Reinventing the Commons

Exploring the Emergence of Local Natural Resource Management Arrangements

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Jacket photo: A view of the ice covered archipelago outside Kalix, displaying the nature reserve of Likskär, March 2005.
Photo: Emil Sandström.

Cover photo: Reindeers in the Vindelmountain area.
Photo: Patrick Trägårdh

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Abstract

The thesis explores the emergence of local natural resource management arrangements as a contextual and negotiated process in two rural communities in northern Sweden: Ammarnäs and Coastal Ring. It analyses particular practices and meanings that appear in the struggles to develop local management arrangements and discusses the observations made in relation to dominant theories in natural resource management. By exploring the emergence of local natural resource management arrangements in a contemporary situation and as a contextual and negotiated process the study seeks to contribute to the debates on how local institutional arrangements for the management of common pool resources emerge.

The research design is qualitative, based on interviews and participant observation. Theoretically, the study is grounded in a social constructionist perspective on institutional theory in which institutionalisation processes are conceived of as processes of gaining legitimacy and the construction of shared understandings. The thesis also draws on discourse theory and presents and reflects upon the dominant theoretical approaches to natural resource management.

The results reveal that the emergence of local management arrangements was sparked by a combination of interrelated factors, such as contemporary and historical state interventions in resource management, conflicts over natural resources and through international and national policies on natural resource management. The study elucidates how particular meanings and practices were ascribed to local management. People constructed local management discursively by giving legitimacy to local management through a process of reinvention, where narratives from past natural resource management experiences were drawn on and adapted for needs in the present. The struggle to develop local management arrangements also influenced social relations and people's identification with the surrounding environment as well as people's constructions of identities vis-a-vis each other.

The study raises questions about the predictability of institutional design based on theories emphasising economic rational choice. The analysis suggests that in order to enhance the understanding of how local management arrangements over natural resources emerge, we need to move beyond descriptions of principles of how systems of common pool resources at the local level are best designed and also examine the emergent properties that appear when local management arrangements are negotiated. The thesis argues that understandings are required that reflect the socially and historically embedded nature of local management arrangements to more fully understand some of the complexity that unfolds when people organise to take increased management responsibility over adjacent natural resources.

Keywords: Local management, institutionalisation, natural resource management, reinvention, common pool resources, discourse, rural development, shared understanding

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To Vidar who still sees everything as a world
full of living beings and who has enabled me to
rediscover all the wonderful creatures that surround us.

Acknowledgements

The motivation to write this dissertation came originally from talking with farmers in Tanzania and Zambia, who during our discussions in the villages asked me about how Swedes managed their natural resources. To my dissatisfaction I realised that I had very little knowledge about the situation in my own home country (Sweden) and I started to ponder about the tenure situation and the institutional context of rural development and natural resource management within Sweden. My original idea was to make a comparative study between Tanzania and Sweden, but for various reasons, including the difficulty of securing funding for cross-country studies I decided to focus on Sweden. At the time of setting up my research project in 2001, interesting developments as regards alternative ways of managing natural resources within Sweden had started to unfold.

Many people have commented on earlier papers and draft copies of this thesis, and I am appreciative of their frank and helpful critique. First I am deeply thankful for the support provided by my supervisors, Kjell Havnevik Cecilia Waldenström and Thomas Hahn. Kjell encouraged me to broaden and explore my own perspectives and through his careful reading and encouragements I came in a strange way to "my own way of thinking". Cecilia kept me on the track, always helpful and ready to provide critical and well advised comments throughout the research process. Cecilia also enabled me to create a safe harbour when writing up the dissertation, by protecting me from other departmental commitments. Thomas acted as a co-supervisor during the early and final stages of the research project. He has read and commented on several drafts of the manuscript and I express my gratitude for his constructive comments and encouragements. To Kjell, to Cecilia and to Thomas, thank you!

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During the research journey my family and friends have put up with both ups and downs when the dissertation took all my time. Thank you for all the encouragement and assistance. I would like to particularly acknowledge my friends Stefan Nilsson and Stefan Trobro who have been invaluable with helping out with practical issues at home, when time had to be devoted to research. Finally I would like to express my appreciation to my beloved Julia Österberg for her great support and patience and for giving me valuable "distance" to my work.

I dedicate this book to our son Vidar, who still sees everything as a world full of living beings and who has enabled me to rediscover all the wonderful creatures that surround us.

Nylunda farm in apple blossom time, Uppsala, May 2008

Emil Sandström

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Abbreviations and Glossary

Agenda 21	Agenda 21 is a programme of action related to sustainable development that was agreed on at the United Nations Conference on Environment and Development in Rio de Janeiro in 1992. The number 21 refers to the 21st century.
Byalag	Village organisation, which comprise landowners that are entitled to a share in a village commons through her/his possession of a farm unit.
CAB	County Administrative Board
CV	Curriculum Vitae
EU	European Union
FAO	Food and Agriculture Organisation of the United Nations
ILO	International Labour Organisation of the United Nations
Natura 2000	is a network of nature conservation areas in Europe
NGO	Non-governmenal organisation
SEK	Swedish Krona. Exchange rates at the time of the study in 2007; 100 SEK = approximatly €10.55 or £8.39 Sterling
SEPA	Swedish Environmental Protection Agency

Sida	Swedish International Development Cooperation Agency
SLU	Swedish University of Agricultural Sciences
SOU	Swedish Government Official Reports
Storskifte	Great Distribution of Land Holdings
UN	United Nations

I

Part I
Introduction and Background

This first part comprises two chapters. The first chapter deals with a general introduction of the context, where the main objective and research questions are developed as well as an outline of the material.

The second chapter presents an overview of the institutional landscape of natural resource management in Sweden. This chapter aims to serve as a background to the formal institutional and policy environment in which the case studies are embedded.

Introduction

This thesis explores the emergence of local management arrangements as a socially and historically embedded process and discusses issues of emergence of local management arrangements in relation to dominant theories on natural resource management. It explores two initiatives for community involvement in the management of publicly held nature conservation areas, nature reserves, in northern Sweden.

1.1 Changing policy frameworks for natural resource management

The last decade has witnessed a policy shift in conservation and natural resource management away from state-centred control towards approaches in which local people are supposed to play a more active role in the management of natural resources. In 2001 the Swedish government started to change natural resource management policies towards emphasising the need for increased local participation and management. The national nature conservation policy from 2001 (Skr. 2001/02:173) proposes that innovative management arrangements are established in nature reserves. The policy further underlines local people's participation in nature conservation issues and emphasises the linkages between nature conservation and rural development.

The national fishing policy (SOU 2003/04:51) and the national marine strategy (SOU 2003:72) from 2003 have evolved in a similar direction as well as public policies and investigations on carnivore management and small-game hunting (SOU 1999:146; SOU 2007:089 and SOU 2005:116). The national fishing policy and marine strategy propose the establishment of

local co-management areas that involve local communities, the private and civil sectors in fishing and marine management. The public investigation on small-game hunting proposes new management areas where the Sami villages and landowners should co-manage the small-game hunting instead of the state. A number of other public investigations have also been launched, i.e. a new Swedish rural policy and a new strategy for elk hunting, which emphasises the local and social dimensions of natural resource management (SOU 2006:101 and SOU 2007:63).

A few years earlier and parallel with these developments on the political scene, some community groups in Sweden had started to claim increased management rights to publicly held natural resources, such as nature reserves, public fishing waters, wildlife and forest areas. All the above changes may be broadly considered as processes towards the development of decentralised management arrangements of natural resources, where government agencies, civil society organisations etc reorganise themselves in new institutional constellations.

The Swedish development in natural resource management is part of a larger global shift, where policies and local initiatives towards decentralisation of natural resource management arrangements have become especially strong in many developing countries. During the 1990s processes towards decentralisation have been reported in e.g. Tanzania (c.f. Havnevik 2001 et al., and Havnevik, 2006; Massawe, 2001; Alden Wily, 2000, 2002 and 2003), Zimbabwe (c.f. Nemarundwe, 2003), Nepal (c.f. Kafle, 2001), Indonesia (c.f. McCarthy, 2001) India (c.f. Wade, 1988; Agrawal, 2005 and Arora Jonsson, 2005), Bolivia (c.f. Kaimowitz, et al, 2000 and Pacheco, 2004), Scotland (c.f. Younis, 1997) and Canada (c.f. Poffenberger and Sellin 1998). There are currently policies addressing decentralised management arrangements in virtually every "corner" of the globe (Edmunds and Wollenberg, 2004). These policy reforms have in some cases also resulted in the emergence of new management arrangements. Governments in more than 50 countries, according to a world wide survey on national forest policy, claim to be following new initiatives that devolve some control over resources to local users (FAO, 1999).

In Tanzania, Canada, Zimbabwe and Scotland community based forest and wildlife management has become a significant aspect of the developments in the natural resource management sector. In Tanzania more than two thousand community forest management arrangements have evolved since

1998 covering more than 500,000 hectares (Alden Wily, 2002) and in Scotland more than 100 forest community groups have started up during the 1990s. White and Martin (2002) approximate that 22 percent of the forests in developing countries are either owned or managed collectively by indigenous people and forest dependent local communities. This figure is three times the forest area under control of private individuals and forest companies (ibid).

The shifts in policy approaches in developing countries have been advocated by donors and international non-governmental organisations (NGOs) (Edmunds and Wollenberg, 2004). Sweden has through the Swedish International Development Cooperation Agency (Sida) supported several rural development cooperation programmes around the world that aim at changing the institutional context of natural resource management in a more participatory direction.[1]

One driving force for these developments is an international discourse, which articulates and emphasises indigenous and natural resource dependent people's rights to manage and benefit from the surrounding natural resources (e.g. the UN treaty of Agenda 21, the Convention of Biological Diversity, the ILO treaty article 169 on indigenous rights etc). The promotion of these policies has also evolved simultaneously with a new development in social science related fields, which suggests the possibility of avoiding the tragedy of the commons or open access situations under a variety of conditions (c.f. McCay and Acheson, 1987; Ostrom 1990; Bromley et al., 1992; Baland and Platteau, 1996). At the centre of this research field is the idea that institutional arrangements grounded in the management of common property can positively influence the way people use and manage natural resources for sustaining their livelihoods. This research has informed policy makers and reinforced them in adopting programmes and strategies that focus on social and institutional issues in natural resource management. Another rationale behind the decentralisation efforts has been recognition of past failures of the central government's ownership and management in combining rural development and nature conservation.

[1] In for instance Tanzania, India and Vietnam, Sweden has funded several rural development programmes that aim at changing the institutional context in which resource users and government officials work towards a more inclusive approach as regards natural resource management and rural development.

1.2 Research motives, objective and questions

Empirically, the research is motivated by the present trend of decentralisation of natural resource management that has also now been initiated in Sweden. Much of what has been written in connection with decentralised management arrangements has focused on developing countries and few studies describe how this phenomenon of decentralisation unfolds in Sweden. Furthermore, research on decentralised forms of natural resource management is often empirically grounded in studies that focus on the evolution of common property arrangements that have evolved from resource systems that are unregulated (open access situations), and where the focus often is primarily concerned with one resource that is subject to one single category of resource users e.g. fish and fishermen (c.f. Ostrom, 1990 and Bromley et al., 1992). In the empirical field that I explore, the resource systems are highly regulated and characterised by multiple resources and resource users e.g. reindeer herders, landowners, tourists, hunters, fishermen, state officials etc. By focusing on the Swedish context and on highly regulated natural resource systems, nature reserves, the thesis offers empirical insights on the emergence of decentralised natural resource management arrangements in Sweden.

The research is also motivated by an interest in the debate on the evolution of institutional arrangements for the management of common pool resources. Issues of emergence are acknowledged as a field in need of more research. Researchers have limited understanding of why, how, when and where institutions for resource management emerge (Stern et al. 2002, p.472). Understanding emergence is critical, since it constitutes an important part of the institutionalisation process. At this stage of the process norms and rules in relation to natural resource management are negotiated and developed.

Most analyses of institutional arrangements of the commons have focused on institutional arrangements that have existed over an extended period of time. They have been based on ex-post studies combined with game theory experiments. From a large number of case studies, researchers from various disciplinary backgrounds have identified principles that act as important conditions for facilitating successful management arrangements of the commons (c.f. Wade, 1988; Ostrom, 1990, Baland and Platteau, 1996). At the core of this literature is the assumption that property relations have a strong impact on how people use and abuse natural resources and that common property arrangements can have positive impacts on resource use,

conservation and environmental sustainability. A great deal of what has been written on emergence is dominated by a theoretical perspective grounded in neo-institutional economics and rational choice, which focus on how cooperative behaviours and incentive structures of group dynamics evolve under experimental situations, e.g. through game theory experiments (ibid). Underscoring much of this theoretical perspective is a focus on incentive structures of emergence, where it is suggested that successful management arrangements of the commons evolve when the benefits from the institutional set-up are limited to a small and stable community and when the transaction costs of cooperative behaviour are relatively low (c.f. Ostrom, 1990 and 2000).

My interest in exploring emergence is inspired by the above literature but my approach is grounded in a perspective that focuses on the historical and social embeddedness of emergence. Thus, it fills a gap that is underlined by the critique that the common pool resource theory has paid too little attention to contextual factors that influence processes of institutional formation (c.f. Steins and Edwards, 1999a; McCay and Jentoft 1998, and Johnsson, 2004). Institutional formations, as Cleaver (2000 and 2002) points out, should not primarily be explained and understood as outcomes of rational calculations of individuals, but rather as a result of struggles of knowledge and meaning embedded in local and wider contexts of history, politics and economy (c.f. Peters, 1987 and McCay, 2002). Often such struggles are talked about as land use conflicts but there is often more at stake. It is seldom merely a question of land use, but a question where several competing discourses are used to legitimatise a specific claim, and where several institutions and actors may struggle about the jurisdiction to settle disputes and set norms (Lund, 2006). Furthermore, whereas most studies have assessed decentralised forms of natural resource management when the institutional arrangement was already in place, this study aims to explore the emergence of local management arrangements in a contemporary ongoing process.

By focusing on emergence as a contextually embedded process, the thesis seeks to understand how the emergence of local management arrangements is negotiated over time. I try to capture the idea that emergence of institutional arrangements for local natural resource management is about constructing sufficiently shared understandings of what local management is and how it can be practised and that the construction of such understandings is highly conditioned by contextual factors. Drawing on discourse analysis I

intend to look at processes of emergence through which shared understandings of local management are constructed. The notion of discourse is assumed to be important for the insights it can give to the meaning making process of what local management is and what it can contribute with.

Of special interest to the study, are meanings and practices "in the making" that evolve in the negotiations to develop management arrangements. By studying attempts to develop local management arrangements from a local perspective in a contemporary setting it is possible to see how certain meanings are ascribed to local management as local management is discussed and negotiated. By studying these processes the thesis seeks to contribute to broadening the theoretical understanding of how local management arrangements, with a common property resource character evolve.

More specifically, the objective is to explore the emergence of local natural resource management arrangements as a contextual and negotiated process.

1. *What kinds of practices and what kinds of constructions of meanings become salient in institutionalisation processes?*

2. *What kinds of contributions can be made in relation to dominant theoretical approaches on the emergence of local natural resource management arrangements?*

The above objective and related questions have developed continuously during my research process. I started off my research by reading theories on common pool resource management. After my initial field visits I was confronted with puzzling and surprising phenomena, which I found hard to explain with these theories at hand. My field experience made me think critically about previously conceived ideas on how institutional arrangements for natural resource management emerge. This led me in the search for alternative theoretical explanations that could assist in explaining what I had seen. This way of working, as will be further explained in chapter 4, may be seen as abductive; where theories, research questions and empirical observations are developed in an iterative and oscillating process.

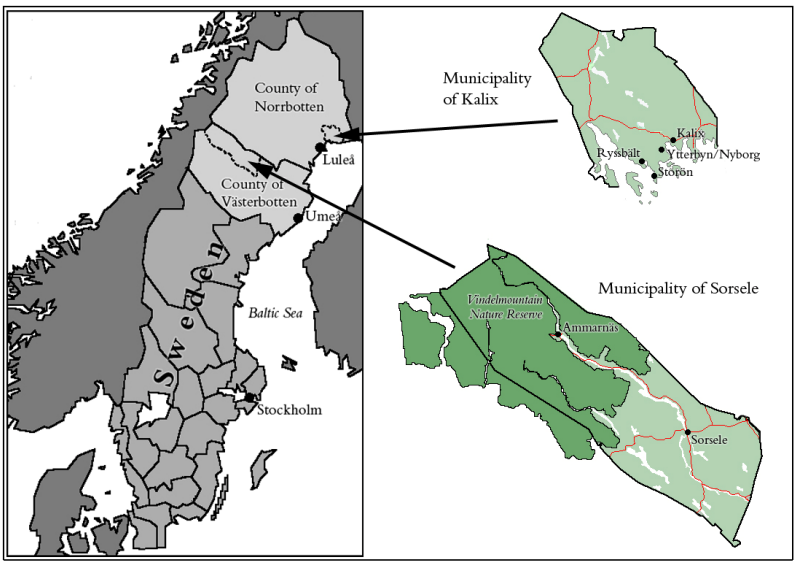
The notion of emergence is in this thesis used to specify institutions in the making. It is used to draw attention to those rules, meanings and practices that are in the early stages of being institutionalised and to those unanticipated outcomes (emergent properties) that can appear in

institutionalisation processes. The term is used in a broad, but not imprecise sense. It denotes institutional processes that are incipient, although not necessarily entirely new. Many institutional theorists use the term evolution, but I have deliberatively chosen not to use this term, since it is often associated with change processes that are perceived to be determined by some inherent universal logic of change e.g. inherited traits of genes in a population that are passed on from one generation to another or the perceived universal logic of Homo Economicus (economic man) that is applied in much of the writings in the common pool resource theory.

1.3 Introducing the contexts

The empirical material comes from two community organisations, which are working towards local management arrangements, the Ammarnäs council in the municipality of Sorsele in the county of Västerbotten and the Coastal Ring organisation in Kalix municipality in the county of Norrbotten (see Map 1.). Both the Ammarnäs council and the Coastal Ring organisation, do to some extent challenge the present natural resource management administration in Sweden. The organisations are in the forefront of the struggle to develop local management arrangements that have provoked a lot of discussions and generated interesting information for understanding the emergence of local management arrangements.

Both cases represent alternative management arrangements situated within or adjacent to nature reserves. They involve several natural resource components that overlap. In the Coastal Ring, the study focuses on processes of developing local management arrangements over a coastal nature reserve and over the fishing resource. In Ammarnäs, the study emphasises processes of developing local management arrangements of the small-game hunting resource and the surrounding nature reserve.



Map 1. Top left: map of Sweden displaying the Counties of Norrbotten and Västerbotten. Top right: map of Kalix municipality, with the villages of Storön, Ytterbyn/Nyborg and Ryssbält. Bottom right: map of Sorsele municipality with the village of Ammarnäs and the Vindelmountain nature reserve.

1.3.1 The Coastal Ring - Ryssbält, Storön and Ytterbyn/Nyborg

In the County of Norrbotten, where the Kalix River flows into the northern part of the Baltic Sea, the three villages of Ytterbyn/Nyborg, Storön and Ryssbält are located on headlands adjacent to the Baltic Sea. The villages are situated close to the township of Kalix, which is also the municipality centre and about 100 km north of the regional capital Luleå (see Map 1.). To the east, the archipelago sprawls out, with hundreds of small islands and islets. Historically the archipelago has been important for fishing and farming, but nowadays the archipelago is mainly used for recreational purposes.

Most of the 1600 inhabitants in the three villages are employed either by the municipal office or by the pulp industry company located about 30 km north from Ytterbyn/Nyborg. Few people earn their living directly from the natural resources and most people commute to the township of Kalix for work. Although the economic importance of the natural resources has decreased, forestry and fishing play an important social role and for some households fishing and forestry still contribute to the household economy. In 1998, the legal frameworks for natural resource management were

changed. Land and water areas adjacent to the villages were declared as *Natura 2000* areas by the County Administrative Board (CAB) and the National Board of Fisheries changed the rules for fishing, making it difficult to have fishing as a complementary source of income.

In this setting a number of villagers from the villages of Ytterbyn/Nyborg, Ryssbält and Storön have started to cooperate and they have formed the umbrella organisation, the Coastal Ring that aims to develop local management arrangements of land and water resources that are managed by the CAB, the National Board of Fisheries and the National Property Board. This struggle will be presented in chapter 5.

1.3.2 Ammarnäs

Arriving in Ammarnäs, after four hours drive from the regional capital of Umeå is hard to imagine for people who have not experienced the north west part of Sweden. The so called "Vindelriver road" follows the Vindel River to Ammarnäs. On the left, the road is bordered by the river and on the right by production forests. During the winter and early spring there are home-made road signs along the road, indicating that the driver should watch out for reindeer (see Map 1).

Compared to many other rural villages in Sweden, Ammarnäs may be regarded as remote and peripheral. It may be regarded as being located in the middle of nowhere, where the road ends in wilderness. One might also choose another perspective and state that Ammarnäs is situated in the heart of the Vindelmountain (*Vindelfjällen*) nature reserve where the road to the coast starts off.

Ammarnäs is a village of contrasts. Many of the houses in Ammarnäs have flags, indicating the house owners' identity and cultural belonging. These are either the Sami flag or the Swedish national flag. Some of the houses also have both flags. About half of the 200 inhabitants consider themselves as Sami and/or reindeer herders. Most of the people living in Ammarnäs are employed either in the reindeer industry or in the tourist sector. The village "centre" consists of a food shop, a hotel, a tourist information desk and a natural museum displaying various features of the nature reserve. Ammarnäs village is known in the country as a winter resort and as a haven for bird watching and angling. It is also known for its many internal and external struggles with authorities over a road that the government promised to

construct across the nature reserve in compensation for the establishment of the Vindel mountain nature reserve in 1974.

The attempts at developing local management arrangements in Ammarnäs relate strongly to the larger debate, which is ongoing in Sweden, on how to handle tenure- and natural resource management issues in the north. Tenure issues on natural resource management and nature reserves in this part of Sweden are complicated, since different tenure systems overlap. Such systems include the customary rights of the Sami villages, the system of individualised tenure of the Swedish "settlers" and state property managed by public institutions. The different tenure and natural resource management systems have left distinct traces in the Swedish administration of justice, and created tensions and conflicts as regards rights to access, exploitation and management of natural resources in north-western Sweden (Lundmark, 1998). The case of Ammarnäs represents an attempt by the Sami villages (represented by Ran and Gran Sami villages), the descendents of the first settler families and tourist entrepreneurs in Ammarnäs to collaborate with the municipality (Sorsele municipality) and CAB of Västerbotten. The overall objective is to find new nature resource management solutions in an area in need of development.

1.4 Outline of the thesis

The thesis is organised in four parts comprising eight chapters. In this first chapter I outline my research objective and research questions and introduce the reader to the case studies. Chapter two presents an overview of the institutional landscape of nature conservation in Sweden. Chapter three contains an overview of some of the dominant theoretical strands in natural resource management literature and presents concepts to assist in the empirical analysis. It introduces the concepts of institutions, local management and the concept of discourse as analytical tools for examining the emergence of local natural resource management arrangements. Chapter four presents the research design and methods chosen for gathering data and empirical material for the thesis.

Chapters five and six contain the case studies of the Coastal Ring and Ammarnäs. They serve to provide empirical understanding of the processes that unfold when local management is negotiated. The first section in each case study draws a background picture of the historical, socio-economic and

ecological setting. The case studies explore the suggested institutional forms of local management and further examine central activities, arguments and motives in which the meanings and practices of local management develop. In chapter seven, the two case studies are compared and in chapter eight the thesis discusses the empirical observations in relation to dominant natural resource management theories. Finally the thesis makes some concluding reflections.

2 Institutional Landscape of Nature Conservation in Sweden

For the reader unfamiliar with the institutional context of natural resource management in Sweden, this chapter gives a brief overview, with a particular focus on protected areas.

2.1 The institutional practices of nature protection

Sweden has a long tradition of nature protection and historically the government has had a supreme role when it comes to how natural resources should be managed. Nature conservation is exercised through a number of public agencies. The Swedish Parliament stipulates laws and policy declarations and the Parliament delegates the right to declare directives to the Ministries, which in turn delegate power to the central authorities. The central authorities have in turn the possibility to delegate power to the County Administrative Boards (CABs). The CAB is a government appointed board of a county. The main responsibilities of the CABs are to coordinate the development of the county in line with goals set in national politics. Constitutionally each of the CABs are government agencies subordinated to the Cabinet Government. The main goals that influence national conservation practices are the national environmental quality goals that have been adopted by the Swedish Parliament. They define the state of the environment which environmental policy aims to achieve and provide a framework for environmental and nature conservation programmes and initiatives at national, regional and local level.

The central authorities that are in focus in this dissertation are the Swedish Environmental Protection Agency (SEPA), the National Board of Fisheries and the National Board of Properties. The SEPA is the central authority for nature conservation and wild life management. The operational responsibilities for these issues are mainly delegated to the CABs. The central authority for fish management and fish conservation is the National Board of Fisheries, which in turn is under the auspices of the Ministry of Agriculture, Food and Fisheries. Besides fishery and agriculture, the Ministry of Agriculture, Food and Fisheries is also responsible for reindeer husbandry. The National Property Board is under the Ministry of Industry, Employment and Communications and it owns lands that have been turned into nature reserves and nature reserve management is mainly delegated to the CABs.

The management over protected areas, nature reserves and national parks etc, is regulated by laws, primarily found in the Environmental Act (SFS, 1998) but also by international directives, conventions and agreements, such as the Ramsar convention, the international agreement on biological diversity and EUs bird and habitat directive.

The responsibility for establishing nature reserves primarily rests on the CABs and each nature reserve has its own regulations which are stipulated by the CABs. The difference between nature reserves and national parks is mainly that decisions to establish a national park are taken by the Swedish Parliament on recommendations from SEPA, while the decision to establish nature reserves is taken by the CAB or by a municipality. As a principle national parks can only be established on land that is owned by the state, while nature reserves can be established on private property as well (Naturvårdsverket, 1989 and 2008). Establishment of nature reserves often requires negotiations with and compensation to the landowners that are affected.

Each nature reserve needs to have a management plan, stating among other things the purpose of the reserve and a decree stating the specific site regulation of the area. The management plan normally includes comprehensive biological and geological site documentation over the area. The management plan is in general developed by the CAB. The selection of areas for protection is based on a comprehensive biological approach that for the most part is carried out by experts from the CAB. The criteria for

selection are mainly based on the presence of certain keystone species and the diversity of key biotopes (Naturvårdsverket, 2003b).

During the 1990s the nature conservation approach shifted towards a stronger emphasis on preserving the biological diversity. One of the primary objectives became to preserve and strengthen important habitats for biological diversity. This was manifested by e.g. the creation of the Swedish Biodiversity Centre (*Centrum för biologisk mångfald*) and the formation of the Swedish Species Information Centre (*ArtDatabanken*). The Biodiversity Centre is the national centre for research on biodiversity and its main functions are research and research coordination with the purpose to preserve and sustainably use and restore biodiversity in Sweden. The centre is jointly operated by the Swedish University of Agricultural Sciences and Uppsala University (http://www.cbm.slu.se, October 2005). The main objective of the Species Information Centre is to collect, evaluate and store information on threatened and rare species of plants, animals and fungi. The most important tool in this work is to develop the Red Lists and Red Data Books for the most threatened plants and animals in Sweden. The Red Lists and the Red Data Books are frequently used by national authorities and the CABs as well by NGOs and landowners. The Swedish Species Information Centre is a shared body between the Swedish University of Agricultural Sciences (SLU) and the SEPA (http://www.artdatabanken.se, November 2004). In November 2005, the emphasis to preserve and restore biological biodiversity was further strengthened by the adoption of a specific national environmental quality goal targeted for biological diversity.

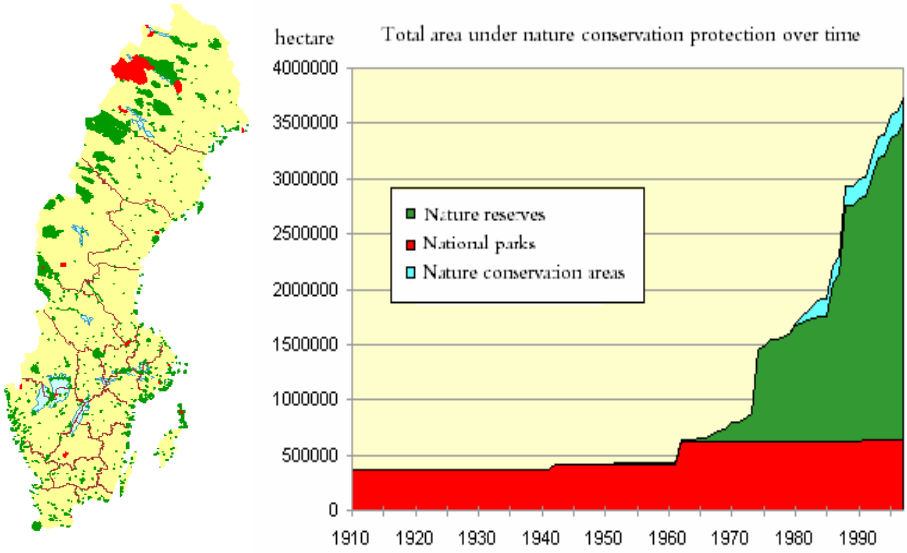
In 1995, when Sweden joined the EU, a new nature conservation tool was introduced, namely *Natura 2000*. *Natura 2000* is a network of conservation areas in Europe considered most worthy of protection. *Natura 2000* exists in all EU member countries and the purpose is to hold back and prohibit further extinction of species and habitats. In Sweden approximately 5000 *Natura 2000* areas have been selected of which approximately 60% are already areas that are classified as nature reserves (www. naturvardsverket, October 2005). Each *Natura 2000* area has its own conservation plan, which in detail describes what is going to be protected. The CAB is responsible for selecting areas suitable for *Natura 2000* and it is also responsible for developing the conservation plan.

In 2004, approximately 10% of Sweden's total area was protected in nature reserves or national parks and these areas comprise more land than the land

used for agricultural purposes. The numbers of protected areas have increased significantly since the 1970s. Approximately 80% of all protected areas are nature reserves and about 20% are national parks. The majority of the protected areas, 80% of the nature reserve area and 90% of the national park area, are located in the sparsely populated north-western part of Sweden, along the border to Norway (see Figure 1).

The money spent on nature conservation has increased significantly during the last decade, from 340 million SEK in 1997 to 2051 million SEK in 2007.[2] Most of the money is spent on land purchase for establishing protected areas (www. naturvardsverket, February 2007).

Figure 1. Map and diagram over Sweden's national parks (red) and nature reserves (green).



*Sour*ce: http://www.naturvardsverket.se, October 2005

[2] Exchange rates at the time of the study in 2007; 100 SEK = approximatly 10.55 Euro or £8.39 Sterling

Traditionally, nature conservation issues are set by the agenda of experts, often governmental officials with a background in natural sciences. The most common management approach is to leave the protected areas "untouched" and for so called "free area development", but more and more protected areas contain active conservation measures, such as brush clearing and fire management activities. In several of the nature reserves there are also regulations stipulated against the development of any kind of commercial activities. In the Swedish Environmental Act (SFS, 1998) it is stated that the purpose in establishing nature reserves is to:

> *… preserve biological diversity, to take care of biological diversity and preserve valuable nature environments or to provide the need for areas for recreational life. An area that is in need of protection, to re-establish or re-create valuable environments for species worthy of protection can also be declared as a nature reserve.*

The traditional style of nature conservation has by some authors been described as centralistic with top-down dimensions that exercise control through bureaucratic administration (c.f. Sandberg, 2001). As a discourse the traditional Swedish nature conservation approach can be characterised by its tendencies to i) give government officials the prerogative to define what it is valuable to conserve, why and how ii) focus on preserving biological diversity values and downplaying other values e.g. cultural and economic values iii) establish and support institutions for nature conservation mainly through establishment of protected areas and through economic compensation iv) exclude others from taking part in the decision making process (c.f. Ljunggren Bergeå, 2007).

2.2 New directions in central nature conservation policies

At the turn of the 20th century, social, cultural and economical values started to gain in importance in nature conservation management and the awareness of human influences on the creation of biodiversity increased. The traditional nature conservation approach was not completely dismissed but the need to develop complementary approaches to nature protection was emphasised. The launch of the Swedish nature conservation policy from 2001 emphasises local participation and local support (*lokal förankring*) of the management of protected areas (Skr 2001:173). The policy emphasises that:

> *The dialogue with the citizens must be strengthened in nature conservation. New working conditions for nature conservation must be developed. Planning and implementation of conservation activities should be carried out in dialogue with actors for protection, management and restoration as well… Local actors should be employed to an increasing degree in the implementation of practical conservation activities* (Skr 2001:173, p. 31-32).

The policy further underlines the connection between nature conservation activities as important prerequisites for local economic development in rural areas:

> *Management of protected areas can contribute to rural development through the utilisation of protected areas for small-scale business activities, e.g. tourism, and in that way directly or indirectly contribute to new employment opportunities* (Skr 2001:173, chapter 3.6).

The policy also brings up the issue of local management of protected areas:

> *The management administration of protected areas needs to be strengthened. Even the management administration and the practical natural conservation management should try to attain working conditions that are characterized by openness, good dialogues and participation with different stakeholders as well as good information early in the process … Innovative local management arrangements should be tested* (Skr 2001:173, p. 85).

In the spring budget of 2000 (proposition, 1999/2000:100) the Swedish government proposed the establishment of pilot projects in local management. In the spring budget the government states that:

> *Nature conservation is a central area in the politics for attaining an environmental and sustainable development. Protection of species on a scientific basis is and will remain an important task. The social and aesthetical dimensions of nature conservation need however to be developed as well as outdoor life, eco-tourism and possibilities for local management of protected areas. The Government insists on the possibility to develop pilot projects for local management over protected areas* (proposition, 1999/2000:100, p.32).

This ambition was also reflected in the government's regulation-letter (*regleringsbrev*) to SEPA in 2001, which states that the SEPA should:

> *…develop and test decentralized forms for local natural resource management of protected areas* (Regleringsbrev, 2001).

Before the launch of the new conservation policy, there was no central document, which explicitly stated that local communities should participate in the process and design of the implementation of protected areas. This illustrates the quite recent shift in the way natural resource conservation is supposed to be carried out in Sweden towards more participatory and decentralised management arrangements. The official documents also illustrate a shift in emphasis that nature conservation should not solely be developed on the basis of a scientific biological approach, but include as well social, cultural, economic and aesthetical aspects (Skr 2001:173).

Since the launch of the new policy on nature conservation a number of trials of using more inclusive approaches to nature conservation have been carried out by SEPA and the CABs, e.g. the establishment of *Fulufjällets* national park in the county of Dalarna (c.f. Wallsten, 2003 and Zachrisson, 2007), the *Kristianstads vattenrike* biosphere reserve in the south of Sweden (c.f. Hahn et al. 2006) and the World Heritage Site of the barren limestone plain (*stora alvaret*) on the island of Öland (c.f. Saltzman, 2002 and Stenseke, 2006). These nature conservation establishments have focused on attaining local and popular acceptance of nature protection measures and they have been highlighted by SEPA as meritorious examples of their participatory and inclusive approaches towards nature conservation protection (Naturvårdsverket, 2003a).

SEPA and the National Board of Forestry have also in collaboration with different stakeholders been involved in projects that aim to establish so called modelled forests in northern Sweden, where the idea is to experiment with different kinds of forest management arrangements. Although these attempts are on the move they are confined by primarily focusing on achieving local acceptance of and participation in nature conservation measures rather than accomplishing "real" devolution of management responsibilities to local community groups.

2.3 Changes in central fishing and hunting policies

A similar policy shift was also made in fishing and the hunting policies. In 2003 the Swedish government launched two new policies i) a new marine strategy (SOU 2003:72) and ii) a strategy for fisheries (SOU 2003:04:51). These two policies emphasise the development of local coastal fisheries through consultation and increased influence of stakeholders and the testing of co-management arrangements between the government and different stakeholders. The documents recognise deficiencies in the present fishing and marine management and elucidate the need for increased user and civil society participation. The policy further highlights the connection between national environmental goals, and rural and regional development goals. Piritz (2004) has described the shift in fishing and marine policy as a shift from a highly centralised fishing management system with corporatist influences towards a management system that is more local, pluralistic and multi purpose.

As regards hunting, two policy investigations have been launched i) one policy that deals with small-game hunting and lake fishing (SOU 2005:115) and one that deals with elk hunting (SOU 2007: 63). Both documents recommend new decentralised management arrangement to be established. The most relevant policy investigation for this thesis concerns the policy investigation on small-game hunting and lake fishing. This policy suggests that collaborative associations between landowners and Sami villages should be formed in northern Sweden. These associations are suggested to have the possibility to make decisions about how and where hunting and fishing can be practised. The policy investigation is mainly based on a legal analysis and tries to overcome the problem that with the present hunting system, landowners and the Sami villagers have the right to hunt and fish on the same area during the same period. The development of collaborative associations would imply a significant decentralisation of decision-making from the CAB. The proposed role of the CAB is to ensure that the collaborative associations are formed and they are suggested to have a monitoring and supportive function.

II

PART II
Theoretical and Methodological Perspectives

This second part of the thesis consists of two chapters. Chapter three provides an overview of some of the dominant institutional approaches to natural resource management and outlines a conceptual framework, where central concepts used in the thesis are presented. Chapter three further develops some empirical research questions that aim to assist in the case study presentation. Chapter four presents the research methods and the research design.

3 Theoretical Framework and Guiding Concepts

3.1 Institutional approaches to natural resource management

The academic literature on natural resource management is eclectic and its theoretical roots and applications are various. Broadly one can differentiate between at least three major theoretical approaches to studies of institutions in relation to natural resource management; i) the common pool resource approach (c.f. Ostrom 1990; Bromley, 1991; Bromley et al., 1992; Baland and Platteau, 1996 and Ostrom et al. 2002) ii) the adaptive management and resilience approach (c.f. Berkes and Folke, 1998; Holling and Gunderson, 2002) and iii) what can be labelled as a socio-historical approach to natural resource management (c.f. Cleaver, 2002; McCay, 2002 and Johnson, 2004).

These approaches have in common the integration of questions that conceive natural resource management as including both ecological and social systems. The crucial role of finding an enabling institutional environment is emphasised within these approaches. Plenty of theoretical and empirical fieldwork has been done, often in relation to the analysis of common property arrangements that have existed over an extensive period of time. Critical themes that can be identified in these approaches are the formulation of institutional conditions for successful management arrangements of natural resources. From a large array of case studies, often combined with social experiments, researchers have attempted to extract principles of what characterises long lasting natural resource management arrangements (c.f. Agrawal, 2002; Johnsson, 2004 and Folke et. al 2005 for overviews).

3.1.1 Perspectives on local natural resource management arrangements

Common to many of the approaches is a focus on the "local" and that local community groups should be entrusted to a greater extent to steward natural resources. These theoretical approaches are often positioned in a perspective that empowers local community groups through devolution[3] of management rights of a particular natural resource. Such theoretical perspectives are often based on an assumption that devolution of management rights to a particular resource may lead to a more sustainable trajectory. This assumption has been supported by a wide array of empirical case studies across the world. Some of the general advantages, according to Schlager and Ostrom (1996), Ostrom (2000 and 1999) and Abraham and Platteau (2001), for devolving institutional power to local communities, most often include arguments that local communities generally have:

- Better knowledge of the local conditions.
- Greater ability to enforce rules, monitor behaviour and verify actions.
- Better flexibility and adaptability to change rules according to changes in ecosystems.
- Higher sense of responsibility over the natural resource that surrounds the community.

The devolution of management power to the local arena, through e.g. common property arrangements, joint forest management systems etc may impact positively on culture, the physical environment, social well-being and create new employment opportunities and improve the utilisation of natural resources (c.f. Wondolleck and Yaffe, 2000). The expected advantage of a more decentralised natural resource management system is that, when users obtain more management responsibility, they are more likely to behave more responsibly (c.f. Jentoft, 1989 and Ostrom, 1990)

[3] Devolution can be seen as a process that shifts the decision-making space related to natural resource management from central government to local community organisations. This process often includes a transfer of responsibilities and rights for natural resource management. However it does not necessarily mean full retreat by the government. On the contrary it might be associated with increased state support (e.g. financial, technological and moral support).

While some see the optimal solution as community control, others indicate co-management to be the appropriate approach to natural resource management, where government bureaucracies collaborate with local user groups across scales. One common argument for co-management is that it enables access to different kinds of knowledge necessary for sustainable management of natural resources (c.f. Berkes, 1994 and McCay and Jentoft, 1998) and that it may solve users' conflicts (Carlsson and Berkes, 2005).

The sceptics on devolution of management to local community groups, however, point out that decentralisation of central institutional bodies to the local arena is neither easy nor efficient in generating increased welfare for local communities (Bardhan and Mookherjee, 1999, 2000) and that institutional failures are common on a community level, especially in so called traditional local societies (c.f. Platteau, 2001; Baland and Platteau, 1996). All forms of social coordination, whether based on the market, the state or community have the ability to fail. Local management of natural resources does not guarantee sustainable development. Some initiatives will succeed while others will fall short depending on a variety of circumstances such as lack of favourable policy environments, social capital, competence etc.

Although sharing similar views about devolution, views differ between the theoretical approaches when it comes to the point of departure for analysing natural resource management arrangements.

3.1.2 The common pool resource theory approach

Most natural resource systems that are used by several individuals can be classified as common pool resources. Examples of common pool resources are lakes, rivers, forests, grazing areas etc. Common pool resource management shares according to Ostrom, Gardner and Walker (1994) two attributes i) it is costly to exclude individuals from using the resource and ii) the benefits consumed by one individual subtract from the benefits available to others. Common pool resources may be owned and managed by a state, communal groups, private individuals or corporations. Common pool resources should not be confused with common property or "commons", which essentially represents a social institution where specific user rights are attached to a specific user group (c.f. Bromley et al., 1992).

The theorists on common pool resources often take their point of departure in challenging and criticising Hardin's notion of "the tragedy of the commons" from 1968 that proposed that common property arrangements would bring ruin to all, because individuals have a tendency to free ride and act selfishly (Hardin, 1968). Hardin proposed that the commons should either be privatised or taken care of by the state (ibid). However, one important contribution that has developed in the common pool resource literature is that individuals can cooperate and create institutional arrangements that can provide the mechanism whereby individuals can transcend and overcome tragedy of the common situations (c.f. Ostrom, 1990; Baland and Platteau, 1996). A critical distinction was also made that common property arrangements had rules regulating the ways in which individuals behave and what Hardin described was not a common property system, but a system of open access (ibid). These findings have also influenced institutional reform in many countries to devolve management control of natural resources to local users (Steins, Röling and Edwards, 2000a).

Other important contributions in the common pool resource literature focus on the formulation of conditions for the successful management of common pool resource management institutions (c.f. Ostrom, 1990; Wade, 1994 and Baland and Platteau, 1996). By studying literally hundreds of common pool resource systems, researchers have systematised the findings and identified conditions and design principles that characterise long-standing common pool resource management arrangements.[4] Much of this research has focused on small user groups that have managed natural resources collectively over an extended period of time. The methods used in many of these studies are based on case study research and the explanatory models that underlie them often include rational choice and game theory (c.f. Ostrom, 1990 and Baland and Platteau, 1996). The general argument embraced is that organisations and institutions emerge and take the specific form they do

[4] Ostrom's design principles characterizing long enduring common pool resource institutions include i) clearly defined organizational and resource system boundaries ii) congruence between allocation and access rules and local conditions iii) ability for users to modify day to day rules controlling acess to resources iv) accountable monitors who audit resource conditions and behaviour v) ability to enforce graduated sanctions on resource users that violate rules vi) access to conflict resolution mechanisms vii) the rights of resource users to devise their own institutions not being challenged by external governmental authorities viii) resource use, monitoring, enforcement, conflict resolution and governance activities are organized in multiple layers in situations when common pool resources are part of larger systems. (Ostrom, 1990, p. 90).

because they solve collective action problems and facilitate possibilities for individual economic returns. The concepts and design principles developed in the common pool resource theory are increasingly being adopted by international development agencies, such as Sida, the World Bank and by NGOs as tools for crafting sustainable management arrangements over common pool resources at local and global levels.

At the fore of the research on common pool resources is Elinor Ostrom. Ostrom is mostly known for her design principles on long enduring common pool resource institutions (Ostrom, 1990), but she has also developed a framework of certain criteria that increase the likelihood for self-organisation and collective management over a natural resource to occur. In her article "Reformulating the Commons" (2000), she presents a set of variables that enhance the likelihood of appropriators (resource users) to organize themselves for increased self-management over a common pool resource. Partly drawing on Baland and Platteau (1996), she points out certain attributes of the resource and the appropriators, which increase the possibility for self-organisation and collective action over a common pool resource. These are:

Attributes of the Resource

R1. Feasibility improvement: Conditions of the resource are not so deterioated that it is useless to organise or so underutilised that little advantage results from organising.

R2. Indicators: Reliable and valid indicators on the conditions of the resource system are available at relatively low costs.

R3. Predictability: The flow of resource units is relatively predictable.

R4. Spatial extent: The resource system is sufficiently small, given the transportation and communication technology in use, so that appropriators can develop accurate knowledge of external boundaries and internal microenvironments.

Attributes of the Appropriators

A1. Salience: Appropriators are dependent on the resource system for a major portion of their livelihood.

A2. Common understanding: Appropriators have a shared image of how a resource system operates and how their actions affect each other and the resource system.

A3. Low discount rate: Appropriators use a sufficiently low discount rate in relation to future benefits to be achieved from the resource.

A4. Trust and reciprocity: Appropriators trust one another to keep promises and relate to one another with reciprocity.

A5. Autonomy: Appropriators are able to determine access and harvesting rules without external authorities countermanding them.

A6. Prior organizational experience and local leadership: Appropriators have learned at least a minimum of organisational skills and leadership through participation in other local associations that neighbouring groups have organised.

Ostrom stresses that many of the above variables, are in turn affected by the type of larger regime in which users are embedded, where the larger regime can facilitate local self-organisation, by providing accurate information about natural resource systems and arenas for conflict resolution mechanisms. The presence of the above variables is understood to facilitate the emergence of self-governing associations in a situation of a common pool resource dilemma (open access). It is further suggested that those who share history, gender, language, dependency on and distance to the natural resource as well as similar rights to the resource may find it easier to co-operate (c.f. Baland and Platteau, 1996). These theories suggest that individuals will collectively manage common resources and develop institutional arrangements when the benefits are limited to a small and stable community and when the transaction costs of cooperative behaviour are relatively low (c.f. Ostrom, 1990).

The incentives to cooperate and develop self-organising management arrangements are in turn affected by the cost-benefit calculations each

appropriator makes in relation to a new set of rules. For example, if the benefit she or he expects to achieve with a new set of rules is higher than the old rules, then there are incentives towards institutional change, according to Ostrom (2000). The listed attributes of the resource affect both the benefits and costs of institutional change, i.e. if resources are abundant (R1) there are few incentives for resource users to invest their time in organising the management of a common pool resource. Likewise, if the resource is substantially destroyed, organising may not generate substantial benefits. Thus, according to Ostrom, self-organisation is likely to occur only after appropriators observe substantial scarcity. In addition Ostrom argues that unless resource users obtain the major part of their income from a resource (A1), the high costs of organising and maintaining a self-governing system may not be worth the effort (ibid).

Within the common pool resource theory, the emergence of institutions for collective management of natural resources is often viewed as something accruing through rational calculations of individuals rather than through social conflicts and social relations embedded in history (McCay, 2002). Most writings on emergence in relation to the natural resource management arrangements of the commons have focused on rational choice theory and game theory approaches in experimental settings. Behind much of this body of literature is a focus on incentive structures of group dynamics that change the perceived costs and benefits to individuals to favour cooperative outcomes (c.f. Ostrom, 1990; Bromley et al., 1992 and Baland and Platteau, 1996).

3.1.3 The adaptive management and resilience approach

The adaptive management and resilience approach to institutional analysis has developed in relation to new insights about ecosystems. Critical insights were that ecosystems have no particular equilibrium, but rather multiple equilibria which define functionally different stages and movements between them as part of a natural process of maintaining structure and biodiversity (Holling, 1973; Carpenter, 2000 and Holling and Gunderson, 2002). It was also suggested that ecological change occurs in a "patchy" cross scale manner rather than in a continuous way (Holling, 1992). The implications from these insights for the development of institutional arrangements for natural resources are significant:

> *Ecosystems are moving targets with multiple futures that are uncertain and unpredictable. Therefore management has to be flexible, adaptive, and experimental at scales compatible with the scales of critical ecosystems functions.* (Walters, 1986 in Holling and Gunderson, 2002 p. 27)

The point of departure is often on understanding ecosystem dynamics and on how institutions should be adapted to enhance ecosystem resilience.[5] The adaptive management and resilience approach to natural resource management emphasises flexible institutions and the adaptive capacity of people to adjust management practices to changes in socio-ecological systems. Ecosystems and socio-ecological systems are both seen as complex adaptive systems. This approach is prescriptive; institutions needs to respond to changes in ecosystems and these responses should be implemented at the organisational levels that match the scale of ecosystem change, sometimes referred as scale-matching (Holling and Meffe, 1996; Berkes and Folke, 1998). For example when ecosystems are changing in a manner that is harmful, a moderating feedback from the institutions that are aligned with that particular ecosystem is needed, and when the ecosystem is changing in a way that is positive a supporting feedback is necessary.

Institutional change is understood as a coevolutionary process emphasizing the adaptive capacity of people and societies to respond, first of all to ecosystem change, but also to adapt to social and economic change at different scales in order to sustain the resilience of socio-ecological systems (Folke et al., 2005). Although the adaptive management and the resilience approach do not explicitly deal with understanding institutionalisation processes, these theoretical suggestions contribute to the understanding of the complexity of social and ecological dynamics in developing natural resource management arrangements.

Despite the different points of departure for the analysis of natural resource management dilemmas between the adaptive management and resilience and the common pool approach, they share an ambition of finding the right formula for how institutions for natural resources ought to be designed (c.f. Olsson, Folke and Berkes 2003; Holling and Gunderson, 2002). Much of the research has tended to focus on how institutions should be designed successfully rather than on understanding the processes out of which new

[5] Ecosystem resilience is the capacity of an ecosystem to tolerate disturbance without collapsing into a qualitatively different state that is controlled by a different set of processes (Resilience Alliance, 2006).

institutional arrangements for natural resource management emerge. These theoretical suggestions presuppose that institutions should be able to deal with issues of resilience and be flexible at the same time.

3.1.4 Socio-historical approach to natural resource management

The common pool resource approach has been criticised for presupposing institutional formation as instrumental, which pays too little attention to contextual factors that affect the myriad of relations on which common pool resource arrangements are based (c.f. Steins and Edwards, 1999a; Goldman, 1998; Cleaver, 2000 and 2002 and McCay, 2002). This critique has been forwarded by what can be labelled a socio-historical approach to natural resource management. The socio-historical approach underscores the importance of the "messiness" of institutional formation, that emphasises processes of institutional formation as manifestations of negotiated social practices, located both locally and in wider contexts of history, politics and economy (c.f. Hansen, 2007; Cleaver and Toner, 2006; Lund, 2006; Johnson, 2004; Cleaver 2000 and 2002; Berry, 1993 and Long, 1992). It criticises the common pool resource theory for having a functional focus to institutional design, and for applying deductive and simplified models of institutional evolution (c.f. Granovetter, 1992; Steins and Edwards, 1999a; Cleaver, 2002; and Johnson, 2004). Although the lines between the common pool resource approach, the adaptive management approach and the socio-historical approach are not easy to draw, the socio-historical approach tends to argue for the need of theoretical perspectives, in which the emergence of natural resource management arrangements is explained by historical narratives, networks and context.

Cleaver (2002 and 2000) argues that the evolution of institutions for resource management may not be the process of conscious selection suitable for the collective action task, but rather it should be seen as the outcome of individuals acting within the bounds of circumstantial constraints. Cleaver elaborates on Mary Douglas' term institutional bricolage (who in turn draws on Lévi-Strauss' concept of intellectual bricolage) to show that the construction of institutions for natural resource management is rarely made on the basis of rational choice. Instead, institutions are formed through a process of bricolage where analogies of thought styles are borrowed or constructed from existing institutions (ibid).

Cleaver further argues that incentives to cooperate should be understood as negotiated practices that are based on the exigency of daily life. Human actions and interactions are socially embedded and take place within particular historical and contextual institutional arrangements and resource conditions. Through struggles, actors engage in maintaining, reproducing and changing institutional arrangements and the development of institutions often undergoes multiple and conflicting processes of evolution, which are shaped by and shape social relations (Cleaver and Toner, 2006, p. 209). Institutions are formed through processes of bricolage in which institutional arrangements are adapted for multiple purposes, which in turn are embedded in networks of social relations, norms and practices (ibid).

A critical and socio-historical perspective is also echoed in Jentoft and McCay's call for a thicker embedded approach to institutional analysis of natural resource management dilemmas (McCay and Jentoft, 1998). They argue that a more satisfying approach would be to add concerns about the interplay of conflicting interests, meanings and related matters within changing social, economic, political and historical contexts in the analysis of institutional arrangements for natural resource management. Similar theoretical assertions to institutional analysis are also found in Jessop's (2001) strategic relational approach and in Granovetter's (1992) and Berry's (1993) embedded approach.

3.1.5 Reflections on the three approaches of natural resource management

This first section of the chapter has briefly reviewed some of the dominant institutional approaches to natural resource management. Three institutional approaches were identified: the common pool approach, the adaptive management and resilience approach and a socio-historical approach to natural resource management. One applies rational choice economic models to natural resource management dilemmas, another emphasises that institutions should be flexible and adapted to ecosystem dynamics and a third emphasises institutional processes as manifestations of negotiated social practices embedded in wider contexts of history and politics. The study of institutions of natural resource management thus seems to be split into three factions.

The main thrust of the common pool resource approaches applies economic arguments to account for the existence and emergence of institutions for the management of natural resources. Ostrom (1990), Baland and Platteau

(1996) and Bromley (1991 and 1992) exemplify this approach to institutions and institutionalisation processes in their analysis of common property and common pool resource management arrangements. The other approaches build on ideas stemming from ecology, psychology, sociology and anthropology, which are not primarily based on individual self-interest (c.f. Berkes and Folke, 1998; Holling and Gunderson, 2002; McCay, 2002 and Cleaver, 2001).

These three theoretical approaches, and in particular the socio-historical approach, indicate a number of issues which are relevant for understanding the emergence of local management arrangements. These are:

- The need to move beyond the understanding of institutional formation primarily as manifestations of rational choice and self-interest.
- The role of understanding institutionalisation processes as complex emergent phenomena that are conditioned by and embedded in a myriad of contextual factors.

3.2 Guiding concepts for the analysis

3.2.1 The concept of institutions and institutionalisation

The concept of institutions and institutionalisation is central for the thesis. In its simplest form institutionalisation can be described as the process by which institutions are produced and reproduced. Institutions do not emerge in a vacuum and it is often recognised in the literature on natural resource management that new management arrangements build on already existing institutions.They are historically socially and ecologically embedded and come about within existing institutional arrangements (McCay, 2002). Institutionalisation processes are thus path dependent. Path dependency implies that the prior developments of an institution shape current and future trajectories and suggest that prior institutional legacies limit current possibilities in institutional innovation (Jessop, 2001).

There are many ways in which institutions can be defined. In general institutions can be understood as both enabling and constraining. They include rules, norms and values that guide and constrain human interaction (c.f. Scott, 2001 and North, 1990). Accordingly, institutionalisation

processes over natural resource management arrangements, not only include changes in formal rules and management procedures, but also changes in patterns of behaviour and changes in norms and values (McCay, 2002). This rather broad concept of institutions, emphasises context, history and the role of meanings when attempting to understand the emergence of new institutional arrangements for resource management (c.f. Peters, 1987 and Mosse, 1997). Changes in rules, norms and meanings are developed and negotiated in interaction between people when they attempt to develop institutional arrangements (Scott, 2001). For example the development of institutional arrangements for natural resource management can change human perceptions of the environment and lead to new ways of apprehending the world. The analysis of the emergence of natural resource management arrangements thus needs to be conceptualised not only as an arena where different players negotiate different rules and compare costs and benefits, but also as a process of meaning making, where individuals ascribe different meanings to a certain institutional arrangement.

This way to apprehend institutions and institutionalisation processes has developed from Berger and Luckman (1966), who viewed processes of institutionalisation as a social process by which individuals come to accept a shared understanding of social reality, where the production of meaning, mediated through language provides the basis for institutionalisation. Similar assertions are made by Mosse (1997) who argues that:

> … *an institutional analysis of indigenous resource systems is unlikely to be useful unless it has first correctly characterised the social relations and categories of meaning and value in a particular resource system* (ibid. p. 472).

Viewed from such a perspective, struggles over natural resources are seen not just as struggles for influence but simultaneously as a struggle over meaning, where the use and control of resources may have both material and symbolic means for renegotiating one's social position within broader networks (c.f. Peters, 1984 and 1987 and Agrawal and Gibson, 1999). As far as concerns this approach, emergence of local management arrangements and institutionalising processes is not primarily explained by rational calculations of individuals, but rather through struggles over power and language. Viewed from this perspective, new institutional forms emerge as individuals interact and come to accept a sufficiently shared understanding of how to handle natural resource management. Consequently much of the

focus in relation to understand processes of emergence is placed on the interpretation of different meanings people ascribe to local management.

Jessop (2001) argues that institutions cannot be meaningfully analysed without locating actors, identities and interests in a broader strategic relational context. Institutions should be analysed, according to Jessop (ibid), as complex emergent phenomena, whose reproduction is incomplete and which co-evolves with a range of other emergent phenomena. Institutions have both micro and macro contexts (ibid) and the seeds for institutional change can emanate from both endogenous and exogenous forces (Scott, 2001). It is therefore important to recognise the broader context to which wider belief systems and policy processes are connected and/or adapted to by individual actors and organisations (and vice versa). It may also be important to recognise that people sometimes are members of multiple institutions and organisations and that people's opportunity to access and change institutional arrangements is influenced by their position in a wide variety of social networks (c.f. Berry, 1993). The notion of such networks can help to reveal critical aspects of the emergence of institutional arrangements for natural resource managment (Mehta et al. 1999).

Institutions and institutionalisation processes require legitimacy (Scott, 2001) and legislation is often seen as the final legitimation of an institution. However, legitimacy is not a commodity to be possessed or exchanged like material resources. It is according to Scott (ibid) rather to be seen as a resource that has symbolic meaning to be displayed in a manner such that it becomes visible for outsiders. In the end, whose meaning that counts as legitimate is a matter of power (ibid). Berger and Luckman (1966) describe legitimacy as evoking a second order of meaning. In the early stages institutionalised activities develop repeated patterns of meanings among participants. The legitimacy of this order involves connecting it to wider cultural frames, norms and rules:

> *Legitimation "explains" the institutional order by ascribing cognitive validity to its objectified meanings. Legitimation justifies the institutional order by giving a normative dignity to its practical imperatives* (ibid. p.93).

3.2.2 The concept of discourse

I have found the concept of discourse useful for the analysis of emergence of natural resource management arrangements, since it enables the study to

explore the constructions of particular meanings and practices involved in institutionalisation processes of local management. A commonly used definition is provided by Dryzek (1997, p. 10), who defines discourse as a *"shared way of apprehending the world"* (or a certain section of the world). Another definition is forwarded by Hajer (1995, p.44) who defines discourse as a *"specific ensemble of ideas, concepts, and categorisations that is produced, reproduced, and transformed in a particular set of practices and through which meaning is given to physical and social realities"*. A discourse approach for analysing processes of institutional emergence implies that language and other practices are seen as central for the construction and the understanding of reality.

Hajer (ibid) uses discourse as an analytical tool to explore the politics of ecological modernisation through a study of the acid rain controversies in Great Britain and the Netherlands. He develops an argumentative discursive approach, where politics is conceived as a struggle for gaining hegemony in which actors try to secure support for defining reality (p. 59). As the existence of environmental degradation is commonly accepted, the conflict has become 'discursive'; it is not about a predefined unequivocal problem with competing actors pro and con, but it is rather a continuous struggle over the definition and meaning of the environmental problem itself. A discursive struggle can in this sense be defined as a struggle that aims to influence people to think in certain terms, to get them to interpret the world according to a particular view of reality.

In such struggles for discursive hegemony, discourse coalitions are formed among actors that for various reasons are attracted to a specific way of defining reality. Discourse coalitions differ from traditional coalitions and alliances, in their emphasis on the linguistic basis of the coalition (p. 65). It is not primarily the interests that form the basis of the coalition according to Hajer. Discourse coalitions are formed when previously independent practices are actively related to one another and when a common discourse is created in which several practices aquire a meaning in a common political project.

A discourse can both be enabling and constraining. Foucault (c.f. Foucault 1980) often used the concept in the latter sense, pointing out that individuals are trapped in their own discourses and thereby unable to distance themselves from them. Hajer (1995) and Dryzek (1997) use discourse more as an enabling concept. Particularly Hajer (1995) examines how actors and organisations, in spite of constraining discourses, are able to influence and

transform a certain discourse. Underlying Hajer's approach is the view that discourse plays a crucial role in the social construction of reality and that individuals can use discourses to produce outcomes that may be beneficial to them. In this sense, discourse production can be viewed as a strategic resource for e.g. community groups who wish to change institutional arrangements to suit their purpose.

Discourses can also become entrenched in institutions, or as Dryzek puts it:

> *Beyond affecting institutions, discourses can become embodied in institutions. When this happens, discourses constitute the informal understanding that provides the connections for social interaction; on a par with formal institutional rules […] discourses can constitute institutional software while formal rules constitute institutional hardware* (Dryzek, 1997 p. 19).

From this perspective there is a close link between discourses and institutions. By using discourse as an analytical concept I intend to specifically look in detail at those practices and meanings that are constructed in the negotiation of local management. This is assumed to be important for the understandings of the emergence of institutional arrangements for local management.

Discourses are often produced in a dialectic relationship with dominating discourses. Processes of institutionalisation are complex since there are multiple discourses that compete for institutionalisation. As Fairclough and Wodak state:

> *Discourses are not produced without a context and cannot be understood without taking context into consideration… Discourses are always connected to other discourses that were produced earlier, as well as those which are produced synchronically and subsequently* (Fairclough and Wodak, 1997 p. 277).

Discourses are thus related to the specific context in which they are produced and analytically it is possible to examine a discourse by paying attention to i) basic entities whose existence is recognised or constructed ii) assumptions about natural relationships iii) agents and their motives iv) key metaphors and other rhetorical devices that characterise a certain discourse (Dryzek, 1997).

The dominance of a certain discourse can according to Hajer (1995) be determined by examining i) the degree to which actors refer to certain concepts and their categories in order to be credible and ii) the degree to which a given discourse has been incorporated into institutional arrangements. It is often recognised that a challenging discourse needs concepts that are broad enough so it avoids threatening the dominant discourse. A challenging discourse needs expressions and concepts for it to be linked to and incorporated into the dominant discourse (ibid). However, the examination of a certain discourse is not simply done by an analysis of meanings captured in statements and acts by various actors. The analysis of a discourse is also critically dependent on the institutional context (Hajer, 1995).

3.2.3 Discourse, identity and institutions

Discourses do not merely describe things; they do things as they produce objects of knowledge, identities and relationships between people (Fairclough and Wodak, 1997). Foucault (1980) emphasises that the formation of identities can be understood as taking place within a web of power relations, which enables or constrains ways of thinking, speaking and acting and which attributes particular identities as meaningful to actors. Foucault saw processes of identification as parts of power struggles over meaning and knowledge (ibid).

Viewed from such a perspective, identities are never fixed but continuously contested and reconstituted (Mörkenstam, 1999). This has consequences for the generation of collective identities in relation to institutionalisation processes. Actors construct collective identities through the interaction and negotiation of different meanings of reality that may result in the formation of new identities, new institutions and ways of apprehending the world. In this view identity construction can be linked to institutionalisation processes and vice versa, where actors struggle to ascribe different meanings to e.g. how and why local management of natural resources should be institutionalised.

The development of local institutions for resource management can also be seen as processes of discursive power struggles over place, where individuals attribute place meanings to a particular territory in convergence with and/or in divergence with other discourses related to natural resource management. Some theorists have linked the claim to belong to a particular territory to

the dynamics of power relations and identity construction to place (c.f. Massey and Jess, 1995), where the identification with a specific place can be central in the struggle for developing natural resource management arrangements (c.f. Wondoleck and Yaffe, 2000). Identity construction and institutionalisation processes over natural resources may have particular characteristics since people to a greater degree relate place perceptions to these institutions. Management arrangements that are perceived as "local" in nature are more likely to elicit identification with a place (ibid).

3.2.4 Conceptualising local management

Various classifications of natural resource management arrangements can be found in the literature on natural resource management. Four different kinds of management and property arrangements are often distinguished:

1. Public property: access for the public is held in trust by the state or the Crown.
2. Private property: tradable rights are owned by an individual, household or company.
3. Common property or "commons": use rights are attached to a specific user group either in the form of land ownership or through customary rights.
4. Open access (*res nulians*): no user rights are attached to a specific group, which may result in a "free ride for all".

(Adapted from Bromley, 1991 and Steins and Edwards, 1999b)

However in practice, natural resources are rarely managed solely by any of these categories (c.f. Nemarundwe, 2003) and a focus on these forms of property arrangements may draw away the attention from other kinds of management arrangements. In this thesis I have chosen to use the term local management, since it is the closest translation of the Swedish *lokal förvaltning*, which is the term used by my informants. The English word, management can be translated to the Swedish *förvaltning*, which in Swedish means both practical day-to-day management and administration of something for someone else (c.f. Rådelius, 2002 for a Swedish definition on *förvaltning*). Management can thus both be viewed as a process by which people make decisions and exercise power, and as the practical operationalisation of decisions.

The term local management in relation to natural resource management first appeared officially in the Swedish national Budget Bill in 2000 (proposition, 1999/2000:100). Here it was proposed that the government should initiate pilot projects in local management of nature reserves. The term has later appeared in a number of public investigations and policy documents. Depending on the context, the first element of "local" in local management can mean a municipality or a community or a mixture. Within the Swedish context, local management in relation to natural resources has become a term, which relates to ideas of a co-management approach between the state and community groups and ideas that propagate local self-management (Sandström and Tivell, 2005).

One way to further conceptualise local management is by contrasting it to other kinds of management arrangements in relation to different degrees of local participation and influence, as in figure 2. The figure builds on a model which was originally developed by Sherry Arnstein (1967), an American sociologist, who viewed the different stages of participation as an evolutionary process, "a ladder", with an assumed end-goal of citizen control, with full managerial power. Arnstein developed "her ladder" when studying citizen participation in federal social programmes in the U.S. Later the model has been adapted and amended to address the field of natural resource management. The figure is an adapted version from Sandström and Tivell (2005), which has also been inspired by work of Pinkerton (1994), Berkes (1994) and Borrini-Feyerbardh (1996).

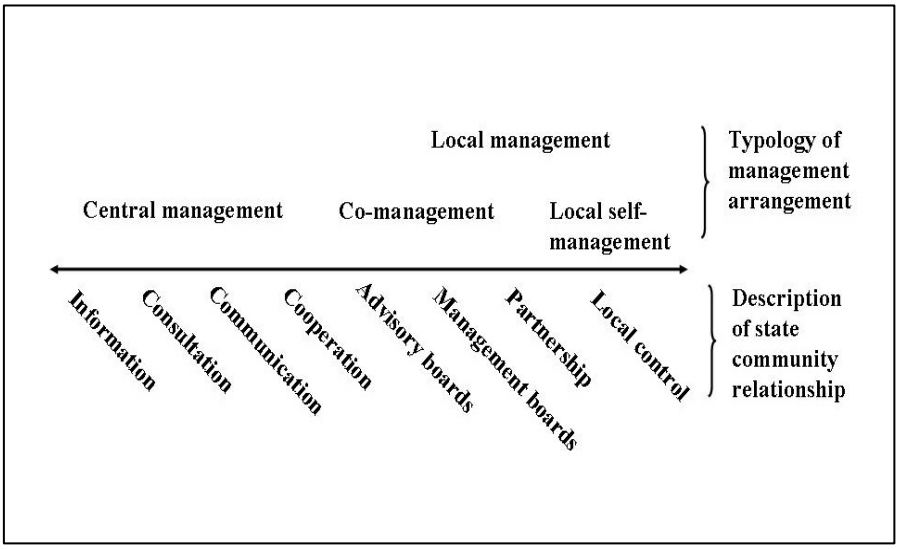


Figure 2. Typology of different management arrangements.

1. Information. The agency in charge is telling people what is going to happen without mobilising support from the community or offering the opportunity to comment. The community is informed about decisions already made, one way communication between the agency and the community.
2. Consultation. Community members are encouraged to offer ideas that can be used in the management if appropriate. Communities are often involved late in the decision making process and inputs from the community are heard but not necessarily heeded.
3. Communication. The community members' ideas begin to enter management plans over the area. Joint management may take place, without joint jurisdiction over the resource.
4. Cooperation. Local knowledge is acknowledged and community members are involved at lower levels, but still limited by the management agency's agenda.
5. Advisory boards and committees. Partnership concerning decisions is initiated and common management activities are carried out. Community members have however an advisory role, where the decisions made by the committee is non-binding.

6. Management boards. Local community members and actors participate in the making of management plans and play an active role in the implementation of management activities.
7. Partnership. Joint decision making, which is institutionalised and recognized formally. Management control and powers are delegated to community members where it is suitable.
8. Local control (community control). The local community is in full control and makes decisions regarding resource allocation, use and management. Agency involvement is available but at the discretion of the community group.

This management typology does not capture the complexity of rules, functions and different layers of decision making involved in natural resource management. Actors and agencies, from local institutions to central institutions influence the character of and the way natural resource management is carried out. These actors perform various tasks and roles and they make different decisions with regard to natural resource management. Kiser and Ostrom (1982) and Ostrom (1990) differentiate between three levels of management: i) the operative level, where rules for daily activities are addressed ii) a collective level where decisions concerning more strategic matters are decided upon and iii) the constitutive level where decisions on the overarching framework of rules are made. Rules for the operative level are generally easier to change and decide upon than rules related to the collective and constitutive levels (ibid). Moreover, the complexity may increase further due to overlapping tenure- and management systems within the same spatial (geographical) area. Development of institutional arrangements for local management is thus not limited to the local context. On the contrary it highlights the interplay between institutional arrangements, forces and policies that are present at different organisational and decision making levels. Local management arrangements are thus nested in institutions at higher levels and affected by a range of policies and rules (Ostrom, 1990).

The above reasoning on the state-community management dynamic is not a straightforward shift from state towards local community management and control. Cooperation and shift in management roles are part of a process that evolves over time (especially if it requires changes in constitutive rules) and where the "optimal" outcome is not necessarily either co-management or local autonomy and control. Hence the double arrow in the figure represents processes that may require balancing between different

management roles, levels and tasks. This places the process of state-community interaction at the fore, where the developments of shared understandings about what the different management arrangements may contain and contribute with become important for the analysis. In this "messy" middle ground between state and community, institutional arrangements may be highly contested and beset by ambiguity and openness to divergent interpretations. Paying attention to the "messy" middle ground enables the study to further explore the various meanings that different individuals give to local management and the practices in which such struggles are embedded. Such an approach makes it possible to elucidate how various political and legal struggles intertwine and how networks and social relations develop over time. In them political and cultural symbols of power and authority are often brought into play (c.f. Lund, 2001).

3.2.5 New versus old governance - conflicting discourses on management of natural resources

The literature on natural resource management has much in common with the literature on "new governance", which proposes an alternative approach to traditional theories of public administration. Similarly to Ostrom (1990), Carlsson and Berkes (2005) argue that resource management arrangements are embedded in wider institutional contexts and that systems of different management arrangements might be understood as systems of governance as well.

The new governance often refers to; i) a set of institutions and actors that are drawn from but also go beyond government; (ii) identifies the blurring of boundaries and responsibilities for tackling social and economic issues; (iii) identifies the power dependence involved in the relationships between institutions involved in collective action; (iv) is about autonomous self-governing networks of actors; and (v) recognizes the capacity to get things done which does not rest on the power of government to command or use its authority (Stoker, 1998, p.18).

Newman (2001) argues that new governance is characterized by (i) network-based collaboration and coordination in a complex society; (ii) self-government; (iii) public involvement; and (iv) democratic innovation. The term new governance indirectly implies that something is wrong with the traditional approach of bureaucratic administration and practices. The traditional style of governance has by some authors been described as "old

governance" (c.f. Peters, 2000) and has generally been described as centralistic with top-down dimensions and refers to the government's ability to exercise control through bureaucratic administration, while new governance advocates the expanding sphere of democratic decision and control in the sphere of political authority and bureaucratic administration.

In relation to management of natural resources the "old" and "new" governance approach conforms in many respects to the environmental discourses found in the writings of Dryzek (1997), Dobson (1998) and Agrawal and Gibson (1999). The "old" governance approach to nature conservation is similar to the environmental discourse of administrative rationality, described by Dryzek (1997)[6] and the old conservationism described by Dobson (1998) and Agrawal and Gibson (1999). Administrative rationality is a discourse coined by Dryzek that refers to the habit of leaving protection of the environment to experts within local and national agencies (ibid). Agrawal and Gibson[7] argue that the "old governance" approach in nature resource conservation contains images of pristine and balanced nature (Agrawal and Gibson, 1999) as well as the view that effective conservation should be carried out primarily by the state. National parks and other protected areas can according to Agrawal and Gibson (ibid) be seen as one of the implications of these types of thinking.

Proponents challenging the old governance of natural resource discourse conform to the environmental discourse that Dryzek labels democratic pragmatism and economic rationality. What characterises the discourse of democratic pragmatism is the democratisation of environmental administration through, e.g. public consultation, public dialogue and alternative dispute resolution. Dryzek argues that the main cause for democratisation of environmental governance is a felt need to secure legitimacy for decisions by involving a broader public.

The core value underscoring the environmental discourse of economic rationality is an assumption or logic of governance, which is fundamentally different to those of both administrative rationality and democratic pragmatism. What characterises this discourse is the emphasis of market

[6] Besides discourses on administrative rationality, democratic pragmatism and economic rationality, Dryzek identifies and distinguishes between six other different environmental discourses: i) survivalism ii) the promethean discourse iii) ecological modernisation iv) sustainable development v) green romanticism and vi) green rationalism.

[7] Agrawal and Gibson use the word paradigm instead of discourse.

mechanisms for efficient allocation and as the engine for sustainable economic growth. This view favours private property arrangements for efficient and sustainable natural resource governance. However, where private property is hard to establish, e.g. water and air, the market can be regulated by internalising environmental and social costs into market prices (Dryzek, 1997 and Borgström Hansson, 2003). As regards natural resource management this discourse emerges in examples where management is contracted out to private interests. In this discourse, the view of natural resource management is also strongly linked with supplying the market with raw materials (Dryzek, 1997).

3.2.6 The development of research questions for empirical analysis

Following earlier discussions on the concepts of institutions, institutionalization, discourse and local management, I try to capture the idea that the early stages of institutionalisation processes are about constructing shared understandings of what local management is and that the construction of such understandings are conditioned by historical events, current developments, pre-existing institutional frameworks and the social interaction between people involved in developing local management arrangements. This approach sees institutions as outcomes of negotiations among individuals that involve debates over meaning (Peters, 1987).

The attributes of the emergence of institutional arrangements for natural resource management that are of particular interest to explore are the activities, networks and meanings that appear in the struggles for getting local management accepted. This reasoning leads to the development of the following empirical research questions in relation to the overall research objective of understanding the emergence of local management arrangements as a negotiated and contextually embedded process.

- What networks and activities have been central in the processes?
- What kinds of institutional forms of local management emerge and how are they related to the particular contextual preconditions in the studied locality?
- What meanings, arguments and motives are drawn on for legitimising the emergence of local management arrangements?

By using two case studies I intend to explore arguments and motives in a relationship between particular events and the circumstances and social

structures in which they are embedded. In the theoretical and methodological approach that draws on discourse analysis it is essential to look in detail at the specific practices and meanings through which common understandings of local management are generated.

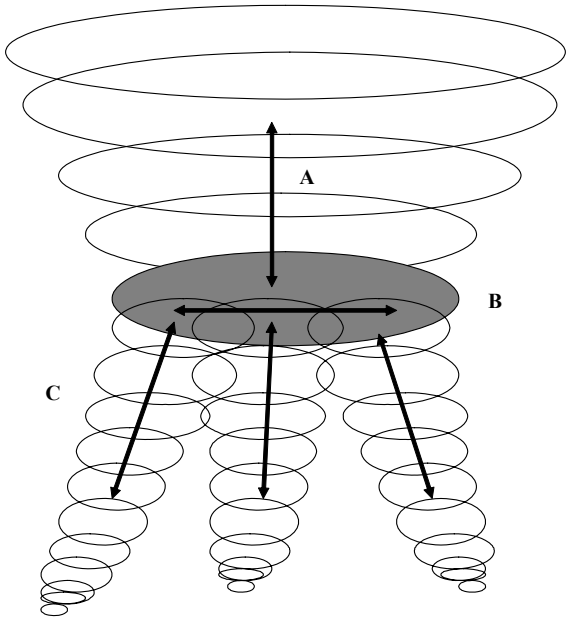
4 The Research Process and Research Design

4.1 An abductive and oscillating research process

The logic of discovery for my research process can be characterized as abductive, where deeper understandings of a social phenomenon are developed through an alternation between empirical observations and theoretical explanations. This approach is both similar to and different from research processes that derive from induction and deduction. In its most simple form, induction emanates from empirical observations and distils a common rule out of a sufficient collection of observations, while deduction starts from a common rule and claims that the specific rule explains the particular observation (Alvesson and Sköldberg, 1994, p. 41-42). Abduction also emanates from empirical observations, but does not reject theoretical pre-perceptions of an observation and is on this instance more closely related to deduction (ibid). While deduction is about reasoning from a hypothesis, abduction is rather about reasoning towards a hypothesis, where a hypothesis is adopted through probation (Pierce in Waldenström, 2001, p. 20). Abduction may in this way be understood as a process of proposing how empirical observations can be understood through a process of oscillation between empirical observations and theoretical explanations, which may give birth to new hypotheses, new theories and renewed empirical observations (Waldenström, 2001, p. 20-21). During the research process the empirical and theoretical fields are developed in the light of each other, where the theoretical understanding is developed and adjusted successively over time.

In this regard, the research process can be seen as a threefold exercise in alternation between different perspectives. Firstly, an alternation between different theoretical perspectives and concepts. Secondly an alternation between theory and empirical observations. Thirdly, an alternation between the part and the whole. The alternation between the part and the whole was important since the study takes an interest in understanding institutional processes from a rather broad perspective. The spiral (Figure 3 below) illustrates these three inter-linkages, where the horizontal arrow B, represents the alternation between different theoretical perspectives. The vertical arrow, arrow A, represents the alternation between theory and empirical observations and arrow C represents the alternation between the part and the whole. The shadowed area (Figure 3) represents the area where all these linkages inter-connect, and where the depth, the richness and complexity inherent in studying institutionalisation processes is amalgamated. In this on-going learning process one both tries to learn from the different parts of information gathered as well as to develop an understanding of broader and wider contexts.

Figure 3. An oscillating and iterative research process.



Throughout the research process I have consequently alternated between exploring different theoretical perspectives and returning to the field for further empirical observations, while at the same time making attempts towards combining a broad understanding of the process and a deep understanding of its parts. I started my research by developing a theoretical framework inspired by common pool resource theory. During the course of conducting my empirical studies and through the abductively informed approach I came across empirical phenomena, which spurred me to re-interpret and adjust earlier pre-conceived theoretical perspectives on how management arrangements for common pool resources emerge. The iterative research process also led me to readjust my research questions several times and generated new proposals on how the empirical observations could be explained.

The study has been carried out as a qualitative analysis. Interviews with key informants and participation in meetings and workshops arranged by various members of the Coastal Ring organisation, the Ammarnäs council and CAB officials from Västerbotten and Norrbotten constituted the major empirical base of the thesis, aiming to capture different meanings and practices related to the emergence of local management arrangements. I followed the processes during a four year period and I revisited the area several times so that I could gradually build up my understanding of the contexts. Much of the information was obtained through discussions with different informants involved in natural resource management. Apart from individual interviews, I have on several occasions been invited to take part in CAB and community group meetings (see further section 4.5 and Table 1).

Part of the information obtained for this thesis was also collected in conjunction with a project in local management of natural resources conducted for the CAB of Västerbotten. The project was setup as a joint project between CAB of Västerbotten and the Department of Rural Development and Agroecology (now the Department of Urban and Rural Development) at the Swedish University of Agricultural Sciences (SLU). The aims of the project were twofold. One was to present a study that provides an overview of contemporary research of local management issues in relation to rural development[8]. The other objective was to facilitate a learning process between personnel at the CAB and active rural community

[8] Sandström, E and Tivell, A. 2005. *Lokal naturresursförvaltning i Västerbottens län – en studie om förutsättningar och möjliga former.* Working paper No. 7. Institutionen för landsbygds-utveckling och agroekologi, SLU och länsstyrelsen i Västerbotten.

members involved in the project. One of the communities involved was Ammarnäs and this was how I first became acquainted with the Ammarnäs case. The project was financed through EU funds and through my own research funds. Both the facilitation part of the project and the study were carried out together with a colleague, who at the time of the project worked as a university extension worker at SLU. The project commenced in March 2003 and ended in March 2004.

I participated in the planning of the project, conducted interviews and participated in arranging a number of seminars about local management. On a number of occasions we assembled representatives from different rural community groups that are working towards developing decentralised forms of natural resource management arrangements in the County of Västerbotten. The purpose of these meetings was to create a space for reflections on issues that relate to local natural resource management issues. Some of these meetings were also arranged in conjunction with international visits from Tanzania and from Scotland, where representatives of forest officials from the Babati District in Tanzania and activists from the Reforesting Scotland organisation shared their experiences on institutionalisation processes of local natural resource management. A study tour to Scotland was also arranged in May 2004, where representatives from the Ammarnäs council and from a similar local management initiative, the Gratian initiative, participated alongside officials from the reindeer herding and the nature conservation unit at CAB. The purpose of the visit was to study the conditions for community forestry in Scotland, while at the same time facilitating dialogue and reflections between the different actors.

This project can be characterized as an interactive process, where we established a forum for discussion, which did not belong to either the world of the practitioners or the world of traditional research. The process went beyond a learning process for myself, and included an activity of collaborative learning where different actors reflected on each other's experiences in the field of natural resource management. The project provided me with valuable background information about the kinds of negotiations in relation to the development of local management arrangements. Taking part in the project also gave me valuable contacts for further interviews and research inquiries, particularly for the Ammarnäs case.

4.2 Case study approach

As outlined earlier I use case studies as a strategy for exploring my research objectives. A case study is according to Yin (1994, p.13):

> *an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between the phenomenon and context are not clearly evident.*

According to Yin (1994 pp. 6-9 and 73) a case study approach is especially suitable when asking exploratory questions (e.g. why and how questions). This is because such questions deal with operational links needing to be traced over time over which the investigator has little or no control (ibid).

A case study approach provides the opportunity to use many different sources for evidence, such as interviews, direct observation, participant observation, archival records, documentation and artefacts etc. Multiple sources allow the research to address a broad range of historical, attitudinal and behavioural issues. It also allows for triangulation of data where sources of evidence can be reviewed and analysed together, so that the findings from the case study can be based on the convergence of information from different sources (Yin, 1994). The value and the validity claims depend on all these interactions, where the researcher's validity claims are obtained in a dialogue with other validity claims (Flyvberg, 2001 p. 81).

The case study approach has been criticised for providing a weak basis for scientific generalization and that they are time consuming and may result in massive, incomprehensible documentation (Flyvberg, 2001 and Yin, 1994). However the selection of cases for the thesis has not been the result of a statistical choice, nor has the purpose been to achieve statistical generalizations. The purpose is rather to attain theoretical contributions, where observations are interpreted with the help and inspiration of theories from various fields.

4.3 Why focus on two contexts?

Dealing with two different contexts is dealing with sameness and difference at the same time, e.g. the two cases that are examined are different in terms of context, but they are similar to each other through the determination of developing institutional arrangements of local management for their

respective community groups and they are located adjacent to nature reserves. Contrasting two different contexts has thus the potential to facilitate understanding about what is specific and what is more of a common character. Studying two different contexts makes it possible to distinguish various features of the emergence of local management arrangements while at the same time providin insights into how these cases are interconnected to broader policy and societal processes.

Yin (1994) argues that cross scale analysis forces the researcher to go beyond initial impressions, which may lead to re-interpretations that would otherwise not have been noticed. The alternation between different contexts helped me to reveal and understand patterns of meanings and practices related to the emergence of local management arrangements that would had been hard to identify without an alternative example that provided a contrast. The comparison between the two cases also made me more sensitive to variation and to alternative interpretations related to the emergence of local natural resource management arrangements. Studying similar processes under different circumstances also contributed to creating a rich picture that enabled a triangulation of different aspects of the institutionalisation processes.

4.4 Selection of case studies

The case studies have been selected with the view of understanding the emergence of local management arrangements in two diverse natural and socio-cultural environments. The cases of the Coastal Ring and Ammarnäs have not been selected randomly out of a representative sample of cases. The numbers of cases that work explicitly towards developing institutions for local natural resource management in Sweden are few. In addition to the two case studies examined in this thesis, there are according to my knowledge four other community groups in Sweden that are explicitly working towards developing decentralised management arrangements of state owned natural resources[9].

[9] These are the Gratian community in the county of Västerbotten, the Laponia case in the county of Norrbotten, Drevdagen in the County of Dalarna and the Skurugata case in the County of Kronoberg. Besides these examples the Sami community as a whole is demanding increased autonomy over the reindeer grazing area (Sapmi) in Sweden.

The cases of the Coastal Ring and Ammarnäs were selected on the basis of the expectation of their information content. They were chosen due to their potential to contribute with contextual understandings to the emergence of institutional arrangements of local natural resource management. They portray e.g. differences in terms of history, ethnicity, population structure and dependency on the surrounding natural resources, while being similar on a number of other factors, e.g. both cases are located in northern Sweden and their institutional ambitions deal with struggles about nature reserve management.

Their institutional ambitions were also in similar emerging phases. As pointed out in the introductory chapter, many of the previous studies that have emphasised institutionalisation processes in natural resource management have been based on ex-post studies, focusing on resource management arrangements that have existed over an extended period of time. Here was a chance to follow two processes of institutional emergence in a contemporary phase. The cases of Ammarnäs and the Coastal Ring were also highlighted for being in the forefront in developing local management arrangements and in the focus of legal, political and administrative decisions and ambitions. Their institutional ambitions had provoked a lot of discussions not just within their villages, but with external actors and authorities as well, thereby disclosing a range of different positions as regards motives and arguments etc for local management, which made them all the more interesting to study.

4.5 Methods

In order to explore the emergence of institutional arrangements of local natural resource management I have used a variety of methods, ranging from participant observation and interviews to studying archival records and secondary sources of information. The studies have been carried out in a similar manner in the two cases, with some exception for the Ammarnäs case study, where information has also been collected in conjunction with the earlier referred to study for the CAB of Västerbotten. The data collection from Ammarnäs extended over a research period of four years (spring 2002 - autumn 2005) and the data collection period for the Coastal Ring embraced a three and a half year research period (autumn 2003 -spring 2006).

4.5.1 Interviews

I have met and interviewed different actors involved in rural- and natural resource management and policymaking in order to examine my research questions. These include community members, local government officials at the CABs, officials from the local municipalities, members of different interest societies and representatives from different central state agencies (e.g. the SEPA and the Ministry of the Environment). The research questions were thus addressed by informants at national, county, municipality and village levels.

A purposive sampling strategy was used for identifying informants for the interviews. I mainly interviewed representatives from the Ammarnäs council, the Coastal Ring organisation and nature conservation officials at the CABs of Västerbotten and Norrbotten. I assumed that they had most experience and knowledge about the process. In addition interviews with villagers who were not directly active in the village organisations were conducted in order to broaden the perspectives and views that might not have been captured earlier. For the purpose of tracing these persons a "snowballing" technique was used, which meant that respondents were asked to recommend persons whom they thought I should continue to interview and whom they thought would contribute with valuable information for the study. I listened to these opinions with regard to whom I should meet, but I finally made an independent decision on this, when I looked for people who might have contrasting perspectives and views and who had in depth knowledge of the area.

An interview guide based on my research objective and research questions was developed (see appendix). The informants were asked questions about their respective views on motives, opportunities and constraints for developing local management arrangements etc. The informants were also asked to reconstruct different processes of collective action over past struggles over management rights etc. In total 34 interviews were carried out, 9 in the Coastal Ring (4 women and 5 men), 13 in Ammarnäs (5 women and 8 men) and 12 interviews with officials at county and national levels (4 women and 8 men).

The interviews with rural community members were often done at the home of the respondent, while the interviews with officials from the CAB of Västerbotten and Norrbotten, the SEPA and the Ministry of the Environment were carried out mainly at their respective work places. The

interviews lasted between one to three hours and the majority of the interviews were recorded and later transcribed. The interviews were carried out in an open ended way i.e. the respondents were asked to give their story based on fairly open questions that were followed up by more detailed questions to clarify and elaborate. On some occasions the interviews resulted in invitations to village and CAB meetings as well as more informal activities.

4.5.2 Participant observation in meetings, seminars and workshops

An important part of the research process was to attend seminars, workshops and meetings arranged by the Ammarnäs council, the Coastal Ring organisation and different state agencies (see table 1). for an overview of the number of meetings and conferences that were attended). This was mainly done through participant observation at local, regional and national meetings. I have also been invited to take part in meetings with different political parties, who have taken an interest in developing policies concerning the natural resource management and rural development issues. On two occasions I participated in national conferences arranged by the Ministry of the Environment, where issues of local management were addressed. Another event that contributed with information to the thesis was a conference on local management issues held in the Swedish Parliament in May 2005, arranged by the Swedish Popular Movement's Council of Rural Development (*Folkrörelserådet*) in collaboration with the Economic Association of Municipalities in the Inland (*Inlandskommunernas ekonomiska förening*). In these meetings, representatives from the Coastal Ring organisation and the Ammarnäs council were invited to talk and present their views on their work on developing local management arrangements.

Attending these meetings, seminars and conferences contributed an important source of information, since these meetings provided an overview of different positions taken by the Ammarnäs council, the Coastal Ring organisation, different state agencies and interest groups. Understanding different positions helped me to "reveal" discourses with reference to local management as well as some of the ongoing power dynamics within and between communities and different state authorities (particularly between the CAB and the community organisation the Ammarnäs council and the Coastal Ring). The proceedings of these meetings, seminars and workshops were either recorded on tape or as field notes. Attending these meetings also gave valuable information on what kind of information was disclosed to the

public in relation to what was said in village meetings and in individual interviews and informal consultations.

4.5.3 Informal consultation and participant observation

Informal consultation and taking part in the daily community life proved to be a valuable source of information for the study. Informal consultations proved to be a useful complement to the more formal meetings and interviews. Opportunities for informal discussions and consultations presented themselves on various occasions. On a number of occasions I was invited to stay over for dinner at the homes of the informants and on these occasions I often had an opportunity to further discuss issues with family members. This gave further opportunities to triangulate information collected by other means. Other important occasions for more informal discussions and consultations were traveling to and from meetings with CAB officials and villagers. These occasions provided an opportunity for me and my informants to reflect on the meeting and to further discuss different issues.

Informants involved in processes towards developing local management arrangements of natural resources have also contacted me to discuss these matters. On a number of occasions, county officials and villagers approached me to comment on and listen to their particular problems and stories. These forms of consultations usually happened over the phone and on some occasion by e-mail. My role in these situations can be described as a concerned listener in conversations where I contributed to the informants' opportunities to explore issues that concerned them by listening and giving occasional feed back.

Just visiting the area and helping out with various practical issues and taking part in the daily community life provided me with valuable information for building up a general understanding of the context. Considerable time was dedicated to participant observation, with the purpose of providing a deeper and broader understanding of the context. The results of the participant observation were recorded as field notes. I have also participated in various social gatherings in the villages, whenever I have had an opportunity.

During one of my visits to Ammarnäs/Vindelfjällen, I stayed there as a tourist for a week, when I hiked over the mountains. Through this "exercise" I got to know the surroundings and I familiarised myself with

characteristics of the nature reserve. During the trip I had conversations with other tourists, cabin managers and with the owner of a boat taxi business that operates on one of the lakes close to Ammarnäs. A similar exercise was carried out in the Coastal Ring area, although this time, the means of transportation was by snowmobile. I joined two villagers on their expedition in the archipelago to visit the nature reserve, where they conducted a site survey where the Coastal Ring organisation plans to construct a cottage. During the expedition I got to know the atmosphere of the archipelago in the winter and at the same time I learnt more about the context.

Table 1. *Table summarising number of interviews, informal consultations, participant observations in meetings and conferences/workshops*.

	Interviews		Informal consultations		Participant observation in meetings	Participant observation in seminars and workshops
	Female	Male	Female	Male		
Informants from Ammarnäs	5	8	4	5	4	1
Informants from the Coastal Ring org.	4	5	3	2	4	2
Informants from the CAB Västerbotten	3	4	1	2	2	1
Informants from the CAB Norrbotten	1	2	0	2	1	0
CAB and Ammarnäs council	Not applicable	n.a.	n.a.	n.a.	4	1
CAB and Coastal Ring	n.a.	n.a.	n.a.	n.a.	2	1
Informants from the SEPA and the Ministry of the Environment		2	3	6	1	5
Total	**13**	**21**	**11**	**17**	**18**	**11**

4.5.4 Case histories

People were also asked to tell their story about the history of natural resource management. These narratives about management history were constructed through interviews with representatives from the Coastal Ring organisation and the Ammarnäs council, but also from elderly people who were knowledgeable about the area and who could recall histories related to natural resource access and management from the past. Narratives are assumed to be important for understanding the emergence of local natural resource management, since narratives constitute oral expressions of local discourses that seek to legitimise present claims in terms of past recognition of access to natural resources (c.f. Peters, 1984 and Fortman, 1995). Narratives about the history of natural resource management represent an important source of information, since they symbolize important expressions of the on-going negotiations on management rights to natural resources (Fortman, 1995). The reconstructions of history thus provided valuable information for an increased understanding of the background conditions for the present efforts to develop local management arrangements.

4.5.5 Archival and secondary sources of data

In order to broaden the understanding of management issues, secondary sources of data and information have been collected and reviewed from various sources and organisations, such as County Administrations, municipality project documents, national archives, newspapers etc. Reviewing documentation from these types of organizations and sources has been important since many of these sources of information influence what taking place on the ground. Archival records and secondary sources of data have been used in conjunction with all the other information gathered. By doing this, I have been able to create a rich picture and triangulate various sources of evidence and thereby corroborate the evidence found. If the information found through secondary data sources contradicts other sources of information, then there has been a reason for further inquiries.

4.6 Research ethics and writing

When I conducted the interviews I regarded it as important to discuss and clarify my own role, particularly when conducting my initial field work in Ammarnäs. I saw a potential risk that actors involved in local management processes could recognise me as a counsellor for the CAB, due to my

previous involvement in the earlier referred to project in local management. I carefully explained that I was conducting research for a PhD project and that the information provided was not aimed at providing the CAB with information. My impression was the informants understood this distinction and that these clarifications were important for some of the informants to open up for discussions that also touched upon sensitive issues in relation to their struggles towards local management.

Members of the Ammarnäs council and the Coastal Ring organisation have had opportunities to comment on the empirical chapters. Their comments have been an important input and have filled the function of validating, and on some occasions also providing additional information for the thesis. The names used in the text are fictive. Although some of my informants insisted that I could use their real names I have used fictive names for everyone in order to protect their integrity. I have maintained the possibility to distinguish between male and female names, but otherwise the naming is arbitrary.

III

PART III
Case Studies

This third part of the thesis presents the empirical observations. Part III consists of two chapters, the Coastal Ring case (chapter 5) and the Ammarnäs case (chapter 6). Each chapter is divided into two sections.

The first section in each case study draws a background picture of the historical, socio-economic, associational and ecological setting. The background presentation is largely descriptive and draws on a number of sources, both secondary sources and sources collected from the field.

Section two serves to provide empirical understandings of processes related to emergence of local management arrangements of natural resources by investigating the processes that unfold when local management is negotiated. It explores the empirical questions that were developed in chapter 3.

- What networks and activities have been central in the processes?
- What kinds of institutional forms of local management emerge and how are they related to the particular contextual preconditions in the studied locality?
- What meanings, arguments and motives are drawn on for legitimising the emergence of local management arrangements?

Kalix, The Coastal Ring, October 2003

Gustav and I are travelling around among the coastal villages south of Kalix. Gustav tells me about the history of the community and all the activities taking place on the old village commons. During the car trip Gustav suddenly stops the car and points towards a group of trees a short distance from the road. Gustav tells me that many years ago he and his wife discovered a number of rare and beautiful orchids among them. Gustav tells me how he returns to the place each year to see if the orchids are still there and that he usually clears away vegetation and spruce branches so that they will flourish. His voice is low, almost a whisper when he tells me the story. Gustav puts his finger to his lips and says that the authorities has not yet discovered the place. It is obvious that Gustav does not want me to reveal this place to anyone, least of all the CAB. I ask tentatively and curiously why. The answer I get is "then the CAB will come and take over the area and declare it to be part of Natura 2000", something he absolutely does not want to happen. I ask him if this is because he is afraid that it being named as part of Natura 2000 will mean they cannot fell trees in the area. "No, no, that isn't what it is about, there's no one who either wants to or will fell trees here" Gustav answers firmly. No more explanations than this is given and both Gustav and I become lost in our thoughts while the car trip continues to a meeting arranged by the Coastal Ring organisation which is to deal with how people in the village can be mobilised to take back responsibility for the natural resources in the area.

5 The Case of the Coastal Ring

5.1 Introducing the context

At the north-western top of the Gulf of Bothnia, a constellation of people from three coastal villages, Ryssbält, Storön and Ytterbyn/Nyborg, work together with the aim to develop local management arrangements for the natural resources in the archipelago outside the mouth of the Kalix river. The villages are located about 100 km south-west of the Swedish border to Finland, 100 km north of the county capital city of Luleå and about 30 km south of the township of Kalix (see Map 1 and 2). Administratively the villages belong to the municipality of Kalix and the CAB of Norrbotten. The three villages have about 1600 inhabitants, with Ytterbyn/Nyborg around 1200 inhabitants, Storön 100 and Ryssbält 270 people (Kustringen, 2002b). Most of the inhabitants in the three villages commute to the township of Kalix for work and a few earn their living in the villages.

The land and water resources that surround the three villages are privately owned or owned and/or managed by commercial, public and non-governmental organizations. Roughly 90% of the land areas in the three villages are privately owned out of which 5% is managed as village commons. The remaining 10% is owned by commercial forest companies, the National Board of Properties, the Kalix municipality and the Swedish church. About 5% of the private land area has been appointed by the CAB as protected areas, either in the form of nature reserves and/or as Natura 2000 areas. Approximately 50% of the adjacent water resources are held as village water commons (*byavatten*) and about 10% is privately owned. The remaining water resource is owned by the Swedish state and is managed by

the National Board of Fisheries and the CAB (Gunnar and Astrid, personal communication).

The village commons are jointly managed by so called *byalag*[10]. Each village has a *byalag*, which comprises landowners that are entitled to a share in the village commons through her/his possession of a farm unit (*hemman*). In total the three *byalag* of Ryssbält, Storön and Ytterbyn comprise about 250 shareholders (ibid). In Swedish village commons have several names (*byamarker, byallmänningar, bysamfälligheter, byavatten etc*), and there are laws regulating the village commons (*samfällighetslagen*), but these laws are based on the principle of contract, which means that the legislation is applied only if the parties are not able to agree. The share of the village commons and the size of the share are determined according to an old system of how big the farm unit is in terms of its capacity to sustain of life to a family (*mantal*). A large farm unit is generally entitled to a greater share in the village commons. Historically, the *byalag* stipulated its own village bylaws as to what should be done on the village commons and they were also responsible for many other tasks in the village, such as care of the elderly, road works and so on[11].

5.1.1 Ecological characteristics

The archipelago outside the Kalix River has unique ecological conditions compared to areas on the same latitude. This is mainly due to the brackish water and the gradual rising of the land. Historically, the three coastal villages were located on separate islands, but during the course of this process the villages have successively become connected to the mainland. As late as the 19th century, water separated the villages and it was possible to go by boat between them. The relatively fast, ongoing, rising of the land leaves distinct traces in the landscape, manifested in a patchy landscape with shallow inlets, which provide good breeding grounds for fish. The bedrock consists of igneous rocks that provide good conditions for the flora. The area is endowed with many endangered species, particularly orchids and it is

[10] During recent decades the term *byalag* has re-emerged as a name for local development groups that are not based on ownership of a farm unit (c.f. Herlitz, 2000).

[11] The village commons are numerous in rural Sweden. However, little is known about their number, organisation, present function and the total area that they own and manage jointly. The lack of information about them may seem strange but it is partly due to that their not being registered as a separate cadastral unit. Hence the village commons are not visible in the land records and their area and number cannot at present be captured in official statistics.

considered as an important sanctuary for birds and seals. Several of the islands in the archipelago have been classified as either nature reserves and/or as *Natura 2000* areas. The whole of the Kalix River has also been declared as a nationally important area to preserve (*riksintresse*). Several of the land areas on the adjacent mainland have also been declared as *Natura 2000* areas.

During the winter the archipelago is covered with ice, which starts to break up in May. The ice conditions have created special local climatic conditions with later arrival of the spring (2-3 weeks). On the other hand the winter season arrives 2-3 weeks later compared to other places in Sweden on the same latitude. Summers in the area are bright, since the villages are situated close to the Arctic Circle. In the winter on the contrary, the sun only appears a few hours a day.

5.1.2 Changes in livelihoods and economy

The three villages share a similar history of seal hunting, fishing and agriculture as their original source of income. Eklund (1994) has described the people who lived along the coast of the Gulf of Bothnia as fishing farmers, who earned their livelihoods by a combination of fishing, hunting and farming, but during the course of the industrial modernization the villages became more specialized. Salmon has historically been important for many of the fishing farmers around Kalix and the Kalix River is still considered as one of the most important salmon rivers in Sweden. The smallest of the villages, Storön, is strongly connected to the fishing industry, while the modern history of natural resource management in Ryssbält and Ytterbyn/Nyborg is associated with activities connected to the forest industry.

During the first half of the 20th century the Kalix River was used as an important passage for log-floating, and the river mouth of the Kalix river became an important collecting centre for timber before further transportation with boats to pulp and saw-mill industries along the Swedish coast. The collecting and gathering of timber in the river mouth employed men from the villages, but also professional log-floaters from other parts of the country. During the era of log-floating Ytterbyn's *byalag* leased out some of its village waters to commercial logging companies for storage of timber. At the beginning of the 20th century two sawmills were established in Ytterbyn which also led to an in-migration from nearby villages. In

connection with the sawmill establishment, the village grew considerably and the settlement of Nyborg was constructed adjacent to Ytterbyn (Ekholm, 1985).

During the second half of the 20th century activities shifted towards trade, industry and employment in the public sector (service sector). The agricultural and forestry sectors went through rationalizations and many farms closed down (Kustringen, 2002b). In 2004 there was only one part-time farmer left. Today only a few people have permanent occupation in Ytterbyn/Nyborg. They work either with care of the elderly, the school, and the day-care centre for children or in one of the family business companies. Among these are a small grocery store, a petrol station, two car mechanics, two plumbing companies, a firm of haulage contractors and a store that is specialized in boat-sales. Most of the inhabitants commute to the township of Kalix to work and about 200 people work in the pulp industry situated in Karlsborg, 35 km north of Ytterbyn/Nyborg (ibid). During the 1970s and the 80s Ytterbyn/Nyborg continued to expand and a new residential district was constructed. The "village" of Ytterbyn/Nyborg can be regarded as a semi-urban settlement or as a rural suburb to the township of Kalix. The children attend school in Ytterbyn/Nyborg up to grade six.

Ryssbält and Storön on the other hand have the characteristics of "rural villages", although they are also located relatively close to Kalix (35km). Many of the inhabitants in Storön and Ryssbält earn their livelihoods by combining e.g. fishing and forestry with jobs in the township of Kalix. Despite the hardships of getting full-time employment in the villages, the population has been intact in Storön and a positive in-migration has been recorded in Ryssbält during the last few years. Ryssbält has recently opened up a cooperative day-care centre for children and a former farming household has developed a horse riding centre.

While many of the male villagers in Ryssbält and Ytterbyn/Nyborg have strong connections to sawmill and logging industries, those in Storön have strong ties to the fishing industry. In the 1950s Storön had three boat construction companies and a number of family businesses manufactured products for the fishing industry, e.g. fish barrels, fish boxes and fish baskets. Before the 1950s, the traditional way of fishing was shore fishing and several households, particularly from Storön and Ryssbält but also from Ytterbyn, had small fishing cabins on the islands in the outer archipelago, where they stayed during concentrated periods of fishing, mainly during the summer.

The fish were stored in so called ice-huts, before transportation to and processing on the mainland. During these periods, families were often divided. Generally men were out fishing, while women took care of the household and the farm. Several islands were at the time also used as summer grazing areas for sheep, goats and cows (Kustringen, 2002b).

During the second half of the 20th century, the fishing industry changed from shore towards trawl fishing. In this process many of the fishing cabins were successively turned into summerhouses. The fishing however continued to be quite lucrative for many of the villagers and the Kalix bleak roe, caught and processed in Storön, became famous for its quality. In the late 1960s and during the 1970s several of the islands were turned into nature reserves and some of them are now in the focus of the attempts and efforts to develop local management arrangements (ibid).

During the 1970s the production of fermented Baltic herring was moved to Storön and several people returned "home" to work in the fishing industry. During the 1990s the catch of whitefish was successively reduced and nowadays, local fishermen no longer catch the greater part of the fish that is processed in Storön. Instead, mainly salmon, is imported from Norway and processed by two family companies in Storön (*BD fisk and Guldfisken)* before transportation and sale on national and international markets. In 2004, only four professional fishermen were able to make a living from fishing, where bleak-roe fishing has continued to be an important source of income. In total the fishing industry in Storön employs around 20 people (2004) and during the high season in October, the bleak-roe industry also employs youth and seasonal workers from other countries.

5.1.3 Associational life

Although fishing and forestry have decreased in economic importance, the archipelago and the forests continue to play an important role for the people in the three villages. For many of the villagers, fishing and to some extent forestry still contribute to the household economy. The area has also become increasingly important for the villagers' recreational activities. In the summer many families move to summerhouses on the islands along the coast and major leisure activities are fishing and sailing. During the autumn, winter and spring people engage in hunting, snowmobile driving, ice

fishing, skiing and ice-skating. Sports, particularly bandy[12] and snowmobile racing are important for many of the boys, while many of the girls are involved in horse riding.

Within the three villages there are a number of active associations, such as sport and snowmobile organisations, the church, a homestead organisation and harbour associations. In addition to the management activities on the village commons Storön and Ryssbält *byalag* also organise a number of community activities, such as community festivals and game hunting. In addition to the *byalag* of Ytterbyn, Nyborg/Ytterbyn also has a local development group, *Nyborgs framtid* (the future of Nyborg), that works with community issues and arranges a number of community activities such as home comer days, ballad and poetry concerts etc. *Nyborgs framtid* also acts as a consultative body for the political work of the municipality.

5.1.4 Land redistributions and the persistence of the village commons

The three villages have undergone various land redistributions over time. The first documented land redistribution was the Great Distribution of Land Holdings (*storskiftet*), which was carried out on two occasions (in Ryssbält 1793 and 1819; Storön 1794 and 1824; Ytterbyn 1782-1786 and 1792) (http://www.lantmateriet.se, November 2005). The purpose of the *storskifte* was to consolidate narrow strips of farming land into larger units. Another basic principle was that the common areas of the outfields, the village commons, were to be dissolved and to be added to the individual farms (Magnusson, 2000). The reason for having two land redistributions with such a brief interval was that the first reform was considered poor in terms of creating large effective cultivation units (Westerberg, 1986). Furthermore the first reform did not include the village commons. During the second reform in Storön (1824), the *byalag* of Storön protested against the decision to distribute the village commons. In a letter from Storöns *byalag* (24 July 1824) to the land authority, they stated that they wanted to keep the village commons intact and consolidate only private agricultural land in order to achieve a more equal distribution of the land (Westerberg, 1986). Their request was granted, since the *storskift*e was supposed to be carried out on a voluntary basis.

[12] Bandy is a winter sport, where a ball is hit with a stick. It is an ancestor of ice hockey. The game is played outdoors on a sheet of ice, and has rules that are similar to soccer.

It took more than fifty years until the land authority through the third land redistribution reform (*laga skifte*) distributed some of the village commons. This reform was carried out between 1893-1895 in Storön, 1884-1889 in Ryssbält and 1848-1875 in Ytterbyn (http://www.lantmateriet.se, November 2005 and Westerberg, 1986). The reform did not, however, comprise all the village commons. Some of them were saved and kept, such as land for village schools and coastal strips for pasture and harbour purposes (Westerberg, 1986). In 1984, about one hundred years later, the Swedish state, through the Regional Board of Agriculture[13], made a new attempt at redistributing the land in order to create efficient cultivation units in the villages. However it was opposed by several landowners. The outcome was that only a small proportion of the private lands were consolidated. Furthermore, due to the gradual rising of the land several of the village commons along the coast have increased over time.

The fishing rights to the lakes and the coastal waters were not included in the redistributions, which meant that many fishing waters that surround the villages, so called village waters (*byavatten*), are managed as water commons by the *byalag* of each village. The rights to fish in the coastal waters have continued to be linked to the ownership of land according to a law of 1766 (c.f. Eklund, 1994). A similar tenure situation exists on the coasts of Finland, which was part of Sweden when the law was introduced (ibid).[14]

To a large extent access and rules concerning the right to fish in village waters are still determined by the respective *byalag*, where each *byalag* has developed its own procedures for fishing regulation and allocation. The right to fish on the water commons is attained through fishing rights auction, lottery, and tender or through individual agreements. In general, the fishing rights are distributed according to an intricate rotation scheme based on fish species, fish availability and how big the farm unit is. In Storön's *byalag,* access and control over the fishing resource is organised by sub-groups (based on the number of the farm unit). The groups decide among themselves how they should distribute the fishing resource. Each group distributes the right to fish each year either through lotteries, auctions

[13] In 1991 the Regional Boards of Agriculture were abolished and their functions were integrated to CABs.

[14] On the Swedish west coast on the other hand, access to fishing along the coastal waters has for a long time been considered as open access. The law from 1776 was only partially implemented in this area, due to strong Danish and Norwegian influence and due to the lack of arable land, particularly along the coast of Bohuslän (Piriz, 2004).

or through individual agreements. The fishing places rotate so that no group will have the same place two years in a row and the rotation period is dependent on the size of the farm unit. In Ryssbält, the fishing auction has on some occasions been open to people without a farm unit and who reside in the area. Revenues from the fishing rights sales are generally distributed back to the members of the *byalag*, and the revenue sharing is determined by how big the farm unit is. In Ryssbält *byalag* some of the revenues have also been invested in the cooperative day-care centre (Astrid and Erik, personal communication).

5.2 Development of local management in the Coastal Ring

This section describes how the process of developing local management unfolded in the Coastal Ring area. It describes different motives, arguments, networks and activities related to the development of local natural resources management and the emerging institutional forms of local management. The section also explores the meanings ascribed to local management.

5.2.1 The formation of ideas and networks for local management

The ideas about local management of the nature reserves surrounding the villages came up in 1998. It came in the wake of the county administration's proposal that the nature reserves surrounding the river mouth of the Kalix River should be included in the European environmental protection network, Natura 2000. The news concerning the *Natura 2000* protection establishment came to the attention of Ytterbyn's *byalag* through the local newspaper and the reactions were strong:

> *We [Ytterbyn's byalag] read in the local newspaper that they had set aside a large part of our area around the Kalix River as Natura 2000…And then you become so angry, well…I do not dare to spell out the words that we used, but I can say that we did not just clench our fists in our pockets, but also started to write letters to the CAB that we wanted to have a say and be able to influence things. We do not want the bigwigs in Brussels to write a framework of rules on how we should steward and care for the nature! Do you think we received any response? No, no response! After half a year they set aside another area in the archipelago outside the Kalix River mouth. We wrote again, with a copy to SEPA. Do you think we received any response? NO!* (Gunnar, May 2005)

As understood by this quote, members of Ytterbyns *byalag* perceived that they were not being able to influence how the surrounding natural resources should be taken care of. Their views and knowledge were not taken into consideration when the CAB decided to establish a *Natura 2000* area. Out of this frustration, ideas about alternative management arrangements started to materialize. The ideas originated of Ytterbyn's *byalag*, where the chairperson, Gunnar, had been working with community forestry issues in India, for Sida and the Food and Agricultural Organisation of the UN (FAO).

In order to raise awareness and mobilise people in the three villages for alternative management arrangements, some members from Ytterbyn's *byalag* arranged a public meeting in 1998. They invited the leadership of Kalix municipality, representatives from the CAB, the then chairman (Bo Dockered) of the Swedish Popular Movement's Council of Rural Development[15] and the *byalag* of Ryssbält and Storön. The meeting was attended by about 120 persons and became a starting point for broader village participation and village mobilization towards local management. The meeting was followed by several other community activities in the area. A study circle, aiming to increase the knowledge concerning local natural resource management issues, was initiated by Gunnar. Through Gunnar's international contacts, guest lecturers were invited to share their experiences on similar development initiatives around the world. Gunnar's contacts with personnel from the Sida and FAO sponsored Forest, Trees and People Network based at the Swedish University of Agricultural Sciences (SLU) led to their invitation to the villages to hold seminars. An important event was a lecture on community based forest management by a researcher from India, Dr. Pratima Jattan, who highlighted the role of women's movement for accessing natural resources in India. This lecture inspired several women in the three villages to become involved in the activities towards local management. "*If the women in India can win over the authorities and get local management – we can also do it here in Kalix together with our men"* as one informant expressed herself when recalling her feelings after Pratina Jattan's lecture (Karin, interview March 2005). The interest in participating in the

[15] The Swedish Popular Movement's Council of Rural Development is an interest association that aims to stimulate and support local development, enhance cooperation between local action groups, act as a spokesperson for village groups and influence public opinion and policy-makers. In 2007 the Council had 41 member organisations, most of them big national NGOs and the Council has over the years listed 4300 village development groups all over Sweden. (http://www.bygde.net, April 2007)

study circle grew from 5-7 persons to around 25-30 persons, including both landowners and other local residents from the three villages.

The study circle arranged meetings every fortnight, where official policy and legal documents about nature conservation and resource management were studied. The objective was to find legal and policy spaces for alternative management solutions for the adjacent natural resources. In the national Budget Bill from 1999/2000, the preparatory work for the national fishing and marine policy (SOU 2003/04:51 and SOU 2003:72) and in the Environmental Act (chapter 7 §21), the villagers found formulations that suited their purpose. As previously quoted, the national Budget Bill from 1999/2000 states that:

> … *the social and aesthetic dimension of nature conservation needs to be developed as well as recreational life, eco-tourism and possibilities for local management. The cabinet hence considers there should be given opportunities for pilot cases in local management of protected areas.* (Budget Bill, 1999/2000 p.100)

In the fishing policy, the government recommended testing of local collaborative management initiatives and from the Environmental Act, the government opened up for delegation of the administration of protected areas. These findings encouraged the villagers to further develop ideas for developing some kind of local natural resource management arrangement.

Local and historical maps over the area were studied in detail in order to identify areas of interest for establishing local management arrangements. At an early stage the study circle members decided to focus on the nature reserve of Likskär. The reason was that it was considered as an area free from natural resource management conflicts and a place to which villagers from Storön and Ryssbält have strong historical ties. Once upon a time the islands of Likskär and Renskär had been used as important assembly places by fishermen and seal hunters. The nature reserve comprises the islets of Renskär, Likskär, Bredskär and about twenty other small islets, located about 10 km south-east of Storön (see Photograph 2 and Map 3). The area was turned into a nature reserve in 1969. The land is owned by the National Property Board and managed by the CAB in Luleå.

Photograph 1. *Aerial view of the old fishing camp at Renskär.*

Photo: Thomas Öberg

In the official management plan of the reserve it is stated that the purpose of the reserve is to protect an archipelago area with *"considerable geological, botanical and zoological value, particularly for the abundant bird life"* (Länsstyrelsen Norrbottens län, 1969). Likskärs nature reserve was also one of the areas that were included as a *Natura 2000* area in 1998. The reason was that the nature reserve covers five nature elements[16] and a species (*Primula nutans*) that is included in the Bird and Habitat directive of the EU (Länsstyrelsen Norrbottens län, 2007).

Members of the study circle also participated in a rural conference in Östersund and one member travelled to Scotland to participate in a conference on community forestry. Members of the study circle also arranged public meetings in their respective villages in order to discuss and mobilise support for the ideas of local management over Likskärs nature

[16] The five nature elements are i) lagoons ii) large shallow bays and sounds iii) perennial vegetation on rocks and gravel banks iv) sand beaches with perennial vegetation in the Baltic Sea v) forests on coasts with rising land (Länsstyrelsen Norrbottens län, 2007).

reserve. The interest grew and resulted in statements from the respective *byalag*, where they proclaimed their interest to establish an umbrella organisation between the villages and to work towards the creation of local management arrangements of the publicly managed natural resources that surround the three villages.

5.2.2 The charter of the Coastal Ring organisation

In 2002, cooperation between the three villages was formalized into the Coastal Ring organisation. In the charter of the Coastal Ring it is stated that the Coastal Ring shall be a non-profit organisation and that members shall reside in or have local connection to the area (Kustringen, 2003). Membership of the organisation is granted through payment of a small fee (100 SEK) or through voluntary work in the organisation. The executive board of the organisation consists of five to seven board members. The *byalag* of Ryssbält, Ytterbyn and Storön appoint one representative each and the remaining board members are elected by the annual assembly. In the charter it is stated that the Coastal Ring organisation:

> … *shall support the members' cultural and scientific interests by working with local management of existing nature reserves surrounding the villages and by developing local system-solutions that contribute to improvements in local livelihoods* (ibid).

The overriding aim of the association is to work with activities that contribute to a sustainable development and use of the natural resources of the villages (agricultural land, forest land and fishing waters). It is further stated that the aim of the organization is to *"contribute towards making nature and cultural traditions full of life through dissemination of knowledge and information"* (ibid). The number of people actively engaged in the work of the Coastal Ring varies from 20-50 persons comprised of both landowners and people without any title deeds. They are men and women with a diversity of occupations and backgrounds e.g. teachers, nurses, carpenters, biologists and foresters. Some are newcomers and others have lived in the area their whole life. Beyond these there is a rather large group of people (100-200) that show up at specific events that the Coastal Ring arranges.

5.2.3 Development of plans and documents

One of the first tasks the members of the Coastal Ring organisation embarked upon was to develop a local Agenda 21[17] plan for the three villages and a local management plan for Likskärs nature reserve (Kustringen, 2002a and 2002b). The Agenda 21 plan is based on the four systems principles of the Swedish Natural Step foundation[18] (*Naturliga steget*) and can be perceived as a document that points out a development vision for the villages of Storön, Nyborg and Ryssbält that is supposed to facilitate the villagers' work towards sustainability (Kustringen, 2002a). The Agenda 21 plan contains 23 different types of commitments that the members of the Coastal Ring organisation agree to strive towards, e.g. to promote local food production and processing, encourage recirculation of waste material locally, promote renewable energy production, guard and protect valuable biological havens for fish and game and pasture habitats etc.

On the basis of the Agenda 21 plan, the Coastal Ring organised four working groups for: i) game management, ii) land management, iii) fishing management and iv) a group who works with social and cultural issues. Each group has developed management plans for their respective areas and some have also carried out concrete activities in accordance with the plans. The group responsible for land management has, for example, in collaboration with the municipality of Kalix and the Forestry Board carried out extensive brush clearing and the game management group has made game management contributions for particularly the elk.

As part of the Agenda 21 work, members of the Coastal Ring organisation were involved in lengthy discussions with the municipality about the

[17] Agenda 21 is a programme of action related to sustainable development that was agreed on at the United Nations Conference on Environment and Development, Earth Summit, held in Rio de Janeiro in 1992. It is a comprehensive blueprint of action to be taken globally, nationally and locally by organisations in every area in which humans' impact on the environment. The number 21 refers to the 21st century. The implementation of Agenda 21 is intended to involve action at international, national, regional and local levels. Some national governments have legislated or advised that local authorities and communities are to take steps to implement the plan locally. Such programmes are often known as local Agenda 21 plans.

[18] These principles, also known as "systems conditions" that must be met in order to have a sustainable society, are as follows: i) concentration of substances extracted from the earth's crust is not subject to systematic increase ii) concentration of substances produced by society is not subject to systematic increase iii) degradation by physical means is not subject to systematica increase iv) people are not subject to conditions that systematic undermine their capacity to meet their demands (http://www.naturalstep.org/, October 2006).

replacement of the oil heating system of the public school with one based on wood chips as well as about a project aiming towards perch cultivation (Kustringen, undated). The members of the Coastal Ring organisation have far reaching plans to use wastewater from the households as fertiliser in the surrounding forests, and locally produce wood chips to heat the school building and the day-care centre for the elderly in the village of Ytterbyn/Nyborg. According to estimates this would create permanent employment for at least one person. After lengthy discussions, the municipality decided to invest in a pellet heating system, with the consequence that the raw material for the heating system had to be imported from industries outside Kalix municipality.

While the Agenda 21 plan can be conceived as an overarching document that provides a vision for the villages, the local management plan can be seen as a strategic document for the Coastal Ring organisation, where ideas about local management are concretised. The local management plan for Likskärs nature reserve was developed by the board of the Coastal Ring and re-circulated to Ryssbälts, Storöns and Ytterbyns *byalag* for inputs. The document contains both descriptions of their respective villages and the surroundings, but also statements on what the organization intends to achieve.

The local management plan states that:

> *The overall aim for establishing local management is to give all villagers an increased opportunity to influence management practices and rules about the natural resources in the archipelago* (Kustringen, 2002b p. 6).

The Coastal Ring organisation wants to stipulate "their own" local rules over the natural resources adjacent to the villages, which are recognised by the existing national legislation. Through the creation of a local management arrangement for the surrounding nature reserves, they hope to attract more tourists, and create permanent employment for at least three people and summer employment for school pupils (ibid).

The local management plan developed by the Coastal Ring organisation differs in many ways from the official management plan for the nature reserve. Whereas the official management plan from 1969 describes and stresses biological and geological values, the local management plan underscores cultural and historical aspects of nature reserve management.

5.2.4 Negotiating local management

A struggle for knowledge and legitimacy

In 2002, representatives from the Coastal Ring and the CAB in Luleå met for the first time in Luleå. This meeting became a starting point for a long period of negotiations. Focal themes in these negotiations are issues related to competence, legitimacy and public versus private interests. In an interview for the Swedish environmental magazine (*Miljömagasinet*), Lennart from the nature conservation unit of the CAB and who was responsible for the negotiations with the Coastal Ring recalled:

> *The engagement of the villagers started when we at the CAB recommended that the nature reserve of Likskär should be included in EU's network Natura 2000. The process for us was like jumping on a train at full speed. We missed totally to anchor our ideas with the villagers. […] We perceived it as if the villagers said; 'Now we want to take over the reserve'. […] Since the nature reserve is something that lies in the public interest we became worried. We thought that their claim first and foremost concerned protecting their own specific interests, without taking responsibility for the whole picture.*
>
> (Accessed at http://www.bygde.net, 2004)

As understood from the above quote, Lennart claimed that the *Natura 2000* establishment was rushed on the part of the CAB and that the CAB missed discussing and conferring on the *Natura 2000* issue with the villages. The quote also points towards the CAB's hesitancy about the villagers' intentions, capacity and legitimacy to manage the nature reserve for the common interest. The issues related to public interest and legitimacy were developed further in an interview with Lennart:

> *As a manager you represent the public and there is an issue of conflict in terms of legitimacy if you at the same time want to be a local developer. If we take the Coastal Ring as an example, how do I know that they represent the whole village, or just a part of the village? […] You have to be very careful and have confidence in the people that you give a commission to and make sure they think in the same way as yourself. Do they achieve the things that we want them to achieve in order to improve the management of the reserve? What kind of legitimacy do they have in their village and how concerned are they to serve the interest of the public? […]Is it possible to trust this village in terms of their competence?* (Lennart, September 2003)

The reasoning about public versus private interests was quite common during my interviews and discussions with CAB officials. They showed doubts concerning the villagers' competence, legitimacy and trustworthiness to steward the nature reserve for the common good that the nature reserve is supposed to represent. From the quote, the discursive struggle about local management also becomes salient. Officials from the CAB want to make certain and have assurances that the members of the Coastal Ring think in the same way as the CAB.

In order to ensure that the Coastal Ring had the correct competence to steward the nature reserve in a responsible way, CAB officials requested to see the CVs (*Curriculum Vitae*) of the board members of the Coastal Ring. This offended several of the members of the Coastal Ring and they decided not to submit their CVs, with the motivation that first and foremost the CAB had to specify what kind of competence is required of a nature reserve manager. The members of the Coastal Ring also found it hard to put into words the specific knowledge about nature that is required for accomplishing a responsible natural resource management. Christina, a nurse by profession and chairperson of the Coastal Ring organisation and was responsible for the negotiations with the CAB, describes some aspects that relate to the struggle for legitimacy and knowledge:

> *During the meetings we perceived that the officials questioned our competence. Finally one villager raised his voice and asked directly. What competence do we lack? […] And to our surprise they said that we lack the juridical competence. This was however right, but for us this is not a big problem. It is possible to buy these types of services and we can probably also find a villager with the necessary juridical competence. If we should compare our CVs with theirs, we would probably have more formal competence than the CAB. In our community we have all kinds of competence, practical and theoretical and we are even blessed with a person that has worked with these types of issues for the United Nations in India […] but this is not the most important thing. It is rather about having good knowledge about the place and that we want to take responsibility!* (Christina, March 2005)

The process of developing local management may be seen as a struggle about competence, where members of the Coastal Ring stress the importance of taking and having responsibility and about knowing the place well, while CAB officials stress formal competence. The issue concerning

CVs can also be interpreted as that the CAB has a need for written documentation, to legitimate their devolving management responsibility to the Coastal Ring organisation for the management of the nature reserve.

Another concern that was articulated by CAB officials was that the Coastal Ring did not have sufficient organisational stability to take over such a responsibility as managing the nature reserve. This concern enraged the members of the Coastal Ring:

> *We live here, we will not move away and how can they dare say something like that – when they themselves change personnel all the time. During our negotiations with the CAB, they have changed personnel on a number of occasions and it takes so much of our spare time to explain everything over and over again. I get so tired every time whenever I hear this argument about stability.* (Gunnar, May 2005)

Changing practices in CAB's planning

The CAB started to revise the official nature conservation plan of 1969 for Likskärs nature reserve shortly after members of the Coastal Ring had presented their first draft for a local management plan for it in 2002. The normal procedure when revising nature conservation plans is for the CAB to hire or sendout its own biological expertise to conduct ecological field surveys. These are used as a basis for making management decisions. This time, however, the CAB changed its procedures and invited the Coastal Ring to comment on the proposal for a nature conservation plan of the area. During the development of the plan, the CAB also invited the organisation to take part in the field visits to Likskärs nature reserve, indicating a shift in the conventional way of handling field surveys.

In 2003, while negotiations were ongoing between the CAB and the Coastal Ring, the CAB announced that it intended to setaside additional areas for *Natura 2000* protection. This time the *Natura 2000* protection concerned areas on the mainland, located on private lands including village commons in Storön. The *Natura 2000* proposal came to the landowners' attention through a letter from the CAB, where a map was disclosed with orange markings that pointed out areas on both private and common lands

that contained signal species[19] worthy of *Natura 2000* protection. Astrid, a teacher, board member of the Coastal Ring organisation and village alderwoman of Storön's *byalag*, recalls the incident:

> *Our time for commenting was nine days and I called the CAB and said it was impossible to assemble the landowners for a meeting. I said that you have to prolong the period for comments and come out here to discuss things - but it didn't work. However, later they called me up and said that the period for comments was prolonged by two weeks and they also showed up at our meeting. At the end of the meeting we were reasonably in agreement, that this you can mark on your map, but this and this is not worthy of protection etc. I mainly reacted because most of the designated lands were located on our village commons. We have many orchids and some of them are worthy of protection. None of us wants to destroy them! We also think this is good, so we gave our approval. […] No economic compensation, everything was given away on a voluntary basis. We are forbidden to fell timber and to fertilise [the forest]. Maybe we can cut down some individual trees for firewood.* (Astrid, March 2005)

The above quote shows that the CAB and the landowners were able to reach an agreement. One possible explanation is that the proposed *Natura 2000* areas are located on private and common lands, and that the CAB according to the law has to consult the landowners to a much larger extent compared to *Natura 2000* areas located on public land (Natutvårdsverket, 2003b). The inclusion of additional areas for *Natura 2000* protection first created strong negative feelings, particularly in Storön, but when villagers felt that the CAB listened to some of their claims and made adjustments, attitudes towards the CAB changed somewhat. The meeting acted as a trust-building process where the landowners were given a space to suggest solutions that the CAB took into consideration. Landowners and the CAB also agreed on safeguarding endangered species. After the meeting, members of the Coastal Ring felt that the negotiations with the CAB concerning Likskärs nature reserve became smoother.

In January 2003, the negotiations resulted in an informal mandate for the Coastal Ring organisation to manage Likskärs nature reserve. However the mandate later proved to be a proposal for a management agreement, where

[19] A signal species is a term often used by nature conservation biologists as an indicator to distinguish areas that are key biotopes. The presence of one or several signal species is often a sign that the area is a key biotope that may contain high biological values, worthy of protection.

the Coastal Ring organisation was regarded as a subcontractor to the CAB to carry out certain practical management activities, such as taking care of garbage disposal from tourists and making certain that the wood supply for the sauna and the picnic area in the nature reserve was sufficient.

One year later, in January 2004, a formal management agreement was signed between the CAB and the Coastal Ring organisation (Länsstyrelsen Norrbottens län, 2004). The management agreement stipulates the types of activities the Coastal Ring organisation commit themselves to, such as setting up information boards and the running of day-to-day maintenance of the reserve. For these undertakings, the Coastal Ring organisation receives 25,000 SEK per year (ibid). In the agreement it is further stated that the management board should meet at least once a year, when CAB officials are supposed to check whether the management activities have been carried out in accordance with the agreement (ibid). The executive board of the Coastal Ring organisation is not fully satisfied with the management agreement and would have preferred to proceed further in the devolution of management rights over the area:

> *We have a management agreement, but we want to go further! We want to come closer to the core! We do not want to be that little youngster that plays around in the "outer net" of the CAB. We want to participate and influence how plans are built up, not just have views when the plan is already made. We want to participate in describing the area; to plan, to execute, to monitor and to evaluate…We want to have a real commission to manage the area!* (Gunnar, May 2005)

The quote shows that the Coastal Ring organisation strives towards an institutional arrangement, where it is assigned to take part in the planning, implementation and in the assessment of the area. According to the agreement the management power is still vested in the CAB in Luleå, and the CAB did not want to go further than to setup a consultative management board, comprised of representatives from the Coastal Ring and the CAB.

The present management agreement between the CAB and the Coastal Ring is regarded by the members of the Coastal Ring as a first step towards a "real" local management arrangement, where the management control and powers are formally delegated to the Coastal Ring. This may give the Coastal Ring legitimacy to develop other local management arrangements with other actors. The organisation has aspirations to include other land and

water areas that are owned by large forest companies and the church. The long-term goal is to develop local management agreements, together with some of the forest companies and with the church, which are large landowners in the area:

> *So far, we have not been in contact with either the church or the forest companies. First we must receive management recognition, first and foremost for ourselves…We need to build up experience and self-confidence…You see the relationship with the church and the private logging company is emotionally strained. […] They see us as intruders and we need to build up an image that we are serious…They need to see that we are serious… and that's why a management agreement with the CAB is so important!* (Gunnar, September 2004)

Local management of the nature reserve is conceived as a first step to enhancing people's experiences and self-confidence. Local management of the nature reserve is expressed as important for gaining recognition and legitimacy so that the Coastal Ring organisation can receive other management responsibilities in the future.

Legal ambiguities and constraints

Generally, the informants at the CAB expressed a positive attitude to the initiatives and the commitments made by the Coastal Ring organisation. There was, however, a great deal of ambiguity when it came to the legal aspects of devolving management power to the local level. In this regard, CAB officials mentioned the Public Procurement Act and the interpretation made by SEPA in relation to article 7 §21 in the Environmental Act (SFS, 1998). Article 7 §21 in the Environmental Act states that:

> *The County Administration Board or the Municipality can decide that another authority, legal person or land owner, that has the possibility to take up such a responsibility, shall administrate a nature reserve […] A County Administration or Municipality can recall such a decree.*

In SEPA's guideline on this matter (Naturvårdsverket, 2003b, p. 92), it advices that a new manager should finance at least 50% of the management activities if devolution of management authority is to be carried through and not interfere with the Public Procurement Act (SFS 2007:1091 *Lagen om offentlig upphandling*). The government agency responsible for giving advice on public procurement, the National Board for Public Procurement

(*Nämnden för offentlig upphandling*), makes another interpretation of the Public Procurement Act. It states that the law does not at all hold back any authority from implementing article 7 §21 in the Environmental Act (Sandström and Tivell, 2005). The process of developing new institutions for natural resource management is embedded in legal ambiguities and contradictions, where officials from different national authorities make different interpretations of what it is possible to do under the present legislation.

The legal framework thus opens up for diverging interpretations and makes it difficult to reach a shared understanding of each other's perspectives and conditions. This is illustrated in the following quote by Lennart:

> *It feels as if you can never be clear enough because we live in two different worlds. You think that both sides know. These long telephone calls with Christina [chairperson of the Coastal Ring organisation] have been a way to bridge these uncertainties. Just to talk with each other. What are the conditions that reign in the world of authorities and what do they want? What pertains within the Swedish legislation? What can a CAB do and what is not attainable? What can be transferred and what cannot? Generally in the country there is a lot of ambiguity concerning this […] Then we have the question concerning the right to make decisions and that is an important issue…and it is difficult to say how far you can go there…and that is an issue that you as a management authority cannot let go.* (Lennart, October 2004)

During the negotiations it was also promised that the Coastal Ring organisation should receive funding for replacing dilapidated sleeping accommodation in the reserve with a small log cabin. The Coastal Ring organisation came up with drawings for a building and they had many ideas about how it could be used for different exhibition purposes. At the last moment the CAB withdrew its financial support:

> *The CAB suddenly said to us that they did not have any money for building the log cabin and then we came up with the proposal that we can build the cabin and we can find sponsors. Sveaskog [a government forest enterprise] and the forest company SCA promised to provide us with timber and a man from the village who owns a small saw mill said he could saw and plane smooth the timber, but then suddenly the CAB got cold feet and we entered into the problem of who is going to own the cabin after it is constructed, since the CAB said that they cannot receive gifts…. Always these barriers that are built up every time when we want to do something…and it is strange when the CAB at the same time is saying that it lacks money.* (Gunnar, May 2005)

The incident with the log cabin and the discussions concerning the legal possibility for the CAB to devolve its management powers to the Coastal Ring illustrate the complications that appear when new initiatives do not fit the traditional institutional way of doing things. The issue of local management triggered discussion of what was possible to do under the present legislation and shows how the framework of rules is brought up to date and put in motion. The legal interpretation made by officials at the CAB also illustrates how the existing framework of rules could be used as a source of power to prevent the Coastal Ring from achieving its objectives.

Another complication that influenced the possibility for the Coastal Ring organisation to develop an institutional arrangement for local natural resource management was the simultaneous development concerning the World Heritage site of Laponia. Here nine Sami villages claim local management over an area comprising three nature reserves and a national park (c.f. Mijá Ednam, 2000; Rådelius, 2002; Beland Lindahl, 2002 and Nilsson Dahlström, 2003). Complications in this process limited the possibility for the Coastal Ring organisation to reach a management agreement with the CAB:

> *We could have been more adventurous in this process and take more risks if the Laponia process had not been there if I may say so… If we had said yes to local management in the Coastal Ring [area] it might have jeopardized the whole Laponia process. We absolutely did not dare do this! And this has been with us indirectly all the time when we have been negotiating with the Coastal Ring.* (Lennart, October 2004)

The above shows that the process of developing local management in the Coastal Ring area is also influenced by other similar processes taking place within the County of Norbotten. If the CAB devolved management authority to the Coastal Ring organisation, the CAB feared that it could be used as a precedent and an argument for the nine Sami villages, which claim local management of the World Heritage site of Laponia.

Divergent views within the CAB

During discussions with CAB officials it was also possible to discern different positions within the CAB as regards the willingness to devolve management authority. Some officials expressed strong support for devolving

management authority to the Coastal Ring organisation. Sofia, a CAB official, who was also responsible for conducting field surveys together with some of the members of the Coastal Ring, articulated both critique of the present management agreement and was rather positive about further devolving management responsibilities:

> *But this management agreement is just about practical management where we delegate practical tasks – do that, but not taking a broader responsibility for the reserve – just fix that and fix that. We have not delegated any responsibility at all… and that is what they want! They want more responsibility. You have to try, that is at least what I think.* (Sofia, September 2003)

Other officials were more hesitant. This ambiguity was related to uncertainties about the capacity of the Coastal Ring organisation to steward the nature reserve in a responsible manner. Opinions were spelled out, that the Coastal Ring organisation might not have the right kind of perception towards nature:

> *We have felt that we need feedback that everything works fine…that they live up to the management agreement and show that they are capable. It is a new association and we do not know anything. We have no background. We just have their word. You want to feel that it does not get out of control…that they have the right perception towards nature.* (Lennart, September 2003)

5.2.5 Attempts at developing local fishery management

Legal conflicts over the fishing resource

User conflicts about the access to the fishing resource have been recurring in the villages, particularly in Storön, which is most dependent on the fishing industry. For many in Storön, fishing either constitutes a full time profession or an important leisure activity that contributes to the household economy. Historically, the fishing right holders were fishermen, but nowadays only a few persons are both professional fishermen and fishing right holders.

In 1999, the *byalag* of Storön was involved in a legal conflict with the CAB and the National Board of Fisheries. The conflict concerned the right to fish on private fishing waters and on village waters, which by time-honoured tradition are managed as a common by Storön's *byalag*. The conflict started in 1998 when the National Board of Fisheries, through the CAB, prohibited

fishing with fixed gear within an area that the CAB had declared as a protected fishing area outside the coast of Kalix. The rationale for increased protection was that the decline of the fishing resource, particularly the wild salmon, in the Baltic Sea (County Administrative Court, January 1999).

The protected water area included important fishing areas on the village waters that are managed as a common by Storön's *byalag*. The decision provoked members of Storön's *byalag*, since it constrained members in Storön's *byalag* in getting permission to fish other fish species than salmon with fixed gear. The decision was also perceived as a threat to the villagers' time-honoured fishing traditions and to their way of making a living. Astrid, village alderwoman in Storöns *byalag*, phrased it in the following way:

> *The prohibition to fish with fixed gear might not be so important economically, since we do not earn our major income from fishing anymore. We do not live from the fish, but we live with the fish and fishing is important for us, since it improves our quality of life. We fear that the fishing prohibition in the long run will eradicate our time-honoured fishing culture.* (Astrid, March 2005)

In January 1999, the *byalag* of Storön made an appeal against the decision to the National Board of Fisheries, arguing that individual fishing right holders should continue to have the right to fish unhindered with fixed gear on the waters that belong to Storöns village waters, with the exception of salmon and trout (Storön's byalag, January 1999). In the appeal the *byalag* also complained about lack of trust:

> *The prohibition to fish whitefish, perch etc is based on a great distrust that we would not respect the prohibition to fish salmon. We consider ourselves as having the competence to see the difference between different fish species and release the salmon.* (ibid)

The appeal was turned down, with the motivation that only professional fishermen and fishermen with private fishing rights for whom fishing contributes substantially to their livelihood were allowed to fish with fixed gear (National Board of Fisheries, March 1999). The *byalag* of Storön made a new appeal to the Administrative Court of Appeal (*kammarrätten*), claiming that they should have the right to fish unhindered on individual waters and on village waters that belong to the fishing rights holders (Storön's byalag, May 1999). If this demand for justice was not provided for, they applied for an exemption from the stipulated regulation on the basis that fishing

constitutes an important source for their livelihoods and that their time-honoured fishing traditions and methods were threatened (ibid). This plea was also rejected, with the motivation that the National Board of Fisheries had the authority to decide and stipulate the necessary rules so that the fishing resource, in particular the wild salmon, could be protected for the common good (Administrative Court of Appeal, June 1999). An exception was however made for the professional fishermen, who could continue to fish "unhindered" (ibid). The *byalag* of Storön appealed all the way to the highest court, the Supreme Administrative Court of Sweden, but the case was not considered important enough to be taken up at this level.

The outcome implied difficulties for people whose livelihoods were still based on combining fishing with other income generating activities. As remarked on earlier, the social and economic life changed substantially during the 1970s, with large investments in capital intensive fishing technology, and the consequent specialisation of labour and decrease of earlier multiple sources of income and subsistence. Yet, the possibilities to have fishing as a complementary source of income remain salient and are highly valued, although the financial returns it may have for a part-time fisherman are at best marginal. Erik from the nearby village of Ryssbält, who used to be a part-time fisherman and now works as a teacher explains:

> *The framework of rules has made it hard for those of us that have fishing as a complementary source of income. There is no in-between condition. Historically it has been a relatively short time that professional fishermen have been active here in the north. It was not until trawl fishing was introduced, when it became possible to talk about professional fishing on a full time basis and now it has decreased again. During a certain period it was possible to combine fishing with for example carpentry, but then the framework of rules was changed so that you lost your fishing licence and you had to find other employment.* (Erik, March 2005)

The legal conflict between the National Board of Fisheries, the CAB and the *byalag* of Storön also contributed to creating strained relations between the CAB and private fishing right holders. It also amplified social division between professional fishermen and fishing right holders in the village, due to the legal support for the professional fishermen to fish "unhindered", while the majority of the individual fishing right holders were not allowed to fish with fixed gear on either their individual waters or on the village waters that are managed as a village common.

The developments of a proposal on local fishery management

In 2004, the Coastal Ring organisation started to look into the possibility to develop a local management arrangement for the fishing resource. Through the study circles, the members of the Coastal Ring organisation had discovered that the National Board of Fisheries intended to start five pilot projects in local co-management of fishery. During the winter of 2004 the organisation made an application to the National Board of Fisheries, to become one of the pilot projects.

The application was developed by two of the board members of the Coastal Ring organisation in collaboration with representatives from two of the fishing organisations in the area: the Fishermen's Organisation of the Archipelago (*Skärgårdsfiskarnas förening*), which mainly involves fishermen that have fishing as a complementary source of income and the Coastal Fishermen's Organisation of the East Coast (*Ostkustfiskarnas förening*), which is comprised of professional fishermen that fish under commercial conditions. In the application it is stated that:

> *… the wide partition among fishing right holders and between interest groups leads to a sub-optimisation of the fishing resource and the development of some kind of local management arrangement over fishing activities may contribute to a sustainable development of the fishing resource as well to a broader rural development* (Kustringen, 2004 p. 2).

Local management of the fishing resource may according to the proposal also act as a conflict mediator between different user groups (ibid).

The Coastal Ring organisation wants to overcome these disagreements and inconsistencies by developing a local management arrangement of the fishing resource. Another issue that motivated members of the Coastal Ring organisation to develop a local management arrangement for the fishing resource was a concern that strong interests in the fishing industry would affect the fishing resource negatively. Several of the villagers, both professional fishermen and individual fishing right holders, express a fear that "outsiders", who have no connection to the villages, may buy individual fishing rights. At an informational meeting arranged by the Coastal Ring in March 2005 a rumour emerged that commercial interests from Iceland had showed interest in purchasing some villagers fishing rights.

The purpose of developing a pilot project in local fishing management is *"to integrate the fishery in a holistic perspective of natural resource management by safeguarding the resource through a sustainable utilisation of the productive ecosystem"* (ibid). In 2004, the application was submitted but it was never signed by the chairman of the professional fishermen's organisation. The chairman of the Coastal Fishermen's Organisation of the East Coast withdrew earlier commitments and did not sign the application. One motive mentioned for the withdrawal, was a fear that the Coastal Ring organisation in the future could develop into an "*environmental fundamentalist*" organisation that would constrain the professional fishermen future ability to fish (Interview, March 2005). Instead the Coastal Fishermen's Organisation developed its own proposal for a pilot project. Both applications were however turned down by the National Board of Fisheries, most likely due to the involved organisations being unable to accomplish a common agreement.

The observations presented above show how the process of developing a local management arrangement for the fishing resource is affected by earlier legal decisions and more recent policy ambitions. The newly launched policy in fishery (SOU 2003/04:51) provided a space to develop local management arrangements for the fishing resource, but on the other hand, earlier legal decisions and court processes had amplified social divisions between professional fishermen and private fishing right holders to such an extent that the actors involved could not prepare a joint application to the National Board of Fisheries.

In March 2005 the Coastal Ring organisation changed strategy. Instead of negotiating further with the CAB and National Board of Fisheries about the possibility of increasing their influence over the nature reserve and the fishing resource, they contacted the National Property Board, the formal owner of the nature reserves and several other islands situated close to the villages. The outcome of these contacts and subsequent discussions is a declaration of intent, where the Coastal Ring organisation and the National Property Board have agreed to investigate whether the Coastal Ring organisation could manage some of the islands (see Map 2).

5.2.6 Evolving activities and institutional practices on the village commons

Parallel with the struggles to develop local management over the nature reserve and the fishing resource, members of the Coastal Ring have become

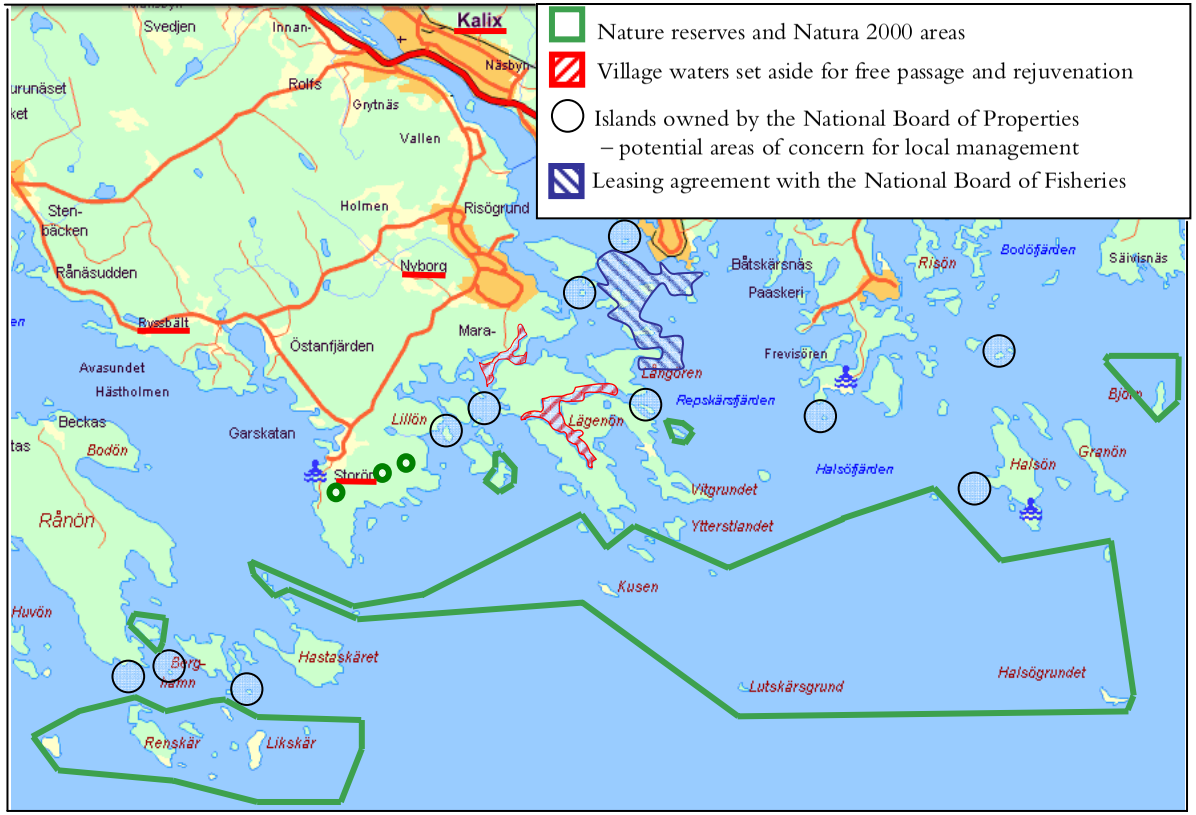
more involved in management activities on land and water areas that are held as village commons. The struggles have spurred people in the Coastal Ring organisation to become more active in management practices.

The three villages have during the course of village mobilisation and negotiations with various state agencies successively increased their responsibility and undertakings as regards commitments on the earlier described village commons. The *byalag* of Ryssbält, Ytterbyn and Storön have stipulated local rules, village bylaws, on the village commons. For instance Ytterbyn's *byalag* has in collaboration with the professional fishermen agreed to set aside an area for rejuvenation of perch and pike on the water commons that belong to Ytterbyn's *byalag* (*Inre Gölen* and *Yttre Gölen*). Total prohibition of fishing is announced in the area. The area has also been pointed out as an important area for protection from a national point of view and was in focus during the preparatory work for *Natura 2000* (see Map 2).

The *byalag* of Ytterbyn has also facilitated a "free passage" for fish between the west side of the archipelago and the centre of the mouth of the Kalix River (see map, Figure 6). Within this particular water area, they have banned any type of fishing with fixed gear and earlier leasing contracts between the *byalag* and the professional fishermen have been annulled. Ytterbyn's *byalag* have also made undertakings as regards their own members' possibility to fish. In some of the water commons that earlier were utilised for pike fishing, fishing has been banned. Moreover, Ytterbyn's *byalag* has signed a leasing agreement with the National Board of Fisheries over an area, which in turn has prohibited any kind of fishing in the area (see Map 2).

Other activities on the village commons are the ones carried out by Storön's *byalag* in cooperation with the local sport association. Together they manage two public open-air bathing places located on Storön's village common, where they have also established a café and a sauna. Storön's *byalag* has also in collaboration with the hunting group of the Coastal Ring restored an old path and constructed a wind shelter, with a fire place and a shed for fire wood, located on one of Storön's village commons.

Map 2. The management situation in the Costal Ring area.



Source: Adapted from a presentation made by Gunnar at the conference on *local management – from words to concrete action* held in Stockholm, May 2005

In order to protect the biological diversity, Ryssbält's byalag has set aside a fish and wildlife conservation area. The area is located on one of Ryssbält's village commons and a "water stair" has been constructed, which prevents the inner parts of the bay from running dry during the summer. Ryssbält's byalag has also created a public picnic area on one of the village commons. In this particular area, the members of the byalag have constructed a small cabin with outdoor cooking facilities. The picnic area is open for the public and is accessible for those with mobility problems. All the above initiatives on the village commons have been carried out on a voluntary basis in parallel with the negotiations with various authorities.

Two villagers with a background in forestry have also worked with how the forest adjacent to the villages could be utilised as carbon dioxide sinks (on both private lands and the village commons). The idea is to increase the capacity of the forests to store carbon dioxide, through more intense forest management practices. Their estimates have attracted interest by other organisations, including the state forest enterprise Sveaskog, the forest owners association of Norrbotten (*Norrbottens läns skogsägarförening*) and the Metal Research Institute – Mefos - a research institute which is financed by the state mining enterprise SSAB. Their initiative has also led to an international conference on carbon dioxide sinks and in a plea to the Swedish parliament (MJ429, 2004/05). The plea proposes that environmental taxes on the industry should be switched from the industry and utilised as investments in forest management activities to increase forest productivity that would enhance storage of carbon dioxide (ibid).

Changing local institutional practices

The multiple of activities that have taken place on the village commons illustrate a highly dynamic process which has occurred parallel with the negotiations about local management. These undertakings can be conceived as changes in institutional practices that aim towards recuperating responsible socio-ecological ties to the nearby surroundings. They may at the same time be interpreted as strategies for convincing state officials that local management is the ultimate institutional basis for a responsible natural resource management. In various public seminars, representatives from the Coastal Ring claim that they protect more natural resources than the state. At the yearly "People and Nature" conference in October 2004, arranged by the Ministry of the Environment in collaboration with the Ministry of

Industry, Employment and Communications in Överkalix, Gunnar and Christina displayed the following PowerPoint image for the audience:

- We protect more
- We create employment
- We do it cheaper
- We build competence
- We are together
- We reconstruct bylaws
- We are a resource for others

(Gunnar and Christina, PowerPoint presentation, October 2004)

Such claims are based on the earlier described undertakings on the village commons and constitute important arguments in legitimising local management, and they are used to prove that the Coastal Ring organisation is trustworthy and capable of stewarding natural resources in a responsible way.

The village commons described above date back to the time when the commons were actively used as an important collective source of income. As mentioned in the historical overview, the commons were used both as important grazing areas and as important local institutions for regulating and distributing fish outtake. The earlier described new rules and activities on the village commons can be seen as a process of reinvention of institutional practices and customs that used to exist and that to some extent have prevailed on the village commons. In a conference speech in Stockholm in May 2005, Gunnar, further elucidated the linkages between historical customs and local management:

> *We reshape old village bylaws. We work with our cultural history by investigating the framework of rules that have existed earlier…what social linkages, cultural linkages have existed earlier in the area…and reshape them and write them down…and they are the foundation of local management and for the biological values that the authorities want to protect!* (Gunnar, May 2005)

Local management is from the above quote legitimised through reference to historic continuity. By exploring historical, social and cultural linkages in relation to the surrounding environment, the informant implicitly argues that such an approach will improve the biological values that the authorities

want to protect. By referring to history and by claiming an older version of how the natural resources used to be managed the informant also implicitly seeks to legitimise local management as something innate that the members of the Coastal Ring have long experience of.

Many of the earlier described activities on the village commons go beyond the community and local ecological boundaries. The activities to develop carbon dioxide sinks and changes in local institutional rules that increase fish protection on the water commons show that the commitments of the Coastal Ring organisation go beyond community defined ecosystems. These activities and changed rules are supposed to bring positive change to ecosystems beyond the community boundaries. The saying "*think globally and act locally*" is a recurring metaphor used by members of the Coastal Ring organisation in this regard, and points to a will to take action at the local level that may enable positive change on larger scales. These initiatives may also be interpreted as part of a strategy for convincing CAB officials that the Coastal Ring organisation is capable of embracing broader perspectives that it is not limited merely to the community context and thus responds to the worries that are expressed by CAB officials that the Coastal Ring may not have the capacity to serve the interests of the common good.

5.2.7 Emerging institutional forms of local management

The local management arrangements that are advocated in the Coastal Ring organisation show many similarities with the common pool resource arrangements that have been described by Ostrom (1990), Baland and Platteau (1996) and others. The major difference between the suggested local management arrangement compared to existing village commons and those described in much of the common pool resource literature is that the membership is determined through residency and/or through belonging to one of the *byalag*. The local management builds around the three *byalag* and is extended to villagers that reside and live in the area. In the charter it is stated that it is a membership organisation open to all residents in the villages. Possession of a farm unit, however, continues to be important for the suggested local management arrangement. This appears from how the Coastal Ring organisation is constituted, where it is stated that three seats in the organisation should be reserved for members from the *byalag* of Ytterbyn, Storön and Ryssbält. As such the organisational structure of the Coastal Ring reflects a reinvented form of common property management. The sphere of activities of the suggested local management arrangement is

also much wider than the common property arrangements described in much of the common pool resource literature. It is not just limited to one resource and one kind of user group. The local management arrangements that are advocated in the Coastal Ring involve a diversity of resources and people who are engaged in a number of different activities related to natural resource management.

The institutional form of local management also reflects a reinvented form of the commons in terms of territorial claims to property, which goes back to a period when the villagers, mainly the landowners, formally and informally managed large areas as commons in the archipelago. The process is embedded in historical allusions and claims, from before the land reforms in the 18th and 19th century. The emergence of local natural resource management arrangements is in this sense part of a reinvention process, where the members of the Coastal Ring organisation try to reconstruct historical resource management practices over place and adjust them to needs in the present.

5.2.8 The strategic networks of the Coastal Ring

Over the years that I have followed the work of the Coastal Ring, the organisation has become a resource for others with similar ambitions in Sweden and abroad. Since the first initiatives in 1998, the members of the Coastal Ring have actively aligned themselves with other people and institutions beyond the local area. The networks of the Coastal Ring transcend different layers of public agencies as well as national and international non-governmental organisations. They include universities, Kalix agricultural college, the Swedish Popular Movement's Council of Rural Development and the Gaia Foundation[21] etc. Between 2002-2006 the

[21] The Gaia Foundation is a well-recognised international NGO based in the UK that works with strengthening local communities' capacity for self-reliance and facilitating diversity-rich livelihoods for the protection of biodiversity. The Gaia Foundation tries to raise awareness and influence biodiversity-related policy to better protect the social and ecological integrity of the planet and the organization is committed to promote cultural and biological diversity and ecological justice (http://www.gaiafoundation.org/, December 2006). Most of their work has been carried out in developing countries and within the network of the Gaia Foundation there are several staff members who have received the Right Livelihood Award and one woman, Wangari Mattai, has also received the Nobel Peace Prize for her long standing environmental work with rural communities in Kenya.

Coastal Ring was a member of the Swedish national network "Sustainable Communities", which was a project initiated by the Swedish Popular Movement's Council of Rural Development. The project aimed at exploring how sustainable development can be promoted in rural areas. Fourteen villages were included in the project and the project was funded by the Swedish Board of Agriculture. Various members of the Coastal Ring have over the years participated in public meetings and seminars on local management at e.g. the Swedish University of Agricultural Sciences in Uppsala, CAB in Västerbotten and the county council in Luleå.

Within these networks key persons mediated contacts between members of the Coastal Ring and broader networks working with promoting local management and rural development. One key person is Gunnar, who works at the agricultural college in Kalix and who is a board member of the Coastal Ring. Gunnar has long experience of working with community forestry from abroad. Through his networks, the Coastal Ring organisation has been able to link up with other organisations and actors that are able to provide inspiration and knowledge on local management issues. Another important mediator is Fredrik, a former colleague of Gunnar at the Forest Trees and Peoples Network, who works for the Swedish Popular Village Council for Rural Development and as a university extension worker at the Swedish University of Agriculture Sciences in Uppsala with issues related to rural development and local management. Fredrik has over the years been a frequent visitor to the Coastal Ring organisation and he has assisted in linking the Coastal Ring organisation to similar initiatives in Sweden and internationally, such as community forestry organisations in Scotland (Reforesting Scotland), the network of sustainable villages in Sweden (*hållbara bygder*) and the Gaia Foundation Network. Fredrik has also been a link to the Swedish Ministry of the Environment, where the head of the unit for nature conservation has worked with community forestry in Tanzania. Fredrik's contact with the Ministry of the Environment has enabled the Coastal Ring organisation to take advantage of policy information that relates to local management at early stages.

The Coastal Ring organisation has over time also become a resource for the Ministry of the Environment in their promotion of the national nature conservation policy (Skr 2001/2002:173) where local participation and influence in the management of protected areas are emphasised. In October 2004, the Ministry of the Environment started to pay attention to the work of the Coastal Ring and the organisation was invited to take part in and give

a speech at the yearly "People and Nature" conference arranged in collaboration with the Ministry of Industry, Employment and Communications. The focus of the conference was on public access to protected areas and on eco-tourism. The Ministry of the Environment met the appearance of the Coastal Ring organisation at the conference positively. One week after the conference the Coastal Ring was also invited to give a speech in Stockholm at a *Natura 2000* seminar on the theme "*When Natura came to the village*" arranged jointly by SEPA and the Ministry of the Environment. In May 2005, the Swedish Popular Movement's Council in collaboration with a number of organisations arranged a conference at the Swedish National Parliament. The topic was "*Local management – from words to concrete action*". At the conference representatives from the Coastal Ring and the Ammarnäs council participated together with various representatives from public institutions that are responsible for natural resource management in Sweden, including the Minister of the Environment, the National Board of Properties, Sveaskog, the National Board of Fisheries, the Sami Parliament and SEPA.

The various seminar and networking activities has created a space for the Coastal Ring organisation to further propagate and disseminate information and as well learn more about local management. Through these activities various members of the Coastal Ring organisation have become indirectly involved in policy processes of nature resource management in Sweden.

5.2.9 Meanings ascribed to local management

In the process of getting local management accepted, informants ascribed certain meanings to local management that often appeared as arguments and motives for local management. In the interviews and in conversations with local actors it was salient that the local discussions at meetings and in study circles had led to the development of shared understandings about local management, and that this process was spurred by the negotiations with the CAB and meetings with resource persons from the networking described earlier. Although local management is perceived differently among the informants it was possible to discern a number of common themes, which the meanings of local management assembled around. These themes may be seen as generalised propositions of discourses on local management that serve as reference points around which local management was negotiated.

Local management as identification with culture and place

The meanings that encircle local management highlight issues about identification with culture and place. Local management is often expressed by the board members of the Coastal Ring as a means to enhance people's identification with local culture and as a resource that embraces traditional customs in tandem with natural resource management. Such an understanding is strongly emphasised in the local management plan developed by the Coastal Ring organisation. In the local management plan it is stated that:

> *… local management shall further strengthen the local and cultural identity […] Our villages are by tradition connected to the sea, the archipelago and fishing and we believe that we have the required knowledge to take care of and steward the culture of the archipelago that still remains … We feel that the commitment of the villages is not enough for further work if we do not receive a response to the achievements so far. We perceive it as a loss of our work if we do not attain the expected result: a local management of our natural resources, which also includes our cultural heritage*. (Kustringen, 2002b, p. 2-5)

In the plan, it becomes apparent that cultural heritage constitutes an important part of the conceptualisation of local management. The quote implicitly criticises the present nature reserve administration, which is described as hard to influence and which does not take much consideration of the villages' cultural history or local traditions. The local management plan differs in many ways from the nature conservation plan for the reserve. While the nature conservation plan of 1969 stresses the biological values of the reserve, the local management plan says very little about biological issues. Rather it underscores the importance of identification with place and local culture.

For many of the people involved in the Coastal Ring organisation, the process of developing institutional arrangement for local management has contributed to a new way of apprehending their surroundings: "*We started to view our surroundings with new eyes and we started to become more interested in issues that deal with investigating our own local culture"* as Christina, chairperson of the Coastal Ring organisation said when I asked her what the work of local management had meant. Such connotations should not necessarily in this connection be interpreted as a wish to return to a past culture, but can rather be seen as an intention to re-construct old management customs and as an opportunity to learn more about history. Erik, a school teacher and board

member of the Coastal Ring, explained the importance of culture in relation to local management in the following way:

> *We have more and more come to realise that understanding our cultural heritage is the most important [thing] in order for us to develop our place… It is not just about digging into old things because it is interesting in itself. Understanding how our ancestors utilised the natural resources provides us with useful tools on how we can plan for future local management activities in a responsible way.* (Erik, March 2005)

It is implicitly claimed that natural resource management should be culturally embedded in place and that such management shows the way to a more responsible natural resource management and future development. References to cultural heritage can in this regard also be interpreted as a rhetorical device that could provide local management with historical legitimacy.

In order to learn more about cultural history and past management practices, the Coastal Ring organisation launched a project that explores knowledge of earlier generations through so called eco-mapping exercises. The project is carried out in collaboration with the Gaia Foundation network and the Swedish Popular Movement's Council of Rural Development. Since November 2005 the Coastal Ring organisation has hosted a number of international exposure visits from Gaia Foundation that have introduced members of the Coastal Ring to eco-mapping. The visits from the Gaia Foundation have inspired members of the Coastal Ring to involve themselves in study circles that aim to inquire about how the natural resources were utilised historically. About 40 people are involved in the eco-mapping exercise, which explores names of old places and management practices in the area. Fredrik from the Swedish Popular Movement's Council of Rural Development and one of the initiators of the eco-mapping exercises explained the motives of the project:

> *The aims of the project are to revitalize the knowledge that has been lost and strengthen the villagers' identification with place and local culture and to show the authorities that they are the knowledge holders and that they have the capacity to steward the natural resources.* (Fredrik, April 2006)

The eco-mapping exercise can be interpreted as part of a strategy to reinforce identification with place and as a tool to uncover place specific competences about natural resource management that can be used as

arguments for local management with the authorities. Culture and place are in this regard used to justify local management as the most appropriate institutional arrangement for natural resource management. Problems of communication were however apparent when villagers from the Coastal Ring organisations started to talk about culture and tradition when they argued for local management. These arguments were often met by silence at those county meetings and seminars that I had an opportunity to take part in. It was apparent that officials from the CAB were not accustomed to deal with these types of questions. The silence can also be interpreted as if they were not interested and/or that the arguments about culture and tradition were something that they did not agree with.

Local management and the importance of proximity

The importance of identification with place can also be implicitly captured in the expression of worries that the lands have been forsaken when property rights were successively transferred to people that no longer live in the area. Gustav, who is a retired forester and landowner in Ytterbyn, phrased the critique in the following way:

> *The great dilemma for us is that more and more of the land owners in the area no longer live in the area. […] The land is no longer owned by people who live here! Here in my village [Ytterbyn] more than one thousand hectares of an approximately total land and water area of five thousand hectares are owned by people who no longer live in the villages and they do not care about how to steward the collective goods that we all depend on.* (Gustav, March 2005)

The worry about an increased place detachment, in relation to managing natural resources at a distance, was expressed by several informants both in relation to the private fishing and forest resources and in relation to the surrounding nature reserves. Several critical comments as regards the CABs nature conservation practices are spelled out in this regard. Some of the older men in the village are also referring to incidents where the CAB has declared the "wrong" islands as bird protection areas. A common denominator in much of the critique is that CAB officials do not have the required competence and sufficient knowledge to steward the protected areas, since they are too distant from the actual scene. Gustav again:

> *You see, the people in Luleå are too distant from the actual scene… They do not have a clue on what is going on here… and if something happens, if someone by chance was*

> *misbehaving in the reserve… they [the CAB] would not be able to respond fast enough…Local management of natural resources is important because we need to feel that we can influence our surroundings. […] We are living with these reserves and we are affected by them… The things that happen in our surroundings affect the people in some way and that's why closer natural resource management is important.* (Gustav, October 2004)

The above quote can be interpreted as a critical view against the present nature reserve administration, which is portrayed as static and remote. The quote implicitly indicates that closer management is important for improved human-nature relationships. These views recur when members of the Coastal Ring argue for local management. Such views can also be interpreted as a strategy to define what is "local" in local management by emphasising the importance of being anchored in place.

Several members of the Coastal Ring emphasise the importance of physical closeness and a comprehensive understanding of the local place conditions for stewarding the natural resources in a responsible way. It seems reasonable to assume that the struggles for getting local management accepted by the CAB have encouraged people to identify more with their place than the "distant type" of state protection.

In the process of developing local management a subtle shift in viewing property has taken place, even though there has been no formal change in property rights. Alongside the process of getting local management accepted by the CAB, perceptions of the surrounding natural resources have changed from a view of apprehending the natural resources as constituted by fragmented multiple tracts of privatly and/or publicly owned natural resource towards a view where the surrounding natural resources are held in "trust" by the community. An imagined and reinvented form of common property resource management has been generated, where the members of the Coastal Ring express a stake in, and to some degree become committed towards, a careful maintenance of the surrounding environment. Over the years that I have followed the work of the Coastal Ring I have noticed a gradual shift in how members of the Coastal Ring talk about ownership in relation to local management. Increasingly they talk about the state owned resources as "our" resources, although no formal changes in management or property arrangements have taken place:

> *The natural resources that surround our villages belong to us. They are ours irrespective of what the authorities say…and you see…we need to steward them because the authorities do not have the right kind of place connections.* (Gunnar, October 2004)

Earlier the state owned resources, were referred to as belonging to the CAB, the National Property Board etc. This way of expressing and viewing things often becomes apparent in statements that portray authorities as less cognisant of place, but also in concrete activities and initiatives that aim to stimulate awareness and commitments for a responsible management of the adjacent natural resources. In order to raise the awareness among residents about the historical, cultural and natural values of the nature reserve, the Coastal Ring organisation arranged boat excursions to Likskärs nature reserve on two occasions in July 2004 and 2005. Each boat excursion was attended by about 50 persons and local talents in botany and in local history acted as guides.

Local management as a way of safeguarding against state interventions

Local management is also expressed as a strategy to circumvent state decisions that are talked about as disparate and incongruent when fused at the local level. Astrid, a board member of the Coastal Ring and alderwoman in Storön's *byalag* expressed it in these words:

> *Little by little regulations from different authorities come forward and they are formulated so rigidly that we do not have any possibility to influence them. We can be better prepared if we can discuss certain issues beforehand and feel that we have something on our feet when we discuss with an authority…By organising ourselves into an association – in local management – we can become better informed before the decisions are taken and have a mandate to influence before the decisions are taken.* (Astrid, March 2005)

Local management can be interpreted from the above quote as a strategy to influence decisions that are perceived as inflexible and incongruent when amalgamated at the local level. Local management is expressed as a tool that can enhance villagers' capacity to act as a "buffer" and safeguard the interest of the villages when decisions are taken by different state authorities.

Local management as development and long term survival

Members of the Coastal Ring often present local management as a means for development and long term survival. Local management is articulated as a catalyst for development that could generate future employment opportunities. Karin, a local resident in Ytterbyn village, with long experience from working with unemployed people, stated the following, when asked what local management meant for her:

> *Local management is about making people more active. It is about earning one's living in another way. Local management can provide real employment opportunities - that is why I think local management is so interesting to strive towards. How far can we develop something and become active ourselves?* (Karin, August 2005)

Local management is expressed as something that can "unleash" people's potential to increase their responsibility over their own life and in the long run safeguard the survival of the communities when the state and the municipality are no longer able to provide social services in the area. Karin again:

> *I believe that if many of these small villages on the whole should be able to survive, then I think local management is the key to survival. Everyone is maybe not seeing the need for this right now, but the necessity will increase. The overarching societal structures are about to change, for instance, the conditions for receiving unemployment benefits and sickness benefits are changing as well the conditions for making a living. It becomes tougher all the time, so many of us would need to move or do something else. The municipality is rather poor. We will not be able to have the same resources in order to keep our standard in child and elderly care, so we need to find other solutions. It is maybe not right just now, but it will come. The sooner we come to a situation where people start to take responsibility and where we make an effort to find alternatives, the sooner we will keep away from catastrophe. So this local management is absolutely a precondition for survival of these small villages! […] Local management could release people's potential!* (Karin, August 2005)

According to several informants, what partly explains the differences between the "mainstream" nature conservation approach and the "alternative" local management approach is the former's lack of viewing protected areas as a vehicle towards development. Such views are often expressed in metaphors that depict the nature reserves as a "museum" and as a "dead hand":

> *These nature reserves and Natura 2000 areas, they are just administrated and should not be utilised. Much is like a museum… It has become this dead hand over the whole area!* (Astrid, March 2005)

The use of the metaphors of "museum" and "dead hand", indicates that state protection is seen to hinder people making use of the natural resources. The surrounding environment has become a museum – a passive viewing material – embraced by a dead hand that is perceived to constrain development.

In contrast local management is acknowledged and articulated as a means for making people more aware and cognisant of the surrounding natural resources as a way of making a living. It may even re-vitalise the bureaucracy:

> *The Coastal Ring could vitalise the conservation bureaucracies of the state when it comes to management of the reserves. We can make them so that they [the reserves] become the greatest benefit for the people who live close by and we could make people more interested in nature!* (Gustav, October 2004)

The informant implicitly argues that closer nature reserve management would bolster the present nature conservation administration, while at the same time making individuals more engaged in nature. The nature reserves are perceived as a resource that could assist the villagers to find an alternative development pathway.

Local management as sustainable living and responsibility

Several of the informants talked about local management as a necessary prerequisite for "sustainable living" (*hållbart liv*). When asking what it meant in relation to the efforts of developing local management arrangements I received the following answers. The first quote is from a conference speech made by Gunnar, and the second is from an interview with Christina:

> *We work with something that we call sustainable living and this is fundamental to us. We need to be able to continue to live here and we need to have employment so that we can live. We need to have an economic sustainability, a social sustainability and an ecological sustainability where all parts are integrated. In order to achieve this we call for participation! We should participate in describing what these areas look like. We should participate to develop how plans for the area are built up. We should participate*

in monitoring and evaluation and this is the core in the whole process. It is important that we can identify ourselves with the area. It is important that we can recognise the words [in the plans]. Whatever project plan can be written by some professional from someplace … but we must be able to identify ourselves in activities and these activities must be linked to our own local culture! (Gunnar, conference speech "*Local management – from words to concrete action*" held in Stockholm, May 2005)

We must have sustainability in what we are… In some way we need to do this ourselves… If I do not as an adult show and take responsibility to steward the things that I have been endowed to steward, the next generation will never take this on and then the authorities will continue to have control over this. If I continue to pretend that everything will be solved and let them [authorities] fix it, I have agreed to give them legitimacy to just waste everything and pick out the berries from the cake. If I as a parent and adult do not walk in front and show that it is important to steward our natural resources, our fish, then we do not have any fish to eat. Who should show the children this and this is my vision about sustainability. If it is local management or something else, we can call it whatever we want. I do not think that Leif at the CAB, even though he is quite familiar with our community, I do not think he has the right feeling for our community like we have. That commitment and that responsibility cannot be found at any authority, it must come from here, from our place. (Christina, August 2005)

Several meanings of local natural resource management that emerge in relation to "sustainable living" amalgamate earlier identified themes. The importance of proximity and identification with place and culture are addressed as well as aspirations of what local management can provide to broader development. Sustainable living is articulated along the lines of integrating economic, social and ecological issues, where identification with place and local culture are expressed as prerequisites for sustainable living. Sustainable living in relation to local management can further be interpreted as a claim for increased influence and responsibility over surrounding natural resources. Both quotes implicitly argue that there has been a defeat of local participation and responsibility in state management. Local management is expressed as a resource that could put an end to such circumstances. This is achieved through an articulation of local management that portrays state officials as less responsible, with the wrong right type of feeling and place connection for managing the natural resources.

5.3 Summarising the case

The empirical observations showed how nature conservation interventions through the introduction of *Natura 2000* areas and other protected measures in fishing were faced with new demands for legitimacy from people who live adjacent to these areas. At first these demands seemed to be related to the specific institutional intervention of the *Natura 2000* designation and new fishery regulations, but when looking more closely into the process that unfolded, it was possible to see that it was not just the *Natura 2000* decision and regulations in fishing that were under attack. It was rather the the discourses on nature conservation and fishing administration that was faced with new demands for legitimacy.

These legitimacy claims provoked alternative ways of thinking among the members of the Coastal Ring as regards how natural resources close to the villages should be managed and used. It illustrated a highly dynamic process that triggered people to identify more with their place and local culture. The struggles for local management encouraged members of the Coastal Ring to involve themselves in a range of management activities on the pre-existing village commons and in projects that aimed at disclosing place specific natural resource management competences. These activities can in themselves be seen as a struggle for meaning over the resource and as a strategy to show that the Coastal Ring organisation is capable stewarding publicly owned natural resources in a responsible way.

Furthermore, in the process of developing institutional arrangements for local management, members of the Coastal Ring ascribed certain meanings to local management. This meaning making process contributed to the articulation of discourses of content and attributes of local management. These can be summarised as: i) local management as development and survival ii) local management as identification with culture and place iii) local management as safeguarding against state interventions and iv) local management as sustainable living and responsibility. While the CAB stressed the importance of institutional arrangements that protect biological and recreational values and formal management competence, the Coastal Ring organisation rather underscored place attachment, history and the cultural embeddedness of management.

The reluctance of the CAB to delegate some of its management power further prompted the members of the Coastal Ring to identify more with their place and local culture as compared to the abstract idea of nature conservation through state protection. The issue of local management was thus not only a question of gaining increased access to the natural resources; but a question as well of identification with place and culture and nurturing a responsible sense of place.

The process of developing local management arrangements was also connected to actors with particular strategies and resources who acted politically to gain particular ends. Within the networks of the Coastal Ring it was possible to identify a number of actors and organisations that performed critical roles for promoting local management. Through these multilevel networks new relations both within the Coastal Ring organisation and with other organisations were developed, that helped the Coastal Ring to articulate arguments about local management. Local management as an idea developed simultaneously as the government proposed new policies in nature conservation and fishing. The emergence of local management arrangements thus came from several directions both from village initiatives and from initiatives taken by the government on a national level and from international networking experiences as well.

The emergence of institutional arrangements for local management was also influenced by legal ambiguities and earlier decisions in fishing regulations. These ambiguities held back the CAB from meeting the requests of the Coastal Ring to receive further influence in management of the nature reserve. Earlier legal conflicts on fishing, on the other hand, had contributed to tense relations between professional fishermen and fishing right holders. This resulted in problems in reaching a common proposal for local fishery management, once the National Board of Fisheries had opened for the possibility to establish local co-management arrangements for the fishing resource.

The emergence of institutional arrangements for local natural resource management in the Coastal Ring area constituted a complex informal and formal blend. The proposed local management arrangement was developed around the already existing institutional arrangements of the *byalag*, which was expanded to member categories beyond private landowners and to new spheres of management activities that were based on past management experiences that were adapted for needs in the present.

Arrnarnäs, June 2003

We are sitting around Karl's and Eva's kitchen table. We have just finished a meal of diced reindeer meat and potatoes from the famous potato slope in Arrnarnäs. I am there along with Ulla, a reindeer herder from Ran Sami village, Lars the project leader for the development of Vindelmountain, Anatoly a forestry official from Tanzania and Fredrik an extension worker from the Swedish University of Agricultural Sciences. We are talking about Arrnarnäs' future and the initiative for local management of Vindelmountain's nature reserve which Arrnarnäs has taken within the framework of the municipality project for the development of Vindelmountain. Karl and Ulla talk about the need for a local management arrangement and the importance of integration and mutual understanding between the Sami and Swedish cultures and how the state has throughout the history created divisions in Arrnarnäs. Karl, who calls himself a settler, explains about his father's ownership dispute with the state and how he has inherited the conflict and he draws parallels with Israel–Palestine conflict. Towards the end of the conversation Ulla tells us how she, as a child, was taught that the bear is a sacred animal in the Sami culture and that the bears were not usually shot in spite of them sometimes causing a lot of damage to the reindeer herd. Ulla says that today she is no longer able to pass on to her children a justification for the bear's existence in the same way because of the policy on predators which the state has had for a number of years. After the meal we go together to Vindelmountain's research station where Anatoly is to give a lecture on community forestry in Tanzania.

6 The Case of Ammarnäs

6.1 Introducing the context

In the County of Västerbotten, where the Vindel River starts its journey to the coast, the mountain village of Ammarnäs is beautifully situated on a headland, surrounded by the Vindelmountain nature reserve. The Vindelmountain nature reserve is one of Europe's largest nature reserves covering about 560,000 hectares and it comprises about 1% of Sweden's land area. Vindelmountain is an important region for reindeer husbandry, where Sami customs have been practised alongside permanent agricultural activities for almost two centuries. Administratively Ammarnäs belongs to the municipality of Sorsele and the CAB of Västerbotten.

The nature reserve encircles the village of Ammarnäs, thus making it the heart of Vindelmountain. In this area the village organization - the Ammarnäs council - has ambitions to change the present institutional arrangement of natural resource management, which is carried out by the CAB in Västerbotten with some form of local management over a territory that falls within the Ammarnäs constituency. Within the Ammarnäs constituency, about 95% of the territory is owned by the state and 5% is privately owned by individuals who are organized in eight different *byalag*, comprising about 150 landowners. Two Sami villages Ran and Gran Sami villages practise reindeer husbandry in the area. Each Sami village manages its reindeer grazing areas as a common and their respective reindeer grazing area stretches from the coast all the way up through the Vindelmountain area (see Map 3).

The Sami village is an economic association as well as a given geographical land area. Each Sami village has at its disposal a certain area for reindeer herding and each Sami village comprises a number of a reindeer herding enterprises, which in turn consist of one or more reindeer owners. In common Sami village affairs each member has votes in relation to how many reindeer they own. In Sweden reindeer herding is based on rights from time immemorial and these rights are regulated by the Reindeer Act (SFS 1971:437) and the Reindeer Ordinance (SFS 2001:975). Reindeer herding is reserved for those who are of Sami origin and in order to practise reindeer herding one has to be elected by a Sami village. The reindeer herders in Sweden are organized in 52 Sami villages (Lundmark, 1998).

6.1.1 Socio-economic characteristics

Population dynamics

About 400 people live in the Vindelmountain area of whom about 200 reside in Ammarnäs. Between 1999 and 2003, the population decreased by 10%, from 457 to 411 (Länsstyrelsen Västebottens län, 2005). The population in Ammarnäs also varies over the year. From the middle of April to late September, the population increases by about 30%, as the reindeer herders from Ran and Gran Sami villages settle in the Ammarnäs area in order to access summer pasture grazing areas. They arrive in the spring, when the Vindel River is still covered with ice and can be used as a means for moving the reindeer herds. During Easter, sport holidays and the small-game hunting season in September the population in Ammarnäs more than doubles as tourists and cabin owners arrive.

The population can broadly be categorized into four groups[22]; i) the reindeer herders of Ran and Gran Sami villages ii) landowners who mainly are descendants of the first settlers in the area iii) the Sami who do not belong to the Sami villages and who are excluded from the users rights that follow membership of a Sami village iv) other local residents who do not belong to any of the groups above and who often are newcomers. Groups iii) and iv) often have limited access to natural resources in the area, apart from what is

[22] By referring to and categorising people in certain groups (or adopting local ones) social scientists may become part of the very process of inclusion and exclusion (Kurkiala, 1998). This is not my task, but in order to understand some of the dynamics in Ammarnäs in relation to emergence of local management, I have felt it necessary to make such a categorisation.

stipulated in the Swedish right of public access (*allemansrätten*). In addition there is also a rather large group of cabin owners and tourists who stay in Ammarnäs during holidays and weekends. It is the villagers in Ammarnäs who make up these categorisations. They are contextual and often come up in discussions about local management and access to natural resources. The list of groups can be extended, since there are several people in Ammarnäs who crosscut these groups and I will return to some of these issues later.

Business life

The majority of the people in Ammarnäs work with either reindeer husbandry or activities in the tourism and service sector. The reindeer husbandry employs approximately 30 reindeer family companies, while the tourism sector has about 20 full time jobs (Sandström and Tivell, 2004). The more important tourist companies include two hotels (*Ammarnäsgården* and *Wärdshuset*), a ski lift with restaurant facilities, a helicopter company, two accomodation companies (*stugbyar*) and four tour companies, who have specialised in arranging guided tours in the nature reserve. Most tourist companies in the area are family companies and many of them have an ecological business profile. Four of them have been certified by "Nature's Best"[23] (*Fiskecentrum, Fjällhästen, Lapplandsafari and Ammarnäsfjällens islandshästar*) and one is a member of the European Centre for Eco Agro Tourism (*Bertejaure fiskecamp och fäbod*). In Ammarnäs there is also a petrol station and a grocery store.

Important public institutions include the school (managed by the municipality and which has children up to grade six), a nurse's clinic and a research station, which is managed by the CAB. The CAB has recently invested in a museum (*Naturum*), which displays different features of the nature in the reserve. The majority of the people in Ammarnäs earn their living by combining different types of jobs, e.g. tourism related activities during holidays and in the off-tourism period with other kinds of business activities that are often located outside the Ammarnäs area. The business life in Ammarnäs is either organized in the Ammarnäs community business (*Ammarnäs Gemenskapsföretag*) or the Ammarnäs business association (*Ammarnäs Företagarförening*). The Ammarnäs community business association is a non-profit organisation that comprises private businesses and individuals engaged in associational work. The idea of community business comes from

[23] Nature's Best is a national quality label for nature tours in Europe.

Scotland and is a form of organising business development as a partnership between the civil society, the public and the business sector. In Ammarnäs the community business association functions as an umbrella organisation for business activities in the area and it is also responsible for tourism related information.

Associational life

Ammarnäs has a number of local associations. The more active and influential organisations are the Ammarnäs sport association, the track and trail organisation, the snowmobile association, the Philadelphia association, Ammarnäs fishing conservation association (*Ammarnäs fiskevårdsförening*), the *Samigården* and the homestead association. During the summer the homestead association arranges several festivities, such as the potato festival and the Ammarnäs days. These festivities bring together people with a connection to Ammarnäs, mainly descendants of the first settlers. Similarly, the *Samigården* arranges festivities and cultural events for the Sami population. The interest for snowmobile racing is widespread in Ammarnäs, particularly among the younger men and the village hosts annual national snowmobile racing competitions. The village also arranges running and hiking competitions, the Vindel River competition (*Lilla Vindelälvsloppet*) in July and the mountain march (*Fjällmarschen*) in August.

Among the major cultural tourist attractions in Ammarnäs is the potato slope (*Potatisbacken*) and a Lappish church town. Ammarnäs is famous for its potato slope, where the villagers, mainly the descendants of the settlers, have been growing potatoes on the slope for more than 150 years. The homestead association supports farming on the potato slope. The Lappish church town dates back to the turn of the last century and consists of about 15 small wooden cabins that were used by the Sami during important church events. The church town has been declared a culture memorial site by the CAB. The church town and the potato slope are situated close to the village church and from the potato slope there is a beautiful view over the Ammarnäs delta.

Photograph 2. *View over the potato slope.*

Photo: Michael Schneider

6.1.2 Ecological characteristics and current resource management

Ecological characteristics

The scenery and wildlife of the Vindelmountain area are diverse. Almost all types of Scandinavian mountain environments are represented in the Vindelmountain nature reserve. The eastern parts of the nature reserve are dominated by vast spruce and pine forests and in the western parts alpine terrains dominate, with peaks at altitudes of over 1500 metres as well as glaciers. The highest summit reaches an altitude of 1767 metres. The mountain valleys are often covered by birch forests, and at the bottom of the valleys there are alluvial meadows, bogs, wetlands, lakes, pools and rapids.

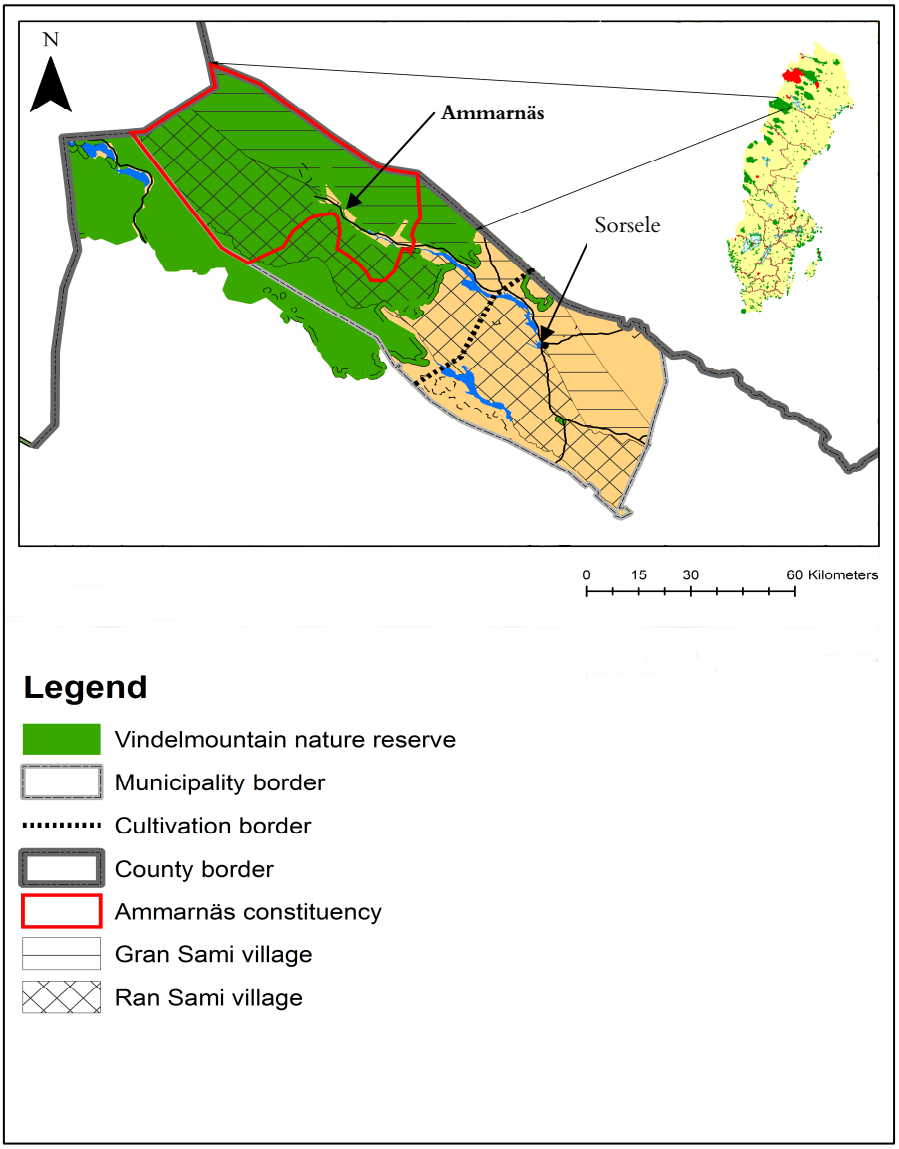
The geology and the varied mountain climate provide conditions for a very rich flora. In the Vindelmountain area there are many rare species such as the orchid Gymnadenia runei, Lapland rosebay, pyramidal saxifrage, flame-coloured lousewort and the whitlow grass Draba cacuminum. The reserve is also classified as an important haven for endangered and diminishing species

of birds and mammals in the Scandinavian Alpine Region. Vindelmountain is one of the few sites in Sweden where the endangered arctic fox (*Alopex lagopus*) breeds and the main parts of the population are found here. The arctic fox is also the emblem for the Vindelmountain nature reserve. Other endangered species found in the reserve are wolverine (*Gulo Gulo*), Golden Eagle (*Aguila Chrysaetos*), White Tailed Eagle (*Haliaetus albicilla*) and Lesser White-Fronted Goose (*Anser erythropus*). Occasionally the area is visited by wolves (*Canis lupus*).

Present resource management in the Vindelmountain area

The borders of Vindelmountain nature reserve correspond neither with the Sami village boundaries, nor with municipal boundaries. About 80% of the nature reserve is located in Sorsele municipality and constitutes about 60% of the municipality area. About 20% of the nature reserve lies within the borders of Storuman municipality. The CAB of Västerbotten is the responsible manager of the nature reserve. Its offices are situated in Umeå, the county capital, about 370 km south-east of the nature reserve. The CAB is also responsible for the management and administration of the trails in the reserve, which include the famous King's Trail (*kungsleden*), which goes through Ammarnäs and the nature reserve. The reserve is also located within the boundaries of the Sami villages: Ran, Gran and Umbyn. North of the Vindel River lies the summer pasture for Gran Sami village and south of the river on the border to Storuman municipality is the reindeer grazing area for Ran and Umbyn Sami villages (see Map 3).

Map 3. The Vindelmountain nature reserve and its management



Hunting management

Hunting and fishing are important activities, particularly for the men. For many households, hunting and fishing contribute substantially to the household economy. Hunting and fishing fall under separate legislations than that governing the Vindelmountain nature reserve. The CAB, however, also manages the hunting and fishing resources.

Members of the Sami villages have extensive fishing and hunting rights on both public and private land above the so called cultivation border (*odlingsgränsen*, see Map 3). The cultivation border is an administrative border that was created in 1867. The purpose of the border was that the land north and west of it would constitute an area reserved for the Sami. East of this border, Swedes and Sami alike could farm, fish and do forestry. West of the border the Sami, and only they, could practice reindeer husbandry, fish, hunt, and collect produce from the mountains. The cultivation border was, however, never fully "enforced".

Although the purpose of the cultivation border never was fully enforced, the cultivation border remains salient for determining access to natural resources in the Vindelmountain area. The area west of the cultivation border is today the area where Sami land rights are strongest. It is the "all-year-land" (*åretruntmarker*) where the Sami can graze their animals the whole year. Hunters from the Sami villages do not need to pay for a hunting license when they hunt either on private lands or on state land above the cultivation border, whereas hunters from the private landowners have to pay economic compensation to the CAB when they hunt on state land. The revenues are not kept by the CAB, but shared between the Sami village concerned, the CAB and the Sami Fund[24] (Hahn, 2000).

These conditions have caused a lot of frustration and negative feelings among the private landowners in Ammarnäs. Several private landowners claim that they should at least be compensated when hunters from the Sami villages hunt on private property and it is argued that they should have the same right to hunt on state property as the members of the Sami villages.

Permission to hunt elk in the nature reserve is granted by the CAB to local residents who are members of a hunting team. In general the hunting teams

[24] The Sami Fund is a fund that supports reindeer herding, Sami culture and Sami organisations.

in Ammarnäs comprise teams from the landowners and the Sami villages. The hunting teams that are organized around the landowners hunt on the property, which falls within the old borders of the *byalag*. These borders include both private property and common property along the Ammarnäs delta, but also state property situated in the nature reserve. As a consequence the hunting teams from the landowners and the Sami villages may hunt on the same area. In order to prevent hunting conflicts, hunters from the Sami villages generally avoid hunting on private lands, although they are entitled to do so by law.

In 1992, the regulation of small-game hunting on crown land above the cultivation border was changed, allowing all Nordic citizens, with a general hunting license to hunt small-game (such as grouse, rabbits, etc) without seeking permission from the CAB (SJVSF 2002:53). Earlier, hunters had to apply to the CAB for hunting rights, which in turn had to consult the relevant Sami village on the matter. Some of the Sami villages became restrictive in giving such permission so as not to disturb the reindeer, while others developed their own hunting rules, including selling hunting cards. The hunting reform meant that the Sami villages lost control of the hunting within their reindeer grazing areas. Many of the Sami villages also lost their exclusive right to sell hunting cards (Lundmark, 1998).

In the County of Västerbotten, non-Nordic hunters may engage in small-game hunting only if the hunting is arranged by hunting organizers that are approved by the CAB. The CAB also has the right to prohibit small-game hunting in a particular area if it disturbs the reindeer management or when the accumulated hunting pressure on a particular area for the year amounts to more than 3 hunters/day per km2 (www.ac.lst.se, September 2004). One-day small-game hunting cards may be purchased by hunters and are valid on state land above the cultivation border. Residents from the mountain municipalities in the County of Västerbotten can also purchase annual small-game hunting cards from the CAB.

Fish and water management

Within the Ammarnäs area there is an abundance of fish and it is possible to catch char, salmon trout, grayling and whitefish. The fishing waters in the Vindelmountain area are both state and privately owned. Fishing is authorized by the CAB on all public waters in the nature reserve, except for the so-called Sami waters (*undantagsvatten*), where authorization for fishing is

determined by combined decisions taken by the Sami village and the CAB. The Sami waters are co-managed by the state and a Sami village. Revenues accruing from authorising fishing rights on the Sami waters are shared equally between the CAB, the Sami village and the Sami Fund. Members of a Sami village are entitled by law to fish in both public and private waters in the Vindelmountain area, but they fish mainly on the Sami waters.

Fishing on private waters is authorised by Ammarnäs fishing conservation association (*Ammarnäs fiskevårdsförening*). It comprises approximately 130 landowners, mainly descendants of the Swedish settlers, who own land that borders on the lake of Gautsträsk. The members of the fishing conservation association have stipulated local regulations for the timing and resource outtake etc. The Gautsträsk water basin has the character of a common property resource arrangement The Ammarnäs fishing conservation association has grown in importance during the last five years. In recent years the fishing waters that surround Ammarnäs have been recognized by anglers as an excellent fishing area and the Ammarnäs fishing conservation association has during the last few years developed into a profitable economic cooperative, with a turnover of about 250,000 SEK annually. Part of the profit has been invested into community purposes, such as machinery for the local track and trail organization. The fishing association cooperates actively with a tourist company, the Ammarnäs fishing centre, which acts as a centre of administration for fishing related information in the area. Much of the monitoring of the fishing and water resource management is carried out by the fishing centre in collaboration with the CAB.

6.1.3 A brief natural resource management history of the Vindelmountain area

The attempts to develop local management arrangements in Ammarnäs relate to a larger Swedish debate on tenure issues in the northern inlands. Several of the natural resource conflicts in Ammarnäs are intertwined with the politics of the state and can directly be traced to changes in government policies from the past. In the following section, I will sketch the historical and political processes within which the development of local management arrangements in Ammarnäs can be understood. I will also describe the

transformations through which the present nature reserve management was established. The historical overview makes up a context for how local management is discussed and negotiated today.

The period of colonisation

The Ammarnäs area has probably been populated since the withdrawal of the ice, some 8,000 – 10,000 years ago. Archaeological discoveries, traces of fireplaces and prehistorical settlements, have been found that are about 6,000 years old. Who these humans were is frequently discussed among archaeologists. Historical records of Sami activity are meagre, but it is clear that the Sami utilized the area long before 1500 A.D. (Sander, 1982 and Jansson, 2002).

In the 1820s Ammarnäs was colonised by Swedish settlers that were tempted by the abundance of fish, wildlife resources and the rich delta meadows that surround the Ammarnäs area (Campbell, 1948). The Swedish state supported the settler colonisation, by providing settlers with tax relief and release from military obligations for farmers who migrated to the north (c.f. Lundmark, 1998). Fishing, hunting and dairy production were the major sources of income among the settlers before the Second World War. Fishing and hunting were combined with pasture and meadow farming (Campell, 1948). Crop production was not common, since cultivated crops often risked being damaged by hoarfrost. Instead milk production was more favourable and the settlers used the delta meadows for hay making. The tradition of cultivating crops came when the settlers had discovered frost free grounds (ibid).

Although Ammarnäs was located for a long period in a roadless land, the village was not isolated. The Sami had for a long time traded with Norway during the summer and with Swedish towns along the coast during the winter. When the settlers arrived to Ammarnäs they also started to trade with Norway, since not all essential commodities were to be found in Ammarnäs. During the 1860s the people in Ammarnäs were hit by several crop failures and after the crisis year of 1867, the settlers seriously started to trade with Norway. Surpluses of butter, animal skins etc were traded for flour, seed corn, sugar, kerosene etc (Grundström, 1983 and Jansson, 2002).

The early colonisation of Swedish settlers did not meet any strong opposition from the Sami, but during the course of increased migration,

resource use conflicts became more frequent (Lundmark, 1998). From a Sami perspective the colonisation by the settlers had its merits and demerits. The increased migration to the Vindelmountain area meant competition over the natural resources and the Sami population and culture went from being a majority to a minority group. The arrival of the settlers also meant opportunities for economic cooperation, sometimes resulting in a system of mutual aid between the settlers and the Sami. A state of neighbourhood was often developed and mixed marriages were not unusual (Campell, 1948).

Land redistributions in the Ammarnäs area

Land redistributions were not carried out in the same manner and at the same pace across Sweden. In north-western of Sweden, the land redistributions occurred later than elsewhere in the country and they also had a somewhat different purpose. One of the major aims of the land redistributions in the inlands of Norrland was to clarify what belonged to the state and what was considered as private property. This particular reform was called the Delimitation of Crown Lands (*avvittringen*) and involved the creation of forest commons (Justitiedepartementet, 1991) and village commons. The land redistribution in the north-west of Sweden at the turn of the 20th century was thus not primarily for creating large efficient cultivation units by consolidating private lands and transforming common lands into private property, but it also involved the establishment of forest commons.

The idea of establishing forest commons in connection with the Delimitation of Crown Lands in the county of Västerbotten (1861-1918) came during a period when the demand for forest resources increased significantly, and when critical voices among several forest experts, politicians and farmers were raised against the outcome of the previous land redistributions in the south (Sörlin, 1989). The critics argued that it might not be suitable to split the forest resource into "small" pieces, for the efficient exploitation of these resources. Another rationale behind the creation of forest commons was to prevent unsustainable forest exploitation by commercial logging companies (ibid) and to strengthen the local economy, by compensating the settlers for not having the same access to the outfields as before (S:son-Wigren and Sandström, 2001).

In Ammarnäs and in nearby villages, the Delimitation of Crown Lands came into effect in 1916, after a long period of negotiations. The right for settlers

to freely utilise the forest as outfields was put to an end. Each settler was formally recognised by the state as a legal owner of a piece of private land and also a shareholder in the Sorsele forest common (*Sorsele Övre Allmänningskog*). In 2001, Sorsele forest common comprised about 700 shareholders and the forest area covers 29,000 hectares and is located 70 kilometres south-east of Ammarnäs (ibid). The state took a firm grip of the management of the forest common during the first two decades of its operation. It was managed under the auspices of the Board of Crown Forest and Lands[26] (*Domänstyrelsen*) and it was not until 1939, that the state devolved some of its management power to the settlers (ibid). During the first years after the land reform, the settlers were also obliged to have permission from a forest official in order to cut down trees both on their private lands and on the forest common (ibid).

During the process of the Delimitation of Crown Lands, village commons were also created. Within the Vindelmountain area eight village commons were formed (legally recognised). The legal aspects of the Delimitation of Crown Land in northern Sweden have been questioned by several descendants of the first settlers, who argue that the reform process was carried out unlawfully (c.f. Isaksson, 2001). In Ammarnäs, one landowner is claiming back land from the state, which he argues that his ancestors were already granted title deeds to in 1671.

During the Delimitations of Crown Lands, the earlier described administrative border - the cultivation border - was created in 1867 (Lundmark, 1998). Above this border, where Ammarnäs is located, it was stipulated that no more permanent agricultural settlements were allowed to be established. The lands above the cultivation border should primarily be used for reindeer herding. Below the cultivation border the Sami were ensured certain reindeer grazing rights. At the end of the 19th century there were about 130 agricultural settlements above the cultivation border in the County of Västerbotten and several had been established after the decisions on the cultivation border. These settlements were discussed during several decades, until the Swedish Parliament decided that the majority of them could remain. The cultivation border did, however, not just affect further

[26] The Board of Crown Forest and Lands was during time of the Delimation of Crown Lands a public authority that managed the agricultural and forest land that belonged to the state. Over time the Board of Crown Forest and Lands has been restructured a number of times and its administrative tasks have been taken over by several other public authorities. In the 1990s it was restructured and turned into a forest parastatal company – *Sveaskog*.

Swedish colonisation, but also the possibility for those Sami who wanted to settle above the cultivation border to earn their living from hunting and fishing (ibid).

The land redistributions in the north-west came to exclude Sami rights to natural resources, since the Sami were excluded from taking part in processes that would ensure them full property rights. Instead a separate law was created, the Reindeer Act from 1921, which ensured members of Sami villages certain user rights for reindeer herding, fishing and hunting which to a large extent are still applicable today. The law came to split the Sami population in two parts, since only the Sami who owned reindeers and belonged to a Sami village, were given specific user rights. The Sami who did not belong to a Sami village and earned their livelihoods from farming, fishing and hunting etc, lost their previous "exclusive" hunting and fishing rights (Lundmark, 1998 and Mörkenstam, 1999).

Compulsory transfer

Another cause for natural resource conflicts in Ammarnäs can be traced to the forced transfer of reindeer herders in the 1920s-1930s, when the Swedish and Norwegian governments were engaged in a boundary dispute. The dispute resulted in closure of the national border for "Swedish" reindeer herders. This meant that reindeer herders from the north of Sweden lost important grazing areas in Norway, and were forced to move south to access new grazing areas. Two reindeer families from Karesunado moved south to Ammarnäs and were incorporated into Gran's Sami village. The move caused both user conflicts in Gran Sami village and with the neighbouring Sami village of Ran. Josefin, an active reindeer herder from Gran's Sami village and descendant of one of the families portrays the following situation:

> *My grandmother and grandfather originally came from Karesuando…and they were first forced to move to Gällivare and they came to Ammarnäs in 1932. It was not so strange that they [Ran's and Gran's Sami villages] became angry, because the authorities didn't inform [the people] that there would come new Sami here, who spoke another language and practised another kind of reindeer herding. We had larger herds and the South Sami had smaller herds with stricter surveillance. Sometimes in our meetings within Gran's Sami village we can still hear "Karesuando Lapp go back". In the heat of the moment you can hear this…although I was actually born here and*

> *my father came here when he was eleven. It continues, but I think it is about to gradually disappear.* (Josefin, April 2005)

During the second half of the 20th century the rationalisations within the agricultural, reindeer and forestry sectors, caused many farmers and reindeer herders to go out of business. In 1968 Ammarnäs was severely damaged by a flood and many farmers never recovered. As a consequence only a handful of families earned their living exclusively from farming at the beginning of the 1970s. In 2003 there were only two part-time farmers left.

In the 1970s the tourism sector developed extensively and Ammarnäs became acknowledged as a famous winter resort. Ammarnäs was one of Sweden's leading tourist/winter destinations in the 1970s, but later a negative tourism trend was experienced compared to other winter resorts. The nearby Hemavan and Tärnaby ski area developed extensively, while Ammarnäs as a tourism destination stagnated. Several people in Ammarnäs attribute this negative development to the establishment of the nature reserve.

The story of the nature reserve

In 1974 the Vindelmountain nature reserve was established (Länsstyrelsen Västerbottens län, 1974/78). This meant among others things that many villagers lost their informal user rights to collect timber, firewood and gravel. Restrictions on snowmobile driving were also stipulated and house construction in the nature reserve was prohibited. Several of the landowners also lost their formal user rights to their private lands, since some of these lands were appropriated by the state and included in the nature reserve area. The nature reserve establishment did not, however, mean any changes for practising reindeer herding in the area.

In the management plan for the nature reserve from 1978, it is stated that the purpose of the reserve is to:

> … *conserve a south Lappish mountain area, where almost all of the nature categories are represented and where the reindeer husbandry is an integrated part of the mountain ecosystem for reindeer husbandry, nature conservation and leisure activities*. (Länsstyrelsen Västerbottens län, 1974/78, p. 2).

The relations between people in Ammarnäs, particularly the landowners, and the state concerning the nature reserve are strained and there are many stories of how villagers from Ammarnäs and the state authorities, represented mainly by the CAB, have been in conflict. The establishment of the nature reserve dates back to the early sixties when the Swedish government invested heavily in hydroelectric power stations across the country. During this period the Swedish government also had far reaching plans to exploit the Vindel River for hydroelectric power. However a strong environmental public opinion opposed it. In the wake of the environmental opinion, plans to establish a nature reserve emerged. The initial plans also included a considerable area in the county of Norrbotten (Länsstyrelserna i Västerbottens och Norrbottens län, 1973), but due to administrative difficulties and strong local protests from the county of Norrbotten, the area was reduced from 743,000 hectares to 440,000 hectares (ibid).

During the course of the establishment of the reserve, the former director general for SEPA (Valfrid Paulsson) promised to compensate the villagers in Ammarnäs by constructing a road across the reserve. The villagers were also assured that the nature reserve would lead to an increased number of tourists in the area. The promise was however never fulfilled and the "road issue" has over the years divided the village into two camps. In a village referendum in the middle of the 1980s, the villagers voted in favour of construction of a road that would connect Ammarnäs to Hemavan. The referendum did not however lead to any road construction. Instead the CAB compensated the village by establishing a research station, in 1995. The research facilities at the station have so far been poorly utilized and the research has mainly been concentrated on issues connected with ecology, botany and zoology.

In June 1976 a consultative group was established by the CAB, comprising representatives from the two municipalities, the Sami villages, the Regional Board of Agriculture and the Board of Crown Forest and Lands. The purpose of the consultative group was to act as an advisory forum for the CAB on issues that concerned planning of nature conservation activities. The villagers' possibilities to influence discussions at these consultative meetings were however limited. The agenda of these meetings was decided by the CAB and county officials dominated the representation with only one or two representatives from the Sami villages. The latest official consultative meeting was held in 1999 (Länsstyrelsen Västerbottens län, 1997-1999). In June 1977, the CAB decided that a special group within the

CAB placed in Ammarnäs or in the township of Sorsele should carry out the management of the reserve (Länsstyrelsen Västerbottens län, 1974/78). This group was however never established.

In 1978 the nature reserve was enlarged by 2.2 hectares (*Fårkammargrottan*), a mountain area situated next to the ski-lift in Ammarnäs and five years later, a bird protection area was incorporated (*Marsivagge*), inside the nature reserve. It is forbidden to enter this area between 15 May and 1 August, with the exception of a trail that goes through the area. The reason was to ensure that the birds living in the area would receive sufficient protection against particularly bird enthusiasts. The decision did not however affect possibilities to practise reindeer herding in the area (Länsstyrelsen Västerbottens län, 1983).

In January 1988[27], the CAB enlarged the nature reserve with three new areas, Kirjesålandet (35,000 hectares), Matsorsliden (13,000 hectares) and Giertsbäcksdalen (22,000 hectares). The enlargement aimed to include areas of 'pristine' mountain forests and to ensure that endangered biological habitats were saved for the future (Länsstyrelsen Västerbottens län, 1992). These areas were mainly situated on state land, with the exception of Kirjesålandet, which is located within the forest common of Tärna-Stensele.

In 1995 the protection of the nature reserve was further increased by the inclusion of the reserve as a *Natura 2000* area. The reason is that Vindelmountain nature reserve is considered as a haven for many species and nature habitats that the European Union see as particularly important to protect and conserve according to the Habitat Directive and Bird Directive in the Ramsar Convention. In this connection, the CAB also decided to include the Ammarnäs delta as a *Natura 2000* area and the entire Vindel River that flows through the county (http://www.ac.lst.se/, September 2004)

In 1995, a proposal to further restrict snowmobile traffic in the nature reserve was put forward by the CAB in response to a proposal advanced by the national cabinet. The reason was to limit noise from the snowmobiles and disturbance to the reindeer. The proposal was met by strong protests from some of the villagers (mainly villagers of settler origin) who started a

[27] Already in 1984 an interim decision was taken by the CAB to protect certain forest areas from being cut down.

campaign against further snowmobile restrictions. One frequently told story as regards this particular situation was when members from the local snowmobile organization put up posters of the former head of the nature conservation unit at the CAB with the text "*enemy of nature number one*". The members of the snowmobile organisation argued that they were more capable of managing the snowmobile tracks in the area than the CAB. Their protests came during a period when many people in Ammarnäs were upset by the CAB's handling of different issues in the nature reserve. The protests and engagement led to the chairman of Sorsele municipality taking an initiative to organise a mountain council (*Fjällrådet*) in 1996. The mountain council was comprised of members from the Sami villages, representatives from Ammarnäs and officials from the CAB, the municipality and SEPA. The purpose of the mountain council was to enable a constructive dialogue between the different actors regarding different decisions in the Vindelmountain region. The commitments to the mountain council were at the beginning many but when the initiator passed away in 1997, the initiative slowly withered away. The last meeting was held in Sorsele in 2000 (Karl, personal communication).

SEPA and the CAB have far reaching plans to further expand the protection of the nature reserve by upgrading the nature reserve into a national park (Naturvårdsverket, 1989 and 2007). The villagers are aware of the plans and they are divided on the issue. Many villagers fear that a national park will lead to more restrictions when it comes to access to the surrounding natural resources, while others see opportunities for increased tourist development.

Much of the villagers' blame for the economic stagnation in Ammarnäs is attributed to internal and external conflicts that the village has gone through during the recent decades. Particularly the landowners view the establishment of the nature reserve as a point of departure for an era of strained relations with the CAB and between different groups within Ammarnäs. The establishment of the nature reserve did not however mean any major changes in the villagers' access to the natural resources. However, failed promises and assurances linked to the nature reserve establishment have created distrust towards the CAB in particular. Neither the promises about construction of a road nor the assurances of increased tourism development are forgotten:

> *At the time of the establishment of the nature reserve we were promised gold and green forests. There are so many that have been cheated… and nowadays there is probably no one in Ammarnäs that believes a shit in the CAB.* (Britta, September 2004)

Failed promises have created tensions within the village between those who are in favour of or against a nature reserve as well as tensions between those who were for or against the road construction.

6.2 The development of local management in Ammarnäs

6.2.1 Ideas of local management emerging

In February 2001, the municipality board of Sorsele initiated a strategic growth programme (*Sorsele lyftet*), with a goal that the population, employment, infrastructure and competence within the municipality should increase and be strengthened by 2010 (Sorsele kommun, 2001and 2002). One part of the programme was the Vindelmountain project (*Utveckling av Vindelfjällen*). This project aimed at developing the Ammarnäs area and strengthening the tourism sector. The nature reserve was referred to as a crucial resource for achieving sustainable development in the area. The vision of the Vindelmountain project is that by 2010:

> *Ammarnäs and the Vindelmountain area is an attractive and flourishing community that provides a sustainable living environment where people thrive, have attractive jobs and believe in the future* (Sorsele kommun, 2002, p. 6).

The municipality recruited an external project leader and in April 2001 he brought together representatives from organisations in Ammarnäs that he perceived to be the most influential for achieving the project objectives and the development vision that had been set down by the municipality board. These organisations included the Ammarnäs business association, the community business association and Ran's and Gran's Sami villages.

When the project commenced it was also a goal in itself to achieve a dialogue between different groups within Ammarnäs. The village had a reputation of being full of conflicts and people wished to move away. Ulla, a reindeer herder from Ran's Sami village and a member of the municipality board when the decision on the Vindelmountain project was taken recalls:

> *It was a village that was characterised by a tremendous amount of conflicts, not just conflicts between the Sami and the settlers, but there were conflicts as well between the landowners and within the various local village associations. It was not possible to agree on anything. I remember when the decision on the strategic growth programme of Sorsele was taken and honestly speaking I did not believe in it. I thought it was an impossible situation. Ammarnäs is a sparsely populated area and an area people move away from. Statistically we counted that within 15 years Ammarnäs would not exist if the present development continued. The private and the public services from the municipality became worse and worse and it was hard to get a job.* (Ulla, May 2005)

During the initial phase of the project several informants recall a period of tough discussions. Sven from Gran's Sami village summarised it in the following way:

> *During the first year we worked, then I felt that it was hard, it was not easy and we challenged each other over and over again…these two cultures [the settler and the Sami]… It was not until we started to talk about what we should do with the nature reserve that we realised that we are equally dependent on each other. We who work with reindeer husbandry we live here half the year, but when we live in Ammarnäs we are dependent on the petrol station, the grocery store, the school etc and vice versa those who live in Ammarnäs permanently are dependent on us.* (Sven, September 2004)

Rather early in these discussions, ideas about local management emerged. In one of the first project documents from 2001, it is stated that the project should strive towards developing a local management arrangement of the nature reserve that is built around the notion of a Sami mountain park and that the project should concentrate upon business development that could prevent people to move out from the area (Sorsele kommun, 2001). Ulla again:

> *During our discussions, we agreed that it was the protected areas within the Ammarnäs constituency that we wanted to develop. We also agreed that it was our two cultures, the Sami culture and the settler culture that our work should be based on. We also agreed on a number of goals on what was important. They were business development and to achieve development in the area, both economically and population-wise, prevent the outflow of people from the area and make people move to our village. We were very much in agreement that the present management of the reserve had been static since the nature reserve was established in 1974. It had become this dead hand over the whole area…There is this rigorous collection of rules that regulate everything*

we want to do alongside various disparate political goals and this makes it hard for us to develop…and that is why we started to talk about local management in Ammarnäs. (Ulla, May 2005)

The quotes reveal that the motives for local management are multiple and relate to interrelated factors, such as: i) emerging insights about dependency on each other ii) financial and moral support from the outside iii) perceptions that different state interventions had constrained the development in the area and iv) perceptions that social services were about to decline and that Ammarnäs might disappear if nothing was done about the situation right away.

6.2.2 The emergence of the Ammarnäs council

In the spring of 2001, the discussions between the representatives of the two Sami villages and the two business associations successively developed into a more established group. At a meeting in May 2001 they suggested that they should form a consultative group and they started to call themselves the Ammarnäs council. The council came to work as an informal discussion and decision forum for various activities in the area. The council comprises four ordinary members and four alternate members that are chosen by their respective organisations, the Ammarnäs business association, the Ammarnäs community business association, Ran and Gran Sami villages. The council has no written code of conduct and the organisation is not officially registered. The chairperson is commissioned by the council to work with issues decided by the council members and the chairperson is paid for the work. All decisions in the Ammarnäs council are based on consensus. The reason why the members have chosen consensus in decision making is that none of the groups represented in the council should feel that they can be run over. The principle of consensus was particularly important for the Sami village representation, since their perception is that their claims have been ignored historically.

The council members also agreed to be a non-party political organisation that should work towards what is best for Ammarnäs. The council further agreed that their work should be based around three key words: integration, management authority and development (Sorsele kommun, 2001 and 2002). They were further in agreement that local management had to be based on the two existing cultures and that local management should be seen as the way to promote business development (*näringslivsutveckling*) in the area. The

notion of a Sami mountain park was also introduced by the Sami village representatives as an alternative to the word nature reserve. They disapproved of the word "reserve", because it could be given a connotative meaning by association with American Indian reserves in the U.S.

One of the roles assigned to the council was to initiate and coordinate work towards local management arrangements of the Vindelmountain nature reserve. Since the inception of the Ammarnäs council a number of working groups have been established: a visitors group, a local management group, a small-game hunting group, a group that works with refinement of reindeer products and one group that works with improvements of infrastructure and communication. The local management group includes three persons: Ulla, an active reindeer herder from Ran Sami village, Karl from the Ammarnäs business association and Sten from the community business association.

6.2.3 The networks of the Ammarnäs council

In the Ammarnäs council there are some persons who are important for bridging diverging interest and who are able to link Ammarnäs to broader networks and provide the Ammarnäs council with economic resources to work towards local management. Several of the members of the council are or have been active in municipality politics. Several also have overlapping organisational belongings. One example is Sven, who has been appointed to the Ammarnäs council once as a representative for the community business association and another time as a representative for Gran Sami village. Another example is Karl, who in the council represents the Ammarnäs business association. Apart from being a tourist entrepreneur he is also an active member in the snowmobile and the homestead organisations. Karl is also a landowner and an active politician in the social democratic party where he has been appointed to the municipality board for infrastructure and environment. A third example is Ulla who represent Ran Sami village in the council. Ulla is also an active member of the conservative party and she has networks that extend to the Swedish and the Sami parliaments.

The council has changed its composition a number of times. Some persons have left and others have been appointed by their respective organisations. Some of the members also have overlapping social identities, e.g. the recently appointed project leader from 2005, Henrik, portrays himself both as Sami and settler. The project leader has been appointed by a joint decision made by the municipality, the members of the Ammarnäs council

and the CAB. Overlapping organisational belongings and identities mean that members of the Ammarnäs council may call on a variety of capacities and networks that could help the council to justify its actions and mobilise economic resources to promote their intentions. The council members are partly paid for their work and between 2001 and 2005, the Ammarnäs council, has been able to mobilise funds from the municipality, the CAB, the Sami parliament and the County Council[28].

Members from the Ammarnäs council have over the years participated in conferences and seminars where local management of natural resources has been discussed. In 2003/2004 the Ammarnäs council took part in the CAB initiated project on local management that aimed at exploring conditions for local management of natural resource on state property in the county of Västerbotten (Sandström and Tivell, 2005). The Ammarnäs council acted as a reference group to the project and one of the members travelled together with representatives from the CAB to Scotland to study community forestry. During the study tour, contacts with Reforesting Scotland were made and one year later two representatives from Reforesting Scotland travelled to Ammarnäs to hold a seminar on community forestry. Reforesting Scotland is a non-governmental organisation that works with promoting community forestry in Scotland. In May 2003, the project also arranged a seminar, so that a forest official from Tanzania (Anatoly Rwiza) could come to Ammarnäs to share his experiences on the developments of community forestry from the Babati district in Tanzania.[29]

In 2003 one member presented the Ammarnäs council's ideas of local management in the annual rural parliament arranged by the Swedish Popular Movement's Council in Ystad. The council has also arranged courses in local management for the EU sponsored project Small Municipalities in Development in the Northern Inlands (*Små inlandskommuner i utveckling*) and it has participated in and organised conferences on local management even at a national level. In May 2005, Ulla and Fredrik at the Swedish Popular Movement's Council in collaboration with a number of organisations arranged the earlier mentioned conference (see section 5.2.8 from the Coastal Ring case) in the Swedish National Parliament with the title "*Local management – from words to concrete action*".

[28] The County Council is a political entity, elected by the county electorate and typically its main responsibilities lie within the public health care system.

[29] The visit of Anatoly Rwiza was funded by the Swedish Embassy in Dar es Salaam.

6.2.4 Internal struggles of legitimacy and visions for the future

Much of the work of the council has focused on how to develop a management organisation that could be accepted by the people in Ammarnäs. Since October 2003, the council has considered including groups that were not yet represented in the council e.g. the landowners and people who neither are members of the business associations nor members of any Sami village. The exclusion of some groups from the council has caused a lot of discussions about the legitimacy of the council. One proposal is that the council should consist of representatives from the Ran and Gran Sami villages, landowners (represented by the 8 *byalag*), the tourist sector (business sector) and by the civil society (associational life). By bringing in one representative from the *byalag* and one from the associational life, the hope is to increase the legitimacy of the council.

Failed efforts have been made to assemble all the eight *byalag* so that they could appoint a representative for the landowners. Several of the landowners did not show up and some landowners oppose the idea of local management since they fear that the local management will encroach on their private lands. The representative from Gran Sami village has also opposed the idea, because the Sami villages will then be in a minority position. Some people also argue that local elections are needed in order to increase the legitimacy of the council.

Furthermore, not everyone in Ammarnäs has great confidence in the village capacity to manage the nature reserve. Anna who moved to Ammarnäs in the 1980s and who works part time as an information officer at the natural museum and as a teacher in the village school expressed her doubts in the following way:

> *We are so few for such a big reserve. We probably need the CAB…We have a lot of competence in the village, but we are too few for managing such a big area as Vindelmountain… We also lack economic resources and if we receive management rights, then it must be based on agreements that guarantee long term economic sustainability…In order to develop a good management it is necessary to have continued support from the outside, but the core of the management could possibly be situated here.* (Anna, September 2004)

The above quote opens up for a co-management arrangement with the state, while others stress that management is best handled by the people who reside in the village and that Ammarnäs therefore should strive towards a

management solution that provides the villagers with extensive rights of precedence:

> *There are no other people than us who reside in the area that can manage a local management arrangement… We who live here have the right of precedence in relation to external interests! … Our right of precedence is not to say no to other interests, it is about recognising other interests under the precondition that it is done through our provision… and we should facilitate them to be successful. Those of us who live here throughout the year have the right of precedence. We are the root to why the management can be called local.* (Karl, September 2004)

Local management is legitimised though reference to historic continuity and place belonging. By using the metaphor of a root and by claiming residency the informant clearly articulates that it is the people who reside in the area that should have the right of precedence in management when compared with other interests. Such claims suggest a management arrangement with far-reaching local autonomy compared with the present state management.

There also exist opinions in the village that the present state management is the best way, "*although there is much to improve*", and that engaging in the work of the Ammarnäs council serves as an excuse for council members to receive funds from the government. These opinions, however, are few and most people seem to be of the opinion that the work to promote local management pursued by the Ammarnäs council is good, particularly when it concerns conflict resolution in the area.

6.2.5 The self-managed village – visions for the future

In October 2003 the local management group forwarded a proposal to the municipality and the CAB that suggested that the Ammarnäs council should develop as a subunit under the municipality of Sorsele (Sorsele kommun, undated). The proposal was presented at a public seminar in Ammarnäs, where representatives from the municipality and the CAB also took part. By changing the membership composition of the council and by linking it to the municipality, the Ammarnäs council hopes to get the council formally recognised as an institution for local natural resource management in the area. The idea of establishing the Ammarnäs council as a separate development unit under the municipality is supported by the municipality and since October 2003 they have been involved in discussions as to how such an arrangement could be developed.

The proposal also suggests that local management should not just be limited to the management of adjacent natural resources, but should also include municipality services, such as care of the elderly, primary school and rescue service activities. It is suggested that a local service office, with a base in Ammarnäs, should take on duties and activities that are at the present administrated by the CAB, the municipality and by the local associations in the village. The long-term goal is to gather all these activities in a local service office, which is accountable to the Ammarnäs council (see Figure 8 below). The purpose of establishing a service office where all activities are assembled is to improve coordination of activities in the village. By so doing, the council hopes to make it possible for increased commitment to community development work and to increase trust that will help promote a peaceful relationship between different actors (ibid).

The aspiration is that future incomes that are generated from different local natural resource management arrangements, e.g. incomes generated from selling hunting and fishing cards, will serve as a financial nucleus for the service office. In this proposal, the Ammarnäs council is seen as the primary socio-political unit for natural resource management and other political decisions.

Figure 4. Vision of a locally based service office.

<table>
<tr><td colspan="4">Ammarnäs Council
Integration – Management Authority – Local Development
Makes decisons based on consensus in accordance with the municipality endorsed strategic growth programme (Sorsele lyftet)</td></tr>
<tr><td colspan="4">Service Office
Initiates – Plans – Executes – Manages
Is responsible for the service – public or private – which the council has decided or agreed on with another partner so that it will benefit the people in Ammarnäs and its visitors.</td></tr>
<tr><td>Tourist office
Common tourist profile
Booking
Advertising
Guide pool</td><td>Municipality services
Care of the elderly
Rescue service
School</td><td>Infrastructure
Tracks and trails
Snowmobile tracks
Carpooling
Bus and air transportation etc</td><td>Area development
Environmental management
Education
Accessibility
Sustainability</td></tr>
<tr><td>Hunting and fishing Administration
Hunting and fishing cards
Cancellation of activities that could disturb the reindeers (avlysning)</td><td>Sami mountain park
Sami tourism</td><td>Nature reserve
Management and monitoring
Flora and fauna
Development</td><td>Ammarnäs village
Togetherness
Settler tourism
Investments
Development</td></tr>
</table>

Source: Adapted from a presentation made by the local management group at a seminar on local management. Arranged by the Ammarnäs council in Ammarnäs in October 2003.

The process of developing local management arrangements in Ammarnäs is in this sense characterised by a coordination philosophy that goes beyond the management of natural resources. Local management is viewed as something broader, which could help the village to circumvent government policies that are perceived as incongruent and unrelated when fused at the local level. The process of developing local management can in this perspective be interpreted as a response to centralisation and the sector approach of government policies that are unable to address the diversified

patterns of employment and activities at local level. Several informants mention the launch of new regulations and policies related to snowmobile driving, air transportation, small-game hunting etc as problematic when implemented at the local level.

6.2.6 Emerging institutional forms of local management

The institutional arrangement emerging in Ammarnäs assembles already existing village organisations. Some of these already manage natural resources as commons, e.g. the grazing commons of the Sami villages and the village commons of the landowners. Local management of natural resources as commons in Ammarnäs is thus not a new phenomenon. What is new and rather unique in Ammarnäs, at least within the Swedish context, is that the two Sami villages, landowners, civil society and business sector in Ammarnäs with support from the municipality express a common interest to take over the management of state owned resources. The institutional arrangement that is promoted is multicultural and intersects formal and informal domains. It is based on a combination of residency and formal access to natural resources, either through membership of a Sami village and membership of one of Ammarnäs eight *byalag* and/or through membership of business organisations and village associations. The institutional arrangement that is advocated is also multipurpose and cross-sectorial. It goes beyond the management of natural resources and includes social services, where existing village organisations and municipality services are to be fused under the umbrella of the Ammarnäs council.

6.2.7 Attempts at developing a local management of small-game hunting

Negotiations for local management in the Vindelmountain area take place within a wider arena than that of the Ammarnäs council, the municipality and the CAB. This is illustrated by the attempt to develop a local management arrangement of the small-game hunting. Apart from the long-term goal to develop a local management arrangement for the nature reserve and municipality services, the Ammarnäs council started to develop a model for a local management arrangement for small-game hunting in 2003.

During the autumn of 2003, villagers in Ammarnäs reported that several small-game hunters were shooting more game than permitted and that dead game was left behind on the mountains. Hunting dogs were also reported to have chased reindeer. One possible explanation to these developments can

be attributed to the earlier described small-game hunting reform from 1992. For the reindeer herders, the hunting reform implied loss of influence to steer the hunting within the reindeer grazing areas. Many reindeer herders also lost their exclusive right to sell hunting cards. Since the reform the hunting pressure on particularly grouse around the Ammarnäs area has increased. Between 2002/2003 and 2003/2004 the number of hunting days increased by 75%, from 912 to 1,597 hunting days (Ammarnäsrådet, 2004).

Opportunities for increased local commercialization of the hunting resource, through arranging guided hunting tours motivated the Ammarnäs council to look into alternative management arrangements of small-game hunting. Increased influence in management of small-game hunting on the part of the Ran and Gran Sami villages would also increase the opportunities to reduce the disturbance for the reindeer.

In order to meet the demands of the Ammarnäs council on these issues, the CAB decided in November 2003, that only guided hunting tours were allowed the first two hunting weeks. The Ammarnäs council was also given an assignment to develop a proposal for how a local management arrangement for the small-game hunting could be organised. The decision was strongly opposed by many hunters from outside the Ammarnäs area, and politicians and CAB officials were "bombarded" by e-mails (more than 80 e-mails). Some of these e-mails included strong accusations against particularly the Sami and the CAB, underlining the conflicting nature of the whole small-game hunting question:

> *Shame on you politicians that you are letting yourselves be bought by the Sami and that you take away from ordinary Swedes our highly cherished mountain hunting!* (Per)

> *Politicians! Reconsider before you take a wrong decision which would mean that other Sami villages would start guerrilla warfare.* (Roland)

> *As I perceive it, this is the cul-de-sac for the ordinary Swede with a passionate relation to small-game hunting.* (Dan)

> *Do the Sami think that they own everything? And that they can continue with their illegal hunting?* (Passi)

I hope that all who vote in favour of the proposal will lose their commission of trust! (Chris)

Source: Excerpts from some of the e-mails published in the local newspaper (Västerbottens kuriren, 28th of February 2004).

The e-mails appeared to be an organised action from the hunters' organisation who perceived a threat to their right to hunt "freely" on the Vindelmountain area. The decision of the CAB also generated debate contributions in the local newspaper, where the leadership of the regional hunters' association clarified the positions of the association:

> *The decision implies that the hunters from Sweden and in the County would be locked out from the small-game hunting in favour of commercial hunting with foreign and financially stronger hunters. […] We think that it is peculiar that the CAB with Lorentz Andersson [the county governor] in the forefront would choose not to consider what the largest interest organisation thinks in this matter.* (Västerbottens kuriren, 8 June 2005)

The e-mails and the debate contribution illustrate that the question of small-game hunting involves other actors and claims, which the CAB and the Ammarnäs council had to consider when proposing changes in game management. The issue of small-game hunting triggered other actors beyond the local area to take action that affected the possibilities for the Ammarnäs council to develop a local management arrangement of the small-game hunting.

While the public debate was ongoing, the Ammarnäs council continued to work on their small-game hunting proposal (Ammarnäsrådet, 2004). The proposal departs from the Swedish nature conservation policy and Agenda 21. In the proposal it is stated:

> *The free small-game hunting as it is carried out today, threatens the long term sustainability of the nature reserve … [It] implies a significant security risk for those who are found within the nature reserve. According to the council it is impossible to achieve sustainable development in the area if the present system of granting hunting rights is to be continued* (Ammarnäsrådet, 2004 p.7).

The proposal from the Ammarnäs council specifies by whom, why and how the management of small-game hunting should be carried out. The proposed hunting area is located on the Vindelmountain nature reserve within Ran and Gran summer pasture areas. In order to secure the sustainability, it is proposed that the hunting should rotate between the 45 hunting areas and the council has estimated that the area will have a capacity of approximately 630 hunting days per week. The council recommends restricting the game hunting to six grouse and two forest birds per hunting day and person and establishing a security distance between the different hunting parties of at least 1000 metres. The council also reserves for itself the right to regulate the amount of hunting in accordance with the availability of game (ibid). It is further suggested that the Sami villages each year turn in a prospectus that points out suitable hunting areas with price information to the Ammarnäs council. On the basis of the prospectus, an agreement between the Sami villages and the Ammarnäs council should be established. It is further suggested that small-game hunting parties should be accompanied by a hunting guide with good knowledge about reindeer husbandry, the Sami and the settler cultures. The hunting guide activity should primarily be offered to local entrepreneurs that have knowledge of the area and the rules and conditions in the management plan of the nature reserve. It is also suggested that the council should arrange hunting guide courses (ibid).

In order to mobilise support for the proposal and avoid future criticism, the council invited the regional hunters' organization to discuss and comment on their proposal. However the negotiation process failed, since the parties disagreed on the time to the start the small-game hunting. The hunting organisation also wanted areas to be set aside for hunting without guides. The Ammarnäs council to some extent agreed to this request (Lars, personal communication)

In February 2006, the CAB decided on the basis of a renewed proposal developed by the Ammarnäs council, that a pilot project on local small-game hunting should be initiated. The municipality of Sorsele was suggested to be project owner and the CAB promised to provide the project with administrative support and resources for monitoring.

Parallel with these developments, the Swedish government launched a national policy investigation on small-game hunting (SOU 2005:116). The policy investigation suggested new small-game hunting management areas to

be established where the landowners and the Sami villages are supposed to co-manage the small-game hunting and fishing resources on private and public lands. Above the cultivation border, where Ammarnäs is located, it is suggested that the Sami should have the majority in the proposed management committee, while below the border the landowners should be the in majority. The national organisation for the Sami is cautiously positive to the policy recommendation, since it would provide the Sami villages with increased possibilities to influence the hunting. The policy recommendation was, however, not well received by landowners and by the national hunters' organisations. The latter described the proposal as an encroachment on the hunters' right to hunt freely, while some landowners described the proposal as an encroachment on private ownership. In an interview in the hunter's magazine of the Swedish Association for Hunting and Wildlife Management, Britta, a landowner in Ammarnäs stated the following:

> *They [the state] stamp on our rights all the time. It started with the Delimitations of Crown Lands, when the state took away from us all the outfields. Now they want to take our hunting and fishing rights. The only thing that we have left. If they achieve this proposal my property will not be worth a piss!* (Britta quoted in Svensk Jakt, 2006)

Some of the landowners in Ammarnäs also took part in a public demonstration in Sorsele against the policy recommendation. The demonstration was arranged by the Nordic Network (*Nätverket Norden*), a newly established interest association in Sweden that works to protect the rights of the private landowners.

Photograph 3. *Public demonstration in Sorsele (June 16, 2006) At the demonstration the small-game hunting policy investigation was symbolically buried in a coffin.*

Photo: Bertil Sundkvist.

The launch of the public investigation on small-game hunting and fishing made it more difficult for the council to develop its ideas about local management of the small-game hunting, partly because some of the landowners in Ammarnäs feared that the proposal developed by the Ammarnäs council would also include private property. Furthermore, the policy investigation emphasised the establishment of co-management arrangements, specifying only those that had either reindeer grazing rights or formal ownership to the lands earned the right to participate in the suggested co-management model, thus leaving out other people with an interest in small-game hunting. The development of local management is thus influenced and circumscribed by a tension that is played out in several arenas.

6.2.8 Meanings ascribed to local management

In spite of the difficulties of finding acceptable management arrangements, the numerous discussions on local management in the Ammarnäs council have generated common ways of understanding local management and what it can contribute with. Such meanings are summarised here as discursive themes on local management that serve as reference points for the discussions. They frequnetly appear as arguments and motives for local

management that are often expressed in contrast to the current natural resource management of the CAB.

Local management as integration and conflict resolution

The discourse on local management often revolves around the three key issues of *integration, development and management authority* that the council has agreed to work towards. These issues were often referred to in project documents, interviews and in meetings and seminars where members of the Ammarnäs council presented their work.

Ulla, a reindeer herder from Ran Sami village, and Karl who portrays himself as a settler, both members of the Ammarnäs council, elaborate on *integration* in relation to local management in the following way:

> *We want to develop a local management that is humane. It is neither a local Sami management nor a local Swedish management. It is management for us…and the way we have been able to reach this is through integration. For us it has been to work with integration across cultural borders and that is the most important thing. We have also worked with integrating many of the diverging interests that want to be in our area for example hunters, anglers, tourists and researchers etc. If they all have free hands to do whatever they want then our area would soon be worn out!* (Ulla, May 2005)

> *One of our key words is integration… We have had a long tradition of shouting out our discontent around our kitchen table, but these views do not take us any further. In order to gain an impact and development of the area you have to commit yourself and integrate yourself…and in this communication we do not need to be strangers to each other any longer. Integration is about listening carefully to whoever you have in front of you… and we have done this and it has not been easy, since the Sami and the settlers have lived segregated and this has been a very clear policy from the state during the last 50 years. The segregation between the Sami and settlers is approximately 50 years old… and it's not until now that I have started to understand the other culture [Sami culture]…Integration works as a medicine against conflicts!* (Karl, September 2004)

The term integration in relation to local management has many connotations as understood by the quotes above. It can be interpreted as a tool for coordination of different claims and interest groups and as a means to protect the area from being overexploited. It is also articulated as a device for cross-cultural understanding that could provide a conscious scrutiny of beliefs and acceptance of others and as a way to resolve conflicts in the area.

Local management as development and management authority

When local management is discussed it is often embedded in a critique against the current nature reserve management, which is criticised for being static, distant and authoritative and for having little room for development:

> *Ammarnäs is a green zone. It is surrounded by the Vindelmountain nature reserve. It was supposed to be an asset that would provide employment opportunities but is perceived as a forbidden zone that is governed from Umeå and Stockholm.* (Lars, former project leader for the Vindelmountain project, February 2006)

This type of critique often comes into the open in articulations of local management as the only way to circumvent state policies that are perceived as authoritative and which leave little room for employment opportunities and broader development. Other expressions used are that the CAB has placed a *"dead hand"* or a *"red cloth"* over the area. Rather than interpreting these metaphors as reflecting constraints to development, it is also possible to see them as critical expressions, which aim to create a space for influence and action:

> *In order for us to come further with local management we need management authority…and this is not necessarily about getting ownership to the lands. If it is important for the state to continue to have ownership of the land, then let them have it. We want to be able to plan and administrate and we want to participate! We want the Ammarnäs council to be an equal player in a partnership with the municipality and the state. Management authority will lead towards development and this has to some degree already happened. The authorities and the CABs can never shape what we can create! We are much better in developing Ammarnäs than what a CAB or a Nature Protection agency can do. This is what local management is about…and that is why they have to let go of some of their control!* (Ulla, May 2005)

Management authority is articulated as an instrument for broader development - a "strategy" for rural development. Taking over formal ownership of state property is not considered the most important thing, instead participation and partnership on equal terms are emphasised. This leads in the direction of developing a power sharing management arrangement between the Ammarnäs council and different authorities. Management authority can also be understood as an expression of self-determination. Interpreted in this way, management authority in relation to

local management, concerns who should have the power to shape the development in the area.

Local management and human/nature relationships

Although integration, management authority and development are the most recurrent themes when members of the Ammarnäs council argue for local management, there are other dimensions as well, such as perceptions of the environment that are not so explicitly stated.

Britta, a landowner and who portrays herself as a settler said the following when asked about her views about local management:

> *On some occasions I feel so powerless …we can, god damn it, not pick up a wooden stick…If we are not able to take out anything from nature we will distance ourselves even more from nature.* (Britta, September 2004)

Britta is addressing the direct material interaction between people and the surrounding environment. She makes the point that the present nature protection not only makes her feel powerless but also alienates people from nature. Her view is that a responsible attitude to the surrounding environment requires practical engagement. Such perspectives on nature reflect a human/nature relationship that is recurrent among villagers in Ammarnäs when they argue for local management.

The issues of distance and alienation also occur in relation to other contexts. Josefin from Gran Sami village stated the following:

> *Those that have the power have alienated themselves from the physical [environment] and us that actually live here and have our income from here. Closeness between nature and us humans is decreasing…Decisions are taken above our heads! This is apparent here in Ammarnäs in questions that relate to hunting, the nature reserve and in carnivore politics etc.* (Josefin, April 2005)

While some villagers complain about restrictions in the nature reserve that are alleged to obstruct economic development and to alienate people from nature, others underline the loss of the spiritual dimension in the present state management. Ulla expressed it in the following way:

> *I have grown up with the perception that the carnivores have the right [to be] in God's free nature. For example the bear used to be and still is sacred for many of us [the Sami] and can just be killed under special circumstances. Under the present natural resource management and carnivore politics I am not able to communicate this feeling to my children any more, because I feel so powerless!* (Ulla, June 2003)

The issues of local management thus go beyond a struggle about development versus nature protection. It may also be seen as a tool that could re-establish a management arrangement that allows an incorporation of spiritual and material relationships with the environment. These human/nature relationships, the material and the spiritual, are not reflected in CAB's nature conservation plan for the Vindelmountain nature reserve. This plan rather stresses restrictions on human natural resource use, particularly for the non-reindeer herders. The management plan of the nature reserve does not bring up Sami cosmology as being part of natural resource management (Länsstyrelsen Västerbottens län, 1974/78).

Local management as sustainability and democracy in place

In Ammarnäs the process of developing local management has also spurred discussions on sustainability and democracy in relation to local natural resource management. References to sustainability are often made along the lines of integrating the social, economic, ecological and social issues (c.f. Sorsele kommun, 2004). Local management is also described as a question of place belonging and as a means to achieve democracy. Karl expressed the following during a workshop in Ammarnäs:

> *We within the Ammarnäs council have worked with establishing a 'We'. In order to make this 'We' impeccable we need a form of democracy that implies that we are not tied to any authority but rather tied to our area and to our daily life… In order to achieve this we have to integrate ourselves with others and commit ourselves towards work that is best for the place.* (Karl, April 2005)

Local management is described as an integrated action about developing a sense of perception that "we are in it together in this place". Democracy tied to place and daily life is advocated. For some villagers in Ammarnäs the environment is articulated as a life-world or *"our living room"* as one informant expressed it, while the conservationists at the CAB see the environment as being threatened and in need of protection:

> *The Vindelmountain area is our living room… It is from here we earn our living and within this room we shape the rules for how we live our lives…. No one else should shape the rules in our living room.* (Sven, Gran Sami village, September 2004)

In narrating the Vindel mountain area as "our living room" the informant makes the point that the Vindelmountain area is "theirs" and it is implicitly argued that decisions about the surrounding environment should be taken by people who live in that particular place.

The local management process in Ammarnäs also seems to have changed people's attitudes towards the surrounding environment in the direction of being more conscious about the environment. Anna, who works as an information officer, employed by the CAB, at the natural museum in Ammarnäs stated the following:

> *Since the Vindel mountain project started, I now feel that many villagers in Ammarnäs are more conscious about the environmental than before… When I compare the situation ten years ago I would have shared doubts about some villagers' responsibility and perceptions about the environment and the nature reserve, but today I have a stronger confidence in their capacity to manage the reserve in a responsible way.* (Anna, September 2004)

6.2.9 Reconstructions of history

Different views on who has the right to use the natural resources within the Ammarnäs area are frequently discussed when the issue of local management is raised. The process of developing local management goes beyond struggles with the CAB about development versus conservation. It is also linked to struggles within and outside the Ammarnäs area about who has the preferential right to natural resource management in the first place.

A common view among several landowners (mainly villagers of settler origin) in Ammarnäs is that the state "stole" large land areas in connection with the delimitation of land holdings in the period 1873-1916. Several landowners have little faith in authorities, particularly the CAB. One man has even sued the state for illegal land grabbing of 40,000 hectares and some villagers, mainly villagers of settler origin, support his battle. Others are more sceptical, particularly members of the Sami villages, since if he is successful, it might represent a potential threat for the reindeer herders'

possibility to access the natural resources. In 2001, the district court in Sorsele rejected his case.

In a similar vein, representatives from the Sami villages claim that the lands belong to the Sami, since the Sami lived in the Vindel mountain area long before it was colonised by the settlers (Swedes). There are also land conflicts within Ran's winter pasture areas along the Baltic coast in the municipality of Nordmaling. Here 130 landowners have sued Ran and Umbyn Sami villages for "unlawful" reindeer herding on private property. In Sweden there are also a number of ongoing public investigations that aim at clarifying the borders of the grazing areas of the Sami villages. In addition a public investigation on small-game hunting and a public investigation about the establishment of a Nordic Sami Convention is about to be launched. The process of developing institutional arrangements for local management thus becomes complicated since expected results from various court cases and national public investigations and decisions may affect the conditions for the development of local management arrangements. For example a Swedish ratification of the ILO Convention No.169 concerning indigenous people's rights or a court judgement may drastically change the conditions for the development of local management and change power balances between different groups in Ammarnäs.

The diverging views about the right to use and manage natural resources function as an obstruction for the development of local management in Ammarnäs. Sven from Gran Sami village illustrates this by using a metaphor of a tree:

> *Working with local management is like a scrubby tree with many dry twigs – there are as many branches as there are willpowers…It has been hard for us to unite ourselves, since there are so many different views on land rights, not just here in Ammarnäs but on a national level as well. We take two steps forward and one step back all the time.* (Sven, September 2004)

The Ammarnäs council has decided to keep away from commenting on these legal battles and public investigations in their discussions on local management. Instead other aspects are highlighted that focus on narratives about how it was before, when the Sami and the settlers had far reaching informal users rights to the area:

> *It is important that we develop a local management, which is based on the knowledge that has been inherited for generations … We the Sami together with the settlers know how to manage, since we were here before any of the authorities were here!* (Sven, September 2004)

By referring to knowledge accumulated over time, Bo explicitly makes the point that both the settlers and the Sami have the best experience in management, since they have management capacity and knowledge that stretch back to a period earlier than the authorities. Referring to the past is in this regard used as a bridging device between the settlers and the reindeer herders and as a means to justify that they have a superior knowledge in management compared to the authorities, particularly the CAB.

Informants also refer to the period before the 1950s as a period of symbiosis and reciprocity. Britta, who portrays herself as a settler, recalls the relations between the Sami and settlers when she was a child:

> *Before in the 1950s-1960s, there was a symbiosis between reindeer herders and small-scale farmers. In the winter we took care of the milking cows when they [herders] went away to the coast. When the great agricultural transformation started with subsidies to agriculture and reindeer herding, the reciprocity between the reindeer herders and small-scale farmers broke down, which contributed to many of the conflicts […] Earlier there were also a lot of Sami children who were accommodated in Ammarnäs during the winter…and during the work with separating the reindeer we helped each other and during the period of slaughter all the men in the village disappeared to help out.* (Britta, September 2004)

By telling and recalling stories about how it was before the state "interfered", villagers propagating for local management seem to seek to legitimate local management as something innate that can reduce conflicts between particularly the reindeer herders and the private landowners in the area. Narratives about history that portray a rather rosy picture of the situation before the state intervened constitute important narrations that contribute in justifying local management in Ammarnäs. They also facilitate creating a shared understanding of what local management could be like, without the state interfering. Such readings and illustrations of the past can of course be questioned. The issue however, is not whether these narratives about the history are truthfully presented or not, but whether they are accepted by others as legitimate. Suffice it to say is that the struggle to develop local management in Ammarnäs suggests that there has been a shift

in the way of portraying Ammarnäs from a *place that has always been characterised by internal conflicts* towards descriptions that portray the situation as *before the state interfered there were hardly any conflicts*. The framework for how villagers talk about the situation in Ammarnäs has shifted towards a view that *we are in it together against the state authorities*. In this sense the process of developing local management has contributed towards a sense of togetherness among different groups in Ammarnäs, particularly between the reindeer herders and descendants of the settlers. Representatives from the Sami villages and private landowners in Ammarnäs all blame the state in some way or other for the strained relations in the village and what unites people in developing local management is a common perception that the state, represented mainly by the CAB, is the cause for the strained relations in Ammarnäs. Karl, a landowner and member of the council expressed the following:

> *Since 1850 there has been a partition between settlers and the Lapp [Sami] that we suffer from today. A segregation created by the state. As hard as the one in South Africa […] but when the state through their CABs came in, the local administration of justice was put to an end and the segregation started. […] The mountains had brothers and sisters living like neighbours until the state created a partition.* (Karl, e-mail conversation, January 2008)

The narratives from the past are both used as background against which some landowners question the acts of the state and as a repository from where the Sami and the descendants of the settlers in Ammarnäs can find traces of togetherness.

6.2.10 Improved social relations and difficulties in reaching shared understandings with the CAB

Relations between different user groups have changed since the Ammarnäs council was established. Over the last few years, relations within the village have improved. Strained internal village relations have been alleviated as a result of efforts to build a village organisation that aims towards local management and broader development. The attempts to establish local management in Ammarnäs have increased the understandings and levels of trust between particularly the reindeer herders and landowners. However the relations with the CAB have not improved to the same degree. The mistrust towards the CAB has remained, particularly among the landowners.

Informants at the CAB generally talk optimistically about the development of the Ammarnäs council. The CAB experiences the council as an organised counterpart with some legitimacy to speak on the behalf of Ammarnäs village, instead of "*disparate individuals who just express their discontent*" as one CAB informant expressed it. The head of the nature conservation unit at the CAB, Per and the head of the reindeer unit, Klas are positive to the developments of local management in Ammarnäs. Per's vision is that the Vindel nature reserve could be seen as a pilot project for different local management initiatives, where future research at Ammarnäs research station could play an active role in the development and monitoring of different kinds of management alternatives.

Although the leadership of the CAB at large shared the opinion of the Ammarnäs council about the necessity to develop some kind of local management arrangement in the Vindelmountain nature reserve, it was difficult to find time and space for negotiations, where the Ammarnäs council and the CAB together could discuss a way forward, towards a shared understanding of local management. The lack of arenas for negotiations was partly aggravated by historical injustices. Some CAB officials witnessed that during meetings with people from Ammarnäs they were accused of historical events that they did not have anything do with, or issues were raised that they felt were not in their power do anything about.

Difficulties to reach a shared understanding of local management were also confined by reluctant attitudes towards local management among some staff members in the lower hierarchies at the CAB. Not everybody at the CAB expressed the same positive attitude towards local management as the leadership of the CAB. In interviews with CAB officials, some expressed reservations about local management. This hesitancy was often attributed to whether they could fully trust the Ammarnäs council. Concerns were raised that the parties in the council would not be able to agree in the long run. Their ambiguities were also related to what their colleagues at SEPA and from other CABs in the country thought about local management. In their meetings with colleagues from the SEPA and with other CABs they were advised to have a wait-and-see attitude towards local management initiatives in their region.

6.2.11 Reinforcements of socio-cultural belonging

In Ammarnäs the process of developing local management arrangements of the surrounding natural resources has become an opening that has affected how people look upon themselves and talk about each other. It has become more accepted for some people to talk about themselves as settlers. One informant in the Ammarnäs council stated the following when reflecting on the achievements made regarding local management:

> *Thanks to all the discussions we have had around the table, concerning local management, we have been able to achieve an awareness that has enabled us to understand each other. I am not able to be a better Sami than those who from the outset have that cultural identity and to my surprise I have realised that I have strengthened my own identity as a settler, since my identity no longer holds the prejudices against the reindeer herders. I can now be safer in my own identity…and this, I also believe holds true for some of the Sami.* (Karl, April 2005)

As understood by the quote above, the process of developing local management in Ammarnäs, also involves reinforcements of identity as discussions concerning local management are unfolding in the Ammarnäs area. The struggles towards developing local management are thus not only a matter of gaining increased control over natural resources; they are also part of an identification process that has become an opening for some people to reinforce their identities as settlers and an acknowledgement of other people's identities.

Several descendants of the early settler families have also become more interested in exploring the traditional settler culture. This is manifested in the restoration of decayed settler buildings and culture landscape elements. The water meadows surrounding the Ammarnäs delta have been restored and brush cleared and one farmer from the township of Sorsele now utilises the meadow for cattle breeding. One artist who lives in the village has also produced a coin in bronze where the best known symbol of the settlers – the potato slope – is portrayed.

Interesting to note in this regard is that an additional social-cultural category has appeared in connection with the discussions of local management within the Ammarnäs area. This social category is sometimes in Ammarnäs referred to as the "outcasts" (*kastlösa*). In the Ammarnäs council the term is used both in a joking manner and as a sombre expression for characterising people that

are considered to have a weak position within the Ammarnäs area, such as those that are neither land-owners nor reindeer herders. Generally this group has more limited access to natural resources.

The term "outcast" came into the open when the Ammarnäs council discussed how it should be constituted in order to gain legitimacy within Ammarnäs village (Lars former project leader, personal communication). The social categorisation of outcast, settler and Sami etc also show how close identity is embedded and tied into specific rights people have to the surrounding natural resources and how identity is linked to the discussions and new relations that have appeared in connection with the process of developing local management.

By introducing the term outcast, the internal power imbalances in Ammarnäs become explicit and it illustrates how close the issue of local management is to issues of access to natural resources and thereby also to what kind of institutional arrangement that should be selected in order to be considered as legitimate. The process of developing local management in Ammarnäs is in this regard paradoxical. On the one hand, local management has become a unifying expression that has improved the relationship between different social cultural groups, but on the other hand, the process has contributed to uncovering social differences and internal power struggles in Ammarnäs.

6.3 Summarising the case

The emergence of local management arrangements in Ammarnäs was multifaceted. This was partly due to economic and moral support from the municipality and to some extent also from the CAB. But more importantly, it was related to growing insights in Ammarnäs that diverging views about access to natural resources had caused problems and conflicts in Ammarnäs that had harmed the village economy. The observations suggest that natural resource conflicts were integral and constitutive for the emergence of local management arrangements.

The institutional forms of local management that were advocated in Ammarnäs developed around existing village organisations: the two Sami villages and the two business associations. In the future the Ammarnäs council intends to change the composition of the council to include

representatives from the landowners' and civil society sectors. The long-term goal was to link the Ammarnäs council to the municipality and to develop a local service office that could assemble activities carried out by the municipality, the CAB and different village associations in Ammarnäs. The vision of local management in Ammarnäs thus went beyond natural resource management.

The emergence of local management in Ammarnäs was embedded in multiple and competing claims to natural resource use. These competing claims were framed in relation to the other, be it Sami-settler, CAB-Ammarnäs etc. In order to bridge some of these diverging views, informants often used narratives from history that portrayed positive aspects of how it was before the state interfered. Such descriptions of the past were interpreted as narrations of the history that aimed to justify local management as something innate that the villagers in Ammarnäs have long experience of. Such descriptions of the past served to discredit the present state management while at the same time they reinforced the image that people living in Ammarnäs were more competent resource managers. The way people talked about history also contributed to creating a sense of togetherness between different social cultural groups in Ammarnäs. This brought new perspectives on the understanding of the past for the interpretation of its significance for the present.

The process of developing local management also involved internal discussions about access to natural resources that triggered discussions about social belonging and identity in the Ammarnäs council. The discussions about local management made some people more conscious and outspoken about their cultural belonging. In this context it became more accepted for some villagers to talk about themselves as settlers. The discussions about local management in the Ammarnäs council also contributed to exposing inequalities between those who have access to natural resources (either in the form of private property or in the form of customary tenure) and those without property rights. The term "outcast" appeared to classify a group of people in Ammarnäs with limited access to natural resources. In this context the understanding of the situation of different social groups in Ammarnäs was clarified.

The emergence of institutional arrangements for local natural resource management arrangements was also intervowen with and recurrently disrupted by legal battles over property rights and by the national policy

processes on reindeer herding and small-game hunting. The quest for local management was thus influenced and circumscribed by tensions in several arenas. The attempts to develop a local management arrangement for the small-game hunting illustrated how proposed changed rules in small-game hunting created strong reactions from the regional and national hunters' organisations. The issue was affected by the launch of a national policy recommendation on small-game hunting, which caused strong protests among some of the landowners in Ammarnäs and elsewhere in the country. The emergence of institutional arrangements for local natural resource management in Ammarnäs was thus characterised by both internal and external power struggles.

In spite of tensions about access and social belonging, three common themes were identified around which informants in particular the Ammarnäs council assembled around. These can be summarised as local management as: i) integration and conflict resolution ii) development and management authority iii) sustainability and democracy in place. In addition to these themes, meanings were ascribed to local management that were about human/nature relationships, which did not appear explicitly in public discussions about local management. Some informants argued that the current natural resource management regime alienated people from nature, materially and spiritually. It was implicitly argued that local management could assist people to become more involved in spiritual and material interchanges with the environment.

Although the Ammarnäs council has not received any formal mandate to manage the reserve locally, the institutionalisation process has contributed towards creating a shared understanding of what local management could be and what it could contribute with in Ammarnäs. The understanding of local management in Ammarnäs has however not been sufficiently shared with the CAB.

IV

Part IV

Reinventing the Commons Discussion and Analysis

The purpose of this final part of the thesis is to synthesise the empirical observations of the case studies that enable a discussion on key issues of understanding the emergence of local management arrangements as a contextual and negotiated process of institutionalisation. Part IV consists of two chapters. In chapter seven, the two empirical contexts are compared, with a focus on empirical patterns that explore the research question:

1. What kinds of practices and what kinds of constructions of meanings become salient in institutionalisation processes?

The comparative analysis and empirical observations from Ammarnäs and the Coastal Ring give rise to theoretical considerations that in chapter eight highlight the second research question:

2. What kinds of contributions can be made in relation to dominant theoretical approaches on the emergence of local natural resource management arrangements?

7 Comparing Studies

Both the Ammarnäs and the Coastal Ring cases are unique. However, apart from interesting contextual differences there are also common features related to the processes of emergence of local management arrangements. This chapter will illuminate some of these similarities and differences in relation to the first research question on: *What kinds of practices and what kinds of constructions of meanings become salient in the institutionalisation processes?*

There are major contextual differences between Ammarnäs and the Coastal Ring area. Apart from geographical and ethnic differences, there are diverse features as regards tenure and demography. Ammarnäs is located in a sparsely populated region with relatively few employment opportunities besides those offered in reindeer husbandry and the tourist sector. In the Coastal Ring area most people commute to the nearby town to work, and people have a diversity of occupations and backgrounds. In Ammarnäs, the nature reserve constitutes a much more dominating feature in people's lives compared to the protected areas in the Coastal Ring. In addition, in Ammarnäs people are more economically dependent on the surrounding natural resources for their livelihoods. These differences constitute important contextual preconditions for the construction of meanings and practices in their respective institutionalisation processes.

7.1 Building on existing institutions

From one standpoint one might consider the processes that unfold in the Coastal Ring and Ammarnäs as two cases of non-emergence. However if we look at what has happened in terms of organisational development and in the ways people have communicated and constructed a shared understanding

about local management, local management can be said to have partly emerged.

The suggested institutional forms for local management represent both new and old features. Special about the two cases studies explored in this thesis, with regard to the Swedish context, was that the proposed management arrangements were located on public land and that membership was not solely based on a single resource and resource user category. On the contrary the case studies show how the institutionalisation processes amalgamated a diversity of natural resources and different categories of resource users, where membership of the suggested local management arrangement was based on a combination of local residency and formal access to natural resources. In this light and with regard to the Swedish context, the suggested local management arrangements in Ammarnäs and the Coastal Ring can be seen as a new kind of common property arrangements that are located on public land.

Both in Ammarnäs and in the Coastal Ring the local management arrangements were constructed around existing village organisations. Here management power was supposed to be shared among people living in these places. The respective organisations for local management were also based on existing common property arrangements, such as the grazing commons of the Sami villages in Ammarnäs and the village commons of the *byalag* in the Coastal Ring. To manage natural resources as common property was thus not new to these areas. As such, the organisational structures of the Coastal Ring and Ammarnäs council reflected reinvented forms of common property.

The Ammarnäs council and the Coastal Ring organisation, however, differed regarding membership criteria, in terms of what the members represented and their local legitimacy. In many respects the Coastal Ring organisation was more ingenuous and unfenced than the Ammarnäs council. Membership of the Coastal Ring organisation was determined by representation in one of the *byalag* and/or by payment of a small fee and/or through voluntary work in activities of the Coastal Ring. In the Ammarnäs council, on the other hand, membership was from the beginning conditioned by the municipality endorsed project "development of Vindelmountain". Membership was determined either through representation in one of the Sami villages or through membership in business organisations. Initially, landowners and other local residents were

not included in the discussion group of the project, which over time led to the Ammarnäs council. In Ammarnäs, local management emerged as a by-product of this project, whereas local management in the Coastal Ring came as a direct response to the *Natura 2000* announcement. Members of the Ammarnäs council, contrary to the Coastal Ring, were also partly paid for their work. This can help to explain the rather closed character of the Ammarnäs council compared to the Coastal Ring organisation.

The suggested institutional forms of local management arrangements can also be seen as reinvented forms of common property in terms of territorial claims dating back to a period before the land reforms in the 18th and 19th centuries, when the landowners in the Coastal Ring and the Sami and the settlers, formally and informally managed large areas as commons. The developments of institutional arrangements for local management were presented by informants as a recuperation process, where members of both organisations tried to reinvent historical resource management practices and resource boundaries adjacent to their villages.

As can be recalled from the case studies, the economic importance of possession of land and water resources has decreased in both areas. The importance of land ownership has, however, continued to play an important social role in both settings, although in different ways. In the Coastal Ring, the landowners strongly promoted local management, whereas in Ammarnäs they played a less significant role and some of the landowners in Ammarnäs even constrained the emergence of local management.

Some landowners' unwillingness to participate in Ammarnäs council cannot be explained in terms of free riding. Their non-commitment may instead be explained by perceived historical injustices and conflicts that "prevented" them from participating in the developments of local management. The wide partition and fragmented ownership pattern of land made it hard for the landowners to unite and appoint a representative to the Ammarnäs council once the council intended to reorganise itself and include representatives from the landowners and civil society sectors. Some landowners also feared that the private lands in the future would be included in local management arrangements. Hence some of them opposed the idea to involve themselves in any work that would lead towards local management. Such observations highlight the ways in which perceived historical injustices and tenure conflicts both facilitated and constrained the development of local management arrangements in Ammarnäs.

Villagers who were landowners and entitled to fishing rights to the water commons in the Coastal Ring had strong incentives to develop alternative management arrangements. Local management could be interpreted as a means that could empower them to regain some of the management rights that had been lost through the introduction of *Natura 2000* areas and through state interventions in fishing. By using important "symbolic resources" (Mosse, 1997), such as "*threat to the villages cultural way of life*" and "*sustainable living*" etc, landowners from the three *byalag* in the Coastal Ring were able to mobilise support from people whose primary interests were not natural resource management. This helps to explain why people with relatively little interest in fishery and forestry etc became involved in developing local management arrangements. The involvement of people without ownership of land and water resources also provided the Coastal Ring organisation with legitimacy to speak on behalf of the whole community in their negotiations with the CAB.

7.2 A struggle between competing discourses

The development of local management arrangements in Ammarnäs and in the Coastal Ring can be understood as a negotiated field, where different discourses, clashes, compete and cross fertilise each other as regards who should have the power to define what kinds of natural resource management should prevail. In these struggles certain meanings and practices appeared. Despite contextual differences, the way people talked and argued their case showed several similarities and some differences.

In both Ammarnäs and in the Coastal Ring, the institutionalisation processes of developing local management arrangements can be interpreted as a form of resistance to the types of nature conservation that was presented by local actors to have a disembedding function. The Vindel mountain nature reserve in Ammarnäs and the *Natura 2000* areas in the Coastal Ring were talked about in terms of constraining the social, cultural and economic integrity of the villages. Such narratives contributed to the construction of discourses on local management that were of different kinds than those that were promoted by the nature conservation bureaucracy of the CAB. CAB officials, particularly in the Coastal Ring case, stressed the importance of having formal competence in natural resource management and protecting species or landscape elements through limited human interference. Members

of the Coastal Ring and the Ammarnäs council, on the other hand, emphasised the importance of knowing the area well and they argued for a management strategy that included historical and cultural practices in management.

A common denominator in the arguments of the representatives of the two village organisations was that CAB officials did not have the necessary knowledge to steward the protected areas in a responsible and coherent way. They were presented as being too distant from the actual scene. Distance was used as a rhetorical device, to point out that the villagers were the best managers. It is in this regard possible to assume that negotiations with the nature conservation bureaucracy at the CAB increased some people's perception of their "cultural" belonging to their particular place, which in turn reinforced a sense of responsibility towards the surrounding natural resources.

Common for the village organisations was their striving towards increased autonomy and self-reliance concerning the surrounding natural resources. Both the Ammarnäs council and the Coastal Ring organisation expressed that they wanted to create a space where their own development initiatives could be materialised. Informants from both village organisations described the publicly held natural resources as "our" natural resources and they argued that the area was best taken care of by people who lived close to the natural resources.

These expressions are similar to the classic discussion on nature preservation versus nature conservation (c.f. Nash, 1982). This discussion concerns one of the central controversies of the twentieth century environmental debate, between those who want to preserve "wilderness" in a status quo situation (preservation or fortress conservation) and those who support managed use of natural resources (conservation). The latter position is sometimes referred to as the management of natural resources on a sustainable yield basis. Conservation often emphasises natural resource management within given social and economic constraints, producing goods and services for humans without depleting natural ecosystem diversity and by acknowledging the dynamic character of ecological systems. The preservationist position, on the other hand, argues for protection of species or landscapes with limited reference to human requirements. The metaphor of a "dead man's hand", which was a common expression of villagers in both Ammarnäs and in the Coastal Ring corresponds quite well with the preservation position of this

discussion. This metaphor was used by informants in both cases to illustrate the implication of the preservationist approach of the CAB that was talked about as limiting the space for rural development activities and/or for spiritual and material interchanges with the environment.

The process of developing local management was thus tied to a struggle of competing discourses about essential meanings and practices regarding natural resource management. The struggle aimed at convincing others to view the world in a certain way. These competing discourses were linked to the process of developing local management and appeared in expressions that depicted authorities responsible for nature conservation and fishing as static and distant. Such elucidations served to discredit the state administration of natural resource management, while at the same they reinforced the views that the members of the Coastal Ring organisation and the Ammarnäs council were the most appropriate actors for management.

In the construction of discourses of local management it was possible to discern two different but interconnected perspectives among the informants in both cases; one critical perspective against the state and one that emphasised the importance of being anchored in the local place. Often these perspectives were combined in expressions that advocated local management and such statements constituted an important resource for legitimising local management. These findings correspond with Hansen's (1998) observation that it is in contrast with the surrounding society (*överlokala*) that one's own place is revealed as a culturally special place. The place is not just the physical environment, but also a contested field of meaning over place (Massey and Jess, 1995), where particular meanings to the local place and local management were developed in relation and in contrast to the surrounding society. It was in the meetings within the local and between the local, the regional, the national and the global that local management acquired its particular meanings.

The surrounding society represented by particularly the CAB became in this sense an important counterpart for the construction of particular discourses on local management. In the Coastal Ring organisation and the Ammarnäs council they can be summarised as i) *physiocratic*, in the sense that villagers talked about the adjacent natural resources as economic prerequisites for the village's future development ii) *empowerment*, in the sense that people tried to find ways to exercise control of their own situation through innovative ways of representation that could enable conflict resolution and iii) *place based and*

culturally significant, in the sense that the place and the local cultural characteristics were supposed to contribute with important qualities of the new management arrangement.

In Ammarnäs the discourses that encompassed local management were more physiocratic and directed towards conflict resolution. Local management was seen as a prerequisite for identifying an alternative space for resolving conflicts and for making economic use of the surrounding natural resources that would enable the village to prosper in the future. As can be recalled from the Ammarnäs study, the ideas of local management were further not just limited to natural resource management, but also involved a vision to take over municipality services in the area. Local management was viewed as something that could help the village to circumvent sectorial government policies that were presented as incongruent and unrelated when fused at the local level. The emergence of local management in Ammarnäs can be interpreted as practices that aimed to integrate and coordinate different development activities into a coherent organisation. The commitments in Ammarnäs showed several similarities with many other so called local development groups in Sweden. These groups have been acknowledged for taking on duties that are usually handled by the municipalities and for providing a democratic space between rural citizens and municipality authorities (c.f. Berglund, 1998 and Herlitz, 2000).

The issue of coordination of development activities was also brought up by the informants from the Coastal Ring, but coordination was mainly seen as an important tool to enable landowners in particular to stand up against authorities when decisions were taken concerning their property. In the Coastal Ring organisation it is possible to contend that the primary motive behind the development of local management was neither about resolving users' conflicts nor about generating new employment opportunities, although these issues also were stressed. Most of the population in the three villages that comprise the Coastal Ring organisation had jobs in the township of Kalix and there were no immediate threats to employment. In contrast to Ammarnäs, the struggle towards local management in the Coastal Ring can be characterised as a "spare-time" activity that came to reinforce people's interest in environmental issues.

The more members of the Coastal Ring were drawn into negotiations with the CAB, and the more the CAB questioned their competence and trustworthiness, the more important it became for the members to fill the

concept of local management with an alternative meaning in contrast to the dominant discourses on nature conservation. It became important to show what a responsible local management could mean in practice. The negotiations with the CAB produced counter-discourses and motivated Coastal Ring members to involve themselves in environmental projects and in concrete natural resource management practices on the prevailing village commons.

Worth highlighting in this connection, is the range of activities that the members of the Coastal Ring were engaged in, such as for example attempts to develop a renewable heating system and a carbon dioxide sink. In some of the commitments, narratives of past natural resource management practices played a crucial role for re-shaping the local place identity as responsible natural resource stewards, e.g. measures taken by the *byalag* to prohibit fishing on certain village waters. The village commons in the Coastal Ring provide a good example of common property arrangements that have expanded the basis for natural resource use, from mainly fishing and grazing, towards an inclusion of multiple uses that also involve recreation, tourism and nature conservation activities. Some of these commitments were built on reconstructions of cultural heritage and may be seen as nostalgic while others were more forward-looking and innovative. These commitments can be interpreted as development of institutional practices through discourse, where the meanings ascribed to local management were concretely applied to management practices on the village commons. In this sense the progression of local management in the Coastal Ring became part of a reinvention process, where members of the Coastal Ring claimed an adapted version of how the natural resources used to be managed.

As pointed out in the theoretical chapter a challenging discourse often needs to relate to established expressions and concepts in order for it to be accepted by the dominant discourses (Dryzak, 1997). For instance the discussions of local management in Ammarnäs and the Costal Ring were many times linked to the notion of sustainability. This notion was widely accepted and broad enough to not directly challenge the dominant discourses on nature conservation. Although there was no consensus regarding the meaning of sustainability, sustainability was the alignment around which much of the discussion concerning local management revolved in both the Ammarnäs council and in the Coastal Ring organisation. Officials from the CAB mainly emphasised sustainability in the

context of saving biological habitats and species from becoming extinct, whereas informants from the Coastal Ring and Ammarnäs rather underscored sustainability in the context of receiving influence and responsibility over resources and place. The process of developing local management arrangements could in this regard be seen as an attempt on the part of the Coastal Ring organisation and the Ammarnäs council to make people identify more with place rather than with the abstract idea of state protection.

Some of the meanings ascribed to local management in Ammarnäs and to some extent in the Coastal Ring, also reflected a view towards the environment that was about "seeing man as part of nature". Such meanings in relation to local management implicitly appeared in discourses that were contrasted with the conservation approach of the CAB. It was argued that the present management arrangements alienated people from nature, both materially and spiritually. Local management thus attained meanings which went beyond seeing the natural resources as a physical category to obtain influence over. Thus in both Ammarnäs and in the Coastal Ring not only the issues of influence and economic benefits were important, but also questions about human/nature relations and reassertions of cultural integrity of the villages.

In some instances local management as expressed by people in Ammarnäs and the Coastal Ring could be seen as a kind of bioregionalism. What characterises bioregionalism is a "*kind of ecological citizenship, in which individuals learn to become respectful citizens of an ecological place*" (Dryzek, 1997, p. 160). Such citizenship involves awareness of how ecosystems support life processes and the vulnerabilities of life. It also involves meeting one's material and spiritual needs from the natural resources by emphasizing the value of concrete, personal involvement in natural resource management activities (Borgström Hansson, 2003). In such contexts people become more conscious about the ecosystem they inhabit and themselves being part of it (ibid). The bioregional aspects were more salient in the Coastal Ring than in Ammarnäs. In the Coastal Ring, people were involved in a range of activities: study circles, excursions, exposure visits, mapping exercises etc, which enabled them to learn more about their ecological setting, while at the same time opportunities were facilitated for people to engage in concrete management activities on the prevailing village commons.

It is my interpretation that some of the deviations in ascribed meanings and practices in relation to local management between the two cases relate to the differences in economic development and tenure, or rather, the relatively uncertain and constrained tenure and economic situation in Ammarnäs, compared to the Coastal Ring area.

7.3 The historical embeddedness of local management

The emergence of local management arrangements was not only a contemporary struggle over discourses on nature conservation and local management. Equally important for the construction of discourses on local management and the developments of shared understandings, was the way in which informants used narratives about local history. Historical narratives have not merely survived in the context of the contemporary struggles around local management, they have flourished. The process of developing local management arrangements involved, as in the African context, the (re)interpretations of history, to support claims on local management in the present (Berry, 2001).

At the root of much of the local - versus state - level management controversy in the Coastal Ring and in Ammarnäs was the issue of property rights. The development of local management arrangements was embedded in multiple claims to natural resource use that were linked to historical claims and contemporary struggles over property rights. The emergence of local management arrangements cannot be understood properly without understanding these inter-linkages. In both cases, the construction of meanings for and practices of local managment were linked to historical land disputes that had occurred in relation to a messy natural resource management history.

As can be recalled from the case studies, the institutionalisation process was embedded in state interventions that were talked about as having amplified social divisions between user groups over time. In Ammarnäs these divisions were traced to colonisation policies that encouraged people to move to the north, to policies that concerned the rights of the Sami, to land redistribution processes, to establishment of nature reserves and to more recent policy proposals on small-game hunting etc. The case of Ammarnäs illustrated how villagers accused the state of having created divisions and conflicts not just between the reindeer herders and private landowners, but

also within the Sami and Ammarnäs community as a whole. In the Coastal Ring, state interventions in fishery were seen as a threat to the traditional way of making a living. These interventions were also perceived to have caused tension between part-time fishermen and professional fishermen in the area. Such perceived problems constituted an integral part of the struggles to develop local management arrangements in both Ammarnäs and in the Coastal Ring and they spurred discussions about management conditions before the state interfered. Whilst some of these struggles can be understood as competition for access to natural resources, they can also be seen as an attempt to construct social relations within which legitimate claims to resource management can be made (c.f. Berry, 1993).

In both cases, informants used narratives from the past as a means to justify local management in the present and to infuse it with a meaning that would enable them to "restore the integrity" of their respective villages. In Ammarnäs reference to history was used as a bridging device between particularly the Sami and the descendants of the settlers. In Ammarnäs people reconstructed their history by emphasising favourable aspects of village relations before the state "interfered". In the Coastal Ring, on the other hand, narratives from the past were mainly used as a means for reasserting the image of the villagers as responsible resource stewards. In the Coastal Ring much of the discussions centred on the perceived problem of people's lost sense of connectedness to the place, and the traditional situation when people were more directly involved in collective management practices on the village commons was highlighted as something to imitate.

In both cases the emergence of local management arrangements was legitimatised through a process of reinvention, where narratives from past collective natural resource management experiences were drawn on and adapted for needs in the present. In these narratives, the construction of the past, of tradition and culture was expressed as a foundation around which to build a better future and this was coupled with a parallel articulation that accused public authorities in natural resource management of having exacerbated the problems associated with land and water tenure. In these narratives, local management was presented as something that could solve some of the present land tenure problems, while at the same time providing opportunities for rural development. It was further argued that local management was something innate and traditional of which the people of the Coastal Ring and Ammarnäs had long experience.

Such references to the past, which are designed to support current processes, are similar to what has been described as inventions of tradition (c.f. Hobsbawm, 1983). To say that these traditions were "invented" is not to dismiss them as false. Instead they can be seen as practices that try to establish a sense of continuity with an appropriate historical past (ibid). Past and present experiences with collective natural resource management were used as a leverage from which local management could gain legitimacy both internally and externally. The reinvention aspects of natural resource management arrangements were of similar kinds at one level, but different on another. They were similar in terms of local management being based on people's understanding of how the management situation was before the state interfered. In both cases, people struggled to bring back the power over natural resource managment and to create anew management arrangements that were adjusted to the villagers' present needs and future aspirations. The reinvention aspects were, however, different in the way history was used as a means to legitimate local management. In Ammarnäs, the struggle towards local management was mainly about bringing back a situation when there were few conflicts between reindeer herders and the landowners, whereas in the Coastal Ring it was about creating anew common property arrangements that existed historically. The reinvention aspects of the commons were in a sense more pronounced in the Coastal Ring compared to Ammarnäs.

In both cases, claims that were based on historical user rights also constituted a reflection of the difficulty in finding acceptable solutions to complex natural resource problems in connection with the fact that Sweden has different user rights systems overlapping in the same geographical area, e.g. the customary rights of the Sami villages and private and public ownership. On the basis of such difficulties, local management can be seen as a deliberate attempt to overcome and solve perceived inconsistencies in land and water tenure. It is tempting to suggest that in Ammarnäs and to some extent in the Coastal Ring, the emergence of local management arrangements was constructed primarily as a response to solve users' conflicts, rather than being on economic and environmental concerns as commonly asserted in common pool resource literature. Similar suggestions have been made by Cordell (1989) and Steins and Edwards (1999) on sea tenure, in contexts where local institutions in fisheries and oyster fishing were constructed in response to user conflicts rather than to sustainability concerns. Such circumstances were particularly salient in Ammarnäs and to

some degree in the Coastal Ring as regards the attempt to develop local management arrangements for the fishing resource.

The institutionalisation processes in Ammarnäs and the Coastal Ring also carried other dimensions, where the emergence of local management arrangements can be linked to the earlier described shifts in the global and national policies on natural resource management. As pointed out in the introductory chapter and in chapter two, national and international policies have shifted towards emphasising decentralisation and participation in natural resource use and management.

7.4 The role of networks and alliances

The struggles for getting local management accepted by the CAB were mediated by new forms of interconnections between local agency and national and global discourses on decentralisation and participation in natural resource management. This was illustrated by the networking activities carried out by particularly the Coastal Ring, where key individuals with experiences in community forestry from international development cooperation inspired and facilitated meetings with international actors. The interconnections between local agency and national and global discourses on decentralisation and participation were also manifested in the use of various international and national policy documents, such as Agenda 21, the Swedish national policy of nature conservation and the national strategy for fisheries. The active use of these documents can be interpreted as a means to convince others that their management claims were part of an established national and international agenda. These processes of interconnections between local agency and national and global discourses resemble the concept of institutional bricolage used by Cleaver (2000 and 2002) and Douglas (1987). This concept is used to show how institutions are formed through a process, where analogies of thought styles are borrowed and constructed from existing institutions. The emergence of local management arrangements was thus not merely a local process and a struggle between local actors and different state officials. On the other hand, the case studies demonstrate a variety of local, national and global connections, inspirations and aspirations.

A common characteristic to both contexts was that a few actors were important for the developments of a shared understanding of local management and for driving the process ahead. Without the initiator and strong driving force, Gunnar, who has extended national and international networks, the diplomatic alderwoman Astrid, the hard working chairperson Christina and the doer Gustav, not much would have happened in the Coastal Ring. Within the Ammarnäs council, Karl and Ulla were the main driving forces, struggling to come up with innovative management solutions that would be accepted by other council members. Within the Ammarnäs council, the development of the council would initially not have taken place without efforts from the external facilitator Lars, who was able to provide an arena, where conflicts and perceived historical injustices in land tenure could be aired. In the Coastal Ring the university extension worker Fredrik was important in mediating contacts and meetings with actors from abroad. These contacts provided villagers with learning opportunities on how local natural resource management was achieved internationally. In both contexts it was thus the efforts of a few that enabled the creating of an environment in which a shared understanding of local management could develop. The Coastal Ring organisation and the Ammarnäs council however differed in terms of their networking capacities and resources. The observations show that the networking capacities in the Coastal Ring were more elaborated than in Ammarnäs and that this capacity was crucial for the diffusion of particular meanings of local management to broader circles.

Local management as an idea evolved simultaneously as the government proposed new policies in nature conservation and fishing. The observations from the case studies indicated how networking activities and associated seminar activities provided the Coastal Ring and the Ammarnäs council with spaces for their members to put forward ideas and arguments about local management to the national administration of nature conservation. As indicated earlier both the Ammarnäs council and in particular the Coastal Ring received support by actors from e.g. the Swedish Popular Movement's Council of Rural Development, the Gaia Foundation network, the Reforesting Scotland organisation and the Ministry of the Environment. It is in this light possible to talk about the developments of an informal discourse coalition (Hajer, 1995) between actors from the two cases, the Ministry of the Environment, together with national and international NGOs, which helped actors to uphold, develop and advocate local management and to situate the issue of local management on the Swedish policy agenda. The development of local management thus came from several directions both

from local actors and from initiatives taken by actors at national and international levels.

7.5 Changes in social relations and identities

The empirical studies reinforce the propositions made by Cleaver (2002) that institutionalisation processes for resource management often undergo dynamic processes that are both shaped by and shape social relations. Such processes were found in both cases, although they differed. In Ammarnäs, strained internal village relations were reported to have been alleviated as a result of efforts to build a united village organisation and the levels of trust increased between particularly the reindeer herders and landowners. In the Coastal Ring case, the relational changes were not as easily observed and were perhaps not brought out clearly in the case study presentation. Yet, positive relational changes also occurred in the Coastal Ring. Relations between professional fishermen and fishing rights holders (landowners) were enhanced and the cooperation between the three villages connected people who had previously not known each other. People with limited experiences in natural resource management issues became involved in projects on the village commons together with landowners and people who previously had no prominent position in local society gained an influence through participating in the Coastal Ring.

Besides influencing social relations, the institutionalisation processes came to affect how people looked upon themselves and talked about each other. One of the more interesting features that appeared was that people who engaged in the struggle to develop local management in Ammarnäs and the Coastal Ring started to look upon themselves and their surroundings in new ways. As can be recalled from the Ammarnäs case, the process of developing local management spurred internal discussions on social belonging to such an extent that some people were talked about and categorised as outcasts, while others insisted on their identities as settlers or Sami. The institutionalisation process reinforced people's identities in relation to the power of having access to natural resources. The process tended in this way to reproduce internal power relations. At the same time the use of the term outcast may be seen as an expression to uncover unequal power relations that had to be dealt with in order to give legitimacy to local management. Similar processes of identity constructions in relation to resource management have been reported by others in other contexts, where struggles to gain recognition for

resource management became a struggle for cultural identity vis-à-vis other claimants (c.f. Bruce, 1999; Hornborg and Kurkiala, 1998 and Berry, 2001). Berry (ibid) for example observes from case study research in Ghana that debates over land claims often revolved around debates over claims to kinship and community membership.

In the Coastal Ring, on the other hand, the struggle for acceptance of their ideas on local management by the CAB, stimulated and encouraged people to identify more with their place and cultural heritage related to natural resource management. In the Coastal Ring and to some extent in Ammarnäs, the attempts to develop institutional arrangements for local management showed a tendency to reinstate a sense of place and culture, in what was usually thought of as traditional culture. The evidence of this tendency was found in the suggested reinvented forms of common property arrangements, but also through the earlier described management practices that aimed to restore cultural landscape elements and historical settlements in both Ammarnäs and in the Coastal Ring. The reshaping of past natural resource management arrangements and practices may be interpreted as attempts to recuperate social and cultural ties to place. Local management was seen as an important condition to develop a responsible local sense of place. Informants talked about how the Coastal Ring had made people more aware of the values the surrounding environment possessed and likewise, although somewhat differently, informants from Ammarnäs stated that some people had become more conscious about environmental issues since they started to work towards local management. These observations support the suggestion made by Jentoft (1989), Ostrom (1990), Wondolleck and Yaffe (2000) and others that decentralised forms of natural resource management may elicit responsible behaviour towards the environment.

In the Coastal Ring, the promotion of a responsible sense of place over adjacent natural resources constituted an important aspect of the process of developing local management. Informants from the Coastal Ring talked about local management as a necessary prerequisite for achieving a "sustainable living"; meaning that local control and influence over natural resource management would help the community to develop responsible ties to their place and community. The usage of words like "tradition" and "culture" in various documents and statements particularly by the Coastal Ring indicates that cultural (re)invention was part of the process to legitimate local management. The usage of words like culture and tradition might also be interpreted as part of a discourse on authenticity.

The idea of local management in the Coastal Ring can partly be understood as a question of personal re-engagement and identity creation associated with place. Local management was expressed as something that would enable community members to develop responsible social ties with each other and with the surrounding environment. This was further manifested through the commitments to develop pragmatic place-specific solutions to perceived environmental problems locally and globally. References to place were also made in Ammarnäs. However, here emphasis was more on democracy aspects in relation to place. Local management was described as a matter of place belonging and as a means to achieve democracy and conflict resolution through increased cooperation and integration.

7.6 Conditions for constructing shared understandings

As pointed out in the introductory chapter and in chapter two, the capacity to construct sufficiently shared understandings of local management may be seen as a prerequisite for institutionalisation. The following section aims to illuminate the degrees to which such understandings were attained in Ammarnäs and the Coastal Ring.

Although the controversies around local management have not been resolved during the years I followed the processes, neither in the Coastal Ring nor in Ammarnäs, the case studies show that the institutionalisation processes had led to a partially shared understanding about local management among the participants. This understanding was highly conditioned by the earlier described historical events, networking capacities and prevailing discourses connected with nature conservation.

In Ammarnäs, the development of a shared understanding of local management was complicated from the outset due to the earlier described perceived historical injustices. It was also made difficult because the reindeer herders live in Ammarnäs only half-yearly, thus making it hard to achieve continuity in discussions and negotiations. Yet, despite these difficulties, members of the Ammarnäs council were able to create a shared understanding of local management among its members. They were in agreement that local management had to be based on the two existing cultures and that the proposed management should be seen as a way to promote business development (*näringslivsutveckling*) in the area.

Concurrence in understandings was difficult to achieve at first, but the negotiations which took place over time led to the development of shared understandings in the Ammarnäs council. The development of local management stirred up injustices from the past that had to be dealt with. One way to handle them was by agreeing on the practice of consensus and by reconstructing history that brought forward positive aspects on how past social relations were in the village. As pointed out earlier, this understanding, however, did not include all the landowners.

In Ammarnäs, the interactions with the state were complex and slightly paradoxical. As can be recalled from the case study presentation, the leadership at the CAB generally shared the views on developing some kind of local management in the Ammarnäs area, and the CAB even supported the work of the council financially through EU funds. In spite of this it was hard to find spaces for negotiations. Much of the work in the Ammarnäs council focused on internal negotiations on how to develop a management organisation that could be accepted by the diverse user groups in Ammarnäs, rather than on negotiations with the CAB. The development of a shared understanding in the Ammarnäs council, seems also to have occurred at the expense of denigrating the present management of the CAB, to such an extent that CAB officials felt it uncomfortable to commit themselves in negotiations with representatives from the Ammarnäs council.

The conceptualisation of local management in Ammarnäs tended to reproduce a centre-periphery divide. Local management conformed to other stories in the village about standing up against the power of central authorities. In this way the discussions concerning local management led to a polarisation which most likely aggravated the possibility for attaining a common understanding with the CAB. Similar observations have been made by Arora-Jonsson (2005) in her gendered analysis of local forest management processes in a small village in the Midwest of Sweden. Arora-Jonsson observed that discussions about local forest management reinforced a centre-periphery discourse that made it difficult for some of the women in the village to work with bureaucrats on other projects that were not related to local forest management. Negotiations between the CAB and the Ammarnäs council were also disrupted by other actors and policy processes at the national level thus further hindering a more elaborated understanding of local management with the CAB.

In the case of the Coastal Ring, on the other hand, considerable time was spent in negotiating local management with officials at the CAB. The local versus state struggle about the nature reserve was thus more salient in the Coastal Ring compared to the Ammarnäs case. Here efforts also led to a formal agreement between the CAB and the Coastal Ring that could be conceived as a co-management arrangement. The Coastal Ring organisation was given the task to implement management activities with an option to participate in revising the management plan of the reserve. The Coastal Ring study, however, illuminates that the actual decision-making was still conducted according to the format of the traditional conservation discourse.

Earlier described networking activities in the Coastal Ring contributed to a comprehensive learning process among the villagers so that people could gradually construct a shared understanding of what local management could mean in practice. In the Coastal Ring it was apparent that the numerous discussions at meetings and in study circles had led to the development of shared understandings about local management, and that this process even was spurred by the negotiations with the CAB. Although these negotiations did not result in a local management arrangement, the negotiations contributed to a mutual learning process about the conditions for local management arrangements. However, officials of the CAB dealing with the Coastal Ring, in contrast to CAB officials in Ammarnäs, showed ambiguity and even reluctance to devolve management power to the local arena. This hesitancy can partly be explained by the obstacles they saw under the present legislation and their doubtfulness concerning the formal competence of the Coastal Ring. It is, however, also possible to assume that their reluctance to give permission for local management may be found in the resistance to changing their own discourses of nature conservation. An acceptance of local management would not only jeopardise the institutional autonomy of the nature conservation bureaucracy, but it would also certainly imply a major reorientation of the nature conservation priorities; from a focus of saving endangered species towards an inclusion of rural development practices. This helps to explain some of the reluctance observed towards local management among CAB officials and in particular among those dealing with the Coastal Ring.

8 Theoretical Discussion – Contributions of a Contextual Perspective

In order to move further in understanding the emergence of local natural resource management arrangements as a contextual and negotiated process, this chapter will discuss the empirical studies in relation to the second research question: *What kinds of contributions can be made in relation to dominant theoretical approaches on the emergence of local natural resource management arrangements*? Differences and similarities between the two case studies give rise to some theoretical considerations in relation to the observed dominant institutional approaches towards natural resource management that were presented in the theory chapter.

8.1 Predictability and design – getting the institutions right

Studies on institutions for resource management are usually extremely success oriented, constantly pondering and theorising about how to craft successful natural resource management arrangements. Both the adaptive management and resilience approach and the common pool resource approach are preoccupied with finding the right formula for how institutions should be best designed. I fully agree that theorising about different success stories is important. A too strong focus on designing principles and attributes of success may, however, hinder an examination of other important features that emerge in institutionalisation processes. Similar kinds of views have been forwarded by Steins, Edwards and Röling (2000b) in relation to design principles of robust institutions. They argue that the development and use of a list of design principles for successful and robust common pool resource institutions "*inevitably results in the establishment of normative criteria for*

measuring outcomes, diverting attention from the stakeholders' constructions of CPR management and the process through which collective action evolves" (ibid, p.3).

As can be recalled from the case studies, the processes of developing local management arrangements involved unexpected emergent properties that appear from the social interaction between people. The process of developing resource management arrangements did not only influence social relations in unexpected ways, but in addition people's identity construction vis-à-vis others and the resource itself. In the Coastal Ring the process involved identification processes with place and in Ammarnäs it contributed to unmasking social inequalities, while at the same time reinforcing the construction of people's identities as settlers. The identity dimension in resource management literature has generally been overlooked. Such examples of emergent properties, which arise in institutionalisation processes, are important and pose a challenge to theories that seek to construct a general and predictable theory on how successful institutional arrangements for resource management come about.

The two case studies thus indicate that processes of developing local management arrangements are complex and difficult to predict. Given the complexity and uncertainty of ecosystem dynamics (c.f. Holling and Gunderson, 2002 and Holling, 1992) and the multiple discourses on natural resource management it is possible to envisage many institutional frameworks for the management of common pool resources. Social networks and other relations are important contextual and dynamic factors. Policy processes, individual networks and natural resources are highly variable and difficult to forecast. Institutions evolve and take on specific forms through negotiations, alliances and power struggles. They can be viewed as a product of the interplay of these varied factors and circumstances, rather than the result of codified principles of institutional evolution (Berry, 1993). Such an understanding helps to explain why prescriptions of "getting the institutions right" are difficult at best and it suggests that more attention is needed to understand the contingencies and unanticipated outcomes that might appear in institutionalisation processes.

8.2 Institutional processes in a broader perspective

The empirical observations from Ammarnäs and the Coastal Ring show that the developments of local management arrangements were influenced by many factors e.g. wider national and international policy shifts in combination with contextual problems, challenges and opportunities. They were both supported and constrained by policy processes on a national level. For example the policy launch on nature conservation in 2001 inspired people to become further engaged in local management activities, whereas the policy proposal on small-game hunting complicated the process of developing local management arrangement for small-game hunting in Ammarnäs. The institutionalisation processes were further strongly influenced and interwoven with historical allusions and claims, evolving relationships and networks.

These observations raise questions about the applicability of the commonly applied concept of self-organisation in adaptive management and resilience theory and in common pool resource theory. The concept of self-organisation indicates a view where people themselves organize with limited influence from and guidance by outside forces. In the common pool resource literature, the focus is primarily on internal factors contributing to management outcomes (Edwards and Steins, 1998a), whereas in the adaptive management and resilience literature focus is often placed on how people self-organise and adapt in relation to changes in ecosystems. Insofar as the external environment has been acknowledged in common pool resource theory and in adaptive management and resilience theory, it has frequently been recognised as a source for uncertainty and disturbance (c.f. Gunderson and Holling, 2002; Hanna et al, 1995 and Ostrom, 1990).

The emergence of local management arrangements in Ammarnäs and the Coastal Ring showed that institutionalisation processes were highly path-dependent and affected by a myriad of contextual factors. The case studies showed that the external environment, in terms of e.g. evolving relationships with state representatives and national and international NGOs, formed an integral part of people's understandings of local management that significantly influenced their decisions to cooperate with each other and to develop local management arrangements.

8.3 Matching and clearly defined boundaries

In the cases of Ammarnäs and the Coastal Ring, ecosystems show a great diversity and the boundaries of ecosystems often extend beyond boundaries of the management arrangement. The proposed management arrangements were also embedded in overlapping tenure arrangements relating to the same geographical area. As pointed out in the theory chapter, a key assumption of the adaptive management and resilience theory is that of scale matching of boundaries, i.e. the idea of reconciling ecosystem boundaries with management arrangements (c.f. Berkes and Folke, 1998). The theory thus suggests that adaptive management is best practised within defined ecosystem boundaries. However, as Jiggins and Röling (2000) point out, there is no objective way to establish boundaries to the extent that they will coincide with ecosystems, since boundaries are established through historical processes and the use of power (ibid) and by negotiations (Lund, 2006). This places a limitation on the applicability of adaptive management and resilience theory. In the Coastal Ring and in Ammarnäs the suggested management boundaries were established as the result of discursive struggles, historical and contemporary processes of negotiations. The development of a common understanding about the resource system and the meanings of the boundaries constituted a continuous process of negotiation and an inherent quality that appeared in the institutionalisation process. In the Coastal Ring, people arranged excursions and took part in various kinds of projects that aimed to improve the understanding of the resource system and its boundaries.

In the common pool resource theory, it is often asserted that boundaries should be sufficiently distinct so that members could determine the limits and exclude non-members. In Ammarnäs the biophysical boundaries of the proposed management arrangement were relatively clear, determined through the boundary of the Ammarnäs constituency. However membership representation in the Ammarnäs council was not fully settled and was continuously being negotiated. In the Coastal Ring, on the other hand, membership of the proposed management arrangements was not primarily depicted in relation to a specific biophysical boundary. People could become members of the organisation, although they were not living within the boundaries of the suggested management arrangement. Exclusion and inclusion of members were instead based on compliance with the goals and rules that the organisation had set up in the charter of their organisation.

In both cases the boundaries for local management were also extended to include other areas than the nature reserves and these decisions depended on

judgements on what were considered achievable under present policies, legislations and evolving social relationships. Securing boundaries for inclusion and exclusion was thus not a single event acquired and determined once and for all. On the contrary they were constantly contested and negotiated (c.f. Lund, 2001). This suggests that tension and indistinctness seem to be a more likely hypothesis than clarity, even in situations where the institutions are acknowledged as being robust and long enduring (ibid). The above reasoning may thus provide complementary insights with respect to the request for distinct and clear boundaries.

8.4 The significance of transaction costs?

The common pool resource theory often asserts that transaction costs are key variables for understanding institutional formation and its potential for success (c.f. Ostrom, 1990, 2000 and Kehone and Ostrom, 1995). By referring to North (1990) and Eggertsson (1990), Keohane and Ostrom (1995, p.2) claim that: "*No analysis of institutions can be persuasive without attention to the impact of transaction costs on the creation of institutions and, in turn, of institutions on transaction costs*". As pointed out in the theory chapter, Ostrom (2000) proposes that individuals will collectively manage common pool resources and develop institutional arrangements when the transaction costs of cooperative behaviour and monitoring costs are relatively low and when users have a low discount rate in relation to future benefits derived from the resources. Although this study did not explicitly measure transaction costs in relation to future benefits it is reasonable to suggest that the transaction costs involved in meetings and networking activities in the Coastal Ring and Ammarnäs have been considerable in relation to the economic benefits to be derived from the resources. Nevertheless people in the Coastal Ring and Ammarnäs kept on arranging meetings and activities although the expected economic benefits from participating in and arranging them can be assumed to be low. In the Ammarnäs council, meetings were based on consensus and priority was given to resolving conflicts in the construction of local management. People were aware that cooperation had to be explicitly worked at, and their internal negotiations involved large investments of time and resources. Conflict resolution was to some degree also emphasised in the Coastal Ring organisation as regards the development of a local management arrangement for the fishing resource, but it was not as clearly articulated as in the Ammarnäs case. In the Coastal Ring, people attended meetings and activities mainly as part of a spare time activity that

could provide opportunities to learn more about their place, culture and environment.

Building consensus, conflict resolution and engaging in activities that could provide opportunities to learn more about the place and its surroundings were found to be equally important, and may be even more important than the economic incentives through a more "optimal" resource outtake, as suggested by the common pool resource theory. The observations from Ammarnäs and the Coastal Ring suggest that primary incentives to cooperate and to develop local institutional arrangements for resource management were not merely economic. The incentives to develop local management arrangements in the Coastal Ring and Ammarnäs were as much social and cultural. The particular meanings people ascribed to local management, vis-à-vis the natural resources showed that the social, spiritual, cultural and the historical dimension of natural resource management were also important. Similar observations, in other contexts, have been made by Hornborg and Kurkiala (1998), Cleaver (2000) and Arora-Jonsson (2005). Cleaver (2000) observed from case study research in Tanzania that people involved in institutional activity for the management of common pool resources based their decisions to cooperate, not only on the expected economic costs and benefits that could be derived from the resource, but as much on the exigencies of people's daily life. Processes of collective action and institutionalisation were neither necessarily output-optimising, nor consciously and rationally crafted (ibid).

It is also suggested that resource institutions are likely to emerge if there are feasibility improvements to make on the resource and if the resource users observe substantial resource scarcity (Ostrom, 2000). If resources are abundant, Ostrom (ibid) suggests that there are few incentives for resource users to invest their time in organising themselves in the management of a common pool resource. Likewise, if the resource is substantially destroyed, organising may not generate substantial benefits. The observations from the Coastal Ring and Ammarnäs suggest that it was neither resource scarcity nor possibilities for resource improvements that primarily motivated people to initiate local management arrangements. In both Ammarnäs and the Coastal Ring, natural resources are abundant. As can be recalled from the case studies, in Ammarnäs the ideas on local management were born out of the insight that the village might disappear unless something was done, whereas in the Coastal Ring the ideas emerged from frustrations when the CAB decided that large areas that historically had been managed as common

property were declared as *Natura 2000* areas. A range of natural resource improvements were made in the Coastal Ring, particularly as regards the fishing resource. However these improvements cannot only be explained in terms of potential future economic benefits that could be derived from the resources. These commitments may as well be seen as practices that aimed to show officials that the Coastal Ring was a trustworthy organisation with the capacity to manage the adjacent natural resource in a responsible way. They may also be seen as practices that aimed towards contributing to solve perceived problems on ecosystems beyond village boundaries.

Ostrom (2000) further argues that unless resource users obtain the major part of their income from a resource, the high costs of organising and maintaining a self-governing system may not be worth the efforts. This proposition can be challenged by the observations from the Coastal Ring case. Most of the people involved in organising local management arrangements in the Coastal Ring earned their living in the township of Kalix and their main source of income did not come from the adjacent natural resources. Equally important in the Coastal Ring was people's desire to become more dependent on the resource and to learn more about their place.

The discussions above raise the question about the persuasive power of transaction costs for explaining institutionalisation processes over common pool resources. It is my interpretation that a too strong focus on transaction costs and economic incentives may draw away the attention to other important motives and variables that influence the emergence of local management arrangements over common pool resources. The observations from the cases studies revealed other issues that appeared to be vital for the emergence, such as networking capacities, contemporary and historical state interventions in resource management, conflicts over natural resources and international and national policies on natural resource management etc.

8.5 Enabling and constraining heterogeneities

The common pool resource literature sometimes asserts that socio-economic and cultural homogeneity is an advantage and that similarity of resource use promotes cooperation (c.f. Bromley and Cernea, 1989; Libecap, 1995 and Bardhan and Dayton-Johnson, 2002). Insofar as heterogeneity and conflicts have been addressed in common pool resource theory, these aspects have

often been viewed as something that inhibits the development of institutions for common pool resource management. Such propositions can be complemented and be partly challenged by the empirical observations from Ammarnäs and the Coastal Ring. In both cases, cooperation developed in spite of rather large differences in natural resource access and use and cultural customs between reindeer herders, fishermen, tourist entrepreneurs and landowners etc. Cooperation developed partly as a way to resolve internal conflicts between diverse user groups. Thus it was based on an acknowledgment of differences in natural resource use and cultural customs that promoted different user groups to suggest new institutional solutions for resource management.

In Ammarnäs in particular, the process of developing local management arrangements was part of a rehabilitation process between particularly the reindeer herders and the descendants to the first settlers. Such observations illustrate the ways in which historical conflicts and differences in culture and resource use can structure incentives to support the development of local management arrangements around common pool resources. By engaging in local management, villagers in Ammarnäs tried to establish trustful relations with each other through increased cooperation and integration. Trust and reciprocity were not something already there that could be drawn on. Building trust and reciprocity was something that was constantly in focus as part of the institutionalisation process.

The empirical observations from Ammarnäs and to some extent the Coastal Ring showed that heterogeneity in resource use and internal and external conflicts over natural resources both stimulated and constrained people to cooperate with each other for the joint management of natural resources. Insofar as heterogeneity has been addressed in adaptive management and resilience literature it has often been looked upon as an advantage. Heterogeneity in capabilities and knowledge among resource managers and users has been acknowledged as something that may enable learning between different kinds of knowledge necessary for sustainable management of natural resources (c.f. Berkes and Folke, 1998). In this sense the adaptive management and resilience approach conforms well with the observations from Ammarnäs and the Coastal Ring, where the negotiations with the authorities and between different user groups enabled learning opportunities.

8.6 Number of participants and the role of discourse

It has been argued that the number of participants affects the possibility of cooperative behaviour for developing robust institutional arrangements around common pool resources. The larger the number of involved participants, the more difficult it would be to induce cooperation. A key reason for this difficulty is that the costs of monitoring rise as group size increases (c.f. Ostrom, 1990). Ostrom, however points out that the number of participants alone may not have strong effects on the ability to cooperate and she regards small size as less important than other factors facilitating cooperation, such as common understanding of the resource system and its boundaries, low discount rates and transaction costs (ibid). Yet in much of the common pool resource literature it has become a conventional wisdom that increasing the number of participants increases the difficulty of developing resource management arrangements around common pool resources. This "conventional wisdom" can to some extent be challenged and be complemented by the studies from the Coastal Ring and Ammarnäs.

As can be recalled from the previous chapter, a common characteristic in both cases was that a few individuals were of significance for the development of common understandings of local management and for driving the process ahead. In the Coastal Ring there were more participants involved in the process compared to Ammarnäs and people's understandings of local management seemed to be more widespread and elaborated. The networking capacities among some of the participants in the Coastal Ring were extensive and the organisation was able to produce convincing discources on local management that were accepted by other villagers as legitimate. This enabled the organisation to mobilise support from individuals without ownership of land and water resources. This was crucial in terms of providing the organisation with legitimacy in their negotiations with the authorities. Such observations suggest that networking resources, the capacity to produce convincing discourses and to form a "critical mass", may be seen as even more important than the number of participants per se. Similar propositions have been made by mobilisation theorists. Smelser (1963) for instance sees the ability to spread a generalised belief among participants as a crucial determinant for explaining cooperative behaviour and collective action processes. In this light, the ability to produce convincing discourses and to form a critical mass may be seen as a complementary insight that strongly influences the emergence of institutional arrangements for common pool resource management.

8.7 Concluding reflections

This dissertation has explored the emergence of local management arrangements of natural resources as a contextual and negotiated process, taking its point of departure in a social constructionist perspective on institutionalisation. It was based on two contemporary studies of longitudinal character in northern Sweden. But what are the merits such an approach and what can be suggested in terms of future research and institutional ramifications for the construction of new management arrangements of natural resources?

The foregoing discussions indicate that the relevance of some of the theoretical propositions forwarded by particularly the common pool resource theory has limitations in explaining institutionalisation processes. In some areas there is clearly a lack of congruence between variables highlighted in the common pool resource theory and empirical evidence from Ammarnäs and the Coastal Ring. The empirical observations indicate that institutionalisation processes for the management of common pool resources are characterized by more complexity than what at present can be captured by the common pool resource theory.

Although the emergence of institutional arrangements in the Coastal Ring and Ammarnäs does not correspond very well with dominant theoretical propositions this may, however, not imply that the institutional arrangements for resource management in Ammarnäs and the Coastal Ring would be unsuccessful. On the basis of what has happened during the process so far in, for instance, terms of conflict resolution in Ammarnäs or changed attitudes towards the surrounding environment in the Coastal Ring, the institutionalisation process can be considered as successful. As remarked earlier, the case studies illustrate that their respective organisations were organised around pre-existing village associations of which some have managed natural resources as commons over centuries. The institutionalisation process of local management was linked to a meaning making process that made some people more cognisant towards their place and surrounding environment. Institutions formed in this way may be highly successful due to their inter-linkages with the ecological, social and historical milieu (c.f. Cleaver, 2000).

One possible explanation for the lack of congruence between the theoretical propositions forwarded by the common pool resource theory in relation to the case study observations is that the dominant theories are derived from

empirical studies of cases that differ from the contexts of the Coastal Ring and Ammarnäs. As pointed out in the introductory chapter, most studies in the common pool resource literature are based on situations characterised by some degree of open-access where people involved in developing institutional arrangements are highly dependent on the surrounding resources for their livelihoods. Resource use in both Ammarnäs and the Coastal Ring is highly regulated and people are less directly economically dependent on the resources. As previously mentioned in the introduction chapter, the common pool resource theory also tends to be built on empirical studies that are subject to one single extractive resource and category of resource users (e.g. fish and fishermen). In Ammarnäs and in the Coastal Ring the resource in focus, the nature reserve, involves multiple resources and resource users that are embedded in overlapping tenure arrangements. These contextual differences could explain some of the limited explanatory value of the common pool resource theory for the cases of Coastal Ring and Ammarnäs. Or to put it differently, the common pool resource theory does not seem to be suitable for contexts where people are less directly economically dependent on the resource and where there are several different kinds of competing claims to natural resource use.

Another possible explanation of the limited congruence between the common pool resource theory in relation to case study observations, is that the theoretical point of departure in common pool resource theory is firmly rooted in an epistemology which seeks to construct a general and predictive theory about the durability and success of common property resources (Johnson, 2004), which are based on rational choice and game theory. Peters (1999 in Scott 2001, p. 35) observes that within the rational choice approach: *"institutions are conceptualised largely as a set of positive (inducements) and negative (rules) motivations for individuals, with the individual utility maximisation providing the dynamic for behaviour within the model"*. Individuals are ascribed with a rational economic character and the universality of truth it embodies. While game theory provides valuable insights into how individuals respond vis-à-vis each other in experimental settings, it does not seem to be fruitful when facing issues of complex historically laden or socially embedded contexts. The outcome of such an approach tends to limit the view of institutionalisation processes over common pool resources to struggles between individuals for individuals that seek to optimize resource use through a rational economic calculus.

In the case of Ammarnäs and the Coastal Ring it would be misleading to explain the institutionalisation process primarily as a struggle between competing individuals that seek to optimise resource use. Institutionalisation processes for resource management are better explained as struggles over meanings between interest groups and individuals vis-à-vis different public authorities, where claims to natural resource management are made with reference to the past, the present and the future. The empirical studies from Ammarnäs and the Coastal Ring showed that the institutionalisation processes were more often than not a contest over meanings embedded in social relations, historical allusions and claims between interest groups, than a competition among individuals over resource use. This insight has theoretical implications. It demonstrates the importance of including analysis that highlights the competing forms of authority that places focus on the negotiated meanings and practices in which institutions for resource management emerge. The development of local management arrangements can in this light be conceived as a continuous process that involves extensive deliberations, negotiations and learning within problem solving networks (c.f. Berkes and Carlsson, 2005).

Natural resources are often invested and ascribed with social and symbolic meanings to people (Cleaver, 2000; Mosse, 1997; Peters, 1987 and Hornborg and Kurkiala, 1998) which are partly developed and become salient in a negotiation process. The observations made from the two case studies suggest that natural resource management arrangements to some extent emerged in the coalescence of different meanings. People constructed local management discursively, making it a resource and repository of meaning and by referring to their identity and cultural heritage. The struggle to develop institutional arrangements produced meanings among the participants that gave legitimacy to the institutionalisation process among its members (c.f. Berger and Luckman, 1966).

The empirical observations lend support to the socio-historical approach concerning the embedded nature of institutional development (c.f. Berry, 1993 and 2001; McCay and Jentoft, 1998; Cleaver, 2002 and Lund, 2006; Johnson, 2004). In both Ammarnäs and the Coastal Ring, the emergence of local management arrangements demonstrated historical continuity in that it was based on people's understanding of what local management was through narratives from the past. It was constructed through a process of reinvention, where narratives from past collective management experiences were drawn on and adapted for needs in the present and future. This was important for

the development of shared understandings of what local management was and what it could contribute with.

The role of existing common property arrangements was strong in both case studies. Within the Swedish context very little is known about the present function of the remaining village commons, their number and territorial outreach. Further studies that focus on the role of these institutions would be needed in order to uncover how such institutions may influence future processes of emergence in the light of the present national and global policy shift in natural resource management.

Beyond demonstrating historical continuity, the observations from Ammarnäs and the Coastal Ring also showed how the processes were intertwined with contemporary policy processes and evolving networks with national and international outreach. This elucidates how the emergence of local management arrangements takes place in a contemporary society that is characterised by growing networking, where people's opportunities to develop links with similar processes around the world are important contextual factors to consider.

The emergence of local management arrangements may also be seen in the light of a growing public environmental concern about the global commons (climate change, global over-fishing etc), and interviews and activities from particularly the Coastal Ring case show that people want to contribute to solving these problems by becoming active in management on adjacent natural resources. The institutionalisation processes in Ammarnäs and the Coastal Ring thus developed through multiple processes. They involved evolving and negotiated relationships between people that related to social, historical and environmental issues that constructed and were circumscribed by a range of discourses and contemporary circumstances (c.f. Cleaver, 2002).

To summarise, one of the merits of exploring the emergence of local management arrangements in a contemporary situation as a contextual and negotiatied process has been to give attention to qualities that otherwise would not have been considered significant. By addressing emergence in this way, the thesis has acknowledged the importance of seeing institutional development as part of a legitimising process where different meanings and resource management practices compete in the institutionalisation process. The two empirical studies and the descriptions provided afforded insights on

the importance of historicity, networks and discourse for the constructions of shared understandings of what local management is and what it can contribute with. Such descriptions are potentially useful for actors that work to promote decentralised forms of natural resource management arrangements. They may be important complements to predominant theories on natural resource management that emphasises institutional design that are based on economic rational choice, particularly in contexts that are characterised by conflicts in tenure and where the natural resources involve multiple of resources, resource users and legitimacy claims.

The potential of a social constructionist and contextual perspective on institutionalisation, however, needs further exploration. In particular, research is required that makes the emergent properties involved in the process of developing new management arrangements of multiple resources and resource users visible. A difficulty with exploring the emergence of new kinds of management arrangements contextually in a contemporary situation has been to assess which specific emergent properties that is critical to the institutionalisation process, particularly in situations where the outcome is unsettled and uncertain. Further development of analytical perspectives that can assist in attending to emergent properties are needed as well as more studies that focus on particular contexts where the management arrangements involve multiple resources and multiple resource uses.

8.7.1 Institutional ramifications for the constructions of local management arrangements

One of the most critical challenges for policies and programmes that aim to promote decentralised management arrangements of natural resources is how to deal with diverging legitimacy claims and the articulation of competing definitions over meanings of local management and the resources involved. The study indicates a need for establishing arenas where the construction of shared understandings could develop further. For example, in the Ammarnäs case, the lack of arenas for negotiations between the Ammarnäs council and CAB officials, was elucidated as something that constrained the possibilities for constructing sufficient shared understandings. The way contemporary natural resource management policies have changed further indicates a new role for nature conservation officials. This involves a move from merely being nature conservation administrators towards a role of becoming faciliators in the development of arenas where new decentralised management arrangements could be negotiated.

In this light the concept of "platforms for resource use negotiations", which has been developed in the field of agricultural extention, (c.f. Röling 1994; Nitsch, 1995 and Röling and Jiggins, 1998) can be seen as a possible heuristic tool to assist in making such claims and meanings more visible in the development of institutions for resource management[30]. On such platforms, resource management issues are considered from multiple use perspectives, where different stakeholders try to exercise collective agency in working towards new management arrangements. According to Röling (1994), the potential of such platforms lies in their action oriented commitment to i) make visible the existing and/or potential issues of contest, ii) encourage the development of shared understanding of the economic, social and cultural characteristics of the proposed resource management arrangements iii) accommodate arenas for shared learning based on different and often conflicting objectives.

A difficulty arising in the development of such platforms is, however, the question of representation, for example, the question of who should decide on who should be part in the "platform for resource use negotiation" and the question whether some stakeholders are percieved as legitimate representatives. The possible institution that is agreed upon will also certainly be the result of compromise and are likely to be suboptimal from a stakeholder's perspective (Steins and Edwards, 1999b). The issue of scale and scale matching is also addressed by Röling and Jiggins (1998). They state that platforms for resource use negotiation often do not correspond with existing administrative instititutions, which makes platform formation complicated. Despite the possible hardships of developing such platforms for resource use negotiations, it could be seen as a potential heuristic tool that could facilitate the emergence of new institutional arrangements for resource management among separate user groups in complex common pool resource management situations.

The platform approach should, however, not be seen as a panacea for the development of local management arrangements, but rather it can be looked upon as a metaphor for organising processes and meetings in a way so that the emergent properties that arise in negotiations can be catered for. Processes that aim to support the development of new resource management arrangements need to be constructed in a way so that new questions that

[30] The potential of a platform approach to natural resource management dilemmas has also been suggested by Steins and Edwards (1999b)

arise in the negotiations can be handled constructively. Such processes, however, also need to be flexible so that new members can be included as different needs arise. The experiences from the Coastal Ring case as well as to some degree from the Ammarnäs case illustrated how people were involved in a number of meetings, which accommodated arenas for learning among the participants and also gave rise to unanticipated outcomes and the involvement of a wide variety of actors. Each process thus has to be treated as unique and can be seen as a process for joint learning.

Despite the difficulties of getting local management as an idea formally recognised within the Swedish bureaucracy of nature conservation, the study indicates that local managment is gaining ground, both in terms of policy and as an emerging rural movement in Sweden. While writing this thesis, the Swedish government has launched a plan for the establishment of new national parks (Naturvårdsverket, 2008). In the plan, it is proposed among other things that a marine area on the west coast of Sweden should be designated as a national park and that this particular park should experiment with local management. The government has also launched a new strategy for the earlier referred to World Heritage Site of Laponia (see section 5.2.4). This strategy proposes that a Laponia delegation, comprising a variety of stakeholders should work towards the development of a new management arrangement, with Sami majority, of the World Heritage Site of Laponia. This development as well as those explored in this thesis can be seen as examples of the development of "platforms for resource use negotiations" between different stakeholders. The platform approach for the development of decentralised forms of natural resource management is thus relatively new in Sweden and it may provide an important complement to the design principles of the common pool resource theory, that so often have been used by policy makers as a "blue print" for the construction of decentralised natural resource management arrangements.

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Appendix. Questionnaire

1 Beskriv processen och bakgrunden till arbetet med att etablera en lokal förvaltning?

Describe the process and background to the work of establishing local management.

2 Vad innebär lokal förvaltning för dig?

What does local management mean for you?

3 Vilket geografiskt område omfattar den (tilltänkta) lokala förvaltningen?

What geographical area does the (considered) local management arrangement include?

4 Hur många hushåll/personer berörs (ålder/kön/etnicitet etc)?

How many households/people are included (age/gender/ethnicity etc)?

5 Hur har området förvaltats och brukats historiskt?

How has the area been managed and utilised historically?

6 Hur brukas och förvaltas området idag?

How is the area utilised and managed today?

7 Vilka intressegrupper berörs (,tex skoterföreningar, jaktvårdslag, byalag, myndigheter, etc)?

What kinds of interest groups are concerned (e.g hunting teams, byalag, snowmobile associations, authorities etc)

8 Vad är det primära syftet med etablera lokala förvaltningsarrangemang?

What is the purpose of developing local management arrangements?

9 Går det att peka på någon utlösande faktor till varför man satte igång arbetet med att försöka etablera en lokal förvaltning?

Is it possible to point out any triggering factor to why people started with the work of trying to establish local management?

10 Har du/ni stött på några hinder på vägen? Om Ja, vad för slags hinder (t.ex. föreskrifter från myndigheter eller intressegrupper som ”motverkar” ideerna om att etablera en lokal förvaltning etc.)?

Have you met any obstacles on the way? If yes, what kinds of obstacles (e.g. regulations from authorities or interest groups that counteract the ideas to develop local management etc)?

11 Har du/ni stött på något stöd? Om Ja, vad för slags stöd (t.ex. resurser i form av rådgivning, partners eller stödpengar från olika myndigheter, organisationer etc.)?

Have you received any support? If yes, what kinds of support (e.g. resources in terms of advice, partners or economic support from authorities and organisations)

12 Hur upplever du intresset/engagemanget i bygden och hos myndigheterna för de här frågorna?

How do you experience the interest/involvement for local managment issues among community members and the authorities?

13 Hur är arbetet med att etablera en lokal förvaltning organiserat? Finns det något organ eller grupp i bygden som jobbar aktivt med frågorna? Om Ja, vad har gruppen för mandat från bygden att driva frågorna? Hur är gruppen sammansatt?

How is the work of developing local managment organised? Is there any group or interest association that works actively with these issues? If yes, what kind of legitimacy does the group have from the community to engage in these questions? How is the group made up?)

14 a) Hur har ideerna och aktiviteterna med att etablera en lokal förvaltning förankrats i bygden och bland olika intressenter?

a) How have the ideas and activities with establish local managment been anchored in the village/community and among different interest groups?

b) Hur många i bygden känner till arbetet med att etablera en lokal förvaltning?

b) How many people in the community are aware of the work?

c) Hur många är aktiva respektive passiva (fördelat på kön, ålder, etnicitet)?

c) How many would you consider as active and passive in this work (gender, ager, ethnicity)?

15 Har det utarbetats någon strategi för arbetet (t.ex. en förvaltningsplan eller arbetsplan)?

Have you developed any written documents that state the intentions/strategy of the work (e.g management plan or working plan)?

16 Vad för slags fördelar respektive nackdelar ser du/ni med etablerandet av en lokal förvaltning (ekonomiskt, socialt, kulturellt etc.)?

What kinds of pros and cons do you see with local managment (social, economic, cultural etc)?

17 Vad upplever du/ni som de potentiella riskerna med en mer lokalt baserad naturresursförvaltning?

What do you perceive as the potential risks with a local management arrangment?

18 Vilka förutsättningar anser du/ni vara viktiga för att få tillstånd en väl fungerande lokal förvaltning?

Which preconditions do you see as important in order to develop well functioning local management?

19 Har arbetet med att etablera en lokal förvaltning förändrat/påverkat relationerna i bygden? Hur och på vilket sätt (t.ex. förändrat tilliten till varandra, bygemenskapen o.s.v.)?

Has the work with devloping local management changed the social relations in the village? If yes, in what way (e.g. trust towards each other, village togetherness etc.)?

20 Har arbetet med att etablera en lokal förvaltning förändrat/påverkat relationerna till olika myndigheter/intressegrupper? Hur och på vilket sätt?

Has the work of developing local managment changed the relations with the authorities and/or other interest groups? If yes, in what ways?

21 Har arbetet med etablerandet av en lokal förvaltning lett fram till nya ideer/innovationer/nätverk?

Has the work developing local management resulted in any new ideas/innovations/networks etc?

22 Hur tror du/ni att en lokal förvaltning kommer att kunna påverka möjligheten för ekonomisk utveckling i bygden?

How do you believe a local managment arrangement will affect the possibilities for economic development in the community?

23 Vad tycker du/ni att myndigheterna bör göra för att underlätta erat arbete med att etablera lokala förvaltningsarrangemang? Bör de ha någon roll överhuvudtaget? Om ja, vad för slags roll anser du/ni att myndigheterna bör ha i en framtida lokal förvaltning?

What do you think the authorities should do in order to facilitate your work of developing local management arrangements? Should they have any role to play at all? If yes, what kind of role?