have had better access to education. One important source of income for Tibetan herders is collecting a medicinal plant, the caterpillar fungus (Cordyceps sinensis)⁵, which can be sold at very good prices. The Tibetan herders have a monopoly on the caterpillar fungus that grows in their area of residence, but the digging activity is causing much conflicts. Measures such as permits and roadblocks are taken to hinder conflicts (Interviews, NGOs and herders). However whilst permits are now preventing outright exploitation by outsiders, the majority of the cash generated by the sale of caterpillar fungus, goes outside the region. Harvested caterpillar fungus is sold in local markets to Hui traders who sell it on in the markets of eastern China for many times the original purchase price.

Societal changes are visible in Yushu prefecture, as there is a process of modernisation taking place, which includes improvements in communication facilities, buildings and streets and access to a variety of new goods and equipment. Some of the population now has some access to electricity and piped water, but these are still far from reaching the wider population. The road between Xining (the province capital) and Jiegu (the prefecture capital) has been greatly improved, which has made travelling and transportation of goods easier. The road system in

⁴ As these figures are from year 2000, they may not be accurate, but they give an impression of the current situation.

⁵ See: http://en.wikipedia.org/wiki/Cordyceps_sinensis
the rest of the prefecture is also to some extent being improved, but the long distances still hampers transport. Communication and transport allow households to supplement their diet with new types of staple foods, such as oil, wheat and rice. Modern products, such as soap and chocolate, are entering the shelves, but mainly in Jiegu town. These products were locally non-existent a few years ago. Changes in clothing are also visible. Most of the population still wears Tibetan clothing that is suited for the climate and local way of life, but western styles of clothing are becoming increasingly common.

4.1.2 The grasslands

Table 2: Grasslands in Yushu Prefecture

<table>
<thead>
<tr>
<th>County</th>
<th>Total land area</th>
<th>Grassland area</th>
<th>Usable grassland area (out of total land area)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zhiduo County</td>
<td>35 760 km$^2$</td>
<td>61%</td>
<td>53%</td>
</tr>
<tr>
<td>Qumalai County</td>
<td>38 810 km$^2$</td>
<td>64%</td>
<td>57%</td>
</tr>
<tr>
<td>Zaduo County</td>
<td>35 810 km$^2$</td>
<td>70%</td>
<td>61%</td>
</tr>
<tr>
<td>Chengduo County</td>
<td>14 740 km$^2$</td>
<td>95%</td>
<td>84%</td>
</tr>
<tr>
<td>Yushu County</td>
<td>15 670 km$^2$</td>
<td>82%</td>
<td>75%</td>
</tr>
<tr>
<td>Nangqian County</td>
<td>12 230 km$^2$</td>
<td>79%</td>
<td>68%</td>
</tr>
</tbody>
</table>

(Source: Plateau Perspective 2000)

As Table 2 shows (figures from year 2000), there are variations among the counties. In the three smallest counties; Chengduo, Yushu and Nangqian, the proportion of grassland area and the usable grassland is higher than in the other counties. This soil in the small counties seems to be more fertile, and therefore allows some level of agriculture. The usable grassland area is less than the total grassland area, and seems to be 7-11 per cent. The cause for this is not shown here, and may be due to grassland deterioration, but other causes such as construction and mining are also likely.

The grasslands in Yushu Prefecture are mainly alpine meadow (Nori 2004: 10). Alpine meadow has fertile soil, with a soil averaging 20-40 cm in depth, rich in organic matter and has a high level of carbon storage (Miller 2005). In some areas of Yushu, marshes constitute large portions of the grasslands (Nori 2004). The main plant community for the alpine meadow is *Kobresia*. Alpine meadow is considered to be a productive grassland type and the
pastures in the area of Yushu are considered to have high levels of protein, fat and energy and low levels of fibre (Nori 2004: 10-11). Large portions of the grasslands in Yushu Prefecture consist of wetland, which are considered valuable for conservation, especially since they are habitat for endangered wildlife species (Foggin 2005a).

Manifestations of grassland degradation seem mainly to be a ‘black soil’ type, referred to as the ‘black beach’ (Wageningen and Wenjun 2001: 45). It is a term used to refer to seriously degraded alpine meadow, where the Kobresia-dominated community has deteriorated, leaving bare soil with very few grasses (Miller 2005). It supposedly appeared in a report for the Animal Husbandry Bureau in 1976, and most of the research on grassland rehabilitation has been oriented toward this phenomenon (Wageningen and Wenjun 2001: 45).

4.2 The Chinese grassland degradation discourse
We saw in Chapter 2, how Blaikie and Brookfield (1987) emphasised societal processes when explaining the problem of land degradation. People’s role in environmental degradation processes i.e. an anthropogenic focus, have commonly been invoked when explaining environmental problems. The Chinese grassland degradation discourse has a clear anthropogenic focus. The main theme among government officials and researchers was high grazing pressure, leading to grassland degradation. There was also a certain degree of focus on temperature increases, changes in rainfall patterns and grazing pressure from small herbivores, particularly the plateau pika (Ochotona curzoniae) and the zokor (Myospalax baileyi) (referred to as rodents by the government officials). However, grazing pressure was strongly emphasised by my interviewees, and the conservation policies are largely centred towards this problem.

As relocation of herders is, as I will return to below, a new measure increasingly being carried out and strongly affecting herders (Foggin in press), it is likely that my informants may have emphasised grazing pressure and giving it un-proportional high focus on grazing pressure as causing grassland degradation. Studies by the NPIB give insight to many studies conducted on climate changes and grassland ecology (see below) and there has for example been cloud seeding, in order to increase rainfall in certain areas. ‘Rodent’ control schemes are also conducted at very large scales.
4.2.1 A degradation narrative

This section will provide the Chinese grassland degradation discourse, as my informants gave an account of the problems of grassland deterioration. The Chinese grassland degradation discourse, as presented in this paper, will be representing the view of government officials and Chinese researchers working in Yushu Prefecture. The Environmental Bureau and the Northwest Plateau Institute of Biology (NPIB) are especially central for explaining why overgrazing is considered to be the main problem for the grasslands, as their understanding of the processes were better articulated than the other government officials and researcher.

4.2.1.1 A problem of overgrazing

Overgrazing was held to be the main problem by all interviewees from the political and academic spheres. The Environmental Bureau and the NPIB clearly stated that overgrazing is the most serious problem the grasslands are facing today (Interviews). An article co-authored by the Head of NPIB, ‘Alpine grassland degradation and its control in the source region of the Yangtze and Yellow rivers, China’ (Zhou et al. 2005), states that causes for the severe state of the grasslands are both anthropogenic and natural factors, but the principle cause is long-term overgrazing. Williams (2002: 27) explains that this focus seems to have developed as a result of an understanding of population growth coupled with shrinking land base. He continues that explanations of the human impact on grassland degradation often start with: ‘too many people and too many animals are pressing too hard on a fragile ecosystem’. Such statements were given by my informants, e.g. Yushu Grassland Station (YGS) and the Animal Husbandry Bureau (AHB).

‘Overgrazing’ is a term that refers to specific processes. Benjaminsen (1997: 124) distinguishes between economic and ecological overgrazing. Economic overgrazing implies that the pasture in a given area are not able to satisfy the nutritional demands of the livestock, while ecological overgrazing means that the grazing in a given area has negative effects on the regeneration of the grass cover (ibid.). It was not specified whether my informants were talking about economic or ecological overgrazing, or both, when they stated that there were too many livestock grazing on the grasslands. The description may have implied both processes, since the Chinese government is closely linking grassland conservation and pastoral development. But all these informants did explain that there was too high grazing pressure on the grasslands, implying that a large number of livestock is problematic for the regeneration of the grass cover. It is clear that the Environmental Bureau and the NPIB were
referring to ecological overgrazing, as they explained the ecological processes that take place when a field is overstocked.

Generally the problem of overgrazing, and the view that there are too many livestock on the grasslands, is related to the terms of ‘carrying capacity’ and ‘overstocking’, as introduced in Chapter 2. Carrying capacity gives an indication of how many livestock can graze on a pasture without exceeding the feed resources, or the capacity of the grasslands to regenerate. ‘Overstocking’ refers to the situation when the number of livestock exceeds the carrying capacity (Adams 2001: 197).

In many cases, when the government officials and the researcher at local level, explained the high pressure on the grassland and the problems it created, they were referring to the number of livestock that an area of pasture could support. The three government officials interviewed at local level (AHB, YGS, Leader for relocation), gave a figure that 13 mu⁶ could feed one sheep. YGS stated that now, because of the degraded grasslands, where you earlier could raise one sheep on 8 mu of grassland, you would now need 13 mus for the same number of sheep (Interview). This indicates that the government officials operate with a certain norm for stocking density, which implies a notion of carrying capacity of the grasslands. It also shows that they were concerned about the decreasing feed resources that were considered to result from high grazing pressure.

The Environmental Bureau explained how feed resources can be overused:

The grass uses nutrients to grow, and if it is eaten too often, it will use more nitrogen. The result may be not sufficient nutrition in the root system, which will cause the roots to die. In Qinghai the warm season is very short, and if the grass is to survive the winter, there must be enough nitrogen stored in the plant.  

(Interview)
The NPIB further explained that where the grasslands are overgrazed:

The grass will not grow up. This leaves room for the plants that the livestock do not want to eat, the poisonous plants. Therefore poisonous plants are a reliable indicator that the grasslands are overgrazed.

(Interview)

How the situation of overstocked grasslands had come to be, was largely explained due to population growth and growth in number of livestock over the last decades (Interviews, Environmental Bureau and NPIB, Leader for relocation, YGS). The Environmental Bureau thought that the numbers of livestock could be as much as 40 per cent more than shown by the figures (Interview). The NPIB and the Environmental Bureau, along with the YGS and the Leader for relocation, stated that growth in livestock numbers was taking place (Interviews). But it was also clear from the interviews that it is not easy to estimate the actual growth in livestock numbers, as numbers are hard to obtain (Interviews, Environmental Bureau and NPIB, Wageningen and Wenjun 2001). However, government estimates state a stark growth (Interview, Environmental Bureau).

The growth in livestock was by my informants related to population growth, but also related to the shift in commune system in the mid 1980s. The NPIB and the Environmental Bureau both explained that there has been population growth in the province (Interviews). But the information from these interviews about population and livestock growth, did not present a good picture of the situation. It is clear that the official view is that grassland degradation is related to problems of high livestock numbers, which again is related to population growth and as the Environmental Bureau mentioned, causes such as shift in commune system.

However, the demographic trends are not certain. It is not unlikely that there has been some degree of population growth in these areas. Wageningen and Wenjun (2001: 5) state that the population has increased from 1.48 million in 1949 to 5.12 million in 1999, which suggest (if the figures are accurate) a rapid increase in the number of people living in the province. In-migration is central for population growth to western parts of China, as in-migration of other ethic groups, has been encouraged the government (Gladney 2004). These in-migrated people, however, most often do not herd, but rather conduct some other kind of business and will therefore not imply increasing numbers of livestock. We saw above (3.1) that in Yushu

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6 1 mu is 0.0676 ha.
Prefecture 97 per cent of the population is still Tibetan. In-migration may therefore not be causing much population growth in this area.

Nori (2004: 16) writes that livestock numbers have reduced the last decades. She describes the livestock trends as the NPIB did; that there had been a steep growth up to the mid 1970s and after that levelled out and perhaps decreased a bit. But the NPIB and the AHB explained the decrease the last decades due to underreporting by herders. However, this description is different from what the Environmental Bureau explained. The Environmental Bureau explained livestock increase due to shifts in the commune system. He said that overstocking was a result of a rapid increase in number of livestock during the last 25 years, which he further explained had partly come as a consequence of the shift from the commune system to the Household Contract Responsibility System (HCRS). He argued that since the livestock now belonged to the individual family, it became an initiative for herders to have more livestock. In the communal system they would not gain a profit by holding many livestock, but now they could (Interview, Environmental Bureau). There seems to be differing opinions on the livestock trends in the area. Whether or not there is evidence for an increase in livestock numbers, the grasslands in Yushu Prefecture, along with the rest of the province, are considered by the government to be overstocked, causing grassland degradation.

As we saw in Chapter 2, discussion of overgrazing as a cause of land degradation has largely been centred towards the irrationality of the commons, and of herders’ practices and their tendency to hold large livestock holdings. Ho (2000a: 386) explains that in Chinese political and academic circles it is common to argue of a mix of population pressure, overgrazing and lack of responsibility from the herders as causing grassland degradation. These causes are considered to have led to a kind of tragedy of the commons situation, referred to as ‘eating from the same rice-pot’ (chi da guo fan) in Chinese (ibid.).

My sources show that herders’ practices seem to be given much of the blame for grassland deterioration. Documents by NPIB, but also other sources, show that the herders’ practices are explained to be backward and irrational (Zhou et al. 2005, Wageningen and Wenjun 2001). One component that appears to be problematic is the herders’ tendency to want to keep a large number of livestock, as snowstorms and cold winters causes many livestock to die (Miller 1998: side, Ekvall 1968). This build on a contrasting rationality than that of the pastoral
modernisation, where keeping a number of livestock that exceeds the carrying capacity, is considered as economically irrational.

Another aspect that seems to cause herders’ practices to be considered as irrational is that Tibetan people emphasise that no living being should be killed unnecessarily, and such an act will affect their position in their next life (Schmithausen 1997). This non-killing aspect of the Tibetan Buddhism was mentioned by the former researcher of Yushu Grassland Station as a problematic aspect for the development of pastoralism in Tibetan areas. The former researcher of the YGS stated as a fellow Tibetan:

It is a problem that the Tibetan herders do not want to kill their livestock due to the religious reasons. It is causing problems for them and it is causing problems for the grasslands.

(Interview)

Other government officials pointed to the problem that herders hold too high numbers of livestock, even though the grass is suffering. The NPIB, however, argued that the herders would know how many livestock their pastures could sustain, as they live close to it and if they overuse the capacity, they will suffer in the coming years (Interview).

4.2.1.2 Other factors: ‘Rodents’ and climate changes
The other reasons for grassland changes that were emphasised by government officials, and the researchers were rodent infestations and climate changes. While the government officials and the former researcher for YGS mostly emphasised the rodents, the NPIB had a greater focus on climate changes. Wageningen and Wenjun (2001: 45) explain that there are two prevailing theories about the black beach (degraded alpine meadow). One of them is fairly consistent with the explanations my interviewees gave me, the comprehensive factor theory. It sees overgrazing and rodent damage as the main factors initiating damage, while wind erosion, and frost heaving exacerbates the problem. Another prevailing theory believes that black beach is a result of global warming (ibid.).
All the government officials at a local level and the former researcher for the YGS stated that small herbivores are causing great harm on the grasslands (Interviews, YGS, AHB, and Leader for relocation). As we will see in the herders’ explanations, the harm that rodents cause is seen in relation to the grass the rodents eat, which thereby make them compete with livestock for feed resources (Interviews, government officials, researchers and herders). The Environmental Bureau and the NPIB explained that there have been misunderstandings about the rodent’s role in grassland degradation processes. They said that previously it was believed that the rodent enters an area, and causes the grassland to become degraded. However, they explained that further research shows that rodents only thrive where the grass is short. They will come when the grasslands in an area has already started a process of deterioration. The rodents are therefore indicators that the grasslands are degrading, rather than a cause, but they do exacerbate the problem (Interviews, Environmental Bureau and NPIB).

Climate changes and global warming was also given some attention by the government officials and researchers as a cause for grassland changes. The NPIB emphasised the climate as causes for grassland changes that must be increasingly addressed in the near future (Interview). The Environmental Bureau explained that the weather changes, as a result of global warming, are important for the current condition of the grasslands. He explained that the Tibetan plateau along with the rest of the world is facing global warming. Temperatures have increased, and as a result, the weather is much dryer now compared to earlier. The problem this trend causes for the grasslands is that they do not get enough rainfall, and therefore dry up (Interview). The government officials at local level and the former researcher for YGS also mentioned weather changes. The leader and the former researcher for YGS, and the AHB explained that the sun is stronger now compared to earlier, and that is causing the grass to not grow (Interviews).

There are discussions taking place in academic circles about melting permafrost, temperature fluctuations, ozone layer depletion and UV radiation (Interview, NPIB and Plateau Perspectives, Wageningen and Wenjun (2001). The NPIB is doing research to understand how temperature increases will affect the grassland ecosystem (see Xu et al. 2002). NPIB and the Environmental Bureau argued that the problems and issues related to global warming are something they need to take seriously. NPIB explained that on the Tibetan plateau there is evidence that show a very high level of UV radiation and there may be an ozone hole over the
plateau. Carbon storage also seems to have decreased, which can be interpreted as a confirmation that the temperatures are actually increasing (Interview).

4.2.2 Political interventions
The political interventions directed towards grassland conservation seem to concern four areas; privatisation, reducing livestock numbers, grassland re-vegetation measures, and rodent control measures. Different measures seem to apply for different levels of grassland deterioration, and central measures are de-stocking, fencing, re-seeding, tree planting and rodent poisoning. In recent years relocation of herders has been introduced, which appears to be part of the livestock reduction aim and where the grasslands are thought to be so severely degraded that they need complete rest in order to regenerate.

4.2.2.1 Privatisation and pastoral development
The privatisation process has now been in place for three decades, resulting in a shift to a semi-sedentary production system. As we saw above, herders still have migration routes, but the number of routes and distances travelled has been reduced. Four stages have been envisaged by the Agricultural Bureau for the implementation of the Household Contract Responsibility System (HCRS):

(1) the distribution of animals that were formerly owned by the collective to individual households; (2) the assessment, or in some cases re-assessment of rangeland boundaries between collectives and the consequent allocation of user rights to the collectives and households; (3) the appraisal of pastures in terms of carrying capacity or stocking rates; and (4) the implementation of a legal system of incentives and penalties to ensure that producers abide by the carrying capacity of the plots of lands assigned to them, and the establishment of supervisory institutional arrangement (the Department of Animals Husbandry⁷ and the rangeland police force) to enforce the legal rules and regulations.

(Ho 2000a: 390)

But the privatisation process has encountered problems, as some herders seem to still stick to communal grazing, and the natural circumstances may better allow for communal grazing (Richard et al. 2006). Due to difficulties in allocating grasslands to the individual household,
the law has been revised. A revised Rural Land Contracting Law of 2002 allows more flexibility in grassland management. The main emphasis is still household contract, but allows joint management, where households may invest in a common pool (Richard 2006: 89-90).

Along with the implementation of the HCRS (Grassland Law of 1985), a programme called the ‘Four Way Programme’ has been gradually implemented, and is still being carried out. It consists of four components:

1. ‘Fencing about 20 to 30 ha of productive winter pasture, reserved from grazing in summer and autumn, to provide grazing during the late winter and/or spring;
2. construction of shelters for livestock;
3. construction of homes for nomads in their winter pasture site; and
4. planting small (0.5 to 2 ha) plots of oats for hay in the corrals around winter settlements’.

(Miller 2005)

Wageningen and Wenjun (2001: 22-23) argue that the Four Way Programme is ‘a major strategy for encouraging herders to protect their grasslands and intensify their production systems’. The AHB stated that the Four Way Programme or the ‘Si Pei Tao’ was meant to improve people’s lives, and control livestock and grazing (Interview). The aim of Western Development Strategy was explained above; to include the western parts of China in the economic growth. Economic growth and increased standard of living is important for this aim, and the Four Way Programme is, in addition to developing the pastoral production system and assumed to be important to conserve grasslands, categorised as a poverty reduction programme (Nori 2004). Houses will give higher comfort, and as the pastoral production system is modernised, the aim is a higher number of livestock surviving the winter and other extremities in the plateau’s weather (Foggin in press).

The environmental concern in the Four Way Programme seems to be related to the perceived need for a production system that controls grazing, so that overgrazing may be hindered. It seems to be believed by the Chinese government that a more controlling system has a better chance than the traditional practices of reducing livestock numbers and regulating grazing.

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7 In this thesis referred to as the Animal Husbandry Bureau.
8 Directly translated: The Four Way Path (Wen Bao or Si Pei Tao).
However, the Four Way Programme is likely to have an effect opposite to that intended. Providing supplemental food and increasing over-winter livestock survival will make it possible for people to maintain larger herd sizes than were previously feasible. If high grazing pressure is a problem for the grasslands, then such a change may cause the grazing pressure to increase in certain areas. Likewise, investment in winter pastures encourages people to spend the bulk of the year at this single site, thus decreasing mobility and increasing grazing pressure on a smaller land area. Thus the Four Way Programme may show to be, at least in part, responsible for the problems for which the herders are now being blamed.

4.2.2.2 Grassland rehabilitation policies
A policy called ‘Stop Cultivating and Restore Grass and Forestland’, is being implemented all over the country, and in pastoral areas this policy is referred to as the ‘Restore Grassland Policy’. Livestock control is central in this policy, since the main problem is stated as overgrazing, but it consists of re-vegetation measures and rodent control as well. Many of the components in these policies, such as de-stocking, seeding and rodent control have been carried out for some decades already. In recent years, moving herders of the grassland has been carried out and is being largely intensified (Foggin in press). Relocation has become a central measure in grassland conservation, and herders are being relocated to government build houses in towns.

A programme referred to as the ‘Three River Head Programme’ (May also be referred to as the Sanjiangyuan Programme) was also mentioned by my respondents. Grassland rehabilitation measures, especially livestock control and relocation, were mentioned in connection with the Restore Grassland Policy, while some informants mentioned them in connection with the Three River Head Programme. The differences between these programme remained unclear, but they may refer to the same measures and differ in that the Three River Head Programme applies for the Sanjiangyuan region. Three River Head Programme is related to the establishment of the SNNR, and part of the aim for the SNNR is reversing desertification. The environmental concerns for the Sanjiangyuan region may have led to a stronger implementation of grassland rehabilitation measures in this area.

As a major concern is to reduce the numbers of livestock in areas that are overstocked, de-stocking is carried out. The Environmental Bureau stated that in order to ameliorate the problem of overgrazing, the first thing the government could do was to reduce the number of
livestock. He stated that it was an easy and important measure (Interview). The informants in Yushu Prefecture, however, explained a situation which did not seem clear-cut or simple. As we saw in the previous section (4.2.1.1), government officials seem to operate with quotas for how many livestock may graze in one area, and in areas that are believed to have a too high number of livestock; herders are asked to reduce their number of livestock (Interviews, AHB, Environmental Bureau and Leader for relocation). The AHB explained that for Sumo Township, when they have asked the herders to reduce their herds, the herders were reluctant either to sell their livestock or to kill them (Interview).

The AHB further explained that the livestock rate for the de-stocking policy follows family members, not the size of the land. How many livestock one family is allowed to have will depend on the number of family members. In Sumo township one family member can have 13 yaks. That means that two families with about the same size of grassland may have a variation in number of livestock. One of the families may have 70 yaks, while the other family has 20 yaks. The AHB continued that this situation is a consequence of the transition period from the commune system to the HCRS (Interview). Livestock were first shared among the commune members according to the number of family members. Thereafter, the grasslands were divided according to the family’s livestock number. He said that this has caused a situation where the pressure on some plots of grassland will be much higher than on other plots. However, he said that there was a necessary limitation to this variability, as an area of grassland will only be able to feed a certain number of livestock (Interview). Williams (2002: 138) mentions problems related to the transition in tenure arrangements. He argues that for Inner Mongolia the decollectivisation process, with privatisation process and pasture enclosure, has led to wealth stratification and increasing inequalities. This has been largely due to the allocation process, which has been inequitable (ibid.).

The number of people that are planned relocated due to grassland rehabilitation reasons is extremely high. 35 relocation villages have already been built and 51 more are under construction (Foggin in press). According to numbers in Foggin (in press) as many as 61,899 herders from 13,305 households was planned to be relocated in 2007. The government is planning to relocate 17 per cent (over 100,000 herders) by 2010 with the aim to rehabilitate the grasslands (ibid.). The government officials that were interviewed understated that relocation was carried out in order to reduce grazing pressure. The AHB could tell that Sumo Township had not been able to meet the required reduction in number of livestock. But
because the number of livestock grazing there had to be reduced, the township was now a trial area for relocation of herders to town (Interview). The grasslands were, however, not considered to have been in a bad state, by either the herders or the AHB.

In Xianglaxiu village, relocation was explained due to the problem of rodents, which apparently were an indicator that the grasslands were degraded (as the Environmental Bureau explained above) (Interview, Leader for relocation and herders). The Leader for relocation of Xianglaxiu village explained that because the grasslands in that area were severely degraded, herders had to move so the grasslands could recover. It is part of the Restore Grassland Policy, and the plan, he said, was to leave pastures untouched for 10 years. These herders are promised provision of houses and compensation in cash (Interview). The herders from Xianglaxiu village are relocated to the New Village, which was introduced in Chapter 3. The New Village is one such area of government built houses. This ‘village’ is a group of houses built around 10 minutes drive from the centre of Jiegu town.

Several of the government officials stated that relocation is only in a trial phase, to be evaluated later (Interviews, Environmental Bureau, AHB and Leader for relocation). The Environmental Bureau explained that in China they operate with 5 year plans, and that relocation (as well as other conservation actions, such as the SNNR) has recently been started as being this 5 year period. The outcomes are therefore uncertain (Interview). Taking into account the already very high numbers presented above, one may wonder how many herders the government of China is planning to relocate for the sake of conservation. Relocation is not only carried out in Qinghai Province, but is carried out on a large scale throughout the whole plateau (Richard 2005, Human rights watch 2007). A bias towards urban areas in China seems to be part of developing such an environmental conservation policy, where herders are relocated to urban areas. Economy (2007) states that the government of China plans to relocate 400 million people in China to government constructed housing in urban areas between 2000 and 2030, which if they are accurate, are breathtaking numbers.

The country wide policy Stop Cultivating and Restore Grass and Forestland has, as we have seen, been read into the context of pastoral areas. However, in some areas of Yushu Prefecture, there are some forests. For these areas, grassland conservation also includes tree planting. Based on the interviews in one such area, Sumo Township, it was clear that herders can take part in programmes where they dedicate their farmland for forest regeneration.
Herders that take part in such programmes are compensated by either food or money (Interviews, village leader and herders). Compensation is also supposed to be given to people taking part in re-seeding programmes, and herders that are relocated are supposed to be compensated with housing and cash payments (Interviews, Nori 2004: 40-41).

The final area of focus of grassland rehabilitation is ‘rodent’ control. The Chinese government and scientists refer to small mammals such as pika (actually related to rabbits) as rodents. Rodent infestations are considered as a big problem for the grasslands by the government. Wageningen and Wenjun (2001: 50) states that in 1998, 8.2 million ha out of a total area of 31.6 mills ha in Qinghai Province, was infested by rodents. Large-scale actions to control the problem have been poisoning rodents in areas where they are considered a problem. The government has apparently changed to more environmental friendly bio-chemicals (Interview, Environmental Bureau), but the rodents are still being killed in large quantities. According to the Environmental Bureau, the problems of rodents are difficult to solve, because they keep coming back (Interview).

The NPIB explained that what measures are suitable for rehabilitating the grasslands, depends on how severely degraded they are (Interview). Livestock control seems to be considered as an overall necessary measure by the government. In areas where rodents thrive and supposedly damage the grassland, the government believes that they must get rid of them. Rodent control appears to be a widespread measure, carried out on a large scale. Grazing control is further considered as important along with livestock control. In the Four Way Programme, fences are used to sub-divide the grasslands, while fences appears to also be used to enclose areas of pasture for it to be totally free from grazing pressure or human activities (Richard 2005). The NPIB stated that fencing, as a grazing control measure, can be a suitable measure for the grasslands that are not severely degraded. But where the degradation has entered a severe stage, re-seeding and sometimes fertilisers are necessary along with weed control (Interview).
4.3 Local perspectives and approaches to grassland change
The Chinese grassland degradation discourse shows that the Chinese government is focusing on overgrazing as the principle cause, and has taken measures to protect and rehabilitate the grasslands. This section will give insight to my informants’ perspectives on grassland changes and on their approach to grassland conservation. The local perspectives on grassland changes have some similar traits as that of the mainstream discourse, though the main emphasis is clearly different. The herders talked about weather changes, rodents and mentioned mining as important factors causing grassland changes. A third perspective will be included here, as the environmental NGOs cast light on the situation differently than both the herders and the government officials. The NGOs believe that there are grassland changes taking place, though they seemed sceptical to the strong focus on grassland deterioration.

4.3.1.1 Herders’ perspectives on grassland changes
What became evident when interviewing the herders was that the herders seemed quite concerned that the environment on the plateau in general was in a worse condition now than it had been in the past. They mentioned how the rivers were cleaner before, how the wild animals and flowers had decreased, and how digging the ground (in most cases referring to the mining activities) and pollution, were affecting the spirits and causing great harm to the land. Concerning grassland changes there were variations to what extent they thought that the grasslands were changing, but on a generalised basis, most herders seemed to agree that the grasslands were in a worse condition now compared to earlier. The questions that were asked about the condition of the grasslands covered topics such as, the weather, rodents, visible grassland changes (quality of the grass, the amount of grass, the length of the grass, the extent of sand visible in the grasslands etc.) The summer of 2006 had been an extremely dry year, something which my interviewees were concerned about. For those who did not think there was any difference, they meant that the changes that could be seen were only annual variations, but no general trend (These accounted for 4 out of the 22 interviewed).

The problems that were most frequently mentioned by the herders were the strong sun, the rodents and ‘digging the land’ (meaning mining activities, but also other interference on the grasslands, such as construction). One general trend seemed to be that what was emphasised in one area, would mirror the local situation. Where there were mining activities, these activities were seen as the major cause and where rodents were a problem, the problem of the rodents were emphasised.
Without exception the herders would talk about the strong sun. One herder mentioned that when he was young there was ice on the river in the valley, but this was never the case any more (Interview, Zhado Township). The herders gave many indicators that the sun was stronger, and they also mentioned indicators for irregularities in the weather. They told that when they were young it was easier to predict seasons, and it was easier to predict the temperatures, and snow- and rainfall. One herder could tell that; ‘Before we could know when the winter would come and when it was over. These days you never know from season to season’ (Interview, Sumo Township). Some herders (5 out of 22) related the problems of the weather changes to the condition of the grasslands. One herder said that: ‘the grass is brown and not as high as before because of the strong sun’ (Interview, Zhado Township). In general, it seemed self-evident that the weather affected the condition of the grasslands.

The rodents were frequently mentioned as a major problem for the grasslands. The villagers in the village for relocated herders and Xianglaxiu were especially occupied with the plateau pika (one of the two main rodents causing problems in this area). The villagers in the New Village have been relocated from Xianglaxiu; the area mentioned above, where there appears to be a big problem of pikas. It was clear that the pika was a topic that herders and people in general in Yushu Prefecture were eager to discuss, and expressed frustration over. In the New Village the men got very engaged when talking about the pika. (The women interviewed there, did not express the same engagement, though they gladly talked about the problem of the pika). Smith and Foggin (1999) mentioned that herders already back to the 1930s have blamed the pika for the black beach. The problem was according to the herders that they eat the grass. A couple of herders explained that they eat the root of the grass and thereby destroy it. It was also stated that they eat the grass so the livestock must compete with them for the grass (Interviews). One herder mentioned that all the holes were making the ground porous. When cars drove on the ground, it could cause the land to collapse under the car and this caused great harm for the grassland (Interview, Batong village).

The solutions that the herders gave for the problem of the rodents are different from that of the government. Most of the herders would say that the solution was to ask for a religious leader to come. A herder explained how a religious leader had come to their village, read scriptures and done rituals, and that had solved the problem (Interview). However, in some cases (4 out of 22) herders would suggest that killing the rodents was the best solution. Such
response is rather surprising, taking into consideration the non-killing value of Tibetan Buddhism, and the strong attention that this value seem to have among Tibetan people. It may be that they have become accustomed to the widespread killing of rodents.

‘Digging the land’ was also mentioned as a factor causing great harm for the grasslands. We have seen that construction has increased a lot over recent years, and in Yushu County and Jiegu town there is current construction of roads and bridges. Mining activity is also one of the aims in the Western Development Strategy (WDS) at provincial level. For the herders, it seemed as if, mining, along with the weather, had natural correlation with grassland changes, and the religious realm seemed important for their understandings. When they explained why ‘digging the land’ was harmful for the grasslands, they would mention how the gods would get angry. Some herders mentioned earthquakes being caused by angry gods. In Zhaduo Township, gold mining activities had started one year ago, and there was a strong aversion among the local people to these activities. The interviewees in Zhaduo (4 interviews) seemed frustrated over the ugliness of the mining stations, and the bare and sandy area where there had been grass before (see Figure 6). But one herder mentioned that the government was talking about seeding these areas, to make them once again ‘look nice and beautiful’ (Interview).

Figure 6: Picture of a gold mining station

The herders’ perspective on grassland changes, and causes for problems that the grasslands are facing, diverges from the government’s perspective. The herders often mentioned that the government wanted them to reduce their livestock herd. In two cases herders agreed that
livestock numbers has increased, but the rest did not direct any of the causes for grassland change towards the livestock. It is common that herders will seldom blame their herd (Wageningen and Wenjun 2001). It was therefore surprising when some herders agreed that there may be too many livestock in their area, and that it may have had affected the grasslands (Interviews).

4.3.1.2 Herders about conservation - ‘the land fixes itself’
The common answer, when asking how the grassland should be conserved (or taking good care of), was that the land takes care of itself. One old man explained:

> The herders have awareness about taking care of the land. But more, they know very deep down that the grass will always grow back next year, even if the animals eat the grass. It may even grow higher. So they do not think that there is a problem as long as they don’t pull out the roots. The best way to care for the grass is that you move around and give the grass a good chance to grow.

(Interview, Sumo Township)

Similar accounts were given by other herders as well. They would state that there is not much to do, except to let the grass grow. The old man was referring to seasonal grazing. He found that in that way, the grass would get a chance to recover. That the herders emphasise seasonal grazing is quite natural as they refer to their traditional practices. Almost all my interviewees gave the impression that they thought that grasslands would ‘take care of themselves’, and talked about the need for letting the grass have a rest. They do not have a tradition of intervening with fences, seeding or poison as is seen today. But 5 out of the 22 interviewed did also consider fences to be a good tool for conserving the grasslands. As they are presented with new tools and practices, the herders may find some of these new practices as positive elements, and may find them to be suitable for conserving the grasslands. Many of my interviewees (14 out of 22) also explained that conserving the grasslands is the governments’ job, which would refer to the interventions that the government is taking for grassland conservation.
4.3.1.3 Other impressions: NGO personnel

Interviews with environmental NGOs working in Yushu Prefecture gave insight to how organisations related to the discussions about grassland degradation. The Gaduojiu Monastery Environmental Protection Group (GMEG) did not seem to relate to a public discussion about grassland degradation as the other organisations did, but had a clear understanding of the state of the grasslands, and possible causes. These were in line with what herders would explain, though broadened upon.

The Tibetan organisations emphasised that the impressions they had were largely based on what herders had told them. Snowland Great River Environmental Protection Association (SGREPA) and the Upper Yangtze Organisation (UYO), both expressed that there must be a more complex picture than what is being presented in the media. The Director of UYO explained:

You can get an impression that all the grasslands are heavily degraded from what is presented in media. It is an easy assumption to make that because the grasslands are bad in other provinces; it is also the case for Qinghai. Sometimes people make assumptions that because certain processes are taking place in other parts of the world, the same is happening here.

(Interview)

SGREPA also thought that the grasslands seem to be in a worse condition now than before, but stressed that it was important to understand that the grassland is far from bad in all places (Interview). A staff member of the international organisation Plateau Perspectives, with background in ecology, argued that it is easy to assume that the grasslands are degraded if you only look at the grassland at a distance:

What can seem to be unproductive land might in fact be quite rich in plants and other species. A piece of land that is brown is often immediately taken to be unproductive, and thereby degraded. The same goes for land that is green. It might be productive, but the land is not necessarily rich in biodiversity.

(Interview)
These accounts show that environmental NGOs situated in Yushu, show some scepticism to the widespread emphasis on grassland degradation. They seem to acknowledge that changes in the grasslands are taking place, but seem to find the strong attention over-exaggerated.

4.4 Conservation and the herders
As we have seen, the focus on reducing grazing pressure is a central theme in the Chinese grassland degradation discourse, and has led livestock grazing control to become main strategies in conserving and rehabilitating the grasslands. This section will address grassland conservation measures, and how they affect herders’ practices and livelihoods in Yushu Prefecture. Relocation is currently receiving much attention by the local people in Yushu Prefecture. It extends from merely being a measure that controls pastoral practices, to seeing human presence in general as problematic for the grasslands.

4.4.1 Privatisation
The herders’ practices have changed quite abruptly with the Four Way Programme, as it has introduced a completely different way of herding than formerly practised by herders on the plateau. The interviews with the herders mostly gave information about how they related to sub-division of land and the use of fences. Houses were considered by all respondents to be warmer and thereby an improvement. For those who were growing fodder it appeared to also be an improvement, or else they had been growing fodder for a long time (In Sumo Township herders’ have been growing fodder for their animals for as long as they could remember). Shelters for the livestock were not addressed as much as these other components.

My interviewees expressed some discontent with the Four Way Programme, but the discontent was mainly directed towards the implementation processes. However, even though my data do not point to discontent due to the implementation of this policy, it is highly likely that there is such discontent. The herders’ traditional way of herding is being changed, which implies that their traditions, their knowledge of herding taught transferred through generations, their way of life, is being challenged and changed. Such an action will imply strong reactions.

Despite changes that do not always benefit the herders, their livelihoods seemed to be considered by many as easier and more comfortable now compared to previously. Many herders, for example explained that roads and motorbikes made it easier to have a greater
variety in their diet, and houses were warmer than the previous tents (Interviews). Pasture enclosure affects the central component of the Tibetan herders’ production system: mobility. Some of the herders I interviewed thought that the use of fences, made herding easier as you did not have to follow the livestock (12 out of 22). As many herders lack labour resources, this aspect may be especially important for them (Interviews with herders, Wageningen and Wenjun 2001).

Nonetheless it seems as if many herders fall between the gaps in policy guidelines, or they simply do not receive what they have been promised by the government. A herder in Rumbo village was frustrated because the government was providing housing for many of the herders in that village. He did not benefit, because he had already built a house. He felt unfairly treated as he was now in debt, and both he and his wife were sick, while rich people in the village were benefiting (Interview). A couple of herders in Zhaduo village explained that the government had promised to provide fences for them. They did provide the fences, but at a later date the government came to collect money as payment for them (Interviews).

My interviewees further mentioned problems of increasing conflicts and problems related to the transition towards sub-division of land and the use of fences. Quite a number of my respondents (12 out of 22) mentioned conflicts as a result of setting up fences. In Xianglaxiu village some herders could tell of violent episodes. They explained that herders now are more concerned about boundaries, and react strongly if the neighbour’s livestock enter his or hers pasture (Interview). The problem of conflicts between neighbours is not restricted to these areas. Richard et al. (2006: 89) emphasise this problem of conflicts in pastoral areas and argue that the implementation of the HCRRS is among other problems causing increase in conflicts between neighbours.

Another account shows that sub-division of grassland affects the herders migration patterns. A herder in Rumbo village explained that they usually would travel to their summer pasture in June, but now they did not because they were afraid that other herders would graze on the grassland while they were at the other pasture. He said that he thought it was better to regularly change pastures, but because people had such an attitude, he chose to stay behind. He now only travelled to the summer pasture for one month in September (Interview). Such an account may also indicate fewer co-operations between neighbours, though it is hard to state based on this one example.
One herder in Zhaduo village mentioned that seasonal rotation became more troublesome now as fences are set up (Interview). As previously mentioned, most herders in Yushu Prefecture still have at least two pastures, summer and winter pastures. The herder explained that the road to the summer pasture had become much longer now because of the fences, as they would have to travel around them. He considered the increased distance to be a problem, due to long distances and lack of health (Interview). The Environmental Bureau explained that the government’s intention with the sub-division of grassland and introduction of fences is to continue rotational grazing just within another, more controlled system (Interview). Even though there may be a continued intention to allow a certain amount of rotational grazing, there may be problems in doing so, due to the use of fences to separate fields.

The privatisation process goes beyond practical changes in herding and a consideration of what pastoral production system is efficient and beneficial. It is also a matter of preferences, traditions and choice. A female herder in Sumo village especially emphasised the social aspect of herding. She was asked whether sub-division of their land through fencing would be desirable for the people in her village. Her response was that fencing would probably help the herding activities, but she did not want it because she preferred having company. She said that they enjoyed life together while herding (Interview, Sumo Township). The female herder (perhaps women would stress this aspect more than men) found the social aspect of herding as important as efficiency. We saw above that pastoral development that is taking place in China, needs certain values, such as the Tibetan Buddhism’s non-killing value, to change in order for it to become more market oriented. It is clear that the different rationality that the herding practices rely on is embedded in cultural practices. What is being imposed is not only a change of practices, but also a change of values and way of life.

Richard et al. (2006) argue that the individualised and sedentary production system may cause problems for herders and for the grasslands, as the herders have less flexibility in dry years. In such a way reduction in mobility, may serve to affect the herders risk strategies, even though the government promotes sedentary production systems as aiding risk avoidance. The environmental implications of the changing practices are yet to be seen though. As argued above, the privatisation process, with reduced mobility and initiative for herders to remain at their houses (winter pastures) most of the year, may have negative effects for the grasslands. I
will return to this issue in Chapter 5, where I will discuss government control and herders’ roles.

4.4.2 De-stocking
De-stocking appears to affect herders’ socio-economic situations. In section 4.1.1 herders changing socio-economic situation was addressed, which appears to be progressively becoming more difficult. There seems to be an increasing need for off-farm incomes, while there are hardly any off-farm incomes available, and for those available, herders have to compete with Han and Hui Chinese. Several of my herder interviewees could not provide enough food for their families from livestock products (Interviews). One household will need at least 30 yak (from what herders and informal talk gave of figurations) to be able to feed themselves, as the yak does not produce a high amount of milk. Asking herders’ to de-stock may become problematic in such circumstances, especially for the households that have few livestock and are poor. Many of my informants (13 out of 22) dug for the medical plant, *caterpillar fungus*, when it was in season. This plant provided additional cash income that appeared to be highly necessary for many of them.

Along with the growing need for alternative incomes, societal structures may arise that have negative consequences for certain groups. My data show that women seem to, in some ways, be negatively affected by the policies taking place. The increased need for alternative income sources is likely to result in women having even greater work loads than they already have. There is a growing trend that one household member, the male, will seek to find an alternative income, which often necessitates long periods of absence. This situation causes pressure on the ones that are left with the herding chores; the women.

Personal values determine how the herders relate to the de-stocking policy. As mentioned above it is not common that herders blame their livestock, and have traditionally centred energy towards increasing their herd as money saving instance and security. Due to de-stocking herders have to sell livestock in large quantities, something that goes against the herders’ religious values (if their sale will result in slaughter). Nori (2004: 34) states that due to the Four Way Programme, herders are required to obtain cash income by selling their herd. Through my interviews with herders it was quite clear that this was an action they did not in any way desire.
4.4.3 Relocation

As relocation is currently being carried out at a very high speed and a high number of herders is being and will be affected, this measure is particularly important for evaluation. The social consequences of this measure may overshadow any potential benefits.

Interviews in the New Village gave some insight to the problems the herders are facing there, problems that question the sustainability of the New village. Dependency on the government was striking. The village leader (former village leader, now elected as village leader for the New Village) reported that there were about 300 families that moved to town 3 years ago. Of these 300 families there were now only 8-10 people that have a job in town. Some of the people living in the village would sell the medicinal plant, *caterpillar fungus*, but otherwise people did not have an income and they did not do much. He had grouped the families in the village into categories of their financial situation: Under average, average and over average. Average meant that they were able to get food and clothes and under average meant that they depended on the government for these basic needs. Of the 300 families 120 were under average (Interview, village leader). Along with this situation NGO staff explained that alcoholism and violence seems to increase along with urbanisation and unemployment as people have little to do. Foggin (*in press*) explains that city type problems, such as concentration of poverty, unemployment and increased dependency on the government are now visible in small rural towns. He continues that some relocation villages have already been called ‘theft schools’ (ibid.).

The government has tried to set up a carpet factory in the New Village. This factory is not doing well (possibly due to reasons such as producing for the national market instead of the international market). For the women in the relocated villages, the factory did not seem to make life any easier for them (Interviews, New Village). The factories are directed towards the women, probably since men are reluctant to do work. Tibetan men show great reluctance to work, which is possibly due women traditionally being responsible for most shores and herding activities. The women working in the factory end up working long days for a low salary, and also have the household chores to take care of (Interviews, herders and village leader).
Herders lose access to land that they previously had user rights to. In the New Village, the previous herders have traded their land for a house in town and cash payment. But if the herders do not get a sustainable livelihood, with an income, they have lost an important asset that previously gave them some level of security, without gaining a comparable alternative asset. The village leader for the New Village was concerned about the future of the villagers. His suggestion of how they could get access to food or perhaps an income was to keep yaks in their backyards (Interview). See picture of the New Village in Jiegu town in Figure 7.

Figure 7: Picture of the New Village

Relocation is causing insecurity among many herders. Plateau Perspectives reported that when herders hear rumours of relocation plans they start to ask their cultural and religious leaders about when they should start selling their livestock. Outside businessmen have sometimes used this situation to gain benefits for themselves. They encourage herders to sell their livestock before they know whether they will be asked to relocate or not. They are told that next year, everybody will be selling their livestock because of the policies, and then the prizes will sink dramatically (Interview with Plateau Perspective, Foggin 2005b).
The Environmental Bureau gave the impression that the government is taking into consideration the problems that show to follow the relocation measure. The Environmental Bureau said that before the government continues this grassland conservation measure, a solution needs to be found to the resulting social situation. He continued that the elders will have difficulties with learning a new skill other than herding, but young people are capable of learning (Interview). Such a statement contradicts with the figures that seem to apply for the extent and speed of the relocation process. The number of relocation ‘villages’ that are being built does not seem to leave room for evaluation and readjustments of the measure, something the Environmental Bureau also indicated (Interview).

There is a lack of communication between the government and the herders. The Leader for relocation expressed that it was difficult to know what the herders want and many of them are moving back and forth from the house they are given in town and the grasslands (perhaps to their old residence or to relatives). He further explained that the government is trying to give some opportunities of vocational training, such as motorcycle repair training, and education, but the villagers do not attend (Interview, Leader for relocation). The village leader could, however, tell that these classes consisted of over 50 students with only one motorbike and the herders therefore did not think there was any point in attending (Interview).

An additional problem is lack of funding. The Leader for relocation said that it is difficult to work with the New Village because they lack funding and funding from elsewhere can not be transferred in time. Such constraints make moving the herders and giving them opportunities even more difficult (Interview).

The relocation measure is seeking to keep herders of grasslands, meaning that human presence is considered as harmful for the grasslands. Regeneration is considered best without the presence of herders. Such a view may, however, be contested. Foggin (in press) argues that ‘rest’ from herding activities on the grasslands, may not get the assumed grassland regeneration. As most grassland systems have developed as grazing ecosystems, rapidly removing livestock of the grassland may cause re-colonisation of wild herbivores, causing grass not to return to its ‘natural’ state, as a shift in species composition takes place. Local wildlife work in the areas also shows that the presence of herders on the grasslands may be important to protect wild animals from poaching. Foggin (2005b) has argued that restricting
the local herders from the grasslands in the SNNR may not serve its purpose of wildlife protection. The local herders are strategically situated to protect the wildlife from poaching, and their presence should be seen as valuable for the environment, rather than harmful. Herders living in these areas may even serve interests of cost-effectiveness, as the government will not need to hire people to monitor and protect the wildlife in these areas (Foggin 2004).

4.4.4 Re-vegetation programmes
As we have seen grassland rehabilitation also contains restoration programmes through re-seeding and tree planting. How herders are affected and relate to these programmes may further point to the herders’ positions in grassland conservation.

The re-seeding and tree-planting programmes are initiated by the government, something which seems to cause a situation where herders participate, but may participate in a way that hampers the rehabilitation attempt. An example from Sumo Township where tree planting programmes take place showed that the herders’ did not understand the value of the programmes. The herders would get food or cash payment as compensation for the farmland they allocated to the programme. An unintended consequence of the programme was that many herders participated in the programme, but did not devote much energy in caring for the trees. According to the village leader, there may even have been herders that used the system. They could participate in the programme, get food or cash, and after the 10 years they would start cultivating their land again (Interviews, Sumo Township).

4.4.5 Rodent control
Many herders have a strong aversion to the rodent poisoning programme, even though as seen above, some herders appear to think that rodents need to be killed in order for the state of the grasslands to improve. However, in any case, poisoning animals is contrary to the herders beliefs. In Zhaduo Township while I was there, there was a case where the government had killed a large amount of marmots, because they were thought to carry diseases (supposedly the black plague) (Interviews). The interviewees had no understanding of the government’s action and felt trampled upon.

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9 Farmland is used because the grasslands are not fertile and trees tend to not grow well. In this area there are some forest and some farmland.
4.5 Summing up: Perspectives on grassland changes and political consequences

We have seen throughout the chapter how the grassland degradation discourse in China is influencing a specific herding area in Western China. There are diverging understandings of the situation of grassland changes, and the conservation policies are having considerable impacts on the herders; on their practices, but also their way of life and socio-economic situations.

Table 3, gives an overview over my informants’ perspectives on grassland changes and conservation.

Table 3: Perspectives on grassland changes and management

<table>
<thead>
<tr>
<th>Actors</th>
<th>Extent of grassland changes</th>
<th>Causes for grassland changes</th>
<th>Grassland management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government officials</td>
<td>Considerable changes, a severe problem that needs to be tackled today.</td>
<td>Too high pressure on the grasslands. A situation of overgrazing. Also there are problems of rodents and the climate.</td>
<td>A better controlled pastoral production system. It will help prevent overgrazing and regulate grazing in a good way. This will also benefit the herders’ surpluses in herding.</td>
</tr>
<tr>
<td>Chinese research institute</td>
<td>Considerable changes, a severe problem that needs to be tackled today.</td>
<td>Long-term overgrazing is the main cause. But climate changes are important, and also the rodents.</td>
<td>Control and regulation of livestock and grazing, will reverse the processes of deterioration. Improved seeds and fertilisers may improve severely deteriorated grassland.</td>
</tr>
<tr>
<td>Herders</td>
<td>A general impression of grassland deterioration. But different opinions concerning the matter.</td>
<td>The weather is changing and causing problems. These changes are also affecting the grasslands. But rodents and human interference, such as mining are harming the grasslands.</td>
<td>The grassland needs rest in order to be preserved, which may best be done through seasonal grazing. The grasslands will regenerate if they get a chance to grow, through seasonal grazing.</td>
</tr>
<tr>
<td>Environmental NGOs</td>
<td>Seems to be grassland changes, but the extent and severity is exaggerated.</td>
<td>It is likely that there is too high grazing pressure in some areas.</td>
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</tbody>
</table>
We can see that all the informants have in common that they do believe there in some degree of grassland changes. The grasslands appear to be facing some changes that may result in less fertility and grassland that looks brown and barren. The herders do not state as the government and Chinese research institute do, that there are processes of deterioration affecting the grasslands. The herders’ and the government’s grassland conservation strategies are different, but they have in common that the grassland needs rest from grazing pressure.

The different approaches to grassland management reveal a tension that seems to be grounded in the different rationality of the ‘modern’ sedentary pastoral production system and the nomadic pastoral production system. Control is a central dividing component, as the nomadic pastoral practices are centred around mobility and flexibility, whereas the current semi-settled production system limits the herders’ mobility, and grazing is sought to be better controlled. This diverging rationality seems to be largely causing a situation where the traditional practices are considered as insufficient to conserve and rehabilitate the grasslands. According to the Chinese grassland degradation discourse, the traditional production system is not sufficiently controlling, and it may therefore easily and it has widely been a central factor in causing overgrazing. Due to the perceived situation of population growth and high livestock numbers, the need for control appears to be considered as even more necessary. In the present situation, herders’ level of decision-making in herding and grassland management appears to be decreasing, as the government is directing livestock numbers, pastoral practices, grazing systems, and grasslands are being set aside for rehabilitation.

The conservation policies are changing the Tibetan herders’ practices, but the social situation in Yushu Prefecture is also deeply affected. Table 4, provides an overview of the main findings concerning the grassland conservation policies and their consequences for herders.
Table 4: Grassland policies and consequences for herders in Yushu Prefecture

<table>
<thead>
<tr>
<th>Policies</th>
<th>Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Four Way Programme</td>
<td>Change of pastoral production system and changes in livelihoods</td>
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<tr>
<td></td>
<td>Discontent due to implementation process</td>
</tr>
<tr>
<td></td>
<td>Unintended consequences e.g. conflict, less co-operation among neighbours</td>
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<tr>
<td></td>
<td>More troublesome to change pastures</td>
</tr>
<tr>
<td>De-stocking</td>
<td>Difficulties for herders’ socio-economic situation</td>
</tr>
<tr>
<td></td>
<td>Structures affecting women negatively</td>
</tr>
<tr>
<td></td>
<td>Forcing herders to act in a way contrary to their religious beliefs’</td>
</tr>
<tr>
<td>Relocation</td>
<td>Urbanisation causing unemployment and social problems</td>
</tr>
<tr>
<td></td>
<td>Insecurity among herders</td>
</tr>
<tr>
<td></td>
<td>Hindering local wildlife protection work</td>
</tr>
<tr>
<td>Re-vegetation</td>
<td>Little ownership to the programmes</td>
</tr>
<tr>
<td>Rodent control</td>
<td>Forcing herders to act in a way contrary to their religious beliefs’</td>
</tr>
</tbody>
</table>

The changes that follow the privatisation process and the Four Way Programme showed to have effects, such as discontent, increasing conflict and less co-operation between herders, causing migration to become troublesome. Because the underlying goal of production is different between the traditional production system and the ‘modern’, the pastoral development initiatives will therefore also affect the herders’ way of life. It goes beyond simple changes of herding practices, but the changes in practices cause their values and perhaps preferences in herding to be affected.

The grassland rehabilitation has social impacts and also takes little consideration of herders’ values of religious beliefs. They disregard cultural norms; killing livestock in large quantities and poisoning rodents. De-stocking and relocation impact the socio-economic situation of the herders, causing a problematic situation especially for some groups of people, the relocated herders, less wealthy herders and women. Relocation is also having strong social impacts, causing unemployment, insecurity and loss of a secure income.

In this discourse analysis, the theoretical and material aspects of the Chinese grassland degradation discourse have been analysed and given insight to the herders’ positions in grassland management in Yushu Prefecture, and how the herders are effected by the conservation policies.
5 Marginalisation and empowerment

The discourse analysis in Chapter 4 revealed how herders in Yushu Prefecture are marginalised in several ways. Chapter 2, provided theory on asymmetric power relations that are often present when environmental conservation is pursued. The case of Yushu shows that the current policies are not sufficiently taking into account the local context, and they are reducing the herders’ ability to engage in meaningful decision-making regarding management of their grasslands. The first section of this chapter will address how the conservation policies are having marginalising effect on the local people in Yushu Prefecture. These trends are related to the herders’ rights and self-determination in the midst of environmental conservation. The second section will continue with a discussion of the government’s increasing control in grassland management, what consequences it may have for conservation, and how herders’ knowledge plays an important role for grassland conservation.

5.1 Marginalisation by conservation practices

It is rather apparent from the discourse analysis in Chapter 4 that the local people and their situations are not well considered in the current policies. We saw that the herders’ socio-economic situations are negatively affected by the policies, the herders’ practices are changing, largely without their consent, and some religious beliefs are clearly not respected by the government.

5.1.1 The local socio-economic situation

We have seen that herders are disadvantaged by the local socio-economic situation and have an increasing need for alternative income sources. Several of the conservation measures (e.g. de-stocking and relocation) are creating a need for off-farm incomes. Consequently, the herders in general, but especially poor herders, face an even harder situation if they have to reduce their herd, as there are hardly any other off-farm incomes.

In Chapter 2 we saw that environmental conservation will often entail the dilemma of whether to prioritise nature or human society. In any situation, movement of people for the sake of nature conservation should ideally be the last resort. One may wonder how the government may carry out relocation and de-stocking at such a rapid speed, when there are so few alternative sources of off-farm income. The New Village gave insight to a situation where herders are becoming highly dependent on the government. There are close to no other
income alternatives for these herders. Almost half of the former herders in the New Village are dependent on the government for all their basic needs.

We saw in section 4.2.2.2 about the conservation policies of Sumo Township; that herders are being relocated, because of the failure of previously de-stocking measures. The grasslands in these areas are not considered to be in a bad condition either by the herders or local government officials. This situation shows that relocation may be carried out, even though there is no clear evidence that grasslands are in a severe condition of deterioration. The assumed critical state of the grasslands is - as the Chinese grassland degradation discourse showed - the objective for the progressive changes. Carrying out such measures that do not properly address the local situation and that are even lacking real evidence for grassland deterioration, is highly questionable.

5.1.2 Values and pastoral production systems
It has been briefly indicated above, that the values that shape herding practices are important. The sedentarisation process of nomadic herders in these areas may very well be in conflict with the herders’ own preferences and herding values. The conservation policies are driven by a rationale and value system that differs from that of the herders, in which herders may seem to oppose. As seen in Chapter 4 a woman in Sumo Township emphasised the social values of herding which are being lost through the efficiency and control that privatisation of pastures and use of fences may have provided. Miller (2002) explains that the traditional nomadic pastoral production system has evolved in natural circumstances that have made growth or the production of a surplus difficult, and which have been oriented towards flexibility (Miller 2002). Such goals are quite different to the economic growth and modernisation that are being pursued by the Chinese government.

People and cultures everywhere are in a state of flux; the herders in Yushu Prefecture are no exception. Herders in Yushu are likely to welcome new goods and equipment, and new opportunities. However, the current conservation policies, are being carried out in way (and speed) where the herders’ way of life, their preferences and their beliefs are not being considered, rather they are forced into a process of rapid modernisation and urbanisation. This does not allow herders to exercise self-determination. The privatisation process, the Four Ways Programme and the relocation measures are so strongly changing herding practices and livelihoods that herders no longer seem able to choose and control what changes they
welcome and which they reject. It was emphasised by my informants that the relocation policies were voluntary. But how voluntary any policy can be where government officials operate with certain quotas that they are required by higher authorities to meet, may be questioned.

5.1.3 Herders’ religious beliefs
The study in Yushu Prefecture showed that important religious values for the Tibetan people, such as not killing animals, are not being considered by the Chinese government when working out policies applied for Tibetan areas. The large-scale killing of ‘rodents’ showed this very clearly. The herders felt downtrodden and were angry about the forced killing of animals. Thus government actions are not taking local beliefs into account. Poisoning of pika and zokor (the so-called rodents) has not even been shown to result in grassland rehabilitation. Smith and Foggin (1999) argue that large-scale killing of rodents may even be harmful for the grasslands, as removing an important component of the ecosystem (in fact the base of the food-chain), is almost certain to affect other wildlife and the broader environment.

5.2 Government control and the herders’ practices
Privatisation, livestock and grazing control, are resulting in a high level of government control of herding and grassland management in pastoral areas of China. Such policies stem from the global view of pastoralism, developed in the 1980s (see Chapter 2). It argued that the Sahalian pastoralism was economically irrational, detrimental to natural resources, and was causing overgrazing (Benjaminsen 1997: 123). Alternatives to this mainstream view, and a strong focus on local level in development over the last decades, has caused discussions within pastoral development discourse of herders’ traditional knowledge and to what extent grassland management decisions ought to be decentralised.

This section will look at the marginalisation of herders in grassland management and the need to empower them. It will consider decentralisation in decision-making in relation to the herders’ traditional practices, then look at some problematic aspects found in the Chinese grassland degradation discourse with its main emphasis on overgrazing. At last it will consider why herders’ practices and knowledge may be crucial in grassland management.
5.2.1 Marginalisation in grassland management

The Chinese grassland degradation discourse considers that herders’ traditional practices are problematic for the grasslands. Such disregard for local people is a frequent trend in conservation. Land managers are often marginalised and carry the social costs of conservation (Robbins 2004, Adams 201). While this power relation is present, such a perspective may often not consider the role of the state in environmental conservation very well, as it is often seen as a marginalising force. The state’s role is important in environmental conservation, as it has the ability to bring in expert knowledge and to take action on potential and existing environmental problems. However, giving full recognition to the importance of the state does not mean that its actions should not be questioned if local people groups are being marginalised. If a government takes measures that leave local people out of the decision making process (such as seen in Yushu Prefecture), it can be argued that a more bottom-up approach is required. In a pastoral system, this would mean local herders being empowered through being given greater authority in issues of grassland management.

The bottom-up focus in pastoral development discourse argues that: ‘since local ecological conditions and the management objectives of the users are essential, local herders should be given the formal authority of tenure issues, rather then regulation by centralised control’ (Benjaminsen 1997: 125). To what extent decentralisation of decision-making in grassland management is viable in Western China, needs to be seen within the Chinese political system. Most political decisions are made by the central government in Beijing (although there seems to be some focus on elections and participation at local level) and the Chinese government is increasing its control over China’s animal husbandry sector. In such a political environment, delegation of formal authority to herders in land tenure issues seems unlikely. However, it is possible that greater recognition may be given to herders’ traditional knowledge, which could increase their empowerment in grassland management and herding decisions.

When the state restricts and controls the pastoral production system, as in Yushu Prefecture, resistance by herders is likely. Resistance often arises where there is political marginalisation, and as Scott (1985) has argued, it will often take the form of hidden everyday forms of resistance. Jiang (2004: 117) argues that resistance is only one way of responding to a government’s actions. In the case of Inner Mongolia, Jiang (2004) explains that herders have drawn benefited from co-operating with the powerful, despite being the least powerful group.
Herders in Yushu Prefecture are likely to respond negatively to many of the changes that are being carried out. As I explained in section 4.4.1 about the consequences of the Four Way Programme, my data does not show many negative responses towards the change in herding practices and livelihoods. However, my data show strong negative feelings against government action, where animals are being killed. Even though my informants did not express discontent with the changes taking place, which appears to be causing their level of decision-making to decrease, there is likely to be some level of resistance. As political opposition is unlikely, their response may be expressed in everyday forms of resistance, such as not caring for the trees they plant in tree planting programmes as we have seen, or other examples of not setting up fences, or continuing to manage the land communally. It is also likely that some herders in Yushu Prefecture wish to gain benefits for themselves by adapting to the changes, and accepting even the government actions that they find objectionable. Such a human response may be found among people anywhere. Political struggle often becomes a second concern, if poverty means that making ends meet must be the immediate priority.

As marginalisation in grassland management is taking place, the unequal power relation may further lead to little co-operation between the group of herders and the state. Co-operation in grassland management between the local arena and the state is central and even necessary in environmental conservation, as conservation depends on sound management of resources by both the government and the land managers. Despite the fact that many herders’ livelihood depends on the grassland resource and they will have a natural motivation in sustaining their resources, when the government directs their practices, herders’ initiatives in grassland management may decrease. Dependency on the government is widespread in Yushu Prefecture, as a consequence of the relocation policy, but also the Chinese government give the impression that they will provide seeds, fences and other equipment for herders, herders may get accustomed to think that the government will provide if ‘their crops fail’.

Since co-operation is important in grassland management, formal authority for herders may further be important for grassland conservation in China. Herders’ management objectives are crucial to grassland conservation (Benjaminsen 1997). If the herders are marginalised in grassland management, herders’ management objective may change in a negative direction. Herders must therefore be actively part of shaping grassland management practices, based on their experiences and knowledge. And as the next section will further argue, the herders’
knowledge may also show to be important for sound grassland management in these pastoral areas.

5.2.2 The grassland degradation discourse and the herders’ knowledge

We have seen that the Chinese grassland degradation discourse considers herders’ practices to be irrational as they are not capable of controlling grazing, and the herders themselves manage risks partly by maintaining high livestock numbers. They are therefore blamed for causing grassland degradation. It was also explained in Chapter 2, how ‘local knowledge’ has had a tendency to be uncritically praised, but this has created an emphasis on local people’s knowledge, that has become important in empowerment discourses (Mohan 2000: 252). The bottom-up approach in pastoral development focuses on the importance of the nomadic pastoral system. It is emphasised that the flexibility of the production system meets the ecological requirements of the drylands (Benjaminse 1997). The discourse’s consideration of local practices appears to be problematic for grassland conservation. Firstly there are clear limitations to the terms of overgrazing and carrying capacity; and secondly herders’ traditional practices have adapted to local circumstances throughout centuries, and not acknowledging this knowledge as important in grassland management appears strange, at best.

5.2.2.1 Terms and theories in the Chinese grassland degradation discourse

As mentioned, the concept of overgrazing has been contested in recent years. In the 1980s and 1990s, a ‘new range ecology’ started to challenge the concepts of carrying capacity and overgrazing. This theory emphasise that the balance between the livestock and range resources are in constant change, and that the ecosystem’s state and productivity largely depend on rainfall (Adams 2001: 202). If this theory is correct, a production system based on blanket interventions is questionable. Miller (2002, 2005) among other that stress the importance of the nomadic pastoral production system, argues that the Tibetan herders’ traditional practices are important because they have evolved over time, and components such as mobility, are necessary for conservation of the grasslands. He argues that it has evolved over time and has components that are especially suited to the climate and grasslands of the plateau (ibid.).

There are parts of the overgrazing narrative that are problematic when the ‘new range ecology’ theory is taken into consideration. One problematic aspect is that measures of
carrying capacity and overgrazing may give a misleading picture of the situation. Dong et al. (forthcoming: 478, Source given by NPIB) estimated the optimal stocking rate in some areas of Qinghai Province. The maximum carrying capacity was estimated based on a theoretical model, and sample studies for 18 counties and 6 townships in the Sanjiangyuan Region was carried out. The study asserted that for the warm-season pastures (summer grazing sites, April-September) 37.5 per cent of the grassland may have been overgrazed, and for the cold-season (winter grazing sites, October-March) the percentage could be as high as 100 per cent (ibid.). These numbers are extremely high, and if they are generalised to all of Qinghai, the grassland conditions may be largely misread.

That the grasslands have been misread may indeed be the case. Studies, such as the one shortly explained above, may contribute to spreading an impression that grasslands all over the Tibetan plateau are severely degraded, while reality will probably show that there is a high degree of variety of extent and degree of grassland deterioration. Indicators also show that despite the impression of widespread overgrazing that prevails within Chinese political and academic circles, evidence may not be that easily found. The same paper by Dong et al. (forthcoming: 479) stated that ‘even though overgrazing is a world wide concern, conclusive evidence of its occurrence has been remarkably difficult to find in the Yangtze, Yellow and Lancangjiang River [Mekong River] headwater region’ (ibid.). Plateau Perspectives stressed that there is no evidence that the grasslands in most of Yushu Prefecture are deteriorated to a degree that justifies the current intervention of relocating a large number of people (Interview).

Political consequences by the terms are also worth considering. Greater resources would be needed to calculate the shifting carrying capacity, and adjust the number of livestock in relation to it, if the balance between the livestock and grassland resources are in constant change. Pastures may recover in a year of high rainfall, or degrade in a year of drought (which also indicates how difficult it is to calculate the carrying capacity and extent of overgrazing). Benjaminsen et al. (2006) hold out that the term carrying capacity has been misused in the case of South Africa. Carrying capacity has become a technical tool that does not really serve the interests of the people. Carrying capacity is being used as a planning tool in environmental conservation and economic modernisation, and they argue that it is highly likely that South African fields can support more livestock than estimated by carrying capacity calculations (ibid.).
A theory that further has limitations is the theory of the ‘tragedy of the commons’. As we have seen, it is an underlying understanding driving pastoral development in Western China, as common property is considered in terms of such a scenario (Ho 2000a). And for this reason, along with population pressure, herders have been blamed for allowing overgrazing, and not being responsible enough. In Chapter 2, we saw that the ‘tragedy of the commons’ theory has been based on a misunderstood conception of the commons, and is therefore unsuitable for most common property systems, where there are usually local rules regulating the use of the commons. The underlying assumption that herders will be less likely to allow overgrazing if they have private property, has therefore largely been shown to be flawed (Ho 2000a).

It seems that grassland ecology and grassland degradation is still insufficiently understood. The view that Qinghai’s grasslands are overgrazed is leading to privatisation and shifts in livestock production. However other theories of grassland ecology would refute the need for such measures. The terms that are used to measure and describe grassland degradation, also seem to ignore the possibility of a naturally fluctuating ecosystem.

5.2.2.2 Herders’ mobility and flexibility
While continuing to take notice of an ecosystem that has shown to be fluctuating and unpredictable throughout centuries, advocated of the bottom-up approach emphasise that the traditional way of herding is important, because it is based on flexibility, with mobility as an especially important component. Miller (2002) explains that the Tibetan herders have had ‘multi-species herds, complex herd structures, regular movements between pastures of livestock, and linkages with agricultural communities’. These components, he argues, have been a rational response to an unpredictable environment and ecosystem (ibid.). Flexibility is a main ingredient in the nomadic pastoral productions system, as it is forming the whole production system.

Individualisation and a semi-settled pastoral production system, takes away many of the central components, that characterise the herding system as flexible. Mobility is largely lost, traditional risk strategies as multi-species herds and complex herd structures are changed through livestock control and a drive for the market to regulate livestock production. With shelters, houses, fodder, fences and a fixed number of livestock, a totally new production
system is being introduced. And even though this privatisation process of the herding
production system has not been straightforward (due to difficulties that a individualised and
private production system causes these herders) (Richard et al. 2006, Ho 2000a) (see 4.1),
there is a debate about the suitability of a semi-settled and strongly regulated pastoral
production system to the ecological conditions of the plateau.

The divergent rationales of mobile and settled production systems are crucial in this respect.
Jiang (2005) argues that the Chinese government has an instrumental approach to nature.
Earlier, before the Open Door policy, nature was manipulated for political reasons, whereas
now it is a tool for achieving economic growth. This utilitarian view, opposes that of the
Tibetan herders, who consider nature to have an intrinsic value. The drive towards efficiency
and economic growth, and with nature as an instrument in achieving that goal, determines the
way that herding resources are conceptualised. We saw above that the Chinese government
seeks to conserve the grasslands at the same time as they seek to optimise use of the
resources. It is obvious that the government is largely focusing on the livestock, and how feed
resources should be adjusted to the livestock. This goal is better achieved through regulations
and a more controlled production system. But if the grasslands are to be conserved this focus
may seem somewhat problematic.

Private property, and a settled production system, may have beneficial elements for herding.
Nonetheless, the extent to which private property is a sound way of conserving grasslands
from exploitation is questionable. Advocates of the nomadic pastoral production system argue
that private property may in fact be harmful for grasslands. Lack of migration is likely to
increase grazing pressure in certain areas. Therefore, it is argued that a homogenised and
‘efficient’ livestock production system is unsuitable for the ecological conditions of the
grasslands (Miller 2002).

It is therefore important to consider how the two different production systems affect the
grasslands. Will a more sedentary and homogenised pastoral production system, be able to
cope with the climatic conditions on the plateau? As seen in this study, the current
conservation policies cause considerable problems for the herders; loss of their rights, self-
determination and also sustainability of their livelihoods is affected. Herders in Yushu
Prefecture must be empowered within the current situation, and as this chapter shows, their
role may also be highly important for conservation of the grasslands. The herders’ knowledge
may be necessary to enable grassland management that is suitable for the ecological conditions of the plateau.
6 Conclusions

The purpose for the thesis has been to contribute to empirical and theoretical understanding of how conservation practices are affecting herders’ practices and livelihoods. In order to reach this aim, the objectives were: (1) to analyse the Chinese grassland degradation discourse, and show how herders’ understandings and practices are addressed in this discourse, (2) to analyse the how political interventions linked to the understanding of grassland degradation have impacted herders’ practices and livelihoods, (3) to analyse the current positions of herders in grassland conservation processes, in terms of current needs and practices, and how the herders may be empowered in grassland management.

To obtain relevant data, a field study was conducted in Yushu Prefecture, which allowed for observations and interviews with government officials, herders, researchers and organisations stationed in the area. The theoretical perspective that framed the analysis of grassland conservation in Yushu Prefecture has been political ecology; the study of power relations in natural resource management. Environmental discourses are central in this discipline since the explanations of environmental problems will be central for how natural resources are managed and conserved. Knowledge constitutes power, and where there are diverging interests in natural resource management, discourse may hold considerable power in shaping political action.

1. The first objective was to analyse the Chinese grassland degradation discourse, and show how herders’ understandings and practices are addressed in this discourse.

The grassland degradation discourse prevailing in Western China appeared to have common characteristics with other land degradation discourses that have tended to have a narrow focus, where the people managing the land have been blamed for the perceived degradation. The main emphasis in the Chinese grassland degradation discourse was on high grazing pressure on the grasslands, causing grassland degradation. There was also some emphasis on rodent infestations and climate changes by the respondents representing the official view, causes which are believed to exacerbate the degradation process.
The main focus by these respondents was, however, the problem of overgrazing. And as overgrazing is receiving a great deal of attention in political and academic circles, it is also the major emphasis in the conservation policies that are being carried out in Yushu Prefecture. Traditional herding practices are blamed for causing overgrazing. The government considers the grasslands to be overstocked, and some of the blame for this assumed situation is placed on a traditional risk management strategy: to keep a high number of livestock in case of bad years and harsh weather. Another area of blamed is the Tibetan people’s religious belief that animals should not be killed if it is not necessary for the herders own survival. Apparently, the government does not consider the nomadic pastoral production system as sufficiently controlling, as herders do not regulate their stock in relation to the grasslands’ capacity, and do not, according to the government, sufficiently regulate where livestock graze. Explanations of grassland degradation that focus on the herders’ traditional practices as causes of overgrazing therefore understate the past and current drive towards modernisation, where new practices and tools have been introduced. As progress and efficiency appears to currently be the main focus for the Chinese government, these values undermine the herders’ traditional practices.

The herders that were interviewed in Yushu Prefecture explained that grassland management should follow certain rotations, as it has and will give the grass a chance to grow and regenerate. These herders would not blame their herd for grassland changes, but directed the blame towards the rodents, weather changes and actions of mining and construction. Their explanations where also closely related to the spiritual realm. In contrast to the Chinese grassland degradation discourse, the herders did not give impression of extreme grassland deterioration, as the Chinese grassland degradation discourse implies.

The lack of recognition of herders’ knowledge and herding practices, which have evolved throughout centuries, is a challenge. The Chinese grassland degradation discourse has similar traits with a mainstream argument in pastoral development, where the nomadic pastoral production system is considered as harmful for drylands. This mainstream argument has caused governments to implement restrictive policies in order to hinder overexploitation (overgrazing). The underlying assumption is that common property will necessarily lead to overexploitation, as a persons’ rational behaviour will be to maximise own profit (Benjaminsen 1997). Clearly there are limitations to this view. The degradation narrative that was documented in this thesis, builds upon some seemingly unreliable terms; ‘overgrazing’
and ‘carrying capacity’. These terms are used to indicate problems and the extent of grassland degradation in China. What is further problematic with the narrative presented of grassland degradation is that the claims about grassland deterioration are not based on exact figures. The organisations interviewed were sceptical, most herders did not have the impression of big changes in the grassland conditions, and a scientific paper (by Chinese researchers supporting the Chinese grassland degradation discourse) even stated this that evidence for actual grassland deterioration was remarkably difficult to find.

2. The second objective was to analyse the how political interventions linked to the understanding of grassland degradation have impacted herders’ practices and livelihoods.

The conservation policies that are being implemented in Yushu Prefecture largely evolve around livestock and grazing control including privatisation, de-stocking and relocation of herders. Furthermore, they include grassland re-vegetation programmes, such as tree planting and seeding, and rodent control where a large amount of rodents are being killed. Currently much of the attention is directed towards relocating herders as an supplementary measure to de-stocking in order to control and reduce the number of livestock that are grazing in a certain area. Attention in the Chinese grassland degradation discourse was directed towards overgrazing and problematic aspects of herders’ traditional practices, and the policies appear to mirror these explanations.

Today, even though herders still rotate seasonally, a semi-settled production system is visible, as herders are encouraged by the government to build houses, shelters for their livestock, grow fodder and use fences as a herding tool. These changes are transforming the production system of herders in Yushu Prefecture as well as changing their way of life, and appear, among other things, to be a response to the focus on grazing control due to grassland degradation. The traditional herding practices are not centred on economic efficiency and growth as is pastoral development initiated by the government. The herders in Yushu Prefecture point out many problematic aspects of the privatisation measures, and show discontent with the way the programme is being carried out. It seems as if much of what is being promised by the government does not reach the herders. As the government is pursuing control and modernisation of pastoral production system, the most central component for the herders’ approach to grassland management, seasonal rotation, is therefore currently changing
and severely constrained. This causes herders’ level of decision-making in grassland management to be decreasing.

Along with privatisation, rehabilitation measures are implemented. De-stocking is carried out at a large scale in Yushu Prefecture. The government seems to operate with certain quotas for livestock that may graze in one specific area. In order to meet the quotas, de-stocking has been central. However, for many households, especially the less wealthy, de-stocking may affect the households’ ability to provide food for the household members. A household needs a certain amount of livestock to be self-sufficient, and due to the present socio-economic situation in Yushu Prefecture off-farm incomes are difficult to get hold of. As de-stocking appears to be creating a stronger need for off-farm incomes, the policy may be supporting a social structure where women are left with an even heavier work load than they previously had. De-stocking is a measure that many herders negatively react to, as they have to sell their livestock, which is also their security and wealth. The livestock will in many cases be slaughtered, which is against their religious beliefs.

Relocation is clearly affecting herders as their former livelihood as herders are lost. With the current situation of few income opportunities, relocated herders often end up unemployed and dependent on the government for their basic needs. A relocation village in Yushu showed examples of these unsustainable situations for the relocated herders, with poverty and dependency on the government. Relocation is also causing insecurity among herders. Policies are implemented at a rapid speed and the herders therefore end up not knowing what policies they will have to adjust to in the near future. Furthermore, livelihood insecurity is often a result when herders move to town. They loose what used to be their most important livelihoods asset and left with few other opportunities.

Grassland rehabilitation measures, such as seeding and tree planting, are further implemented by the government for grassland regeneration. These programmes, however, seems to lack cooperation from herders participating in the programmes. Without genuine participation, such re-vegetation programmes are not likely to succeed, as they depend on the herders’ management.
Rodent control is supposed to be achieved by poisoning large quanta of small herbivores, which are referred to as rodents by the Chinese government. These ‘rodent’ poisoning programmes cause herders to react strongly, as their religious beliefs are not respected.

3. The third objective was to analyse the current positions of herders in grassland conservation processes, in terms of current needs and practices, and how the herders may be empowered in grassland management.

The situation in Yushu Prefecture of grassland conservation reveals a situation where the conservation policies are marginalising the herders in several ways. Little consideration seems to be given to the local situation, practices and herders’ preferences. The pursuit for control by the government is further marginalising the herders in grassland management. The herders’ ability to engage in meaningful decision-making regarding management of their grasslands is decreasing, as the government directs grassland management practices and other herding practices.

The findings of this study revealed that the government is not taking into account the local situation when working out grassland conservation policies. The conservation policies are implemented at a degree and speed which is not in tune with the local socio-economic situation, and enhance a need for off-farm incomes and employment. Undermining the local situation in such a way, seems to intensify the already existing socio-economic problems, and exacerbate social problems.

The herders’ self-determination in herding appears to be greatly affected with the current changes. Herders’ traditional practices are not reflected in the current policies aiming for development and grassland conservation. Nor do the herders have any influence on the political processes. Therefore, policies that are changing herders’ traditional practices and livelihoods are imposed on them, not leaving them with much choice to follow their preferences in herding as well as other areas of their livelihoods.

A last aspect that shows lack of consideration of the local conditions is that herders’ religious beliefs are not respected by the government. Several of the policies, such as de-stocking and large-scale poisoning of rodents appear in many cases to go contrary to the Tibetan non-killing value, which causes strong reactions among herders in the area.
As the herders’ decision-making in grassland management appears to be decreasing, there may, however, be a need for greater emphasis on herders’ participation in grassland conservation. Cases elsewhere emphasise that herders should have higher autonomy in land management, because herders know the local conditions and they are essential for sound management of the land. The political system in China does not allow for direct participation by the local level. In the present situation in Yushu Prefecture, resistance among herders would not be unlikely, and may take the forms of hidden actions, given the Chinese political climate. Many herders may also seek to take advantage of the situation and gain benefits for themselves. However, co-operation between the government and herders may be necessary since lack of co-operation from the local herders could cause entire programmes to become unsuccessful in achieving the aim of the programmes of re-vegetation and grassland conservation.

The alternative view to the mainstream argument in pastoral development emphasise that the nomadic pastoral production system is of great value because it is centred towards variability of the ecosystem and emphasise flexible herding practices, such as mobility. The nomadic pastoral production system is in accordance with the ecological conditions on the Tibetan plateau and may therefore prove to be important for sound grassland management. One of the most important components for grassland management is argued to be the mobility of the herders. It is argued that lack of migratory routes and a sedentary pastoral production system may cause more pressure of grazing in certain areas. If the nomadic pastoral practices are important for the state of the grasslands, then the current drive towards a sedentary pastoral production system may in fact be harmful for the grasslands.

The main conclusion of this thesis is that the herders in Yushu Prefecture are facing large changes in their traditional way of herding and their livelihoods, due to attempts to conserve grasslands in the region. The changes are argued by the government of China to be conserving and rehabilitation the grasslands from a current state of overgrazing, where herders’ practices are the subject of blame. Contrary to what is assumed in the Chinese grassland degradation discourse about links between herders’ practices and grassland degradation, herders’ knowledge of grassland management may be important to integrate in the conservation polices for sound grassland conservation in this area.
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