

Cassandra Bergstrøm
**Claiming reindeer in Norway: towards a
theory of the dynamics of property
regime formation and change**

Norwegian University of Life Sciences
Universitetet for miljø- og biovitenskap
Doctor of Philosophy (Ph.D.) Thesis 2005:6

Claiming reindeer in Norway: towards a theory of the dynamics of property regime formation and change

by

Cassandra Bergstrøm



Noragric – Department of International Environment and Development Studies
Norwegian University of Life Sciences (UMB) 2005:6

ISSN: 1503-1667
ISBN: 82-575-0654-0
Photo: Tom Schandy®

Table of Contents

List of Figures and Tables	
Maps	
Abbreviations and Acronyms	
Preface	i
Summary Norwegian	vii
Summary English	xi
Chapter One: Conceptual Approach	1
Introduction	1
A conceptual approach	4
A clarification of concepts	18
Actors	18
Goods	20
Valuing goods and bads, resources and commodities	20
Property and properties of a good	21
Institutions	24
Cognitive, normative and regulative aspects	24
Property regimes	27
Complex regimes - rights, obligations and constraints	29
Actors differences, the politics of property and property regime changes	35
Chapter Two: Methodology and Methods	42
Case study	42
The process of inquiry and theory development	44
Phase I: Getting started - gaining a preliminary understanding	46
Phase II: Choosing a case and concepts	47
Phase III: The development of the case and the choice of categories and concepts	51
Selection of materials	52
Development of the case	58
Application of concepts, categories and theory	62
Phase IV: Presentation of case and analysis of merits of concepts, categories and theories	63
Presentation of the case by chapter	68
Phase V: Analysis of the case	74
Phase VI: Reconceptualization	74
Chapter Three: Introduction - Reindeer Property Regimes in Norway	76
Chapter Four: The Local Arena - Saami and Reindeer	82
Background: increasing interests to reindeer	82
The emergence of reindeer management	90
Herding as a way of life	95
Enabling conditions	95
Catalysts of change	98
Differentiation among groups of Saami	103
Discussion	113

Chapter Five: The National Arena - Saami, Farmers and the Role of the State	121
The Lapp Codicil	121
Ear-marks - visible claims of reindeer	126
The Reindeer Law for Finnmark	129
Theft of reindeer	133
The Common Lapp Law of 1883	136
Changing regulations with respect to game in Norway	143
The period of Norwegianization	148
Additional Lapp Law of 1897	148
Reindeer Pastures Convention	154
Social Darwinism and Norwegianization	155
The emergence of a national law for reindeer herding -	
The Reindeer Herding Law of 1933	159
Unmarked animals - wild or tame?	169
Discussion	179
Attributes of reindeer	179
Actor's values	180
The role of the state	181
Politics of property	185
Complex rule systems	185
Multiple rule systems	187
Changes in degree and in kind in property rules and rule systems	188
Overlapping property regimes in practice	189
 Chapter Six: An Increasingly Global Arena	 193
Saami organization and the welfare state	193
Alta	199
The Reindeer Management Act and the Law of 1978	202
The period of rationalization	208
Chernobyl	221
Renewed constellations: NRL and BES	223
The emerging rights of an indigenous people	225
The right to herd	230
The Amendment of 1996: the right to herd, the right to manage	233
Discussion	237
Valuing reindeer and reindeer herding in changing contexts	237
Strategic actors - defining roles, aligning with others and choosing arenas	239
Complex, multiple and overlapping rules and rule systems	242
Politics of property	244
 Chapter Seven: Summing Up: Towards a Theory of the Dynamics of Property Regime Formation and Change	 247
Introduction - a social approach to property	247
Agent and community characteristics	248
Human agency and social relationships	249
Actors' agency and relationships	249
Actors' powers and capabilities - position, proximity	252
The multiple roles of the state	253

Alignment among and between actors	253
Arenas: critical formation and choices	254
The politics of property and other regimes	255
Contention, struggle and negotiation	255
State interventions - crisis management, conflict resolution and pursuit of other agendas	258
Regimes as products (and by-products) of politics and as giving rise to politics	262
Complex rule systems	262
Multiple rule systems	265
Overlapping rule systems: inconsistent, incompatible, incommensurate	266
Property regimes as partial, messy, piecemeal, negotiated systems	268
Historical products: contradictory and based on compromise	268
Changes in degree and changes in kind	270
Contextual factors affecting property regimes	271
Goods as a part of context	271
Properties of reindeer	272
Technology	278
Unintended consequences	278
Exogenous events	279
Extending the framework	280
Concluding remarks	285
 Appendix I: List of Laws	 290
Appendix II: List of Committees	292
 Reference List	 294

List of Figures and Tables

Chapter One

Figure 1.	A framework for analyzing the commons	5
Table 1	Bundles of rights associated with positions	11
Figure 2	Relations among property regimes	12
Figure 3	Factors affecting common-pool resource use	13
Table 2	A comparison of a traditional Common Pool Resource (CPR) Approach and the General Property Regime (GPR) approach (I)	17
Figure 4	An institution and its three components	26
Figure 5	Potential claims with respect to animals	31

Chapter Three

Figure 6	Timeline of the emergence of extensive reindeer herding (6000 B P-1720)	80
Figure 7	Timeline with respect to reindeer property regimes in Norway (1720-2000)	81

Chapter Four

Figure 8	Map of Fennoscandia indicating areas where ancient asbestos ceramic remains are found	82
Figures 9a, 9b	Examples of petroglyphs of Saami hunters and reindeer found in Norway	84
Figure 10	Illustration of property marks found on arrowheads on Kjelmoy, Norway	86
Figure 11	An illustration of reindeer being used for transport from Schefferus'book in 1673	94
Figure 12	An example of a corral in extensive herding resembling those used to capture wild reindeer	97
Figure 13	Saami milking reindeer	105
Table 3	Actors and their ways of valuing reindeer (6000 B C - 1500 A D)	116
Figure 14	Emergence and change in property regime	118

Chapter Five

Figure 15a	A picture of leather copies of earmarks used to register Saami earmarks	128
Figure 15 b	Examples of types of cuts for earmarks and Saami designations	128
Figure 16	Hunting wild reindeer in Norway	147
Figure 17	Crown Prince Haakon officially visited reindeer herding Saami	159
Figure 18a	Daniel Mortensen	162
Figure 18b	Else Laula Renberg	162
Table 4	Actors and their ways of valuing reindeer (1751-1933)	181

Chapter Six

Figure 19	Administrative levels created under the Reindeer Management Act of 1978	203
Figure 20	The distribution of areas >5 km. from any infrastructure	

	over the past century	208
Figure 21	The development in the number of reindeer production units, Norway 1950-200	213
Figure 22	Changes in reindeer pastoralism in Norway from 1950 - 1985	214
Table 5	Actors and their ways of valuing reindeer (post WWII - 2000)	239
Figure 23	Strategies of agents	241
Chapter Seven		
Table 5	A comparison of the CPR approach to the General Property Property (GPR) approach (II)	292

Maps

Chapter 1:

Map 1	Reindeer herding areas in Norway, Sweden and Finland	3
-------	--	---

Chapter 5:

Maps 2a, 2b	The maps indicate migration routes for reindeer over the national border prior to 1751 (a) and prior to 1852(b)	125 125
Map 3a	Changing national borders	132
Map 3b	Migrations with reindeer after the closing and enforcement of the border between Norway and Finland	132
Map 4	Maps indicating some of Norway's provinces and the location of Trollheimen	173

Abbreviations and acronyms

Ap	The Labour Party (<i>Arbeiderpartiet</i>)
ASD	Action System Dynamics
BES	<i>Boaza Ealatius Scervi</i> ("the people who live by reindeer")
CBD	Convention on Biological Diversity
CPR	Common-pool resource, common property regime
GPR	General property regime approach
ILO	International Labour Organization
INGO	International non-governmental organization
NGO	Non-governmental organization
NOU	Norwegian public reports (Norges Offentlig Utredninger)
NRL	Norwegian Saami Reindeer Herders Association (<i>Norsk landsforbund</i>)
SAG	Saami Action Group
NSR	Norske Samers Riksforbund (the Assembly of Norwegian Saami)
WCIP	World Council of Indigenous People

Preface

I have been interested in animals for a long time. In part this interest is derived from a general interest in nature. I like to walk in the woods: I like to see if not the animals themselves, at least signs that they are about. I have also been interested in property issues for many years. I am curious about the possibility to understand such complex social issues as people's relationships to one another in their making proprietorial claims to other living things. I am also curious about why the rules governing social relationships with respect to particular animals vary so much from one place to another. It was out of my general curiosity that this study began to be formed. My quest has been neither to judge good property regimes from bad, nor even efficient from costly or inefficient ones. Rather, I am interested in the formation and change of property regimes concerning claims on animals - in how property regimes have come to be as they are, and in what ways and why they have come to differ. At the outset of my study, I began with an assumption that differences arise in part because of the different ways that people value animals and in part because of differences among and between animals and the contexts within which they are found.

In looking for a case I was drawn to an animal that is found in Norway, the country where I now live. Reindeer continue to be valued in Norway both as wild animals and as owned (or "tame") animals. While this would usually mean at least two distinct populations, this is not the case with the reindeer in Norway. Instead, a continuum between these commonly polemically-claimed categories is found both with respect to the behaviour of the animals and in terms of the bundles of rights claimed with respect to them. Claims on them are found to accommodate properties of reindeer: that as biological entities reindeer evolve; they eat (sometimes the crops of others); and they move. Another reason I became interested in reindeer is that there is a long and rich history of an interface between reindeer and people, much of which is documented and accessible in Norway. Finally, questions raised with respect to the indigenous Saami people and their claims of indigenous rights to natural resources of the tundra of Norway are issues that will continue to be central with respect to property claims in the years to come. The more I learned about reindeer, the clearer the history emerged and the richer the detail elaborating it, the stronger my conviction became that conventional property theory was inadequate for explaining the emergence of property regimes, particularly with respect to migratory animals.

My theoretical understanding of the formation and reformation of property regimes has emerged together with the study. Originally I attempted to analyze reindeer property regimes using the framework provided by Oakerson for common property regimes (1992). However, I soon encountered difficulties. Although providing insight, the framework proved inadequate for explaining some of my initial findings. A project of my study consequently became to generate concepts and theory to both understand and analyze variations in reindeer property regimes over time. The conceptual approach, referred to here as the General Property Regime (GPR) framework, is presented in Chapter one. The GPR framework begins with a recognition that there are multiple and diverse actors. Diverse actors have pluralistic beliefs, values and interests with respect to reindeer - and the agency to pursue their interests. As a consequence, rather than one property regime being created to lay claims on reindeer and the associated resource of land, actors' willingness and ability to pursue their interests often results in multiple and complex property regimes being created - and re-created. In addition to a general presentation of the framework, the chapter includes definitions of central concepts used in the study.

The second chapter presents the methodological approach as well as the methods used in six phases. The phases, although not as distinct in practice as their presentation might imply, capture the dual aims of the study: namely, the process of inquiry and the creation of a product of that inquiry - here both a study of reindeer property regimes and development of theoretical concepts to understand them. The processes are recognized as being iterative; moving back and forth between developing the case and developing the conceptual approach to it. The phases include: gaining a preliminary understanding, choosing a case and concepts, development of the case, presentation of the case and analysis of merits of concepts, and analysis of the case. The final phase is a reconceptualization of categories and concepts in light of the empirical evidence of the reindeer case.

Following this is a brief introduction to reindeer property regimes in Norway. This sets the stage for three empirical chapters (Chapters 4, 5, and 6) relating the history of the formation and reformation of reindeer property regimes. In analyzing the information gathered for the cases, three periods roughly defined by the increasing scale of central decision-making arenas emerged: namely, local, national and international. The three chapters are divided accordingly. Chapter four presents the emergence of property rights claims on reindeer. Property regimes associated with both living and slain wild reindeer were initially agreed to

among Saami communities. Once claims were made to the rights to access and use living reindeer, there was a consequent need for rules concerning obligations - to care for the animals, to ensure that they did not destroy others' property and to create a means to ensure that others respected a claimant's right to secure the benefit from the extra effort required in caring for the reindeer over time. In other words, even historically we have evidence of complex rule regimes (rights, obligations and constraints to both) associated with claiming reindeer.

Chapter five relates the increasing role of the state from the middle of the eighteenth century. On the one hand, we find that the state is directly involved in forming, and reforming, laws and regulations with respect to reindeer and reindeer herding. On the other hand, the state is seen to pursue other interests entirely - but where their decisions and actions are seen to affect Saami reindeer herders nonetheless. This is particularly the case with respect to the state's exercise of sovereignty and their promotion of farming in areas historically used by Saami herders as pasture for their reindeer. Differences, not the least between farmers and herders, introduce a politics of property. Different actors seek out decision-making arenas in line with their own interests. One result is the creation of multiple - and at times overlapping - reindeer property regimes. While the state is seen to become increasingly central, practices of the Saami herders are also recognized as influencing reindeer property regimes. Specifically the chapter includes a discussion on earmarks, theft and the diverging claims of farmers and herders to unmarked reindeer.

Chapter six opens with a discussion of the changed context of post-World War II Norway. In the far north, Norway was faced with a formidable reconstruction project. Internationally, the state became actively involved in efforts to secure human rights through international agreements. In this changed context, Saami - including Saami herders - have come to define themselves, and be recognized by others, as an indigenous people. Both the state and the Saami have thus become actively involved in international decision-making arenas. Perspectives, beliefs and interests in reindeer herding vary: they include, for example, recognition that reindeer herding provides the basis for both a primary industry and a living culture. While the two ideas (and consequent uses of reindeer) can be mutually enhancing, there is no inherent reason that this is necessarily the case. In practice, multiple and overlapping reindeer property regimes are found; again the result of property politics. The

outcomes of straggles over reindeer property regimes are consequently found to be contested and negotiated.

The final chapter of the study relates the empirical findings back to the GPR framework presented in Chapter one. The study concludes with a discussion of a social approach to property regimes that at the outset recognizes actors and their differing ways of valuing reindeer. Some of these ways of valuing are private and some are social. Social interests including such things as interests in culture and safety are recognized as introducing obligations and constraints with respect to reindeer property regimes. Agents are found to pursue their differing ideals, ideas and interests in different local, national and international arenas. As a consequence, different actors may apply rules from different decision-making arenas in the same place and with respect to the same animals. When this happens, it is found that property regimes may contradict and conflict with one another: this sets the stage for the politics of property.

The research process was more difficult than I anticipated. Fortunately, I have had assistance and support of colleagues, friends and family along the way. Without them, I would not have completed this project. My gratitude to each is deep.

The study was made possible through a stipend from the Norwegian University of Life Sciences. It has been carried out at the Department for International Environment and Development Studies, Noragric. Noragric has provided me with both professional and friendly colleagues and staff. Their help and encouragement has been invaluable in the many phases of my study. I have, for example, had the benefit of direct access to the Department's thematic library and to our two dedicated librarians: Ingeborg Brandtzaeg and Liv Ellingsen. Their help in identifying and accessing documents from our own collections, other Norwegian collections and international collections has been invaluable. The amount of information available through computer access has greatly expanded - just during the period of my study. Our librarians have assisted me in honing my search skills, as well as stepped in when my efforts have fallen short.

I would also like to thank Thor Larsen for the original inspiration for this work and for encouragement and support along the way. My appreciation and thanks go also to Trygve Berg for his idea about reindeer, as well as to both him and Gufu Oba for comments on early

drafts. Special thanks also to Kjersti Larsen for her comments on many early drafts and additional advice provided throughout the course of the study. I would also like to thank Hugh Beach for sharing his expertise on reindeer and Saami and for taking the time to comment on my work at two different phases. And, my thanks to Rebecca Lawrence for her great help in editing large portions of the final document.

Throughout the course of the study, I have also had the incalculable benefit of guidance from both Cary Fowler and Tom Burns. Cary Fowler has been an integral part of this study from its inception. High professional standards combined with broad insight have continually been revealed with his clear comments to my many drafts. Through a series of small steps he was able to guide me throughout. Thank you, Cary. My deep gratitude also goes to Tom Burns. Without his help and encouragement, this study would not have been completed. He took the time to not only read - but to understand - what indeed it was that I was trying to say. His extensive experience, insight and guidance have been central in first assisting me to fully develop my ideas and later to present them.

While academic guidance has been central, I could not have completed my study without the support and encouragement of friends and family. Specifically I would like to thank Elizabeth de Jong for the hours (and miles) when she lent her ear to listen to my endless contemplation and for her many constructive ideas, some of which I was able to follow. I particularly appreciate her recognition and championing of the importance of creativity in the research process.

I am also indebted to my parents and to my late grandmother. Together, albeit in quite different ways, they laid the foundation for the way I see the world and my interests in trying to understand a small piece of it. My grandmother, a college-graduate herself, remained curious - in part through reading and discussing books - throughout her long life. My father inherited her love of books - and has passed it along to me. In addition he has an avid interest in: hunting for (relatively obscure) information, a fascination for detail, and an eye for seeing how small pieces fit into larger ones. My mother has provided me with a solid, enduring - and not the least - loving base from which I know that I can always draw strength.

Finally, my love and thanks to my husband, Rune. There was a time when I thought that this study was everything: I was wrong. Thank you, Rune, for enduring my obsession, and for

loving me regardless. Thank you for helping to put things into perspective - for your encouragement to keep going and in your sustained belief in me throughout many different phases. Thank you for being there when I have needed you. And, last but in no way least, my love and thanks to our sons, Erik and Glenn, for the perspective they offer through their joy of life and for their ability to maintain a sparkle in mine. My only regret is the times when have been so busy looking down at my papers that I have missed their growing up.

Sammendrag

Historien om etableringen og reetableringen av overordnede regimer for tilgang, bruk og styring når det gjelder reinsdyr i Norge er lang, innholdsrik og godt dokumentert. Sentralt i historien står samefolkets rolle og deres krav om rettigheter som urfolk til naturressurser i de nordligste områdene.

Gjennom tidene har samene temmet rein, og noen begynte å flytte med sin egen reinsdyrflokk. Dermed ble reinen ikke bare en viktig kilde til kjøtt og skinn, men selve grunnlaget for en levende kultur. Samene kom dermed til å utnytte reinen til mange formål og på mange ulike måter. Syd for de områdene som etter hvert politisk ble ansett som tamreinområder ble reinen utnyttet på som jaktbart vilt. Senere ble reinen også ansett for å være en naturlig del av miljøet. I dag ses reinen både som ville dyr i sitt naturlige miljø, og som privateide, tamme dyr. Siden disse ikke utgjør distinkt atskilte bestander, har mange gjort krav på ulike ressurser, noe som stadig utgjør et grunnlag for konflikter

Denne studien fokuserer på dannelsen og endringen i eiendomsregimer når det gjelder reinsdyr i Norge. Målet for undersøkelsen er å bruke forbindelsen mellom samer og rein som middel til å:

- forstå framvekst av og endring i eiendomsregimer
- identifisere kilder til motsigelser og konflikter som ligger i de kravene på ressurser og goder som framsettes.
- utforske hvordan konflikter utspiller seg - regulert eller uregulert, løste eller uløste – og konsekvensene av disse prosessene;
- studere eiendomspolitikken og på hvilken måte og i hvilken grad den påvirkes av ikke-eiendomsrelatert politikk og regelverk, og
- identifisere andre faktorer som virker inn på og former eiendomsregimer, inklusiv uforutsette virkninger av både regelverk og utenforliggende hendelser, som ulykker.

Jeg begynte med å forsøke å analysere eiendomsregimer rundt reinsdyr ved hjelp av Oakersens modell for eiendomsregimer som gjelder allmenninger (CPRs) (1992), men den viste seg å være utilstrekkelig. CPRs-modellen tar utgangspunkt i ressursene og stipulerer et sammenfall av interesser rundt disse. Dette bildet kjennetegner et samfunn med harmoni og likevekt hvor overordnede regimer er enkle og upolitiske. I min studie viste det seg at samspillet mellom interessene var av en spesiell art. Det var derfor behov for å utvikle et konsept og en framgangsmåte som kunne brukes til å forstå og analysere variasjonene i eiendomsregimer omkring reinforvaltningen over tid. Resultatet er et anslag til en modell for et generelt eiendomsregime (GPR-modellen - General Property Regime). Dette innebærer en dynamisk og historisk tilnæringsmåte og en erkjennelse av at regelutforming er delvis betinget av historiske samhandlinger og strid mellom parter.

GPR-modellen tar utgangspunkt i de ulike partene og forholdet mellom dem. Den tar høyde for at prosessen involverer flere aktører og hele samfunn. Uttrykket flere aktører er ikke her brukt i betydningen en annen eiendomskategori, men heller som en indikator på potensialet for konflikter og konfliktløsning. Modellen anerkjenner også at aktørene er ulike og har et spekter av ulike verdisystemer og interesser. For eksempel er det betydelige forskjeller mellom skog-, fjell- og kystsamer. Det er også ulikheter i syn mellom reindriftsamer og bønder, mellom landbruks- og Miljøverndepartementene, og mellom den norske og den svenske staten.

Jeg har også gjort et grundig stadium av de mangfoldige og flerfoldige rollene som innehas av staten og dens organer. Vi ser at både behovene og tenkesettene til de ulike aktørene som hevder rettigheter i forhold til rein ser ut til å forandre seg over tid. Nye aktører dukker opp, mens andre redefinerer sine roller for å bli mer synlige og gjennomslagskraftige. De ulike aktørenes opptreden varierer både ut fra hvilke goder de er ute etter og hvordan de bruker dem, så vel som ut fra sine strategiske valg og måtene de danner og utvikler sine regelsystemer for samhandling og ressursforvaltning. Tilnærmingen skjer på flere nivåer, og gir derfor rom for både individuelle og sosiale behov – gjennom politisk kamp, gjennom regelutvikling og praktisk bruk av ressursen (og dens tilhørende ressurser). Kravene om reinen som ressurs handler om grunnleggende behov – en kilde til mat og varme, et middel til friluftsliv, en skikkelig plage, et grunnlag for vedlikeholde et språk, og en del av naturen og en del av kulturlandskapet.

Kravene som blir stilt om de tilknyttede landressursene er varierte og ofte overlappende. Ved å bruke GPR-modellen som tilnæringsmåte tas det ikke bare hensyn til samarbeidet mellom aktørene, men også til deres kamp og konflikter. Metoden fokuserer politisk kamp, regelforhandlinger og retningslinjen som sentrale studieområder. Et bredt spekter av interessenter innbefatter ofte at vurderinger og beslutninger skjer på mange ulike og motstridende måter. Kontinuerlige spenninger og strid om ressursene medfører derfor at resultatene av prosessene ofte kan være usikre, forsinkede eller blokkerte.

Drøftingen av alliansene mellom aktørene gjøres ut fra hvordan de dannes, og hvordan partene velger ulike arenaer ut fra deres kognitive perspektiver, verdisyn og behov. Et eksempel er at samiske grupper i Norge gikk sammen om å appellere til myndighetene under forhandlingene som ledet til Reindriftsloven av 1933. Etter andre verdenskrig slo norske, svenske og finske samer seg sammen og dannet Nordisk sameråd, og i de siste tretti årene har urbefolkninger over hele verden samlet seg for å skape en felles identitet, bla a gjennom Verdensrådet for urbefolkninger).

Felles interesser kan samle svært ulike interessenter, som i Altasaken da miljøvernaktivister og reindriftsamer slo seg sammen for å protestere mot kraftutbyggingen. I dag er det mer vanlig at miljøvernaktivistene støtter myndighetene, som f.eks. når de protesterer mot samenes bruk av moderne transportmidler som snøscootere på vidda.

Når det finnes et spekter av ulike regler og mange ulike interessegrupper, viser det seg i praksis at aktørene ikke nøyer seg med å implementere regler og systemer, men at de velger hele eller deler av det overordnede regimet strategisk for å realisere sine mål og visjoner. Dette er tydelig i Trollheimen-saken hvor grunneierne søkte støtte i det regelverket som var implementert av Landbruksdepartementet, mens reindriftsamene på sin side forsøkte å finne støtte i regelverk og fortolkninger som lå til Miljøverndepartementet. Ut fra de anerkjente partenes respektive ideer, overbevisninger og interesser, foretar aktørene på den enkelte arena sine egne prioriteringer og lager sine egne regler og prosedyrer, og ikke minst velger de hvem de vil anerkjenne som legitime parter.

Eiendomsregimer som gjelder reinsdyr – eller tilknyttede goder som uansett påvirker eiendomsregimene – er et lite oversiktlig felt. Det omfatter ikke bare rettigheter, men forpliktelser og begrensninger. Hver av aktørene har sine overbevisninger, verdisystemer og interesser som gjelder

- Tilgang

- Forvaltning og kontroll
 - o Utnyttelse av ressursene
 - o Forvaltning av godene
 - o Hva slags risiko dyr, fordringshavere og samfunn skal utsettes for
- Fordeling av gode og kostnader

Den typen krav som er forbundet med rettigheter står sentralt i de stadige konfliktene mellom reinere og bønder. Det samme gjelder prinsippet om felles ansvar som ble etablert ved Lappeloven av 1883, og som fortsatt gjelder i dag.

Også regimene for reinforvaltning viser seg å være mangfoldige, som det framgår av det spekteret av målsettinger som finnes i forskriften om reinforvaltning og Lov om reindrift av 1978: Å øke kjøttproduksjonen, ivaretagelse av samisk kultur, å sikre reinere et stabilt og sikkert utkomme og å ivareta bosetningene i Norges nordligste områder. Målene omfatter både økonomiske målsettinger og sosiale tanker om å ivareta samisk kultur i tillegg til nasjonale oppgaver som å beskytte norske borgere. Det er ingen grunn til å tro at disse målene vil underbygge hverandre i det praktiske liv.

På samme måte som det er en rekke ulike beslutningsarenaer involvert i reinforvaltningen, finnes det også et spekter av overlappende, skiftende institusjoner som har reinsdyrforvaltning ikke bare som en oppgave, men en av flere oppgaver (og bakenforliggende interesser). I det siste har heltids reindriftsamer valgt å ta i bruk regelverket under Reindriftsloven av 1978, og følgelig hevde at dette er den mest presise loven, mens andre samiske grupper imøtegår dette ved å vise til den nye Sameloven av 1987. Begge disse kravene anerkjennes av norsk rett fordi det finnes legitime grunner til at det ene regelsystemet kan overstyre det andre.

Sett i lys av mangfoldet av ulike strategiske drivkrefter, og alle de komplekse og mangfoldige styringssystemene som finnes, er det ikke merkelig at det finnes konflikter. Det finnes mer eller mindre klare retningslinjer for hvordan rettighetskravene skal legitimeres, til hvem og hvordan goder skal fordeles og hvordan ressursene skal brukes. Funnene i denne undersøkelsen viser at konflikt og kamp er uunngåelige bestanddeler i ethvert eiendomssystem, og at det derfor er nødvendig å ha prosedyrer for å håndtere konflikter og fremme forhandlinger mellom partene. Det er også behov for bedre koordinering for å utvikle beslutningsarenaer.

Staten har en viktig rolle i disse prosessene fordi den står sentralt både i de politiske prosessene og i utforming av overordnede regimer for eiendom og andre samfunnsområder. Staten har en tradisjon for å gripe inn med krisehåndtering, konfliktløsning og oppfølging av agendaer som råderett, utvikling, solidaritet og andre emner som ikke har direkte sammenheng med eiendomsregimene. De kritiske hendelsene har i følge staten bl.a. vært: Nedgangen i viltbestandene (siste halvdel av 1800), stengningen av den russiske grensa for reindriftsamer (1852), reduksjon i beitemarker (begynnelsen av 1970-årene) og Tsjernobylulykken (1986).

I hvert av disse tilfellene har staten intervensert gjennom å fremme politiske direktiver. Gjennom sin inngripen hevder dessuten staten at den løser konflikter. For eksempel har staten gjentatte ganger fremmet lover og reguleringer myntet på konfliktløsning mellom reinere og bønder. Bortsett fra i den senere tid har staten i størst grad støttet bøndene med det uttrykte formål å fremme distriktsutvikling.

At statens handlinger påvirker reinsdyrforvaltningen indirekte, vises tydelig ved bla Lappekodisillen av 1751. Avtalen anerkjenner samenes historiske bruk av de nordligste områdene til reindrift. Når både norske og svenske myndigheter valgte å anerkjenne samenes rettigheter som en del av sine territoriale strategier, var det fordi de samtidig så at dette økte statenes muligheter for å styrke sin territoriale kontroll over områdene.

Et annet eksempel er statens gjentatte innsats for å fremme solidaritet, ofte gjennom tiltak for å fremme homogenisering. Det ble følgelig satt inn tiltak for å bedre samenes materielle betingelser og levestandard. Andre statlige agendaer som har påvirket reindriften, er tiltakene for å utvikle infrastrukturen i områdene. Det langsiktige og samlede resultatet av disse prosjektene opp gjennom historien, har vært at samene har fått redusert og splittet opp sine beiteområder. I tillegg har statens inngripen bidratt til å etablere tenkemåter, verdisyn og interesser omkring både reindrift og andre tilknyttede ressurser. Den har både påvirket reineiernes makt og posisjon, og samenes stilling og handlekraft generelt.

I dette bildet representerer GPR-modellen en dynamisk tilnæringsmåte. Historisk viser endringene i eiendomsregimene seg delvis å oppstå som en konsekvens av tiltakende mangel på ressurser. Reindriften historie viser gjentatte eksempler på at etter hvert som beitelandet minker, øker aktiviteten fra ulike aktører for å få avklart reglene og gjøre dem stadig mer detaljerte.

En annen forandringfaktor er at det oppstår nye perspektiver, verdisyn og egeninteresser inkludert nye fortolkninger, tanker og muligheter om hva det er mulig å eie. Ikke minst har holdningsendringer når et gjelder miljøvern og dyrevvern ført til endring i lover og regler som regulerer når, hvor og hvordan man kan jakte på rein og utøve reindrift. Det viser seg også at endring i regler og regelsystemer springer ut fra ulike syn på hva som er hensikten med eiendom generelt. I tillegg til å fremme de individuelle interessene, rettes det krav som skal sikre bredere samfunnsinteresser som omfatter så vel samenes rettigheter som tiltak for å ta vare på miljøet.

Denne undersøkelsen bekrefter dermed verken det sammenfallet av interesser som søkes i CPR-modellen, eller at det ligger noen form for forutbestemmelse ut fra de prosessene som ligger bak den aktuelle situasjonen. Derimot viser den at det dannes et system ut fra aktørenes oppfatninger av, og gjenskapinger av historien og av historiske hendelser. Til tross for deres ulike behov, har aktørene felles interesser av å ha et godt system, og i å samarbeide om å få systemet til å fungere. Systemer oppstår med andre ord ikke ut fra behovet for forenkling, men ut fra felles interesser av å ha et system i seg selv.

Mens GPR-modellen gir innsikt i hvordan og hvorfor eiendomsregimer for reinforvaltningen har oppstått, blitt utformet og revidert, viser denne undersøkelsen også at det ikke er tilstrekkelig å bare se på eiendomsregimer for å forstå hva som skjer. Undersøkelsen viser derfor flere kontekstuelle forhold som ligger utenfor det generelle eiendomspektivet, men som like fullt påvirker eiendomsregimer for reinforvaltning. Blant disse kontekstuelle forholdene finner vi eierforhold til goder, teknologi, utenforliggende hendelser, utilsiktede konsekvenser og selvsagt politikken i seg selv.

Summary

The history of the creation and re-creation of rule regimes concerning access, use, control and management of reindeer in Norway is long, rich and well documented. Central to this history is the role of the Saami people and their claims of indigenous rights to the natural resources of the far north. Over time, the Saami tamed reindeer and some came to move together with their animals. Reindeer came to be important not only as sources of meat and hide, but as a foundation for a living culture: the Saami came to value reindeer diversely and pluralistically. South of what came to be politically designated as reindeer districts, reindeer were valued as game. Later they also came to be valued as a natural part of the environment. Currently reindeer are valued as both wild animals and as owned - or tame - animals. As these are not distinct populations, the diverse and pluralistic claims made with respect to reindeer are found to overlap creating the basis for conflicts.

The study focuses on the formation and change of property regimes with respect to the reindeer of Norway. The aims of the study are to use the Saami-reindeer nexus in Norway:

- To understand the emergence and change of property regimes;
- To identify sources of contradiction and conflict in the claims made on resources or goods;
- To explore how conflicts are played out - regulated or not, resolved or not - and the consequences of these processes;
- To examine the politics of property, including the role and impact of the politics of non-property issues and policies on property regimes; and
- To identify other factors that influence and affect property regimes, including unintended consequences of policies, and exogenous events including accidents.

Initially an attempt was made to analyze reindeer property regimes using the Oakerson framework for common property regimes (CPRs) (1992): it proved to be inadequate. The CPR approach takes its starting point with the resource and assumes a convergence of interests concerning it. Communities are characterized by harmony and equilibrium: rule regimes are considered to be simple and apolitical. In this study convergence of interests is found to be a special case. An additional aim of this study became to generate concepts and theory to both understand and analyze variations in reindeer property regimes over time. The result is the General Property Regime (GPR) framework. It entails a dynamic, historical approach. It recognizes that rules are formed contingently, in part because of historical interactions and struggles among agents.

The GPR framework begins with actors and their relationships. It recognizes multiple actors, including large communities. Rather than defining a category of property, the numbers of actors provide an indication of the potential for conflict and conflict resolution. Actors are recognized as being diverse with pluralistic values. There are, for example, important differences between Forest, Mountain and Coastal Saami. There are also differences between Saami herders and Norwegian farmers, differences between the Ministries of Agriculture and Environment, and differences in the interests of the Norwegian and Swedish states. Particular attention is given in the study to the multiple and diverse roles of the state and its agents. The interests and ideas of the diverse actors with interests in claiming reindeer are seen to change over time. New actors emerge; others redefine themselves in efforts to become more visible and to gain influence.

Actors exercise agency both with respect to their pursuit and use of goods, and in their strategic choices and actions to form and reform rule systems to govern their interactions over the use of goods. This multi-level approach also recognizes the active pursuit of both individual and social interests - through political struggles, in policymaking, and in the concrete use of the resource (and associated resources). Reindeer are alternatively claimed as: a basic necessity - a source of food and warmth, a nuisance, a source of sport, a basis for maintaining a language, a part of nature and a part of the cultural landscape. Diverse - and often overlapping - claims are also made with respect to the associated resource of land. The GPR approach pays attention not only to actors' cooperation but also to their struggles and conflicts. It targets political struggle and negotiation of rules and policies as important areas of investigation. Diverse agents tend to imply multiple and contradictory ways of evaluating and making judgments. Subsequent contention and struggle over resources means that outcomes are likely to be uncertain, delayed or blocked.

Actors' alliances are discussed in relation to where and how they form, and to in what ways actors choose between arenas in accordance with their cognitive perspectives, values and interests. For example, Saami groups within Norway came together to jointly petition the government during negotiations of the National Herding Law of 1933. Following World War II, Saami from Norway, Sweden and Finland aligned and created the Nordic Saami Council. And, in the last three decades, indigenous peoples throughout the world have joined together creating a collective identity (e.g. the World Council of Indigenous People). Very different agents may come together when their interests are complimentary as demonstrated in the Alta case which brought together environmentalists and herders in joint protest against the development of hydro-power. Environmental groups are currently more apt to align with the state in protest against Saami herders' use of modern transport.

In practice, it is found that actors do not simply implement rules and rule systems. Given multiple systems of rules and pluralistic interests of actors, they strategically select rule regimes, or parts of regimes, in pursuing their particular interests and aims. This is highlighted in the Trollheimen case where landholders sought support for the rules created and interpreted by the Ministry of Agriculture whilst Saami herders sought support for the rules and interpretations of the Ministry of Environment. Reflecting the differing ideas, beliefs and interests of recognized participants, actors in different arenas set their own priorities and establish their own rules and procedures - including who will be recognized as legitimate participants.

Property regimes made with respect to reindeer - or concerning associated goods but affecting reindeer property regimes nonetheless - are complex; they include not only rights, but also obligations and constraints. Actors differ with respect to their beliefs, values and interests concerning:

- Access
- Control and management
 - o How should the resource be used?
 - o How should goods be cared for?
 - o What type of risks may animals, claimants and the community be subjected to?
- Distribution of value as well as costs

Claims made with respect to obligations are central in the repeated conflicts between farmers and herders as with the principle of common responsibility introduced under the Common Lapp Law of 1883 and still in effect today.

Reindeer property regimes are also shown to be multiple. This is made explicit in the four diverse aims introduced in the Reindeer Management Act and the Law of 1978: to increase meat production, to maintain the Saami culture, to help the herders have a good and stable economic situation, and to maintain a settled presence in the northern most areas of Norway. The goals include both economic aims and social ideas concerning the maintenance of the Saami culture. In addition, there are also national interests in protecting Norwegian citizens. There is no inherent reason to assume that in practice that the pursuit of these aims will be mutually enhancing.

As diverse decision-making arenas are involved in the regulation of reindeer, there are also multiple, overlapping and changing institutions where reindeer property regimes are but one of a number of regimes (and underlying interests). In recent struggles between groups of Saami, full-time herders have chosen to utilize the rules of the Reindeer Herding Act of 1978 arguing that they are the most specific; other groups of Saami counter this with claims legitimized in the more recent Saami Act (1987). Within the Norwegian legal systems both claims are recognized; there are legitimate reasons for one rule system to take precedence over the other. Given multiple, diverse, strategic agents and complex and multiple rule systems, conflicts and struggles take place. There is a "politics" - including the politics of legitimizing claims - of determining who gets what and how much, and in what ways resources are to be used. The findings of this study suggest that conflict and struggle are inherent to property systems. There is consequently a need for procedures which address and resolve conflicts and which promote negotiation among actors. Decision-making arenas may also require better coordination.

The role of the state is important both because it is central in political processes and in forming and reforming property and other rule regimes. The state is shown to intervene in terms of crisis management, conflict resolution and the pursuit of other agendas including sovereignty, development and solidarity - issues not directly related to property regimes. The state identified crises include: the increasing scarcity of game (mid- to late 1800's), the closing of the Russian border to herding Saami (1852), degradation of pastures (beginning in the 1970's) and the Chernobyl accident (1986). In each of these cases, the state directly intervened by introducing new policy directives. The state also claims to resolve conflicts through its interventions. Repeatedly in the history of reindeer property regimes the state has introduced laws and regulations to address the conflicts between farmers and herders. Until most recently, the state has supported farmer's interests in the name of promoting development.

The state is also shown to act in ways that indirectly affect reindeer property regimes. The Lapp Codicil of 1751 is a good example. The agreement recognizes the ancient use of areas of the far north by Saami reindeer herders. Both Norway and Sweden in exercising their sovereign interests found it advantageous to recognize Saami migrations; doing so strengthened the respective states' claim to territorial control. Another repeated example has been the state's interest in solidarity - introduced through projects of homogenization. Active interventions were made in attempts to better the material conditions and living standard of the Saami. The state has also pursued other agendas that have impacted reindeer herding including infrastructural development of the areas. Over time, the cumulative and long-term effects of these projects have resulted in significant reductions and fragmentation of pastoral areas. State interventions have also affected perspectives, values and interests with respect to reindeer as well as associated resources. They have affected herders' power and positions, and also affected the Saami position and their power to act more generally.

Summary

The GPR approach is a dynamic approach. Changes in property rule and regimes are found to come in part from the story of increasing scarcity. There is repeated evidence in the reindeer case that as land became increasingly scarce, there was interest from diverse actors to increasingly clarify rules making them progressively more detailed. In addition, change comes from new perspectives, values and interests - including new interpretations, ideas and possibilities of what can be owned. Changing attitudes towards both the environment in general and to animals have led to changed rules and laws concerning when, where and how reindeer can be hunted and herded. There is also evidence in this case that change in rules and rule systems are motivated by differing views of the very purposes of property. In addition to individual interests, claims are made to secure interests of the larger community including securing the rights of the Saami people and actions to conserve the environment. The study neither confirms the convergence of interests sought in the CPR approach nor does it demonstrate complete path dependency. Instead, it illustrates that actors' perceptions, even their re-creations of history and historical events, provide order. Despite their differing interests, actors come together pursuing joint interests for order and reaching agreements to maintain order. Order does not come from assumptions of simplicity, but from actors' common interests in order itself.

Whilst the GPR framework provides insight into how and why reindeer property regimes have been formed and reformed, the material also reveals that a singular focus on such property regimes is insufficient. The study identifies additional contextual factors outside of a general property approach - but nonetheless affecting reindeer property regimes. Contextual factors identified as affecting reindeer property regimes include: properties of goods, technology, exogenous events, unintended consequences, and politics itself.

Conceptual Approach

Introduction

Reindeer are found throughout most of Norway. They are large animals valued both in the north and the south of the country as animals in their own right, and for the valuable products they provide. Although the same species inhabits the entire country, the property regimes that have evolved to govern the social relationships between the different actors making claims to reindeer differ markedly from one part of the country to another. According to Norwegian national policy, reindeer in the north of Norway are "tame" (see Map 1). Plastic tags and earmarks establish and allow for recognition of ownership. In the south of the country, the Norwegian government refers to reindeer as "wild"¹. Here, there are no marks, no brands, nor tags. If you hit a marked reindeer with your car, you must compensate the Saami owner². If you hit an unmarked reindeer, you inform the local game officer. The state seeks no compensation. As examples of property, Norwegian reindeer appear straightforward. Tame animals are owned privately; wild animals are owned by the state³.

But scratching this seemingly smooth surface reveals a myriad of claims and claimants. There are on-going debates with respect to who can claim, what rights and obligations can be claimed and to the very processes by which - and the arenas within which - these questions have been negotiated and re-negotiated through time. Property regimes are not simply clarifying who has rights to a particular reindeer. In the far north, the indigenous Saami people have exclusive access and user rights to reindeer. Saami rules defining, enabling and

¹ Wild reindeer are found and hunted in all but six of Norway's 19 regions. Of the six where wild reindeer are not hunted, four comprise the northern most areas of Norway where Saami have rights to herd their reindeer. The other two - Ostfold and Oslo/Akershus - are located in the southeast of the country. No reindeer are found in these two districts (Lier-Hansen 1994:89).

² Traditionally earmarks (notches and slits cut into the ear) have been used by the Saami to indicate ownership. Already in 1854, in the special laws regarding the reindeer-herding region of Finnmark, ear-marking was required as a means of establishing ownership of a particular animal. Since that time, regulations on marking have become increasingly delineated - making it possible not only for Saami to differentiate animals among themselves, but also for "outsiders" to identify particular owners (Berg 1994a; Paine 1994). Discussions of the significance of earmarks with respect to asserting claims on reindeer are explored later in the study.

For a discussion of the term Saami, see 1st footnote in Chapter three.

³ Outside of the reindeer herding districts, hunting rights to reindeer are accorded by ownership to land. Certain acreage gives a right to hunt a certain number of reindeer. As such, landholders have the right to use and benefit from the wild reindeer, as well as the right to exclude others. This right is not conditional upon any performance of a social function on the part of the landowner. Owners can choose whether or not they will hunt personally, or sell (on an annual basis), or lease (for up to ten years) these rights to others, as well as whether or not they will maintain habitat on their land that is suitable for reindeer.

According to the Game Law May 29, 1981, hunting is a dispensation allowable when two criteria are fulfilled: the species produces a surplus that is harvestable, and the resource has value either for its meat or hide. Dispensation can also be given to hunt predators (Lier-Hansen 1994:63).

Conceptual approach

constraining rights and obligations to reindeer have evolved over time together with the increasing dependence of some groups of Saami on the reindeer. In the south it is the Norwegian government that legally claims reindeer, but landowners have usufruct rights to hunt them according to specified rules established and enforced by the state. Claims to reindeer are but one of a number of claims made on the various resources attached to particular plots of land. Property regimes in the south of the country have evolved primarily to govern social relationships concerning the claims, including the constraints on and the rights and obligations with respect to access and use of land. Whilst distinctions between claims being made in the north and south of the country are of interest *per se*, the situation is even more interesting because it is feasible and economical to herd reindeer and conduct farming throughout much of the country.

Over time, increasing human populations, increasing markets for both agricultural products and wildlife, and increasing national interests in asserting sovereignty, meant that the contexts within which actors made their claims changed markedly throughout Norway. Actors' interests in reindeer in the north and south of the country and their different ways of accessing, using and managing reindeer came to overlap. When this happened the interests of the actors involved were perceived as contradictory - laying the foundation for a continuing struggle. Over time, Saami and farmers have used different political means and different arenas to strengthen their claims to reindeer. Consequently, rules have been formed and reformed to govern a myriad of issues framing, constraining and enabling access, use, control and management of reindeer. These processes of rule formation and interpretation, with respect to the reindeer of Norway, are the focus of this study. These processes are recognized as including both the rules themselves, and the strategies of actors to form and apply these rules to support their own ideals, interests, desires and purposes. It is suggested that these processes and strategies are central to understanding the current variation in reindeer property regimes that are found in Norway today. More specifically, this study suggests that variation in such regimes to reindeer is attributable to:

- the characteristics of the animal in question and the available technology to exploit/use this resource;
- the spatial and temporal contexts within which animals are found and the circumstances under which rule regimes are created, interpreted, implemented, controlled and enforced;

- actors' diverse ways of valuing reindeer and their (actors') power and capability vis-à-vis other actors;
- configurations of actors and the arenas used by them and other actors to forward their claims to the resource; and
- the processes and strategies through which these property regimes have emerged, are maintained, and change.



Map 1. Reindeer herding areas in Norway, Sweden and Finland. Saami settlement is indicated by the solid lines. The dotted line represents the southern boundaries of the reindeer-herding areas. (Aikio 1989:178)

A conceptual approach

My theoretical orientation was initially based in the growing body of literature addressing what are referred to as "common-pool resources", or CPRs. Elinor Ostrom was one of the first, and certainly remains one of the most prominent, researchers working within this field. Her work, Governing the Commons: the Evolution of Institutions for Collective Action (1990), and the collection of articles within the book Making the Commons Work: Theory, Practice and Policy are both considered cornerstones in the CPR literature (Bromley 1992). In addition to providing major contributions in contemporary work on property, I considered the CPR approach particularly relevant to my area of interest. It is primarily concerned with natural resources including: living resources (such as pasture) and moving resources (such as water). Reindeer can be analyzed through both these angles.

The approach to CPRs was developed as a response to a particular problem: a generalized solution being introduced for a complex - and highly political - issue. In the aftermath of a well-known and often cited article written by Garrett Hardin in Science in 1968, "The Tragedy of the Commons", policy prescriptions introducing private property as a panacea to environmental degradation were introduced throughout the world particularly, but not exclusively, in pastoralist areas. Pastoralists tend to be small, marginal groups that make use of extensive land areas. Settlement of these groups seemingly creates vast land areas available for other people and activities. A group of scientists concerned about both the general diagnosis and the proposed solutions secured a research grant from the National Academy of Science. Among other things, they formed the "Panel on Common Property Resource Management in the Developing Countries" to develop a common research approach to document the existence of common-property regimes and to evaluate how well they operate. Specifically they were interested in documenting the existence of what they referred to as "common property" systems of rules agreed to and enforced by groups of people to use and manage particular resources (Bromley 1992; Feeney et al. 1996; McCay & Acheson 1987). The approach of the panel and some of their initial results are reported in the Bromley (1992) and Ostrom books (1990).

Over the past two decades, scientists utilizing this perspective have been able to amass a substantial number of studies documenting cases where people are actually able to access,

effectively use, and control resources jointly . Among other things, many studies report findings about ownership regimes that are difficult to categorize as either "private property" or "open access". Researchers in this field have chosen to categorize some of these under the rubric of "common property". Numerous empirical studies have documented not only the existence, but also the long-term durability of ownership forms held in common by a specified group of actors within a variety of settings, or contexts. Studies have tended to focus on water, fish, pastures and forests. But, certainly other resources - including wildlife - have been studied as well⁴.

In my initial work with the reindeer case, I attempted to apply the CPR approach offered by Oakerson (1992). Oakerson's framework had been used as the basis for many of the original studies of CPRs. Oakerson explains that the framework was designed to be very general, in order to form a common frame to look at these issues. He includes four attributes in his framework: 1) physical attributes and technology; 2) decision-making arrangements; 3) patterns of interaction; and 4) outcomes (see Figure 1)⁵. In addition to considering the four attributes, Oakerson underlines that it is also important to consider the relationships among these four attributes. He uses arrows to indicate how the variables are related.

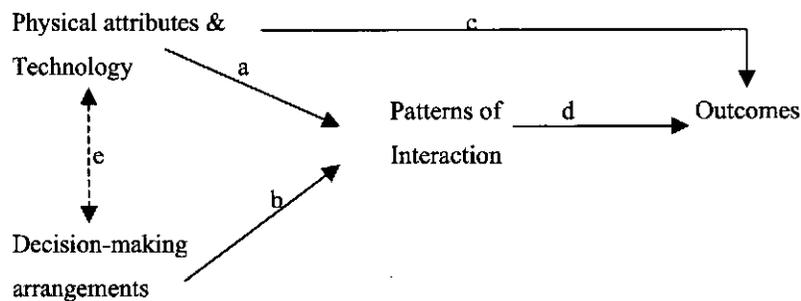


Figure 1. A framework for analyzing the commons (Oakerson 1992:53)

⁴ The International Association for the Study of Common Property (IASCP) has invested much time and effort in compiling and continually updating an extensive bibliography of pertinent material. It is available at <http://dlc.dlib.indiana.edu/>. At this site, it is possible to access The Comprehensive Bibliography of the Commons listing nearly 40,000 citations (Hess 2004).

⁵ An excellent example with respect to wildlife arising but not staying within the CPR approach, is the collection of articles in the book Elephants and Whales: Resources for Whom? (Freeman & Kreuter 1996, see also Buck 1989).

⁶ Note that actors have no explicit place in this framework.

Ostrom explains that CPRs share a number of attributes by definition (1990:30). As with private goods, the use of a CPR by one agent reduces the total availability of the good to others. But, as with public goods, excluding non-recognized users is difficult. Finally, she makes an important distinction between the collective problems faced by claims to exclude people and the problem of assuring that those sharing benefits also are willing to share in management or maintenance of the resource.

The three major attributes of CPRs include: excludability, divisibility (also referred to as jointness) and subtractability. According to Oakerson, these terms can be explained as follows (1992). *Excludability* is defined as the ability, or degree to which it is possible, to control access to goods and services. Where excludability is low, it can be problematic to ensure that those accessing benefits also participate in sharing costs associated with the resource (e.g. costs associated with maintenance). It is possible to distinguish between two types of exclusion: regulation on an individual basis that is complete; and partial regulation where certain actors are defined as being outside of the group able to claim benefits. The distinction becomes important under conditions of increasing demand. Given a particular group of users, increased demand would result from an increased use among existing users. Where access is open, i.e. where excludability is low or absent, increasing demand can occur from both an increase in new and additional users as well as in increased use of the resource by established agents (Oakerson 1992:42-45).

Divisibility is defined as the degree to which rights to the resource can be divided among users without the division impairing management or production. Divisibility is thus used to connote physical rather than legal (rule-defined) boundaries. For example, given varying ecological conditions, it may be problematic to divide pastoral areas equitably. Potentially, there is a great variation between pastures within a season, between seasons and from one year to the next - both with respect to quality and quantity of fodder produced.

Finally, *subtractability* is defined as the degree to which the use of the resource by one actor reduces the potential use by others. This concerns both an immediate effect and a long-term, cumulative effect. With animals, this would refer to both an immediate harvest and a distinction between the harvest and the effect of the harvest on the herd's capacity to reproduce. For example, selective culling, while it may allow for the same overall number of

animals slain, it can also target males and young with the intention of maintaining or enhancing overall rates of reproduction. Generally it is the characteristic of subtractability that can result in actors' overuse and degradation of a resource.

In addition to these three attributes, some of the early researchers presenting case work complemented these concepts with additional distinctions. Buck, in writing of property regimes applying to fish, suggests two attributes describing biological characteristics: whether the resource is stationary (such as trees) or fugitive⁷ (such as fish); and whether it is renewable (biological resources) or non-renewable (minerals) (1989:132). Most animals, she writes, are renewable, fugitive resources. Buck observes that fugitive resources may have the capability to move between political jurisdictions and that it may be difficult to capture them, thereby creating special conditions for defining and claiming such types of resources (ibid.). It may also be difficult to observe them, thus constraining the types of management, control and enforcement that can be imposed. These things are also affected by fluctuations and variability in population sizes and in an animal's distribution over large areas and through time (Holling & Sanderson 1996). Difficulties of exclusion of potential users and divisibility between claimants referred to in the definitions of CPRs arise in part from these characteristics. The bison of North America exemplify the problem of exclusion. Bison are nomadic animals that can suddenly appear in enormous herds only to seemingly disappear again. Difficulties of exclusion from the variability in numbers from one place to another were at least part of the problem faced by American Indian groups dependent on these animals.⁸ Similarly, variability of population numbers in response to climate conditions has been found in the case of wild reindeer populations on Greenland (Meldgaard 1986). Fluctuation refers to the availability of the resource at a particular place; variability refers to changes over time. While fluctuations may be addressed by physically moving, variability is a situation of changing total availability of the resource. In his work on pastoralists in Africa, Runge stresses variability. According to him, variability introduces considerations of risk to claimants that may explain a major incentive for cooperation. In his words, "[i]n the face of this environmental uncertainty, common property institutions may be created; rather than emphasizing the right to exclude some, these institutions provide instead the right of many to be equally included as a hedge against uncertainty" (1992:21). According to Runge,

⁷ To refer to resources that are not fixed some researchers use the term "migratory resources". This can be confused with the biological definition of migratory resources referring to regular, often seasonal, movement patterns.

⁸ For an insightful analysis on the American bison, see Lueck 2002.

Conceptual approach

pastoralists are apt to come together to ensure that the basic needs of all of its members are met. When animals move, when dangers of predators exist and/or when pastoral conditions vary, a group of pastoralists will have a better possibility to safely shepherd their animals than an individual pastoralist working alone.

In 1990 Ostrom stressed that her approach to CPRs was in a very early phase with respect to developing theory (1990). She therefore suggested that there was initial reason to concentrate on selected types of cases to both simplify the task and to provide a better basis for generalization from the empirical studies being carried out. With respect to the resource, Ostrom delineated them to be renewable, rather than non-renewable resources. Further she suggested limiting the studies to "small-scale" CPRs. She defined these as situations where there are 50 - 15,000 actors that are heavily dependent on the CPR, and that they are located within one country. Finally Ostrom suggested limiting studies to those situations where demand to the resource exceeded supply, or as she writes, a "situation where substantial scarcity exists rather than abundance". And, "situations in which users can harm one another, but not situations in which participants can produce major external harm for others" (1990:26). The conditions she specifies are then: the number of actors (one nation, one defined homogenous community); the types of use (a single use); and type of conflict (conflict concerning allocation of resource - relatively simple).

The CPR approach to property regimes also postulates simple rule systems to regulate access and use. In many situations, this is sufficient as actors' beliefs and interests converge. They consequently comply with existing rules to clearly defined and agreed upon situations, issues and problems. For the involved actors, the choice to follow existing rules means an acceptance that the framework of choice about access and the limitations set by obligations, of when and how one might use a resource and how it must be controlled, is reduced and circumscribed. In her often referred to "Design Principles for Long-enduring CPR Institutions", Ostrom specifies a number of underlying assumptions: that actors can create coherent, isolated rule systems for particular purposes; that actors accept and consequently follow rules; and that it is possible to label clear and distinct categories with respect to who owns what and in what way (1990:90). The latter is made more explicit in the later Ostrom and Schlager articles which are discussed in more detail below (1996; Schlager & Ostrom 1992).

In an early analysis of the reindeer case, the distinctions provided by the CPR approach, and Ostrom's further delineation of these points, appeared to fit remarkably well. When a reindeer is slain the total number of animals is reduced. In addition, given that they move, controlling access and use of them is difficult. Although solved in different ways in the north and south of the country, claimant and ownership groups in each of the locations come together in attempts to address management problems. This is done both to secure access to the reindeer and to reduce uncertainty. With respect to the scope of the CPR, groups of actors claiming reindeer are limited in number and they are limited to a particular area (although over time they did come to cross recognized national borders). The concepts suggested in the CPR literature provide insight into some of the types of problems actors are faced with in designing, interpreting and implementing reindeer property regimes.

The concepts encompass more than a broadening of ownership categories (i.e. common property) to include another category of claimants. Concepts are to be found within Ostrom's framework, for example, with the category of "decision-making arrangements" and in the relationship of this category with that of "physical attributes", represented by the arrow connecting the two. In exploring the issue of why it is that people come together collectively, the CPR approach incorporates management considerations. CPR property regimes are assumed to be designed and adopted, in part, as a means of averting commonly shared problems among claimants of what otherwise could be open access resources. This approach to property regimes provides a conceptual leap from sole focus on property rights to one that is open to the principle that in order to secure these rights, claimants need in some way to control access to and use of the resource. The inclusion of management considerations is absent (or considered implicit and therefore rarely addressed) from many other approaches to property. To make this explicit, the term "*governance*" is used in CPR theory as a concept to address management issues both with respect to management of social relations and management of the resource (McCay 1996: 115). Regarding social relations, Ostrom writes that a central question concerning CPRs is "[h]ow a group of principals who are in an interdependent situation can organize and govern themselves to obtain continuing joint benefits when all face temptations to free-ride, shirk or otherwise act opportunistically"

* The concept of *open access* refers to a situation where there are no defined users. Rather than characterizing a type of property regime, the term *open access* refers to a situation when there is no consensus on the rules concerning the access to, use of and management of a good.

Conceptual approach

(1990:29). With respect to the actual management of resources, both Ostrom and Oakeron explicitly state that the goal is to ensure the long-term sustainability of the resource. Management thus introduces a consideration of time - an appreciation of issues concerning future quality and quantity of goods.

The inclusion of management within the concept of property rights is further developed in the article by Ostrom and Schlager (1996)¹⁰. They introduce distinctions between rights claims made on CPRs by suggesting five categories: access, withdrawal, managerial, exclusion, and alienation¹¹ (see Table 1). In their article, Ostrom and Schlager create categories of claimants according to the different types of rights they hold. The categories further imply that there are multiple types of rights. A distinction is made between operational rights (access and withdrawal) and collective rights (managerial, exclusion and alienation). It is on the collective rights level that individuals choose to come together to collectively define and change rules at lower levels. The distinctions made by Ostrom and Schlager are both interesting and relevant to analyses of property regimes. They distinguish different attributes, or claims, of ownership.¹² They underline that potentially different groups of actors make decisions about who can participate in debates defining rules, as well as deciding about how resources can be accessed, used and managed. Different configurations of claimants and different degrees of ownership are highly relevant to the study of property regimes. In these respects, the work of Ostrom and Schlager is both insightful and important. But their work is insufficient for the purposes of this study, which is to understand the emergence and transformation of property regimes. Ostrom and Schlager's work fails to account for the fact that, in reality, actors may have diverse interests and overlapping claims.

My research will demonstrate that, while it may be useful to attempt to identify characteristics distinguishing between degrees and characteristics of ownership, in practice there is a vast array of potential claimant configurations. In doing so, it supports similar findings of Cole as

¹⁰ See also Meinzen-Dick & Pradhan 2001:11 and Schlager & Ostrom 1992.

¹¹ Ostrom and Schlager define these terms as follows:

Access: The right to enter a defined physical area and enjoy nonsubtractive benefits (e.g. hike, canoe, sit in sun)

Withdrawal: The right to obtain the resource units or 'products' of a resource (e.g. catch fish, appropriate water)

Managerial: The right to regulate internal use patterns and transform the resource by making improvements

Exclusion: The right to determine who will have an access right, and how that right will be transferred.

Alienation: The right to sell or lease either or both of the above collective choice rights (1996: 131-132).

¹² See also Admassie 2000, Honore 1961.

depicted in Figure 2 (2002) . My research suggests that given the nature of a resource, and actors' diverse ideas, ideals, purposes and interests in it, actors may also have interests in different types of rules - in not only rights, but also obligations and constraints on both. As a consequence, rather than simple rule systems, property regimes are better conceived of as *complex rule systems*. As complex rule systems, property regimes can be recognized as having multiple and diverse forms. These forms may overlap and consequently may potentially contradict one another. Conflicting rule systems also make implementation problematic.

	Owner	Proprietor	Claimant	Authorized User	Authorized Entrant
Access	X	X	X	X	X
Withdrawal	X	X	X	X	
Managerial	X	X	X		
Exclusion	X	X			
Alienation	X				

Table 1. Bundles of rights associated with positions (Ostrom and Schlager 1996: 133)

A particularly important contribution of the CPR approach lies in its assumption that specific property regimes are a response to special problems and issues in particular contexts¹⁴. This recognition forms the basis for a need to look at concrete empirical cases. The approach also explicitly recognizes informal rules at the local level.

¹³ Cole's figure is helpful in illustrating the idea of overlapping regimes (2002). Nonetheless, it should be pointed out that actually drawing such a figure for a particular context would be problematic - actors may well access different rule systems with respect to the resource and rule systems are apt to vary over time.

¹⁴ Context refers to considerations of both time and space. Context affects rule regimes to property both directly, as particular rules are formed and amended to particular situations, and indirectly through providing conditions within which actors act in attempts to promote their own interests and desires. In writing about the interaction between actors and rules systems generally, Burns and Flam explain, "[t]he process of rule system formation and reformation - which implies the structuring and restructuring of social relations and institutional frameworks - occurs within historically given conditions. These entail concrete social-physical time settings in which social action takes place and decisions are made about rule making, rule interpretation, and rule implementation. Hence the great stress in rule system theory and studying these processes in specific contexts with certain social agents predisposed to cooperate, conflict, or engage in power struggles with one another" (Burns & Flam 1987:27).

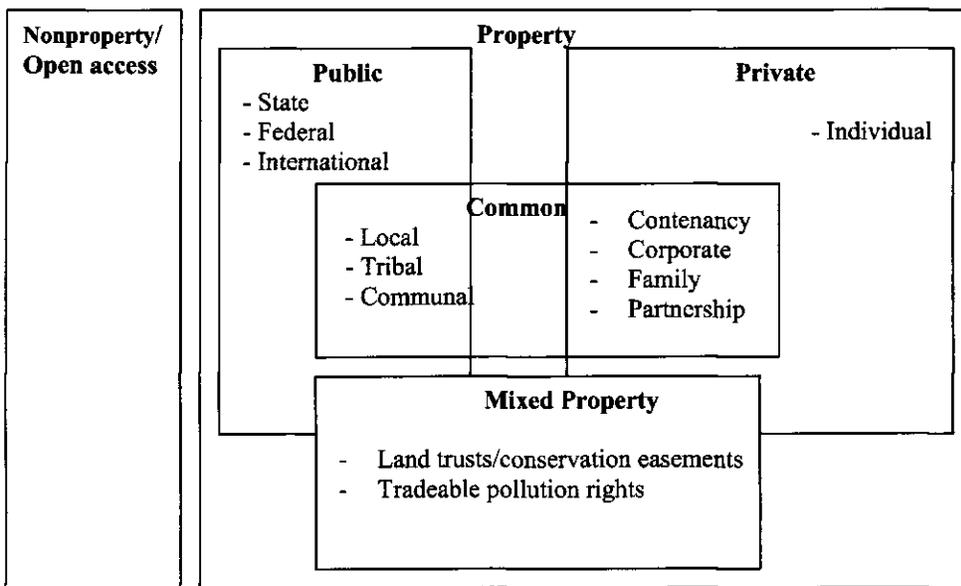


Figure 2. Relations among property regimes (Cole 2002: 10)

In recent work, Dolsak and Ostrom present a framework for common-pool resource use that builds upon the Oakerson framework introduced in 1992 (2003, see Figure 3). Counterpoints can be found in the revised framework for the three components of property regimes originally introduced by Oakerson (1992). Separate boxes on "resource characteristics" and "technology" have replaced "physical attributes and technology". "Decision-making arrangements" and "patterns of interaction" have been replaced by "institutions governing resource use" and "characteristics of resource users". "Outcomes", suggested by Oakerson to be measured in terms of sustainability and equity, has been more narrowly defined as "resource use" in the Dolsak and Ostrom revised framework. My own research supports the proposition that characteristics of a resource influence property regimes. It also supports the notion that institutions governing resource use and characteristics of resource users (and interactions between them) are central components in gaining an understanding of the dynamics and change of animal property regimes. Agreement about the central role of these general components is also found in other recent studies of common property regimes, including the work of Hanna and Jentoft (1996:35). They are also found within the area of legal pluralism including in studies by both Spiertz and Wiber (1996:5) and Benda-Beckmann (1995). Benda-Beckmann specifies the three components of property regimes as "the object,

the social being involved, and the rights, duties, privileges, and possibilities that clarify what may or may not be done with the resources" (ibid.: 312).

A consideration of the differences between the Oakerson framework (1992) and the Dolsak and Ostrom revised framework (2003) indicates that the latter introduces a dynamic relationship among the component factors. Oakerson raised this as a possibility when he introduced his framework (1992:56). In addition, it included a number of considerations of context with individual categories on economic, political and legal environment. The revised framework includes, however, actors to the degree that now they should be specified; yet it appears to remain based upon the assumption that rules determine particular behavior, or use of resources. It fails to fully recognize the agency of actors with respect to their own definitions of resources, in their use of them or in their use and creation of rules and rule regimes. And although resource users are written in plural, there is no explicit recognition within the framework that multiple actors may have differing interests with respect to the resource - or to associated resource(s) - and that these interests may conflict with one another. However, Dolsak and Ostrom explicitly note in the text that they are aware of the potential for multiple uses (2003: 5). One could find scope in their diagram for this aspect within the category on "political environment".

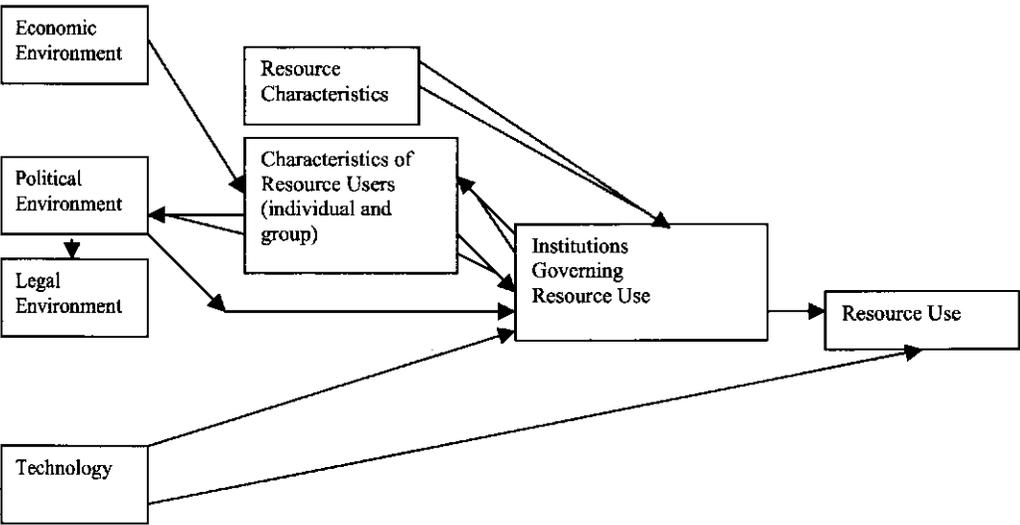


Figure 3. Factors affecting common-pool resource use (Dolšak and Ostrom 2003:10)

The vantage point taken by both Oakerson and Ostrom and Dolsak provides limited insight into the dynamics involved in the formation and change of property regimes. The CPR approach, given its assumption of the simplicity and functionality of rule systems, presumes harmony. Harmony in this case is defined as "how best to limit the use of natural resources so as to ensure their long-term economic viability" (Ostrom 1990: 1)¹⁵. The assumption of harmony leads to a project to design and improve rule systems in an attempt to "get them right", to achieve optimum conditions through the improvement of rules or the rule system, including legislation. This assumption has often meant that the CPR approach has been applied as a synchronic approach - describing an existing local system at a particular point in time.

The general property regime (GPR) approach introduced here differs fundamentally in several respects from the CPR approach. My study is concerned about the politics of the design and the delineation and interpretation of property regimes, given the emphasis on the diverse interests among actors and the complex rule systems which often result. It assumes that actors typically have different interests, purposes, positions of power and differing capabilities with which to achieve their ends. As a consequence, rather than harmony, there is often conflict, struggle and negotiation. The approach calls for historical studies that track not only the increasing specificity of rules designed to realize particular objective(s) over time, but also the potential for dramatic, often unexpected, changes. An underlying assumption is that change, in general, is not only possible but it is probable. This is in part because property rules are not timeless, nor context-independent. They are products of dynamic social processes of contestation, group struggle, negotiation affected by technical innovation, politics and the nature of the property in question. Consequently, in most cases, established property systems cannot easily or effectively be applied to new problems or to old problems in new contexts. In addition, use does not simply stop while disputes are occurring; people continue to act, to solve problems, to learn, to innovate. People also make mistakes. Rules-in-use emerge based on actors' interests and purposes, on their capability and creativity, and on serendipity. There are on-going processes of assessment, deliberation and negotiation among actors with differing interests and purposes. In some cases, rivalries between actors

¹⁵ Within the book, *Making the Commons Work*, the authors of the various articles echo Ostrom's interest. According to Runge the task lies in "identifying the appropriate configuration of rights" (1992:35). In the words of Oakerson, "the key problem remains the same, how to coordinate use by numerous individuals in order to obtain an optimal rate of production or consumption overall" (1992: 41). And in the words of Bromley, the goal is "the sustained use of the resource base over time" (1992:12).

fuel change. Such struggle may be actively pursued in different arenas (Fowler, 1994). An outcome of these processes is often a variation in, and even a change of rules and rule systems.

An historical approach provides a means of analyzing not only changes in rules and policy, but also in values and beliefs (Carson 2004: 34-35). The latter changes mean that outcomes of actors' struggles to pursue their interests and ideals have the potential to transform property regimes. Identification of change *in kind* of property regimes reveals conceptual transformations among actors and arenas with respect to how an animal is defined, indeed, "what an animal is". Consequently, such changes have the potential to fundamentally alter which rights and obligations pertain and who can or should be involved in decision-making about such matters. Changes in kind may introduce contradictions: different desires and interests, and different ways of valuing and thinking about the valued objects. *Changes in degree* of rule systems often entail increases in specificity of rules, further delineation to better implement existing ideas, beliefs and purposes. Such changes represent continuity. Both types of change - changes in kind and changes in degree - lead to a redefinition of an animal's worth. Only the first, however, arises from new cognitive ideas and ideals from a conceptual transformation in the understanding and definition of what is animal is, to questions and definitions of which rights and obligations potentially exist and who will eventually gain access to the resource.

It is not the direct aim of the CPR approach to discuss formation and change of property regimes. However, it is the theorists' purpose to examine why CPR property regimes are as they are. It is suggested here that in discussing formation and change, the GPR approach may provide some insight as to why rules to access, use and management of resources - such as animals - become what they are, and under what conditions they are transformed.

Despite the many positive aspects and insights offered by the CPR approach, it is problematic in several respects in regard to its application to the case of reindeer among the Saami people. In a constructive effort to contribute to a theoretical development concerning the formation and change of property regimes, this study raises five issues in relation to the CPR approach (see Figure 3).

- The particular resource has implications for which rights and obligations are claimed. Different actors may have diverse interests in the specific resource. This sets the stage for conflict and politics.
- Multiple actors use their agency to pursue their diverse interests and to affect different situations. One common strategy is to act collectively implying the formation of alliances. Another is to select among potential decision-making arenas.
- Multiple systems apply to most goods. They may overlap creating the potential for conflicts.
- Given the potential for diverse interests of actors and for conflict among them, there is a politics to property (particularly under democratic conditions).
- Following from this, property regime change is possible and the study of the changes of property regimes requires an historic approach. (See Table 2.)

By using the claims made on the reindeer of Norway as cases, this study centers on questions of formation and change in reindeer property regimes. More specifically, the aims of the study are to use the Saami-reindeer nexus in Norway:

- To understand the emergence and change of property regimes;
- To identify sources of contradiction and conflict in the claims made on resources or goods;
To explore how conflicts are played out - regulated or not, resolved or not - and the consequences of these processes;
- To examine the politics of property, including the role and impact of the politics of non-property issues and policies on property regimes; and
- To identify other factors that influence and affect property regimes, including unintended consequences of policies, and exogenous events including accidents.

A CPR approach – Ostrom (1990) & Oakerson (1992)	General property regime approach (GPR)
<p>Claims to a particular resource Once categorized as a Common Pool Resource (CPR), the properties of the resource become implicit.</p>	<p>Multiple values applied to a resource or good. The qualities and characteristics of the good (or bad, depending on perspective of the agents) underlie the diverse ways that it is valued and claimed.</p>
<p>Actors are individuals that act rationally. Actors may act collectively to solve common problems. They act to maximize their utility.</p>	<p>Actors may be individuals, but can also be collectives. Actors are strategically oriented. They exhibit agency and are therefore capable of initiating change and engaging in struggle. Actors base their decisions upon diverse perspectives, values, and interests. They may choose between institutional arenas in trying to increase their social welfare.</p>
<p>Common property Property regimes are distinguished in terms of the agents. Owners are categorized and analyzed as distinct. What is owned is analyzed in simple, clear and distinct forms.</p>	<p>Complex rule regimes Property rights regimes are one of a number of social rule regimes that are strategically used by actors in pursuing their claims to resources. Moreover, property regimes include not only rights, but obligations and constraints on both rights and obligations.</p>
<p>Property systems Property rights systems are independent rule systems.</p>	<p>Multiple rule regimes There may be multiple claimants and claims to resources. These may overlap in time, space and/or intent.</p>
<p>Harmony and the Current situation Property regimes are conceived of as functional entities that we can design and adjust to “get right”; harmony is achievable. Focus is put on correcting/adjusting the current situation.</p>	<p>Politics of property and Regime Transformation over time Property regimes are complex systems that cannot be readily accomplished. There is continual assessment, deliberation and negotiation among actors with differing interests and purposes. Given the politics of property, a study of their evolution requires a focus on change over time.</p>

Table 2. A comparison of a traditional Common Pool Resource (CPR) approach and the General Property Regime (GPR) approach used in this study (I)

A clarification of concepts

As an introduction to the GPR approach, I begin with a clarification of its central concepts. Property is an encompassing topic that has been approached across many and diverse disciplines including anthropology, economics, law, philosophy, political science and sociology. Consequently, although many are interested in contributing to understanding property issues, misunderstandings often arise. Researchers from differing disciplines may well use the same words or concepts and yet mean different things, or use different concepts and actually be addressing the same, or at least similar, points. Examples include the terms *actors*, *institutions* and *arenas*, each of which is discussed below. To assist the reader in understanding my standpoint on property concepts, I offer the following clarification of ideas and concepts central to this study.

Actors

While the term *actors* includes individuals, it is primarily used to refer to those groups, organizations, and nations that have the capability of making collective decisions and carrying out collective action (Burns et al. 1985a; Giddens 1984:1-16). Actors interpret, misinterpret, implement, contest, control and enforce property regimes. Actors are also central in analyzing change in property regimes. This relates to their *agency*: their ability to make, amend and transform rules and rule systems. In such action, actors are typically strategic. They make decisions in accordance with their values and beliefs; they take action in attempts to advance and protect their interests; they struggle and they deviate. Despite actors' intentions, however, actions do not necessarily have the desired outcomes, they often have unintended effects (Benda-Beckmann 1995: 324-5; Burns et al. 1985a; Carson 2004:34; Giddens 1979; 1984; Long & Long 1992).

Outcomes vary in part because *actors' perspectives, values, and interests* differ. This is true between particular individuals, as well as between private interest groups and social interest groups. Actors' ideals, interests and desires are revealed in part through the choices and actions they take. Different actors may interpret situations and problems differently and therefore make different choices. Such differences are revealed, for instance, in the types of claims they make on goods such as animals. The same species may be valued differently by different actors. While whales, for example, are regarded by some as a source of meat and oil, many people value them for their very existence as wild, sentient beings. Some animals,

including most predators, pose a threat and may consequently be regarded negatively - particularly by people living close to them. Elephants are a source of meat and a basis for tourism but also a threat to local crops. The ways that actors or groups of actors value animals are reflected in the types of claims they make with respect to them. Given that animals need to move and eat, claims also reveal the effort and responsibility of capturing, controlling and/or managing them in the differing contexts in which they are found. In other words: actors' perspectives, values, and interests with respect to goods, such as animals, are also revealed in part through their practices.

It is through practice that actors adapt to particular situations and contexts. Rules may come to vary because actors in different places understand and apply them differently. This may arise from different backgrounds and experiences in different places. The differences may also arise because *actors' capabilities and powers* differ. This means that they have unequal opportunities and possibilities to realize their ideas, values, and interests. They also have differing capabilities and power to control animals directly and to structure current and future rule systems concerning the access to, use of, and management or control of them. Actors' power and capability underlie the strategies they choose to promote their interests and purposes. Capability specifically refers to an actor's capacity to learn, innovate, solve problems and engage and influence others (Giddens 1984, Long & Long 1992:22). This comes in part from one's status or social position, as well as personality and skills to persuade others. It also comes from acquired experience and learning. This may include recursive learning, transfers of knowledge, applications of and access to new technologies and practices, and creative problem solving and innovation.

In other words, actors are positioned differently and have differing abilities to make use of opportunities. Positions are used by actors to legitimate their claims to rights and responsibilities (Burns & Flam 1987:75. See also Long & Long1992: 22; Giddens 1984: 1-16). Power to define and delineate is also affected by the actual control of resources. Finally, an actor's power is partially visible through recognizing whether that actor or other actors participate in knowledge production and collection: who is involved in defining the problem, in setting priorities, in collecting and interpreting data and in distributing results (Burns & Carson 2005; Carson 2004; Gibbons 2002).

Goods

Valuing goods and bads, resources and commodities

According to Burns & Flam, a value is a shared rule assigning a value to a thing, person or state of the world (1987). People value or evaluate things in highly diverse ways. A *good* is something that is positively valued (Salazar & Lenard 1994). A *bad*, conversely, is something that is negatively evaluated.¹⁶ Use of the concepts "good" and "bad" is chosen to focus attention on how a resource such as an animal is judged. It also focuses our attention on the agent(s) making and agreeing to this evaluation. Actors may evaluate goods/bads quite differently. Recognizing this, Kellert, for example, has categorized nine ways that people value biodiversity¹⁷ (1996). His focus is, most often, specifically on animals (Kellert 1983; 1984; 1985a; 1985b; 1994; Kellert & Berry 1987).

Sometimes people evaluate things according to utilitarian principles. To highlight these ways of evaluating we can use the term *resource*. In short, a resource is something that has real or potential use or utility. As such, the term is relational to both the knowledge and technology available to claimants within a given context. When focusing on the value of resources, one may speak about interests in maximizing utility either in the present or over a specified period of time. A sub-category of resources, are those resources that are marketed. These types of goods are commonly referred to as *commodities*. In other words, commodities are but one form of the more general concept of goods. Through the mechanism of the market, economists generally assume that commodities are interchangeable. In addition, commodities are individually appropriable. When focusing on commodities, it is common to speak of people's interest in maximizing profit or social product. Price is considered a measure of the value of commodities (Salazar & Lenard 1996: 339).

In common vernacular these three terms - resources, goods, and commodities are often used interchangeably. An attempt is made in this study to be more explicit about the ideas underlying the use of these differing terms. While all commodities are goods (at least for some people), not all goods are valued as commodities. This recognition lies at the heart of many of the current debates concerning water. While some actors attempt to commodify

¹⁶ There is a growing literature about what I have termed "bads", but that is more commonly referred to as NIMBYs (Not In My BackYard) and/or LULUs (Locally Unwanted - or Undesirable - Land Uses). See, for example, Davy 1997; Inhaber 1998; Lober 1995; McGinnis 1994.

¹⁷ Kellert's (1996:38) categories are: utilitarian, naturalistic, ecologicistic-scientific, aesthetic, symbolic, humanistic, moralistic, dominionistic and negativistic.

water, turning it over to the private sector, others claim that access to a certain amount of water should be recognized as a human right. That is, water is a good that should be available to all. They argue that rather than focusing on the exclusion of non-owners, rights should be based on considerations of inclusion - at least up to a certain minimum amount of water. In addition, claiming water as a good is a claim to the unique qualities or attributes of water as a basic necessity of life.¹⁸ Finally there is nothing in the definition of good/bad that assumes or requires that it be tangible or individually appropriable (Salazar & Lenard 1994:335).

Property and the properties of a good

The CPR approach in Oakerson's framework identifies a category, or type, of resource as having potential implications for property regimes. This is represented as the variable, "physical attributes and technology" (1992: 43-46). As described above, there are three attributes that are particularly relevant to common property resources. These include the relative capacity of resources to support multiple users at the same time, the degree to which the commons permits exclusion, and the degree to which use by one reduces the potential benefits to others. In the CPR approach, common property resources are defined by the degree to which they have these attributes. Once so defined, there is then little concern about the other specific qualities of a particular resource. My own study, supporting some of the work in this field, suggests that there is a need to be even more explicit with respect to the characteristics of the resource (Fowler 1994; Goldstein 1998; Mehta et al. 1999; Dolsak & Ostrom 2003; Sax 1999). This is a rather obvious point when the resource consists of animals.

Specifically, the study suggests that characteristics of the particular resource underlie the diverse ways that a resource is valued and claimed - sometimes in profound ways. As a result, there can be both multiple claims and multiple claimants to resources¹⁹. This is perhaps best illustrated through the use of a simple example, such as the differences between mice and mousetraps. These differences affect the types of rights and obligations to use and manage it that can be claimed. Although someone may well make a better mousetrap, its

¹⁸ See, for example, 2003; Neto & Tropp 2000; Spiertz 2000

¹⁹ The studies of Edwards and Steins (1998a, b), both of whom have been active within the CPR network, were among the first using the CPR approach to stress their findings of multiple uses and users of resources - and to reflect on the theoretical implications this might have (Steins 2001).

function will essentially remain the same. It will have a given design that can be replicated but its use is largely designated by the intent of the inventor. The mouse itself, however, is different. There are differences between mice: their appearance, their behavior, and their genetic make-up. It matters whether they are male or female, young or old. Some have been trained; some are wild; some mice carry diseases and/or deformities; and some are useful in medical research. It is also well known that mice reproduce. They create new, additional mice that are not exact copies of themselves. Mice, as other biological resources, continue to evolve. Variation may consequently be at the individual, population or species level.²¹ Claims to mice are consequently neither as clear-cut nor as straightforward as claims to mousetraps. Claims to mice may be to pieces of their genetic codes, to a particular mouse (living or dead), to a genotype, to a mouse variety or to a species. Claimants may not even be sure what exactly it is that they are claiming. And, what they are claiming may well have the potential to change and evolve. Some claimants may consequently be interested, or more interested, in the potential of future use and benefits. Far from being "an undifferentiated product", many animals are claimed in a multitude of ways. The idea of their being multiple claims and claimants appears to contradict Oakerson when he writes, "[t]he commons is like a factory that produces, not a series of differentiated products, but a stream or pool of undifferentiated 'product' from which individuals take a portion for their use - hence the term 'common pool resource', preferred by some analysts and equivalent to 'the commons' (1992:42).

Consideration of the special attributes (excludability, subtractability, divisibility, fluctuation and variability) of moving, renewable biological resources explains in part differences in property regimes with respect to mice as opposed to mousetraps or other material objects. But claims to animals may reveal more than just the fact that animals are moving, renewable resources. Variation in property regimes can be even more resource specific²². In my

²¹ This is not to say a thing must be used as intended by the inventor. That a mousetrap may be used for a completely different function is illustrated in Freeman's delightful children's classic, Norman the Doorman, where a mouse uses a mousetrap to create a prize-winning sculpture. This exemplifies that it is actors who determine the value of a good. Nonetheless, a mousetrap is different from a mouse in that it cannot, for example, reproduce creating new forms. In addition, qualities of inventions are less apt to change over time and multiple examples are less apt to contribute additional properties. But even in writing this, I see that the creation of musical instruments can be an exception to this. Mainly the juxtaposition being forwarded here is meant to underline the special characteristics of biological organisms rather than expound on those of created things.

²² For further discussion of the special qualities of biological resources, see Fowler (1994:219).

²³ Property regimes may also vary due to the potential interdependence of animals with other resources. Interdependence here is two-fold. It refers to resources, such as pasture, that animals need to survive. It also refers to an animal's role in nature. Predators, for example, affect both quantities and relative numbers of prey species. For case studies and further discussions on this, see for example, Bergstrom 2003; Brewster & Staves 1996a; Hurley et al. 2002; Marchak 1987a; Naughton-Treves & Sanderson 1995.

research, variation in property rules is also shown to be affected by qualities of, and differences between, particular animals. Potential uses, rather than being characterized as "an undifferentiated product" comparable to a mousetrap, are instead multiple and diverse - they may include meat, milk, transportation and a source "of experience" utilized by the tourist industry.

Moreover, claims change over time. In part, this is because the resource itself has the inherent capacity to change. For instance, reindeer, as a limited number of other animals, are amenable to domestication. This potentially enables certain types of claims with respect to them. In addition, the quality of such potential products may change throughout the seasons of the year - introducing constraints on both when and how these animals can best be managed and under what conditions it is most desirable to utilize them. The recognition of the uniqueness of particular goods also underlines the fact that many are not interchangeable. With respect to animals, once a species becomes extinct it is not possible to replace it. The genetic diversity may be lost; as will the living ties to the ways these animals have been culturally valued. Comparable in some ways to an artist's contribution to a country's cultural heritage²³, each species has a role in contributing to the ecological context of a particular place. In his article, "Green Wood in the Bundle of Sticks", Goldstein argues that recognition of the special attributes and functions of natural resources are essential in recognizing and incorporating an environmental ethic into conceptions of property (1998). This includes recognition of the value(s) of a living resource. More generally, many claims to goods are public claims - as, for example, cultural beliefs and religion, history, health and general welfare (see for example, Carson 2004; Macpherson 1978/1992: 169; Meinzen-Dick & Pradhan 2001:12; Sax 1999: 24.)

Rolston has written about the ways in which people value nature (1981; 1991; 2001). He asserts that while there is a distinction to be made between actors' evaluation and the resource itself, the valuing of the resource is not independent of the resource. According to Rolston, natural things are "carriers of values" (1981). To emphasize that it is people (not things) that hold values, one might instead say that the characteristics of the resource, together with the setting in which the good is found, provide a context for value judgments and property regimes (Burns & Flam 1987: 12; Peluso 1996:514; Rose 1994). This is the way I have come

²³ With respect to cultural heritage, see for example Greenfield 1996; Sax 1990; 1999.

to understand how it is that the attributes of animals affect the property regimes applying to them. Although it is argued here that attributes of goods are important in relation to the rule regimes created for them, there is nonetheless a distinction to be made between a property regime and the good that is being claimed. The rules about rights and obligations concerning use and management are not independent of the animal in question - quite the contrary. A clear distinction is drawn, in both my work and that of a number of other researchers, between the recognition of the properties of the good and the property regime itself (see for example, Cole 2002; Freeman & Kreuter 1994; Freese 1998; Kellert 1996; Naughton-Treves & Sanderson 1995). Attributes of goods do not determine which rules are chosen with respect to their access, use, control and management. Of course, humans may adapt a rule regime to the particular attributes and characteristics of a resource so as to allow, for example, an animal to move or be moved together with a claimant. In other words, the fact that reindeer are particular animals delineates at any particular time a number of potential claims of rights and obligations. But the fact that they are animals does not determine the way that people will value them and hence which of those potential rights, obligations and constraints come to be actually claimed and implemented.²⁴

Institutions

Cognitive, normative and regulative aspects

Institutions are social rule systems consisting of particular values, norms, rules, laws and/or procedures. They constitute and regulate social relations between actors and establish social meanings among them. Rules create a context for social actions and interaction. According to Burns and Carson, "the actors engaged in an institutional domain are oriented to the rule system(s) that has (have) legitimacy in the context and utilize it (them) in coordinating, regulating and talking about their social transactions" (2005:6). In such ways, institutional rules provide structure and continuity for actors. Rule regimes are authoritative complexes of rules that structure and regulate social transactions. They shape preferences, outcomes and options. They are socially established, having been structured and restructured as a part of the historical development of societies. Actors design rule regimes to constrain some types of activities and to facilitate others. Part of the socialization process lies in learning such rules, teaching them to young and newcomers, and enforcing them (Burns & Carson 2005: 4; Burns & Flam 1987; Burns et al. 1985a; Carson 2004: 17).

²⁴ This is in contrast to Devlin (2000), for example, who proposes that property regimes for certain resources are optimally determined by the nature of the good. For further discussion, see Cole (2002:134-5).

Along similar lines, the institutionalist Scott writes, "[institutions consist of cognitive, normative and regulative structures and activities that provide stability and meaning to social behavior" (1995:53). Carson also recognizes these three distinctions between types of structures (cognitive, normative and regulative) as well as interactions between them (2004: 14-15; see also Burns & Carson 2005. See Figure 4.) He explains that normative rules, as well as laws, specify policy and provide accounts. They are based on actors' values, norms and beliefs. In this case, claims are framed in part by social values and beliefs, for instance, in regards to animals and animal care. Given strong moral/ethical beliefs about animals, certain practices may be considered unacceptable (Brom 1997; Francione 1995; Midgley 1983; 2001). Abusive ways of using or controlling animals is, for example, illegal in many countries. Constraints are also introduced on acceptable ways of killing animals. These rules specify appropriate behavior. However, inconsistencies between belief systems and formal rules create tensions between actors.

Regulative sets of rules define positions and relationships - who must, may and might participate. They define how to organize and coordinate, and the particular context and setting. They lead to the formation of rules to govern how (which rights and obligations), when (temporal patterns) and where (spatial settings) a resource can be used and controlled. Such rules delineate what is permitted, proscribed and prescribed with respect to access, use and control of a good.

Carson builds on earlier work with respect to regulative and normative rules. To this, he adds insightful work on the cognitive dimension augmenting research on both formalized and normative rule systems (Burns & Flam 1987; North 1990). Carson explains that actors actively pursue their "ideas and ideals" (2004: 40). It is this that compels them to restructure and to even seek fundamental changes in policy - and institutions - or to attempt to maintain those that have already been established. New ideas may thus lead to substantive changes in policy. Changes in beliefs and values may lead to new issues being brought into the institutional sphere - or old issues being excluded from institutional considerations. New alignments between actors may lead to changes in rules and procedures of participation in decision-making arenas. In analyzing institutional change, Carson seeks not only to identify cognitive, normative and regulative alterations, but also to find reciprocal affects among and between the three.

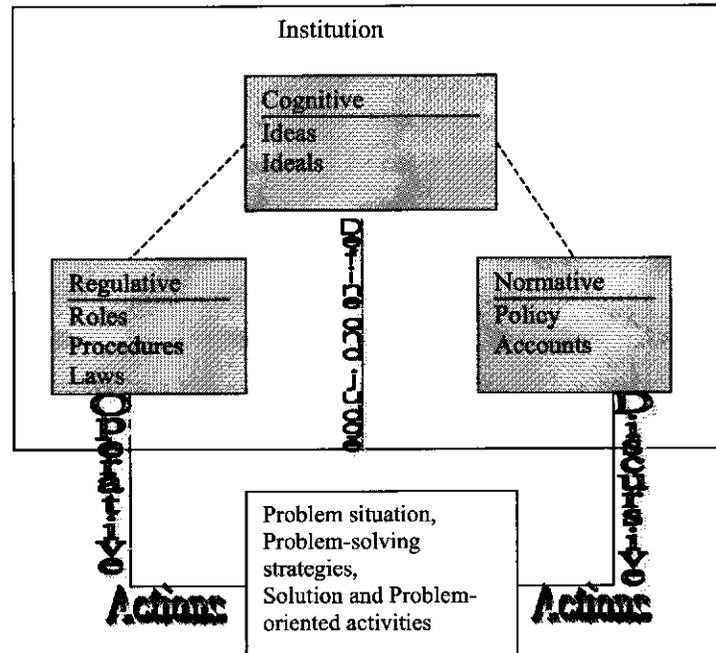


Figure 4. An institution and its three components (adapted from: Burns & Carson 2005: 6)

When conflicts occur, it is possible to analyze the different interests and uses and the eventual conditions under which these differences have arisen: whether they have emerged at the same time and in the same place - that is, their degree of compatibility. Hunting, for example, poses physical dangers for those interested in using the same area for recreation. Wilderness areas are often divided through the use of zoning. Zoning constrains claimants' rights in terms of time (hours, days or season). These temporal constraints are in addition to the spatial boundaries introduced to divide ownership claims by area.²⁵ Additionally, differences between claims being made with respect to animals may reveal not only divergent interests in animals, but also different underlying beliefs about how animals should or should not be used. In doing so, actors may introduce cultural and ethical beliefs based upon rule systems other than property systems. These types of claims are incomparable; actors might be said to be

For a more detailed discussion, see Child and Bergstrom (2001).

using different yardsticks or logics with respect to their ideas and beliefs about animals. Consequently, such claims may be said to be commensurate or incommensurate⁶. For example, suggestions of consumptive uses, such as hunting, may be considered as morally unacceptable by people with strong beliefs about the existence value of animals.

Property regimes

Property regimes are a special type of institution. In the words of Hanna et al., "[r]egimes of property rights - the structure of rights to resources and the rules under which those rights are exercised - are mechanisms people use to control their use of the environment and their behavior toward each other" (1996: 1, see also Bromley 1991; Cole 2002: 14; North 1990). They govern relationships and practices concerning rights and obligations to access, use and control of a particular good. As with any institution, a property regime encompasses three types of rules: cognitive, normative and regulative. A property regime therefore defines what a good "is" and consequently how it can be claimed. That is, it defines social relationships with respect to the good. It defines who is included - and consequently who is excluded - from making, interpreting and exercising claims. Through such formations, definitions and delineations, property regimes enable some types of use of a good or bad and constrain others.

Property regimes are both an individual and a collective phenomenon. Actors make decisions and take action based on their own interests, but they do so within a social structure that is beyond their individual control. The relevant community, cultural group or society provides and helps create an economic, social and cultural context influencing beliefs and desirability about what can be claimed and in what ways. This structure constrains some of the potential claims made on goods.

In addition, the institutional arrangements also shape and regulate action through a system of rewards and punishments, incentives and disincentives, and routines designed to promote or discourage particular paths of action (Carson 2004: 34). Property regimes are introduced to solve problems. Bromley stresses,

Regimes, after all, are human artifacts reflecting instrumental origins, and a property regime is fundamentally instrumental in nature. That is, property regimes take on their special character by virtue of collective perceptions regarding what is scarce (and hence *possibly* worth protecting with rights), and what is valuable (and hence *certainly* worth protecting with rights). Property is a social instrument, and particular property regimes are chosen for particular social purposes. (Bromley 1992:4, italics in original).

⁶ For discussions of the concept of commensurability, see Kuhn 1962/1996.

The problems that property regimes address may be summed up in the following questions. Who may access and use resources (allocation)? In what ways (distribution)? And, under what conditions (management)? And finally, who has the ability - and the right - to make these decisions? Property regimes define who is included and who is excluded - and, in many cases, assign responsibility of people for goods and bads. Terminology used to categorize the rules includes claims made in terms of *rights*, *obligations*, and *constraints* on both rights and obligations. Property rights, rather than being rights to a thing, are rights between individuals (Hohfeld 1919/1946). Rights and duties are jurial correlates; wherever there is a right there must be other agents with duties to recognize that right (ibid.). This recognition of the duty of others to recognize the rights of a property claimant continues to be underlined in a number of more recent property studies (Bromley 1992; Hanna et al. 1996; Rose 1994). Rose explains that without the recognition of a claimant's rights by some community or society, it is impossible to distinguish between "possession" and "property" (or "ownership").

In more recent literature, it is not uncommon to couple Hohfeld's insights with the work of Honore. In 1961, Honore published his widely recognized article "Ownership". Here, he lists and describes eleven incidents of ownership: "the right to possess, the right to use, the right to manage, the right to the income of the thing, the right to capital, the right to security, the rights or incidents of transmissibility and absence of term, the prohibition of harmful use, liability to execution, and the incident of residuary."

Penner has analyzed the current usage of this concept of a "bundle of rights", with particular emphasis on the works of Honore and Hohfeld (1995). Rather than presenting a unified, clear picture, Penner convincingly argues that the two articles diverge in some important respects - not least with respect to their view on whether or not property rights concern "the thing" in question. Having examined the two views, Penner criticizes the argument that the concept of property can be completely specified. As an alternative, he puts forwards the idea that property is a cluster concept. Rather than being strictly defined, Penner suggests that whilst

Ostrom & Schlager's listing of types of rights combines a number of the incidents listed by Honore. An important distinction between their work and that of Honore is that Honore did not envision rights and obligations as a hierarchy. Another distinction is that the Ostrom & Schlager article, as CPR literature more generally, includes a consideration of both formal and informal rules.

there tends to be common elements used by actors in discussing property, there will also be differences and ambiguity.

Rather than being defined by given set numbers or groups of fully-defined rights and obligations that exist or not, my own study aims to recognize actors' claims to a range of potential rights and obligations. This view recognizes that a property regime cannot be completely specified because new rights, obligations and constraints may emerge. Different actors' ideas about both property and the particular good, and its consequent use, may differ. As a result, the concept of property is somewhat fuzzy - but it does include a number of common elements.

In this study, property rights and obligations are recognized as being malleable and potentially divisible. This view draws upon the work of Hohfeld, Honore and Penner. The understanding of a multiplicity of potential rights is drawn from the work of Hohfeld. From the work of Honore an understanding that obligations are central to property regimes and that property regimes concern particular things (goods/bads) is added.²⁵ Finally, Penner's idea that rather than referring to a defined bundle of sticks, that property regimes are potentially in flux is added. In addition, this study adds the concept of a "complex" rule regime to capture this malleability of potentially changing rights, obligations and potential constraints to both.

Complex regimes: rights, obligations and constraints

Actors' suggested perspectives, values, and interests underlie the types of claims they make with respect to goods and bads. As these claims may markedly differ, the ways that different actors value the same good may also substantively differ. Victor Hugo captures this in the following quotation concerning the value of a building: "There are two elements in an edifice, its utility and its beauty. Its utility belongs to its owner, its beauty to everyone. Thus to destroy it is to exceed the right of ownership (cited in Sax 1999:48). While different ways of valuing may be mutually supportive, they may also conflict - as when the public demands constraints on an owner's right to build, make additions or destroy a particular building. Similarly, actors' ideas and beliefs about animals underlie the social meanings that they attribute to them. According to Burns and Flam, *complex rule systems* arise when multiple

In contrast to Honore and Hohfeld, the approach of this study recognizes both formal and informal rights. This approach, more common in anthropology, recognizes that rules in use often differ from formal rules. In this study it will be shown that both practice and common law affect property regimes to animals.

regulative, normative and cognitive systems - to some extent contradictory - exist and are espoused by different groups of actors (1987). Categories of potential claims on animals are based on these ideas and beliefs (see Figure 5). While the categories are not absolute, since they may overlap and actors may make claims based on different categories, the categories presented here provide a way of highlighting essential differences in the types of claims made with respect to animals. Claims to rights over animals may be based on "use" values or "non-use" values, or they may be "other types of claims"?» Rights to goods include claims made to benefit from them. Benefits deriving from animals can be quite diverse. Use values can be based on direct use, but they may also be for non-consumptive uses associated with recreation, tourism, and cultural identity. Consumptive uses may be differentiated between uses of a living animal and uses of a slain animal. Living uses include live capture and sale including sale of progeny, use of products produced such as milk and dropped antlers, and use of animals for transportation. Uses of slain animals include meat and hides. Indirect uses are values related to the functional benefits or services of the animals within the ecosystem. Predators, for example, may have an important role in the variety and number of prey species. Nutrient cycling is another example. Direct use values also include option values. The latter refer to future direct and indirect uses of the good such as expanded or new uses of genetic biodiversity.³⁰

Non-use values include benefits to future generations, existence and intrinsic values. For these types of uses, a claimant need never have direct access to the resource. Benefits to future generations include the maintenance of the evolutionary potential of populations of species. Actors claiming these interests often call for use of the precautionary principle as a means to both sustain biodiversity and prevent irreversible change. Existence value reflects an appreciation of the continued existence of particular animal types. This may be because they are a source of aesthetic pleasure, social identification, or cultural symbolism. Although many environmentalists may never physically encounter an individual example of an endangered species, their claims reflect that they benefit from knowing that the particular

³⁰ The term "user" in this paper refers to claimants making any of these three types of claims to goods/bads - use, non-use or other types of claims. As the term "user" clearly implies the connotation of use, the term "claimant" is also used. A weakness of the latter term is that while an actor may make a claim, others may not recognize him/her as an authorized user. I have found no satisfactory alternative concepts. I have, therefore, chosen to use both terms, but attempt to do so consciously, pointing out where their use may lead to misunderstandings (such as when a user claims "no use" of the good).

³¹ For a discussion of the values of animals, see Freese 1998:35-7; Hanna & Jentoft 1996:39; Kellert 1996; Pearce 1994.

species exists. There are also actors that claim non-use of animals because of their belief in an animal's intrinsic value. Recognition of intrinsic value reveals a standpoint that recognizes an animal's or species' right to existence irrespective of people's needs and interests.³¹

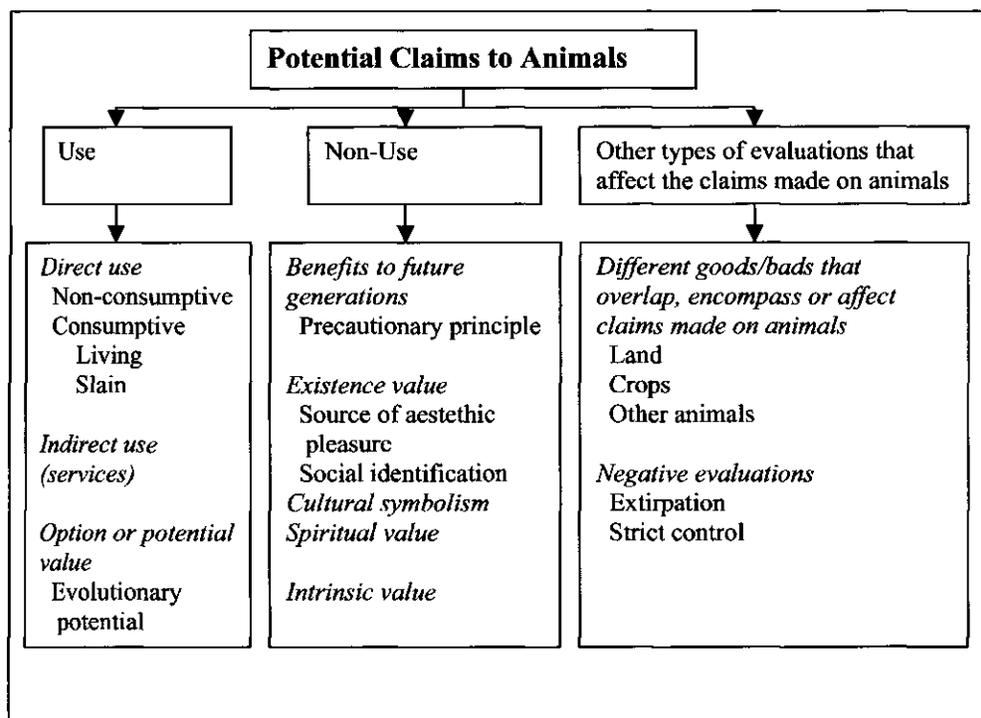


Figure 5. Potential claims with respect to animals

Finally, while claims to a living good can be partially analyzed in terms of actors' claims to rights, such claims also encompass an additional dimension, namely obligations. This dimension is given a name in the inter-disciplinary studies presented in Hanna et al.'s book, Rights to Nature (1996). This group of researchers underlines the need to look at property systems or regimes with respect to resources. Property regimes, they explain, include two components: "property rights, the bundles of entitlements defining rights and duties in the use of natural resources, and property rules, the rules under which those rights and duties are

³¹ For general points see footnote 30. With respect to discussions of existence, see for example, Brom 1997; Midgley 1983; and Sandøe 1999.

exercised"³². The book is important, not least, for providing numerous attempts to advance the theoretical basis for CPR studies. However, the authors are less successful in following up their concern for obligations (or responsibilities/duties). One of the few references dealing with "responsibilities" is found in a study by Hanna and Jentoft. In addressing questions of herders and the problem of overgrazing, the authors reformulate the need for actors to engage in joint management in terms of obligations or responsibilities. Specifically, they write: "Users add responsibilities to rights once they organize around the *collective need to maintain resources*. Norms, standards, behavioral rules and sanctions are developed to manage and limit the effects of human use of the environment" (1996:39, emphasis added). This is a further specification of the consideration of the management of the resource within the CPR approach. While this is helpful, it does not go far enough in deepening the theoretical basis for understanding rules made concerning obligations generally, nor to the interrelationship between claims to rights and obligations. This study suggests that, given the characteristics of animals, claims are also made not only to obligations to respect the rights of "an owner" but also to obligations that an owner should have to the animal itself and to others who might be affected by its behavior.

Many property studies include obligations (or duties) in definitions of property regimes, but go on to ignore them or leave them implicit in the analysis. A notable exception is the work of Sax, who through numerous examples raises questions of not only rights, but also of the obligations of individuals and society to cultural treasures (historical documents, landmarks, paintings, papers of renowned decision-makers, and works of publicly recognized genius) (1999). Sax raises important questions concerning (potential) obligations of owners of major artwork to allow at least limited access to these works, as well as positive obligations of owners of landmarks to avoid harming them (altering and/or destroying them) or letting them be harmed through improper or poor maintenance. He also touches on constraints on the rights of owners of artwork to make changes without consulting the artist (*droit moral*) (*ibid*: 21). Recognition of such interests suggests that while the claiming of rights is central to property regimes, it is not everything.

³² Bromley also introduces the concept of property regimes in the CPR book. He does so in order to make a clear distinction from approaching CPRs on the basis of the resource in question. Bromley emphasizes that "... property is not an object but is rather a social relation that defines the property holder with respect to something of value (the benefit stream) against all others. Property is a triadic social relation involving benefit streams, right holders, and duty bearers" (1992:4).

Another study making obligations explicit is Verdergeest (1997). He writes, "[p]roperty is not just about rights to use a resource, but may also be about responsibility (*ibid*:4)".

Claims made with respect to animate resources often include property obligations. Claims to obligations include actors' claims to recognize non-use values, such as benefits to future generations and existence value. In other words, actors claim animals not only as commodities, or goods to be consumed. Other "users" tend to make other types of claims. Such claims, rather than being claims to rights to use, tend to be claims of "obligations". They are often claims, as suggested by the CPR approach, about management. The CPR approach (in the work of Ostrom 1990) specifically targets economic sustainability. A broader concept of sustainability, however, would include ideas of "environmental integrity" and would recognize claims to ensure that future generations are also able to experience animals - particularly endangered species in areas where they have existed naturally". Actors create rules to protect the interests of future generations and to constrain use of endangered species. Consequently, obligations to take care of goods - what is often termed stewardship - is also integral in explaining variations in property regimes. Rather than solely focusing on social production, actors making "other types of claims" broaden the category of "uses" to social welfare more generally.

Among the category of claims to obligations are those claims concerning proper management. Rather than being made by those seeking direct benefits from an animal, they are made by those bearing the burden of the consequences of undesirable animals existing in their proximity. Thus, claims to obligations can take diverse forms. They may include:

- (1) Obligation of others to respect the rights of an owner;
- (2) Obligations with respect to the resource, to maintain living, viable (and according to some - thriving) populations (or obligations to avoid harm to the resource and to provide for its care);

In his book, Green Development, Adams discusses three types of sustainability: economic, social and environmental (1990/2001). While the three may be conceived of as mutually dependent, there is no reason that they are inherently so. For example, while maintaining economic sustainability would allow for the substitutability of products (such as animals), environmental sustainability recognizes the non-substitutability of, for example, species. In Oakerson's suggested framework to CPRs, he distinguishes social sustainability through his specification of the aim of equity.

It should also be noted that the concept of sustainability inherently assumes change over time. This is problematic to capture in a synchronic model.

- (3) Obligations with respect to groups of people that are removed from the resource either in time, as in future generations, or in space, as in a global population making claims to their "common or global heritage" (obligation to ensure "access"); and
- (4) Obligations to compensate those affected and those forced to bear the burden of an animal's existence and behavior.

Long-term conservation of species is claimed to be in the public interest. It concerns obligations, for instance, to future generations. Rather than claiming an animal as a commodity, the claim is made on animals as goods contributing to "social welfare." Long-term interests in the conservation of natural resources have come to be referred to as stewardship or guardianship. Stewardship or guardianship builds upon the recognition of the value of living resources. Goldstein suggests that consideration of the environment explicitly introduces a moral basis for property regimes; it introduces an underlying environmental ethic that frames potential claims to resources. He points out that all property regimes include both public and private interests. His point is that the environmental ethic is part of defining a public interest in natural resources. The public's interest in environmental goods constrains the use of goods. In Goldstein's words, recognition of an environmental ethic is a special sort of obligation, it is "an affirmative duty to preserve" which he contrasts with the usual negative duties of refraining from doing harm (1998: 58/62).³⁴ Lerch explains that the obligation to maintain the natural basis of life (and biodiversity) for future generations is accepted as a limitation³⁵ on today's rights of disposal of environmental goods (1998:288). Lerch goes on in his article to argue that constraining rights is the norm in property regimes: "complete and undiluted property rights are in reality usually not possible, not even with privately owned goods except for trivial cases. Property rights are usually somehow limited (1998:288)".

The language of rights offers a different way of referring to a positive obligation. This is what Macpherson does when he suggests that property regimes, with respect to some resources, advance a right for actors not to be excluded (1978/1992). This, he suggests, is what a public property regime is about³⁶. Public property regimes are inclusive, rather than

³⁴ For a comparative discussion with respect to cultural treasures, see Sax 1999: 9-10; 57-59; 148-9; 197.

³⁵ In the terms suggested here, we could say a constraint.

³⁶ In line with the suggested components of property regimes discussed here, a distinction is being made between attributes of the resource and the types of claims made on it. We may choose to label certain types of resources as private goods, common pool resources or public goods. This is distinguished from private property regimes,

exclusive. They have been introduced to ensure that the members of the public have a private right not to be excluded from, for example, experiencing or knowing that an endangered species exists. Macpherson underlines that this is also an individual right. However, ensuring this right constrains rights of other users in regard to both the good in question and other associated goods.

Actor differences, the politics of property, and property regime changes

Focusing on actors, their interests and their strategies to influence and implement provides insight into why and how property regimes have emerged and continue to change, and why they vary from one place to another. Some strategies are chosen or designed with expectations that they will give more benefits, others less costs and still others may provide strategic positioning to actors for a different or future situation. In making decisions, actors take into account expectations of how others will act. They are also apt to assess their own potential to affect change. In practice, actors interpret rules reflecting their understanding of the particular situation, their own interests, and their power and capability to implement these interests (Burns et al. 1985:259). Actors' struggles, choices and their outcomes are central to the complex processes affecting property regimes (Wiber 1993: 111-112)³⁷. They are central to *the politics of property* (property politics). They are also central to the creation of not only neat, hierarchical systems of rules, but also partial and messy property systems. Hence, property politics result in not only the creation, but also the re-creation, of property regimes.

Rules are practiced or implemented in real world situations. In contrast to an intended objective system of rules and laws, practice is subjective. Actors at different levels may well have different interests. While a herder is interested in direct use of a reindeer, someone working in the reindeer administration may be most interested in maintaining their job or

common property regimes, state property, public property and open access (lack of property regime) – from resources accessed, used and managed by a defined group. Similarly we can distinguish between a public resource - a resource that it is difficult to exclude people from using – such as air and the open seas and a public property regime where people have a right not to be excluded from access, use and/or management of the resource. For a discussion of the distinction between public and open-access regimes, see Cole (2002: 35).

³⁷ Also Agrawal in his studies of pastoralists in India has found many approaches to property wanting (1999). He points out in the following passage that there are two main reasons for this – actor's agency and politics. Both can effect how rules concerning resource use are formed and transformed. Specifically he writes, "[t]he description of the emergence of new institutions to manage grazing in the village thus challenges accounts that view institutions simply as mechanisms for efficiently allocating resources. Most such accounts of institution formation rely on evolutionary mechanisms, among them "marketlike forces", to drive institutional change toward efficient outcomes in the presence of transaction costs. These accounts are unsatisfactory, however, for at least two reasons. First, they do not connect the emergence of new institutions with choices made by agents. Second, they fail to address the tremendous array of evidence that reveals the importance of politics and shows how new institutions, rather than creating greater efficiency, can lead to Pareto inferior outcomes" (1999: 59).

retaining control of a particular resource (reindeer) at their administrative level or in their Ministry (Libecap 1989/1993). These diverse interests are illustrated in the reindeer story at a number of points, but perhaps most clearly in the period of rationalization (the 1970's-1980). During this period there were controversies among and between differing groups of users, managers and politicians - further complicated by the important differences between state ministries and between politicians representing different constituencies. For instance, reindeer were defined by different groups of agents as a source of meat, a cultural symbol and a menace. Management objectives reveal the interests of those claiming - for instance, to rationalize production with fewer owners or establish more owners with fewer animals each. These divergent interests created a situation where those in close proximity to reindeer, and consequently those with control over the resource, were able to interpret and practice imposed rules quite differently than intended.

Changes, for instance in a property regime or in the application of a property regime, affect different individuals, groups, regions, even nations differently. An improvement for one may well be problematic for another. This tension, this change in the distribution of rights and obligations is part and parcel of the politics of property. It creates new incentives for demanding, seeking out and/or invoking new catalysts of change; new incentives for some actors to change the rules - even to change the negotiating arena (Fowler 1994) - and for others to try to maintain the stability, the status quo. Consequently, significant changes in policy and regulative systems are not given, but are uncertain and part of the making of the future.

Politics deals with determining who gets what. It also deals with matters of equity and legitimacy. Struggles about equity issues typically set differing justifications against one another. Typically, actors seek out particular arenas in forwarding their claims. Different decision-making arenas recognize different actors: they have been established for different purposes and consequently have different regulations and procedures. Agents, recognizing these differences, seek out arenas best suited to their own perspectives, beliefs and purposes - and where they have power and opportunity to be heard (Fowler 1994; Svensson 1997). A central issue is then who it is that participates when debating and determining these matters: who is heard and consequently which views and ideas are included and which are excluded (Burns & Flam 1987; Carson 2004: 8). This politics may be parliamentary politics, but also

Claiming reindeer in Norway

includes informal politics - the politics by which people legitimize their claims to allocation, distribution, management and control of goods and bads.

Arenas are social action and interaction settings used by agents to collectively influence public understanding and policy, and to negotiate and make decisions about, in this case, property regimes (see Fowler 1994: 162; Svensson 1988; 1997: 49.) To strengthen their voice, actors align themselves with other actors creating configurations; they join together to promote their joint interests. In choosing alignments and constellations, actors' choices may be affected by both the quality and the nature of existing social relationships. Those joining together easily are apt to share a normative and cognitive framework in regards to: defining issues and problems; specifying what can be claimed with respect to both use and management; and agreeing upon who is justified to make these claims and how to distribute gains among themselves (Carson 2004: 40-41). This forms the basis of the arguments that actors collectively put forward to legitimate their allocative, distributive and management claims on goods and bads.

Actors' strategies, with respect to the selection of operational, negotiating and decision-making arenas, can be divided into: strategies which seek to have one's meanings heard and recognized; and strategies to define and delineate rules. In their strategies to be heard and to participate in deliberations, actors attempt to legitimize their claims and position themselves in ways that promote their interests. They define themselves with respect to their role(s) vis-a-vis the resource. Trappers and farmers, biologists and biodiversity scientists, and Ministries of Agriculture and of the Environment may thus make claims with respect to a class of animals. They are less likely to be made by musicians, mathematicians and the Ministry of Education, although there may well be overlaps in the actual people making the claims. Identity claims are used by actors to legitimize why it is that they have a right to be heard about certain issues, decisions and policy-making that affect them directly.

In actors' strategies to influence rule formation or reformation, actors choose arenas that support their perspectives, values, and interests. This may be in the media, a public forum, the state courts or the seat of an international convention. Different arenas exist for, and give advantages to, different perspectives, values, and interests. In other words, the process of rule formation that stipulates rights and obligations to a resource is political in nature. Debates about property regimes consequently take place in a broad forum(s) or arena(s) (Libecap

1989/1993:17). *Decision-making arenas* vary with respect to the rules governing them - concerning what issues and procedures are legitimate, who can participate and where and when such decisions will take place. Which actors are recognized as legitimate may also differ widely. The rules governing such legitimacy may also differ with respect to underlying cognitive ideas concerning the use of goods/bads. Consequently, different types of issues may well be approached differently.

Decision-making arenas are structured and regulated by particular institutional arrangements - that is, rule regimes. Examples of decision-making arenas include the Ministries of Agriculture and of Environment, the Supreme Court, the Saami and the Norwegian Parliaments, the World Council of Indigenous People, and the seats overseeing the implementation of international agreements that Norway has ratified and signed - such as the 1989 ILO Convention "Concerning indigenous and tribal peoples independent countries" and the Convention on Biological Diversity (UNEP 1992). The agreed upon rules in a particular decision-making arena influence how debates will be framed and how goods may be used. While a farmer's union would be apt to adhere to rules set in the Ministry of Agriculture, which are designed to promote the use and sale of animal products, an animal protection society may choose to adhere to an independent Ethics Review Board that alternatively defines issues in terms of the safety and welfare of animals. Consequently, some actors will be better positioned (in terms of access to resources, power, or to other interests) in one arena than in another.

Because there are different decision-making arenas, there is a potential for the creation of *multiple rule systems* with respect to a particular good/bad. Using, for example, the case of the reindeer in Trollheimen, this study demonstrates that while Saami herders refer to the rules adhered to within Ministry of Environment; landowners choose to make their claims in accordance with the Ministry of Agriculture. Multiple rule systems may be introduced, or occur, with respect to the same good/bad in different areas (spatial variation) - as happens, not the least, because a number of Saami herders migrate across the national border of Norway and Sweden. They may be introduced to regulation at different times (temporal variation) - as with the introduction of hunting regulations that allow for slaying of reindeer at particular times of day and particular periods of the year, or to regulate access, use and management of different goods/bads that overlap (an animal and land). The latter case will be illustrated by multiple examples of conflicts, struggles and negotiations arising between herders and

landowners, where each seeks to justify their claims through different rules, laws and rule systems. This complexity is evident in the following example: Saami herders justify their claims through historical use recognized under the internationally agreed to the Lapp Codicil (1751), while landowners make reference to other later laws, such as the Additional Lapp law. Multiple rule systems may also occur - as in the welfare agreements agreed to between Saami herders and the state (the Act of 1978) and the newer, but more general Saami Act - because rule systems that serve different functions, rather than compliment/supplement one another, may be inconsistent or contradictory. The application of multiple rule systems arises in application, interpretation and from intent within and between different decision-making arenas, including different branches of government. This can result in a messy situation where uses and interests in different types of goods, rights and obligations of different users collide. Consequently, over time, what may emerge in practice are multiple systems that overlap and possibly contradict one another - rather than the formation of one nested, hierarchical system of rules and laws (ibid.; Carson 2004: 39-40). Thus, there are multiple configurations of rights and obligations associated with particular uses and ways of understanding, valuing, controlling and managing a good.

Given the messy situation of complex and multiple rules and rule systems, and given the plural and divergent interests of people, agents engage in struggle and negotiation with one another. They debate and seek support for their claims concerning the political issues of who gets what, why, and under what conditions. This is both with respect to the general topic of property and with respect to the specific good/bad. Agents may be in a position to choose between decision-making arenas in attempts to define and delineate these questions: to define what rules will apply, how they are to be interpreted and how they will be implemented. A consequence of this, as illustrated in the examples mentioned above, is that *different rules may emerge that overlap***.

This may create uncertainty with respect to which rules apply in a given situation. Actors may lack a common basis of accepted procedures for agreeing not only about which rights and rules are recognized, but also about which rules should apply (i.e.

* In a study of the incongruence and tensions of the implementation of international environmental agreements, Rosendal uses the term "linked" to refer to the creation of multiple rule systems (1999:488). Even in these situations, however, given both the differing interests of users and the element of time, intended linkages may lead to what Rosendal refers to as overlapping rule systems, "[r]egimes overlap when their policy goals and regulation prescribed for problem solving intersect within the same issue" (1999:488). Rosendal mainly defines rule overlap as an externality with unintended and unforeseen consequences. In this study, the terms "*inter-linkages*" and "*overlaps*" are both used to denote when two or more decision-making arenas have rules and/or laws applying to the same resource. Use of the terms introduces no judgment as to whether this is intentional or not, as this may be used by different actors differently and may change over time.

how a problem/issue is to be defined and who is recognized as a legitimate decision maker). Given that actors value and define animals differently, struggles may well ensue with respect to defining rules of access, use and responsibility - particularly where these ways of claiming and/or owning converge. A further consequence is that actors may attempt to seek out arenas that define/frame problems and issues in ways that legitimate their use and management interests (Carson 2004: 10-11; Fowler 1994:162; Pradhan & Pradhan 1996: 61-62; Svensson 1992). New issues, new problems and consequently new arenas underlie part of the dynamics of assessment, deliberations and negotiation between actors.

Rather than only working within given institutional rule systems, some actors use their potential to change preferences, options and outcomes. People create, define, delineate and change rules and rule systems, the ways things are organized, and procedures for implementation and assessment. Different actors may well have different cognitive ideas and ideals with respect to animals. These ideas directly affect the types of claims made on them. As a consequence of the many and diverse interests concerning animals, there are a vast array of potential claimant configurations at any particular time and place". For example, environmentalists aligned with Saami during the confrontation at Alta to jointly protest against the state's plans to develop hydropower in the area, which would consequently flood reindeer pastures. Today, environmentalists are more apt to align with the state in common interests to conserve the environment, and hence to introduce constraints on Saami's right to manage their reindeer and on their rights to use modern transportation. As new actors enter, be it the Ministry of Defense or a group championing animal rights, contention and struggles are likely to result over the identification and recognition of legitimate stakeholders and their interests in defining user rights and obligations (Baumgartner et al. 1986; Burns & Dietz 1992; Burns & Flam 1987). The recognition of new actors can often result in the demand for new types of rules and rule systems, which may emerge as different and at times conflicting. The new rules and rule systems may then, in turn, transform the very conditions and context

³⁹

In many studies concerning property, property is categorized by whom it is that owns it (including the CPR approach that by definition looks at a specific user group). A common example includes categories of a private individual, a group (community), the state or no one (open access). While who holds rights and obligations is clearly relevant and interesting to understanding the evolution of property regimes, such categorization can be misleading - in part because there may be overlaps between the categories and, in part because there may be distinctions among and between the categories that may be useful to understanding change in them. An alternative or additional basis for analysis may be to categorize what ideas, ideals and purposes rules within property regimes are meant to address and consequent claims actors make to goods and then to analyze to what degree different actors have them, i.e. whether they hold them exclusively, partially and/or where and to what extent they overlap.

of future actions (Burns & Flam 1987: 3, 296; Burns et al. 1985:21). This, too, is illustrated in the case of the reindeer story explored in this study, which sees Saami aligning themselves with other indigenous people throughout the world - transforming not only their own identity, but also their basis for legitimizing their claims to the resources of the far north.

Methodology and Methods

Case study

The preceding chapter outlined and clarified the substance of the study. It is these questions that have guided my choice of which methodological approach and methods to use in addressing what and how data is to be collected and analyzed. Generally speaking, the study can be characterized as asking both "why" and "how" questions: Why have there been changes in reindeer property regimes in Norway? And, how have these changes come about? The study is defined broadly; emphasis is put on establishing categories and relationships, on understanding particular problems and understanding them theoretically. In the course of further defining the main questions, weight has been put on the need to identify processes (change over time) and to take into account the importance of context.

According to Yin, using case studies is seen as an appropriate means of addressing these types of questions and issues (1994; 2003). Yin has written a number of publications concerning the use of case studies in research. He identifies three aspects of topics as instances when uses of case studies as a method are considered to be relevant: the type of research question posed, the extent of control over events, and a degree of focus on contemporary versus historical events. Yin suggests that case studies are appropriate where how and why questions are posed, where there is little or no control over events and when the focus is on contemporary events. My study does not fulfill his final characteristic. Yin would therefore differentiate my study as historical, however, he does admit that the division between a case study approach and an historical study is quite fuzzy. My study may best be called an historical case study where many, if not most, of Yin's general comments on case study methodology remain pertinent.

In social science research we rarely work under controlled experimental conditions. As a consequence, empirical observations are not repeatable under all circumstances. Therefore, it is not an aim of such research to define constant, uniform variables with repeatable results. In real social settings involving people, conditions do change. Instead of emphasizing independent, isolated variables, case studies are used when there is interest in investigating holistic, multi-variate conditions and processes (Yin 2003). They provide a means of capturing both change and diversity of complex social phenomenon, rather than denying the importance of processes and diversity. This view is consistent with the view of this study; the

world is complex, there are multiple actors with plural and diverse ideas and interests with respect to what is being studied, and these actors change over time. Rather than ironclad laws, such descriptions and case studies provide theoretical concepts that can be transferred to other cases and can also potentially highlight common tendencies that may then be formulated as generalities (Giddens 1984; Schofield 1993). I am, therefore, not attempting to find out how Norwegian reindeer property systems are the same no matter where they occur. Instead, I am concerned with identifying a process, where a variety of conditions and contexts create variations in outcomes. Such findings may then provide a basis for a new study in a different context. The usefulness of the generated concepts in providing insight into the problem and comparable problems/issues would provide support of their relevance. In this type of a study, the criteria of reproducibility is not to suggest that another can replicate the experiment exactly; the point instead is to clarify my theoretical and methodological perspective enough so that others who might chose to follow it can test whether or not they come up with the same - or at least similar - theoretical explanations for similar or comparable cases (Straus & Corbin 1998:2).

In this study, I use the term "case study" in two different ways. I use it to both refer to the process of inquiry and to the product of that inquiry. It is fruitful to remember that there are also two main aims with this study. The first concerns developing a fuller understanding of a particular case (case as a product) - namely of Saami relationships to reindeer as property. The second concerns the choice and development of theoretical concepts. The chosen concepts can again be applied to the case in question in an attempt to gain new insight into it. The theoretical process is, in other words, iterative: moving back and forth between an empirical example and a means of analyzing and interpreting it (case as a process). With respect to describing the methodological approach and methods used in this study, there are initially three aspects that need to be addressed: the development of an empirical case study, the development of theoretical concepts and the interrelationship between the two.

These aims fit well with Brundage's view of history and historical research as open-ended and dynamic (1989). According to him, a main aim of historical study is to search for fresh or new patterns and meanings and develop new methodologies to approach them. In his words, a study "... is historical in that it deals with the past, but it conceptualizes the past as being in constant dialogue with an ever-advancing present, responding to new questions and revealing fresh patterns to illuminate the human condition." New ideas may come about because the

research poses new questions in areas where the viewpoints of particular traditions (including academic traditions) previously could not and did not get asked. Brundage's ideas fit well with the aims of this study which attempts to draw upon written sources to both understand the case itself and various author's views of it. The study builds upon this understanding to pose new questions in different ways, as a means of gaining new insight to the more general problem.

The process of inquiry and theory development

Noblit and Hare have written about methods of analysis for the purpose of constructing explanations (1988). Their work provides a reflective approach to the art of developing concepts and theory based upon the interpretation of existing studies. In addition to successful examples, they argue that major lessons are also to be learned from failed attempts. They explain that their aim is quite different from the project of creating a synthesis of existing works. The project of a synthesis arises from a belief in the accumulation of knowledge. Whilst not denying this idea completely, the underlying assumption of Noblit and Hare is qualitatively different. In their view, (to which I subscribe) although a physical reality exists, our knowing about it is necessarily an interpretation^a. Facts do not simply accumulate. Rather, our understanding changes over time as the very conditions of what we are observing continue to emerge. The method Noblit and Hare suggest is a means of viewing the phenomenon or issue in question from different viewpoints. An initial aim is to identify concepts that allow the insight from one study or study area to be applied in another. Noblit and Hare refer to this as translation.

In a slightly different context, Maasen uses the concept of "transfer" in discussing the possibility to take concepts from one place (often one discipline) and apply them to another (1995:22). Transfer, she explains, "... leads to reorganization of the phenomena and thus to a novel way of problematising the study". Whilst the pieces remain the same, the way that they are put together, or presented, and the weight that they are given, may change. Maasen (ibid.: 24-5) distinguishes "transfer" from "transformation". Transformation occurs when an introduced concept leads to cognitive changes in an approach and actually influences the investigative process. Transformation inspires an initiative to approach the question/problem

^a A distinction is being introduced here between human cognition and a physical reality. One might assume that there is a physical world that exists independently of our cognition, but that we cannot appropriate whether theory describes it accurately because our observations are theory dependent. (For further discussion see Bhaskar and critical realism 1997; Chalmers 1982; Marglin and Marglin 1990; Putnam 1994.)

in a new way. This may lead to a reconceptualization of the study itself, and therefore of the questions being asked. The methodological approach suggested in this study works through transfer of concepts, towards the goal of transformation, so that we may develop a better understanding of the topic.

Noblit and Hare suggest a number of phases to such a study. Although my experience was not as pleasant and neat as the separation into distinct phases appeared to be, the ideas suggested and delineated by Noblit and Hare capture, to a degree, the processes involved in my work. Briefly, the researcher begins with a general idea that is of interest and works with several concepts contributing to gaining an understanding of it. One gains insight to the problem through both the development of the case and by attempting to learn through the different ways that others have understood it or comparable cases. One then attempts to gain perspectives about the phenomenon by shifting the angle of approach - by searching out both negative cases and alternative theory and concepts that take the new cases into account. Finally, by returning to the approximate original angle, it is possible to see to what degree and in what ways one has gained new insight, or has come to understand new aspects of well-known (or existing) facts and interpretations.⁴²

The approach is not unlike that referred to by Checkland and Scholes as reiterative learning processes (1990). Also here, researchers are continually working to reveal, rather than to assume away, variables leading to different outcomes and understandings. Checkland and Scholes assert that it is not just the question that is being asked that should be seen as problematic, but also how we go about knowing something. In other words, the process of inquiry can also be seen as problematic. Rather than just the topic, emphasis and inquiry can also be directed to exploring the very issues that people have defined as problematic - to the methods and concepts used to gain and explain their understanding. As suggested above, this implies an iterative learning process where assumptions and objectives are made clear at the outset. At regular intervals these are compared with findings and alternative views and the study is adjusted accordingly. Additionally, within this approach, the end result may not only

⁴² Parallels are also to be found in grounded theory as introduced by Glaser and Straus (1967). Also here, the stress is put on the process of generating theory. Glaser and Straus emphasize that theory be generated from data, rather than that data collecting be delineated by a particular theory. They are concerned that initial use of theory may impose constraints on a researcher's ability to remain open to different possible interpretations of events. Instead, they explain the process as one where collection, coding and analysis "blur and intertwine" (ibid.43). Their ideas underlie much of the work of Noblit and Hare. My work differs significantly from their approach in that I have chosen to begin with an explicit theoretical orientation.

lead to a new interpretation of the case, but also to the introduction of new concepts that allow for a reconceptualization of the topic.

The phases of study suggested by Noblit and Hare are described below together with comments and discussions about how they were applied in this study (1988). The phases include both on-going and inter-linked processes: the development of the case, the development of theory and the relationship between the two. The process begins with an account of a topic or issue as well as a presentation of particular concepts and/or theory. Noblit and Hare underline that there is a substantive difference in the purpose of this type of study meant to generate theory and those studies aiming to verify theory. As the purposes are different, they argue, the criteria for judging them must also differ. A general aim throughout the work on the case is the development of concepts that are applicable and useful for a range of contexts, but which at the same time avoid overlap and contradiction.

Phase I: Getting started - gaining a preliminary understanding

Phase one begins with a general interest in a topic. The researcher identifies different accounts and begins to gain an idea of which researchers have already researched the topic. In my case, I defined my general topic in terms of "wild animals as property". I began with readings about "charismatic megafauna" - such as whales, elephants, tigers and pandas⁴. Besides being large vertebrates, these animals share the characteristic of being highly valued by some groups of actors. Not surprisingly, I found that different actors tend to claim animals differently. A ready distinction is that global interest groups tend to concern themselves with "endangered species" or "common heritage", whilst people living in close proximity to animals tend to value exploitable uses of them. As explained in the previous chapter, in addition to readings about valuing and claiming animals⁴, I also began reading about the theoretical approach to common property resources (CPRs). Examples of initial questions/topics arising from this stage of my inquiry include the following that I recorded at the end of this first phase of study:

Who really owns elephants, whales and crocodiles? Many countries legally claim to own all of the wild animals within their borders. Nonetheless, wildlife is a local resource that more and more people refer to as a global commons. The question is then raised, "How common is common?" Is it common property with respect to a distinct community? A region? A country? Or the world? And just what resource

⁴ Examples of initial literature included: Barnes 1992; Buck 1989; 1999; Freeman & Kreuter 1994; Ghimire & Pimbert 1997; Grove 1995; Hanna et al. 1996; Lyster 1985; Schreurs and Economy 1997; Wells & Brandon 1992.

⁴ With respect to valuation of wildlife/biodiversity, literature includes: Gluckman 1965; 1969; Kellert 1983; 1985; 1986; 1994; 1996; Rolston 1981; Swanson 1992; 1996a, 1996b, 1996c; Midgley 1983.

are we speaking about? Do we mean: genes and information; use of parts, or products from, the individual; use of image or symbol; the individual itself; a population of individuals or a species? Can properties of goods, the goods themselves and their contexts be owned and managed differently in time and space?

Accounts in my defined topic area provided me with the basis to begin to modify, select and specify the particular topic(s) of interest to this study.

Phase II: Choosing a case and concepts

Phase two begins with a further specification of the topic - a definition of the case and a choice of some of the concepts and categories through which different accounts and studies can be interpreted. In other words, there are different types of data being collected: data about the case itself, a recording of the ways different people have chosen to interpret and explain the phenomenon in question, and additional theories of relevance to the problem or issue being studied.

In order to be a 'case', there is an inherent claim that the chosen topic represents something else, some larger category. In this instance, I have chosen reindeer as an example of a migratory animal that is valued, and has consequently been claimed by diverse groups in multiple ways. In this respect reindeer can be said to be "typical" of some larger category, namely, valued, migratory animals. Reindeer, as my initial background research indicated, are also typical in that different groups of actors make different types of claims on them. These claims vary not only between interest groups, but also over time. In addition to these general, shared characteristics, I have also chosen reindeer because they are in some ways different or special. There is, for example, very little biological variation between wild and tame reindeer such that tame reindeer can, and do, interbreed with wild reindeer. Both also continue to be found in the natural area of reindeer distribution. In addition, exclusive ownership of individual reindeer is largely limited to the indigenous Saami people (at least in Norway). This introduces additional considerations that need to be addressed in the case study. One of the most important of these is that a major basis of Saami present-day claims to reindeer is founded on their use of reindeer from "time immemorial". Understanding the basis for Saami claims, therefore, requires an historical case study. In Norway there is documented historical use of reindeer for hundreds of years. In the first empirical chapter of the case study (Chapter four), focus is placed upon examining evidence of the emergence of claiming particular reindeer - and hence the emergence of some features of property relationships.

Whilst I have decided to leave the 'beginning point' of my historical analysis open, I have chosen the year 2000 as the end point of my study. I have chosen this in order to allow me to discuss current issues, but not to be distracted by the most current daily happenings. Indigenous rights controversies are as heated in Norway as in many other countries. Whilst not negating the importance of these debates, I do not wish to focus upon them in this study. They could easily consist of one or more studies in themselves. In addition, presenting a balanced portrayal of the actors involved and their interests and interactions would require different methods than the exclusive study of written material used here. Similarly, the highly contentious debates (2003) that were arising between government officials, landowners and hunters, with respect to setting reindeer hunting quotas or prohibiting hunting, fall outside of the designated time period. The 2000 years that I have defined as relevant, offer more than enough material to base my work upon.

Finally, I have chosen to focus on the reindeer in Norway partly for pragmatic reasons. Data is abundant and readily available and, although not Norwegian myself, I am fluent in Norwegian. Choosing to define the study by national boundaries also reflects the legal level where most regulations and laws are decided concerning reindeer. There are also additional substantive reasons for choosing to focus on Norway's reindeer rather than, for example, the reindeer of Sweden. Sweden no longer has "wild reindeer" and Finland and Russia have introduced policies that allow for all people to own reindeer⁴. In addition, in Scandinavia the current policies and practices of Saami reindeer herding in Norway are generally considered to be very good - in terms of contributing to a living Saami culture. Property issues concerning migratory animals have been an important topic of debate within the development discourse for the past decade. Reconceptualizing property concepts, based upon a case of a migratory animal species, may contribute to better understanding of the bases of claiming migratory animals as property: how it is linked to sustaining living, indigenous cultures and to understanding indigenous pastoral cultures more generally.

⁴ Comparing and contrasting the cases of reindeer ownership in Sweden, Finland, Russia, Alaska, USA, and Greenland could provide a rich basis for further testing the applicability of the concepts presented in this study. Such comparisons would add further support where findings coincided and an interesting basis for contemplating differences where constraints, opportunities and contexts of different nations and their policies have led to alternative outcomes.

Throughout the course of the study, I have repeatedly posed the question, "Just what does a case on reindeer as property entail?" I have been particularly interested in seeing how others have limited the scope of their studies - with respect to reindeer, Saami, hunters and gatherers, and property (particularly property of wild animals but also other "unusual property"⁴⁰) - and have also attempted to understand the limits of these studies and what that might imply with respect to the particular focus of my own study. Examples of characteristics used to make distinctions and introduce limits include those made to:

- potential actors (Norway/Sweden, Ministry of Agriculture/Ministry of Environment, Saami/Norwegian citizens, extensive and intensive herders, herders/farmers);
- reindeer (wild/tame, Norwegian/Swedish, Saami/Norwegian); and
- definitions of property (market/social).

Whilst categories can provide insight, they can also introduce assumptions that limit our understanding. It is recognized and confirmed that concepts are used differently through time, by different actors and in different institutional arenas as actors struggle to gain power and legitimacy to particular rights and obligations, as well as to affect their possibilities to control and define particular situations (Foucault 1972/1992; Fowler 1994; J. C. Scott 1998). When used to limit a study, a particular issue may - consciously or not - be excluded. Noting who is absent or who is left out can be as revealing as noting what is included in decisions, studies and findings. The sociologist, Becker, suggests investigating "Who is drawing the line? What are they distinguishing by doing it? What do they think they will accomplish by making that distinction, drawing the line there?" (1998: 150).

In my study, I therefore chose to avidly pursue the implications of the above characteristics used to make distinctions. Examples include readings on Swedish Saami herders (Beach 1981; Svensson 1997; Gothe 1929; Wiklund 1908; 1923); on wild reindeer and on the process of domestication (Burch 1972; Clutton-Brock 1981; Reimers 2001; Lier-Hansen 1994;

⁴⁰ Land has generally been used as the basis for the development of property concepts (Marchak 1987). In a number of recent studies, the question is raised if the nature of the thing being claimed introduces different considerations than those prioritized in studies based on land. Examples of studies raising these types of questions include Brewer & Staves 1996; Fowler (plant genetic diversity) 1994; Goldstein (nature) 1998; Machado (body parts) 197; Marchak (general, including slavery) 1987; Mehta (water) 2003; Naughton & Treves (wildlife) 1999; Sax (cultural heritage) 1990; 1999. This was also one of the topics raised at the international workshop, "Property Regimes: comparative and historical institutional analyses" held at the Center for International Environment and Development, Agricultural University of Norway, As, Norway, December 1, 2003.

Meldgaard 1986; Aastrup 2000); the history of Norway (Aubert 1989; Helander 1994; Thuen 1995); on Saami ethnicity (Eidheim 1999; Thuen 1995); on ways that people value animals and nature (Kellert 1996; Low & Gleeson 1997; Midgley 1983; Morris 1998; Sandae 1999); and finally, on laws made regarding them (Francione 1995; Lyster 1985). Readings often provided me with an increased understanding of an issue and an improved basis for describing context. In addition, the choice to read broadly both with respect to the topic and to theory (to address the question "What is being overlooked?"), and the information that was consequently collected, later proved central to my decision to create different categories than those designated by CPR theory. The findings and variation between studies and events, needed to be accounted for in the choice and presentation of new categories and concepts.

The topic of property is dealt with quite differently both within different disciplines and across time. As discussed in the previous chapter, in the initial phases of the study I attempted to apply both the concepts and emerging theory of CPRs (Bromley 1992; Hanna et al. 1996; McCay & Acheson 1987; Oakerson 1992; Ostrom 1990; Schlager & Ostrom 1992). The reasoning for this has also already been discussed. In summary, however, several important reasons underpinned this: CPRs recognize the potential for multiple actors to make claims on property; it specifically includes consideration of both formal and informal institutions; it includes rules for management of goods; and, it emphasizes the study of empirical cases, in part, because of the recognition of the importance of context. Although there were many reasons for adopting a CPR approach, the approach proved problematic in my research. Instead, I have attempted to open myself to a range of possible interpretations of what property and what claiming property might include. Through a broad reading of general literature I became familiar with additional conceptualizations that would be useful in my research: social rights (McPherson 1992), cognitive ideas (Carson 2004; Carson & Bums 2005), political processes (Fowler 1994; Hajer 1995; Pradhan & Pradhan 1996; Wiber 1993), and obligations (Bromley 1991; Sax 1999). I was in part guided by the topics being suggested by others - by Ostrom's call at the 1998 meeting of the International Association for Common Property in Vancouver for increased attention to the theoretical implications of the vast number of case studies accruing in the CPR field; Steins' and Edwards' (1998 a; 1998b) findings of multiple actors with diverse interests; Steins' (2001) subsequent call for an actor-structure approach; and Marchak's (1987) questioning what we might learn by looking at non-typical types of goods.

Discoveries also came in the course of collecting data. A Saami claim of the importance of reindeer to the preservation of Saami language was made by Renberg already in 1933, before any general talk about indigenous rights. Whilst recognized and supported at the time among many Saami with interests in reindeer, the issue of indigenous rights was overseen by the national government. Recognition of cultural and indigenous rights is not to be found in the formal rules and regulations. Nonetheless, the importance of reindeer to the Saami culture - a social claim - remained a central driving force for some groups of Saami. It helps to explain a number of the strategies chosen by these groups of Saami, and hence provides insight to some of the rules created in later years. As per this example, I often became aware of alternative approaches to concepts, categories and theories during the process of developing the case. According to Becker (1998: 194-212), this is typical of an approach using analytical induction⁷. The research focuses on both understanding how a process functions and the definition of what it is that is being studied. Again, in Becker's words, "[analytical induction always involves just such mutual clarifications of the conceptual solution to a research problem (i.e. How do people get to be addicts), and the definition of what constitutes the problem and its embodiment in real life (e.g. How to define an addict and addiction)" (ibid.: 200).

Phase III - The development of the case and the choice of categories and concepts

According to Noblit and Hare, the third phase entails repeated reading of accounts (1988). Repeated readings provide the basis for developing rich, detailed accounts of the case itself and for noting and beginning the application of themes and concepts used by different actors in these accounts. A particular advantage of working with literature is, in fact, the possibility it offers to be able to return to it repeatedly. Within an article, authors strive to put forward their ideas so that they can be clearly understood. Repeated readings can add dimensions to one's understanding that may have initially been overlooked. Throughout the years that I have been working on this study, I have been able to amass a vast collection of relevant articles and books. Through both extensive footnoting and in the reference list found at the end of the study, I include many of these sources. In part, these are provided to aid other researchers in crossing the disciplinary boundaries of reindeer studies.

Analytical induction is not being used here in its strict sense, but rather in the more recent use of the term. Rather than the original search for universals, the more recent use is as a research strategy "... that directs

To be able to make notes about the studies, a reader makes use of some types of categories - consciously or not. Repeated readings and attempts to apply different concepts also provide a means for making concepts more explicit and testing their usefulness, both in terms of applicability and across a number of cases. I have actively looked for where concepts or ideas are unable to accommodate or explain what I have found to be happening: where types of events, categories and activities are not explained or are inadequately explained. Becker, in what he refers to as his "thinking book" (his book concerning analytical methods), suggests that some concepts can be judged as better than others when they explain a range of cases more completely: when they "explain more of what they are supposed to explain" (1998:119).

Whilst I agree with Noblit and Hare that it is easiest to explain the steps of case and concept development as separate, in practice they continually overlap. That being said, I follow their lead and differentiate between the two - focusing here on the development of the case. I have, in addition, chosen to explicitly address the issue of selection of materials. The preceding chapter focused, among other things, on the process of identifying and applying concepts and categories.

Selection of materials

Collection and evaluation of data and other material for developing the case have been conducted as library research. This has included government documents, historical works and accounts, disciplinary studies and recent articles being published in fields I have identified as relevant.

At the outset of the study I made it a point to seek guidance from colleagues and associates in different fields and in different settings. I allowed myself to be guided by what others were identifying as central authorities in fields they identified as relevant. This was done to augment my years of interest in the field of community based natural resource management (CBNRM). As I purposively chose people from different disciplinary backgrounds to recommend readings, my original sources provided insight from a diversity of literature including economic (Swanson 1992; 1996 a; 1996b; 1996c; Freese 1997), anthropological (Freeman & Kreuter 1994; Gluckman 1965; 1969), legal (Francione 1995; Lyster 1985), socio-political (Buck 1989; 1999; Ghimire & Pimbert 1997), and inter-disciplinary

investigators to pay close attention to evidence that challenges or disconfirms whatever images they are developing" (Ragin 1994:93).

approaches (Kellert 1996, Hanna et al. 1996). I followed this up by turning to the sources used by these authorities, including the reading list provided by Kellert for a course in "Human dimensions of wildlife management"⁴. I also pursued other work by the same authorities. On the one hand, I tried to understand the perspective of these authorities. On the other, I continually posed the following questions. Is there something essentially different in the way that people value animals than, for example, other natural resources? Or from other types of goods generally? And, if there is, what implications does this have for the property regimes created with respect to them? Following up these questions eventually led to my pursuit of the field of bioethics, first through a course and later through direct contact with Peter Sandoe, director of the Centre for Bioethics and Risk Assessment and chairman of the Danish Ethical Council concerning animals. Prof. Sandoe not only introduced me to central literature in this field, he also encouraged my pursuit to explore wolves as "bads"⁵ (as compared to "goods") and the implications this has had on rule systems created with respect to them.

As I continued to read articles emerging in these many diverse fields, I have continually checked the bibliographies. Reading bibliographies has often been an entry point for discovering new ways of viewing data. Most studies refer to a number of central works and then in addition add a few works that present a different, and often new, perspective. Pursuing these led, on numerous occasions, to the crossing over of disciplinary boundaries. In doing so, they introduced me to different perspectives on the topic.

Initially, in my work, I attempted to be all-encompassing with respect to my collection of data by searching for a variety of data sources to both understand the events and to understand actors' motives and interests with respect to them (Orum et al. 1991:23). At this point, I knew little about the Saami and their reindeer and had little basis or interest, beyond traditional scientific criteria, in rejecting accounts. Initially then, I chose to distinguish between three types of literature: secondary, key and primary. Much of the work is based on secondary literature. This mainly takes the form of internationally peer reviewed studies in a wide range

⁴ Kellert, Stephen R., *Syllabus: Human dimensions in the conservation of biological diversity*, (Fall 1994), Yale University: New Haven, CT.

⁵ In the wolf study, I suggest that the way that some people value wolves allows for a comparison of them with nuclear reactors and waste sites (Bergstrom 2003). Also these things are valued from afar for the benefits they provide. Locally they are feared; evaluated for the risks they introduce. If the comparison is valid, this would open for use of the same type of theoretical approaches being used to understand these "bads", namely the study of NIMBYs (Not In My BackYard) and LULUs (Locally Unwanted Land Uses).

of scientific fields. Certain studies are recognized as cornerstones in a field; they are found to be recurring elements in many bibliographies on the topic. In addition to these, and as discussed below with respect to triangulation, it has been an aim to collect more than one scientific article - covering more than one time period and ideally coming from different disciplines for the many events, points and ideas being presented in the empirical part of this study. In my use of secondary literature I am primarily interested in what the studies offer to my own research. Therefore, in addition to presentation of data, it has not always been a point to understand fully what these authors might have meant or intended with their work. In my use of secondary literature, I have been particularly interested in the ways that these works have inspired and generated ideas that I could use in my own research and thinking (Orum et al. 1991:138).

During the course of the study, I found myself returning to certain literature. This came to be the key literature in my work. Key literature is referred to repeatedly throughout the study. Choice of such literature is not random or chance, but purposive. I have chosen to rely on recognized authorities in a number of fields. As discussed in the previous chapter on conceptualization, Ostrom is one clear example; Burns is another. In the areas of Saami and reindeer Paine, Beach and Bull are examples of key authorities (to be discussed in more detail below). Authorities provide a foundation - a point of departure. Peers have assessed their work as being sound and reliable. I have taken this as a beginning. I have also chosen particular authorities because I agreed, at least to a certain extent, with the approach that they took. I became interested in gaining from their insights and building further upon their ideas. Throughout the different phases of the study, I returned to these readings seeking new insight and developing my perspective.

Key literature may provide a perspective on different types of situations and different types of goods.⁵⁰ In my study, it includes works on the topic itself (Beach 1981; Berg 1994a; 1994b; Bull 1997; Bull et al. 2001; Paine 1994; Solem 1933). It also includes material about reindeer (Laufer 1974; Meldgaard 1986; Reimers 1972; 1989), about pasture (Nellemann et al. 2003; Vistnes et al. 2004) about Saami (Eidheim 1999; Hansen 1985), about Saami-settler interaction (Falkenberg 1985; 1988) and about Saami-state interaction (Kalstad 1997; 1998; Minde 1984; 2003; Svensson 1973; 1997; Thuen 1995). Similarly, I have used key literature on theory (Admassie 2000; Brewer & Staves 1996; Burns & Carson 2005; Carson 2004;

Edwards & Steins 1998; Fowler 1994; Libecap 1989; Mehta et al. 1999; Oakerson 1992; Ostrom 1990, Rose 1994; Sax 1999) and on more general approaches to the interaction of actors and the institutions they act within and upon (Burns et al. 1985a; Burns & Flam 1987; Giddens 1979; 1984). As often as not, returning to key sources not only provided some answers, but also raised new questions concerning concepts, ideas, problems and the recurrent question: what next? In other words, I have also used this work as a springboard - a basis from which I have actively looked for events, outcomes and processes that led to discrepancies. In Becker's terms, I sought out negative cases (1990; 1998). Finally I used this key literature as a check. In returning to these authorities at the end of my work, I looked again at their bibliographies. In those areas that I have come to identify as central to my study, it is common to note that I have come to base my work on many of the same studies and reports as they have.

The third type of literature used is primary literature. This includes the text of laws and regulations, travel accounts, popular studies and scientific studies that were written for other purposes, but where the questions I am asking allow me to interpret the data provided in a new way. There are, literally, thousands of potential sources. As Glaser and Straus write, "[w]hen someone stands in the library stacks, he is, metaphorically, surrounded by voices begging to be heard. Every book, every magazine article, represents at least one person who is equivalent to the anthropologist's informant or the sociologist's interviewer" (1967:163). Comparable to a source being interviewed, these types of accounts may be biased, they may selectively portray events and may neglect to include important information. There is no particular reason to assume they are better or worse than other types of sources in doing so. Over time, as my understanding grew and my interests became increasingly defined I became more interested in screening data, in recognizing and attempting to compensate for these types of limitations and bias.

In the use of historical accounts and existing studies, a central issue concerns how representative the studies actually are. Historically, the Saami did not keep written accounts. As a consequence, with very few exceptions, historical reports are based on an outsider's perspective. This is as true of travelers' reports (Adelaer 1690; Ohthere 892/1984) as of those written by government officials (Solem 1933) or by state-financed missionaries (Tommaeus 1772; von Westen). They are also apt to be the viewpoints of the powerful (Sjoberg

¹¹ For a discussion of key information in a field study, see Kaarhus (1999).

et al. 1991: 66). Even in more recent times, the question of representativeness remains central. For many years the Saami were largely overseen by the Norwegian bureaucracy. Even in policy of direct concern to them, the Saami were not included in the decision-making arenas. There are also indications that even when Saami were included, they were treated differently (Bull 2001; Elgvin 1993). The issue of the power to control knowledge - to define issues and terms - is central to my study and is dealt with directly at different points within the text. I have tried to be aware myself of this and work to raise awareness of any bias. In addition, I have tried to critically evaluate and verify accounts against one another and in relation to comparable accounts in other places and at other times. For example, in my study, the context of Enlightenment is recognized as underpinning the state's recognition of common law at the signing of the Lapp Codicil; similarly, trends in social Darwinism are seen to underlie the rules created in the Common Lapp Law. Nonetheless, an incompleteness and a bias invariably remains in the data which, when recognized, has been noted within the text.

Historical studies raise questions stemming from our current knowledge that concern statements or ideas held as true at the time of an event - or at the time of writing about it - but are now viewed as incorrect (such as social Darwinism). This involves an attempt to recognize what was regarded as proper at the time of writing. This is particularly relevant with respect to ideas of development (development in whose eyes, benefiting whom?) and property (who is a legitimate claimant, what is a recognized justification for a claim, and what can be (exclusively) owned?). These issues are discussed specifically at different points in the text. Whilst potentially raising questions of validity, once recognized, these perspectives also have the potential to provide insight concerning actors' perspectives, values and interests in a particular period.

By contrasting and comparing studies, it is possible to begin to see how they compliment, conflict or refute one another. It provides a basis for eliminating studies, which by intent or mistake are misleading in their presentation of information. The study has therefore emphasized the triangulation of information with verification or clarification of data from different sources and different types of sources (Miles & Huberman 1994:266-7; Vansina 1975:438). It has purposively sought out studies that have provided a variety of perspectives on events and different theoretical perspectives to interpret them. As expected, sources both complement and contradict one another as information links and overlaps. At times, this has

meant that historical sources have been confirmed by new approaches in a particular field . In other cases, findings from research including studies on hunting/gathering (Barnard & Woodburn 1997; Woodburn 1982; 1988), pastoral societies (Agrawal 1999; Scoones 1995a, 1995b), and general studies on wildlife (Naughton-Treves 1999; Naughton-Treves & Sandberg 1995; Neumann 1998) concurred with the results presented in this study. In particular, contradictions (such as conflicting explanations for the emergence of extensive herding and different uses of the same terms) have been used to indicate areas of research needing additional attention in order to understand the basis for the discrepancy. In some instances, discrepancies were found to reflect different rationalities and understandings - both of the involved actors and of the authors of the different works. In others, they reflected occurrences in different spatial settings or the mistaken assumptions of researchers.

The choice to use existing literature has meant that there are periods of time with virtually no data. In many instances, Saami were largely considered peripheral to the interests of the state. In addition, the Saami kept no written records and the herding Saami carried few material possessions (later to be categorized as artifacts) and left few signs in their travels. For these reasons, I am forced to surmise more than I would like to in the first empirical chapter. We simply cannot know for certain what occurred at this time. But we can put together the many pieces from archeological information (Englestad 1984; Falkenberg 1978; Hultblad 1968; Odner 1992a; 1992b; Olsen 1984; Vorren 1974/1975; 1980), ecological history, and, not least, insights from studies done in other places (Agrawal 1999; Barnard & Woodburn 1988/1989; Beach 1981; Dowling 1968; Golovnev & Osherenko 1999; Ingold 1980; Leacock 1954; Spencer 1959; Syroechkovskii 1995; Young 1992). My doing so has allowed me to question the conclusions of others - noted as footnotes in the empirical chapters.

The choice to do library research also means that others have already screened many of the details and perspectives. Generally a reader cannot reconstruct - sometimes cannot even know - what details are missing. This is particularly true in this study where I have often picked up details from studies written for purposes other than my own case. In attempts to fill in the blanks, I have had some success in turning to more general historical accounts of what was happening in the area, the country, the region and the world at the time. This is particularly true of the period at the turn of the 20th century when Norway was seeking

^a An example of this is noted in the study where pollen analysis supports the suggestions of changing migration patterns of Saami.

independence from Sweden. It was also used to understand better the broader change in Norway with respect to changing access rights to game. Although this has not always provided direct insight to the case, it has helped me to understand the context more fully.

Development of the Case

The case is developed and presented as a narrative. Narrative provides a means to relate a coherent story by integrating the details and findings of various studies and making use of the concepts I am attempting to apply. It has been a gradual and difficult process, one of collecting, analyzing and building one piece at a time - and also tearing down entire sections. As a result of this approach, the goal of my study is not to produce a replicable account that another researcher examining the same information may have otherwise produced. Instead, the goal is to produce a coherent account that provides insight and depth to the issues and underlying processes, and is based upon, and consistent with, a richness of details and descriptions provided by others (Straus & Corbin 1998: Chapter 16)³². In the words of Griffen, "[n]arratives are analytical constructs..that unify a number of past or contemporaneous actions or happenings, that might otherwise have been viewed as discrete or disparate into a coherent relational whole that gives meaning to and explains each of its elements and is, at the same time, constituted by them" (1993:1097). Narratives are process-oriented in their focus, in making sense of the way things are interrelated and the ways in which they unfold over time. They provide a perspective of identifying both events in time and processes through time.³³ Both where and when things occur are often central to particular explanations; both position and order events therefore represent part of the underlying logic³⁴. As Griffen explains in another of his articles about narratives, "... events are imbued with sociological import because it is in and through their unfolding that we see the collision of social structure and social action (1992: 413)³⁵. An example of the importance

³² Guba and Lincoln have suggested that "thick, rich, in-depth descriptions" can be used to develop the uniqueness of particular, naturally occurring cases whilst at the same time providing adequate information such that the cases may provide a basis to compare one situation, place or issue with another (1994). Furthermore, they suggest that the concept of "fittingness" can be used to discuss the degree to which substantial amounts of information about the subject being studied and the setting in which it was found are taken into account by the concepts being used. Goetz and Lecompte also emphasize the importance of clear and detailed descriptions (1984). They suggest the concepts "comparability" and "translatability" for use in evaluating the degree to which enough detail and information is provided to allow readers to apply the findings to other studies or situations. Grounds for final selection in my case has thus included an evaluation of the fit of the data, the ways pieces support one another, linkages between pieces and support found for the pieces among and between different sources.

³³ For discussions about narratives, see, for example, Abbott 1990; 1992; Griffen 1992:406; Isaac and Griffin 1989; Skocpol 1984:226; and Stevenson & Greenberg 1998:742.

³⁴ For more on this, see for example, Giddens 1984:71; Gotham & Staples 1996:484.

³⁵ See also Giddens 1979:288, 325; 1984:362-3.

of identifying events and processes in this study lies in the central role and the consequent need to define actors' ideals, ideas, and interests.

Although central, identifying and examining actors' values, beliefs, interests and strategies are not straightforward. It is fraught with difficulties. Whilst what actors say and do may have a direct correspondence to their interests, their words and actions may also be part of strategies that are only revealed over time. Actors are purposive and often future-oriented. In addition, actors may well have different - even conflicting - interests that first become apparent in different settings or contexts. In attempting to understand actors' strategies, I have found it important to analyze how different actors value goods/bads, which uses actors consider as potentials, and which of these again are prioritized. As with identifying interests, identifying values is not necessarily straightforward. Cognitive ideas are formulated differently both through time and by different actors in their struggles to gain power and legitimacy to particular rights, as well as to affect their possibilities to control and define particular situations (Foucault 1992; Scott 1998). Attention has been given in this study to recognition of which actors use which categories and how their definitions of terms reflect their ideas, ideals and interests*. The study also reveals the ways categories are defined change through time. This will be shown in both how Saami have defined themselves and one another as well as how they characterize their reindeer. In addition, the state is also shown to attempt to define "Saami" in order to create administrative unity. Both reveal the interests of those attempting to define the situation, as well as their power to do so (Dietz et al. 1989; Giddens 1984:28-9; Toogood 1995). This supports Moore, where she writes that categories are both used and changed simultaneously: whilst they are in part recognized by actors as defining a situation, the concepts are at the same time in the process of being redefined or created (1994:364). Historically, it is often possible to track particular concepts and events important to a specific actor's strategy and to identify their interests to gain or retain control in defining, delineating and interpreting rules about use and management of animate resources.

Taking into account the interests of actors, and identifying central events that have led to change, have laid the foundation for the construction of my study. Case studies provide an opportunity to look at change over time. This is central in any discussion of processes where it is recognized that different variables may impact differently at various points in time (Ragin

* For a discussion of methods for doing this and its importance, see Seur 1993.

& Becker 1992). Change in environmental conditions may affect actors' opportunities. Change in institutions may enable some actors whilst constraining others. These types of changes vary with respect to context. They become apparent in comparisons made from one place to another and over time" (historical). History is to a large extent visualized and presented as a structured past: lines are drawn through time relating one event to another. But, it is not only the past that affects current situations. The present not only emerges from the past it is also created by actors' agency, by their conceptions of the present and ideas and interests in the future (Moore 1983; 1987). In other words, in addition to the structure of the past come ideas and beliefs of what the future can be. Through agency, actors may attempt to create such outcomes. As a result, Moore claims that "[t]he identification of change-in-making is one of the present objects of analysis. The normality of continuity is not assumed. Sameness being repeated is seen as the product of effort. Conjectures about the future thus become an implicit part of the understanding of the present" (1987:727). For example, conceptions of the future are found in policy documents (for example, Landbruksdepartementet 1922; 1966; 1992; NOU 1978; 1986: 1997; Stortinget 1883; 1933; 1996) and minutes of meetings of interest groups. These have been among the kinds of documents used in this study to identify actors' interests, desires and purposes. Again, in the words of Moore:

...much of what is happening anywhere is visible as part of a sequence in time because the people involved are themselves acutely aware of the way they want to shape their future. By trying to "fix" the outcome, whether through legislation or through transactions ... the various parties to the scene of action are contesting control over their today and tomorrow. (Moore 1991:370).

Identifying attempts to influence particular outcomes reveal actors' strategies. Evidence of actual outcomes provides some insight into, for example, the power of actors to influence outcomes.

In pursuing the topic, I purposely allowed myself - even forced myself - off "the beaten track" in an attempt to see which concepts authors used and what they noted and emphasized in their work. Although extremely time consuming and demanding, not the least because of the inconsistent terminology used in different fields, this approach proved rewarding. It opened my eyes to questions of defining landscape and ecological history (Cronon 1983; 1995; Grove 1995; Hornberg & Palsson 2000), to understanding biological aspects of reindeer

⁸ In the words of Oram et al. (1991:17), for example, "... the dimensions of time and history to the study of

(Vistnes et al. 2004; Reimers 1972; 1989) and to pursuing gendered interests in animals (Kellert & Berry 1987; Zinn & Pierce 2002). It led me to the areas of law (Lyster 1985; Rose 1994; Sax 1993; 1999; Spiertz & Wiber 1996), bioethics (Cooper & Palmer 1995; Regan 1984; Sandoe et al. 1997) and the history of economic thought (Caldos 2003; Macpherson 1987; Pejovich 2001). Whilst my understanding is far from complete in these areas, I have come to appreciate the insight they may provide in further comprehending the processes involved in the emergence and change of property regimes.

It has been suggested by some that the study would be further strengthened by the use of interviews. Whilst I can readily agree with this, one can equally argue that the study could also be strengthened by further literature searches. At the outset of my work I made a choice to do a study based on existing documents. The choice in part was made because extensive parts of the study are historical; the people directly affected are long gone. The choice was also pragmatic, given my young children at the time. I believe the choice to do a literature study is justifiable given the tremendous volume of material that has been generated by interested actors, including the Saami themselves, academics and bureaucrats. Much of the work I have referred to is itself based upon extensive fieldwork and searches of archives. Despite this vast amount of material, divisions between academic disciplines and between those with specific interests in aspects of the issue of reindeer and property have meant that insight into this broader issue has been missed. It is my hope that an outsider perspective may offer some leads for others to follow-up on. As for the points I have inevitably missed, I am sure that those with more experience - Saami, academics and others with special interests in this field - will constructively inform me of my errors. I welcome that.

In the future, if I am to continue work on extending the framework, I would see a great benefit in working in a team with colleagues of different backgrounds. The value of this has been highlighted for me through the great benefits I have had in receiving comments from critical friends, colleagues with diverse disciplinary backgrounds, and others with interests in this field. In addition to my soliciting comments at different points, this has also occurred through more structured forums including working seminars at the Department of International Environment and Development Studies (Noragric), at a meeting of the Uppsala Theory

social life enable one to examine continuity and change in lifeworld patterns.

Circle⁵⁵, at two international seminars held by Roskilde University⁵⁶, at a presentation and follow-up seminar held at the Royal Veterinary and Agricultural University (Copenhagen) and two international seminars hosted by Noragric⁵⁷. There remains a need to further develop concepts that can be used and understood across disciplinary boundaries. Such work could be further strengthened with a more in-depth accounting of the historical use of concepts and the history of ideas. And, working in an interdisciplinary team would have the invaluable benefit of being able to draw on seminal works of different fields - without having to do it all alone.

Application of concepts, categories and theory

The process of data collection was guided by emerging theory. Initially the categories and concepts chosen were largely designated by CPR theory. Given CPR's initial emphasis on characteristics of resources, I expected that I would be able to apply CPR theory. But rather early on there were things that did not seem to fit, or that could not be accommodated, within traditional CPR theory. An early sign of this difficulty was the choice made by a group of authors (Freeman & Kreuter 1994) in the book *Elephants and Whales - Resources for Whom?* These authors also began from a CPR approach in their studies on valuing animals but chose to veer from it in their final presentations⁵⁸. I was left wondering if this had something to do with animals or something to do with the theory itself - or both. Together then with collecting data for the case, I began looking at other theoretical approaches to property. Generally the concepts and approaches used in this literature included CPRs (Ostrom 1990; Oakerson 1992; Bromley 1992); property regimes and property relations (Edwards & Steins 1998a, 1998b; Hanna et al. 1996; Brewers & Staves 1996); multiple and complex rule systems and property as an institution (Admassie 2000; Admassie & Bums 1996; Burns & Carson 2005; Burns & Flam 1987; Carson 2004); property as process and legal pluralism (von Benda Beckman 1995; Merry 1998; Mehta et al. 1999; Moore 1978;

⁵⁵ For information on the Uppsala Theory Circle, University of Uppsala, see <http://www.soc.uu.se/research/utc/overview.html>. I presented a draft of my work to the Theory Circle in 2001. My opponents were Hugh Beach and Merrick Tabor.

⁵⁶ The first seminar, "Concepts and Metaphors: ideologies, narratives and myths in development discourse" was held 1-4 Dec. 1997 (Marcussen & Arnfred 1998). The second, "Negotiating Property - processes of vindication of land claims in developing countries", was held 11-14 Oct. 1999.

⁵⁷ The first seminar "Property regimes: comparative and historical institutional analyses" was held 1 Dec. 2003. The second, "Property rights to land and natural resources: institutions, politics and culture", was held on 10-11 June 2004.

⁵⁸ The book is a collection of articles. In the introduction Freeman and Kreuter explain, "The 2nd annual meeting of the IASCP [International Association for the Study of Common Property], held in Winnipeg in 1991, included a symposium on community-based whaling. During the symposium, discussion broadened to consider cultural and political issues influencing the management of various charismatic animal species. This uncovered commonalities between issues involving elephants as well as whales" (1994:1).

1991; 1998; Rose 1994; Spiertz & Wiber 1996; Wiber 1993) and the politics of property (Fowler 1994; Libecap 1989; 1993; Pradhan & Pradhan 1996; Wiber 1993).

One of clearest limitations to CPR theory seemed to be the lack of appreciation of human agency. I therefore attempted to introduce a general sociological approach that recognized both human agency and institutions - Action System Dynamics (ASD theory). A significant body of work has been developed by Prof. Tom Burns and his associates (see for example, Baumgartner et al. 1985; 1986; Burns et al. 1985 a, 1985b; 1992; 2000). As with CPR theory, ASD theory focuses in part on the strategies of groups to resolve collective action problems - to cooperate and act collectively to serve their common ideals and interests. Social rules are institutionalized to coordinate and regulate actions. At the same time, actors are recognized as having agency and consequently acknowledged as having the potential to change the very conditions they act within and upon. Whilst I found the ASD approach too general for my own purposes, I have been able to define a conceptual approach by turning to other studies that have been more successful than I was in applying the ASD approach (Admassie 1994; Admassie & Burns 1996; Burns & Carson 2005; Carson 2004; Fowler 1994).

Phase IV: Presentation of case and analysis of merits of concepts, categories and theories

By the end of the third phase, I had amassed a great amount of data concerning the case and a wide range of potential concepts for interpreting it. Phase four turns to the presentation of the data together with its theoretical analysis. During this phase the data is analyzed and presented in accordance with my interpretation and in line with my framework. What is included and excluded in the study is neither arbitrary nor given. Considering the hundreds of years covered by the reindeer case, one of the major problems concerned was what to choose as central. The study strives to demonstrate the interaction between the agency of actors and the structure provided by rule systems. This is reflected in each chapter by a weaving together of small cases relating the development of rules and laws together with practices. For example, in the second empirical chapter (Chapter Five), there are sections on particular laws and sections on the emergence of ear-marking and on the theft of reindeer. Relating the story in this way reveals different processes involved in changing property regimes. These processes can overlap in time. In addition, major historical events - such as the inter-Nordic

wars, World War II and the accident at Chernobyl - have had both direct and indirect effects on the formation of reindeer property regimes.

Throughout the course of the study, alternative concepts, theories and approaches to understanding property issues have been used and applied as a means of gaining different vantage points. Both empirically and theoretically, my research builds on the work of a number of others. It attempts to logically organize and further develop some of their ideas. Discussions at the end of each of the empirical chapters are intended to illustrate how concepts and theories have been used to analyze the cases, to provide insight into particular aspects of them, and to illustrate the conceptual development in my study. This separates the two aims of the case - product and process. In the body of each chapter, the aim has been to develop the many small cases within the reindeer story to be rich in detail. In the discussions that follow, I could then test new theoretical ideas without needing to rewrite the cases. This was, for example, what I did when I first encountered legal pluralism. The cases themselves existed in a rough form. I was then able to see to what extent this theoretical idea and its associated concepts were useful in explaining what was being reported in the cases.

The intertwined processes of writing, reading and analyzing were also of central importance. In actively seeking out contrary evidence, I was often faced with events and ideas that fell outside of my theory. When things did not fit, I was forced to question what it was that was problematic: Was it the category? Or the data? Was something missing - some event? Some actor(s)? Has something been confirmed? According to Ragin, such problematic examples are "... the best raw material for improving initial images" (1994: 94). It is, for example, very difficult to discuss the emergence of the Common Lapp Law without discussing a changing international context reflected in the state's changing attitude to the Saami people. I was then forced to reflect upon the implications of this for my theoretical approach - and the type of information I would need with respect to the emergence of this law - and required to examine if the same question was pertinent to all laws concerning reindeer property regimes.

I have chosen to present the study chronologically. This provides the basis for identifying emergent processes. However, despite this general intention, including and acknowledging different actors' interpretations means the presentation of time becomes somewhat non-linear because there are both over-lapping and parallel events. Actors (both in the cases and the

authors writing about them) choose events because they are seen as being particularly important with respect to the story or claim they are making. When numerous actors relate the same events, there is a basis for claiming it as central. In addition to historical events being important as a means of revealing change through time, they are also important in understanding how current actors frame the past as a means of legitimizing their present claims, and in examining actors' attempts to define current situations in ways that supports their interests and beliefs (Giddens 1984: 201-3; Lowenthal 1985; B. Svensson 2000:54). Because the interests of actors and the arenas in which they act differ, there may well be different accounts and overlapping events - or interpretations of them - considered central by different actors.

Given the many small cases within the study, at some points the account veers from a strict chronological account. Often in the beginning of a new chapter, and sometimes even with the introduction of a new section within a chapter, the focus changes slightly requiring the retelling or re-contextualizing of the past. At other places in the study, such as the subsections on "Changing Regulations with respect to Game" and the section on "Social Darwinism", I have chosen to complete a discussion of an event rather than adhere to a strict chronological order. This is done in order to complete narratives of particular times and actors in one section where these particular stories are considered less central in more current debates.

Fogelson discusses an author's role in creating historical narratives. When covering an extensive period, as in this study, he writes that both events and non-events have a role (1989). In the choice and presentation of both, "historians make histories". They choose which events to relate in choosing to tell a particular history of something. But, he also points out, much of history is uneventful. "This includes values, meanings, symbolism, worldviews, social structural principles and other variables of cultural analysis" that provide a basis on which to interpret the events. In addition to a number of other examples, he includes reference to Braudel that "the non-eventful ... refers to events not yet considered as such: history of the soil, of attitudes of madness or the search for security over the ages. What will be called non-eventful is therefore the historicity we are not aware of (1958). Many of the sources used in the reindeer case have included articles or data compiled with other purposes in mind than the emergence and change of property regimes. It has been my interest to construct a case about the evolution of animate property regimes that has defined which

information becomes relevant and what, as a consequence, is defined as an event. Supporting Baudel, for example, are discussions in this study about biological changes in the reindeer themselves - for most interests and purposes these are considered 'non-events'. This is the case until the context is provided where this information is used to define attributes of, or claims to, property.

Finally, there is the question of "What is enough?" The decision as to when the case was considered complete has been an indirect one. As the study now stands, some examples remain that could have been included or more fully developed (e.g. the emergence of entrepreneurship, the role of the price of meat and reindeer products, or an in-depth look at pasture degradation). I also could have pursued, developed and more fully illustrated variation and diversity between different places in Norway. Glaser and Straus suggest that a case is complete when no additional data is being found (1967:61-62). Had I used this criterion, I am not convinced that the case would ever have been completed. I continue to find new and relevant data - both because new reports and studies continue to be published and because as I continue my work I find new insights that could be of interest for better understanding the case. As described below, in my work, I found another criterion to be relevant.

Whilst working on the reindeer case I became interested in another case, another animal that is qualitatively different than the reindeer: the wolf⁶². The wolf is an extreme case - testing the borders of the concept of property. To some the wolf as a wild animal is non-property, to others an extreme "bad" - something to be eliminated completely - and to others the wolf is an extreme "good" - something to be protected at any cost. As wolves returned to my home community after having been extirpated for over 100 years, I had an opportunity to use other types of methods in collecting information about people's ways of valuing them, including participant observation, interviews and use of current media reports. With my change of focus, I came to the realization that I was gaining much more insight from this new case than from continuing my work with the reindeer. In other words, it was not so much that the

⁶² Wolves contrast to reindeer in a number of ways: they are internationally recognized as endangered while reindeer are prolific, and they are predators rather than grazers. Wolves impose a potential threat to people and their livelihoods with the consequence that issues of risk and safety are raised with respect to them.

In addition to the wolf, I also gained added insight through advising two Masters students. One who chose to work on ways of valuing and managing crocodiles in Tanzania (Obad Mbangwa 2002) and the other on the politics of elephants in Namibia (Karen Aaserud 2002).

reindeer case was saturated, but that the insight I was able to gain from studying it was saturated at that point in time. By turning to a new case, I could test the concepts chosen with respect to reindeer, noting both where they were successful and where they were wanting. Having done this, I was then able to return to the reindeer case and again test the relevance and insight gained through the new case.

My experience points to a limitation in the study. I am attempting to build theory on a single and very specific study. Whilst the study does introduce variation over time and place, its conclusions would be strengthened by comparable studies being done with other types of animals [predators (wolves, crocodiles, polar bears); domesticated animals (sheep, cattle, dogs); highly migratory animals (different whale species, bison); little or neutrally valued animals (badger, shrew); other animals that are valued as both wild and tame (eider ducks, camels)]; and by studying reindeer in other locations. Such studies would also provide insight into the scope or limitations of the theory. The theory, for example, has developed as much broader than a standard approach to property. There may be cases where the approach of this study is inappropriate - either because of the nature of the resource or because of the way that it is valued.

Fowler (1994), for example, argues that seeds as biological entities have special properties that have historically allowed some people to control access to them. In his words,

[i]n the 1930s, hybrid corn companies had something that companies not dealing with hybrids still do not have - they had the ability to prevent other companies from copying and selling their varieties and they enjoyed a situation where farmers could not reuse their seeds. In other words, their control extended to the farm level, forcing farmers to return to the "inventor" yearly for more seed. Significantly, this control came through the biological properties of the seed and the technical properties of the hybridization process, not through legislation. This situation - the implications of which were well understood by early hybrid breeders - eliminated a major incentive for seeking legal forms of protection. (Fowler 1994: 230).

Property regimes in such cases may not be applicable or necessary to control and access goods. In such cases, general property regime (GPR) theory would have a limited relevance or scope.

Despite extensive work on the wolf during the period of this study, I finally decided not to include it in this presentation. Treating the wolf as property is problematic because many who lay claims to wolves do not value the wolf as such; its value is for the most part determined outside of the market. As discussed above with respect to the reindeer case,

looking at cases on the border provides a possibility to test and determine the scope and limitations of a case or, in this case, a theory. Although I used the wolf case to gain further insight to concepts and theory, my attempts to present it have initially introduced too many unnecessary complications. In the interests of clearly forwarding my ideas with respect to categories and theory, I have chosen to return to the wolf case at a later point in time. This being said, I have attempted to include the insight gained from the study, mainly with respect to clarifying concepts, including strategies used by actors to be heard and to affect decision-making processes⁶. In the final discussion, I return to some considerations highlighted by the wolf case concerning the scope of the theory.

Presentation of the case by chapter

This study is divided into six main chapters. The first two chapters present a conceptualization of the study and the methodological approach chosen. Following these are four empirical chapters presenting the reindeer case. The final chapter analyzes the results of the case and discusses the implications for the proposed property regime framework.

The introductory chapter on reindeer (Chapter three) provides a brief opening of the case. The following chapter (Chapter four) provides a background and examines the emergence of reindeer as property. As in all chapters, material for this has been drawn from work done in various disciplines. In this particular chapter, anthropology, archeology and history have central roles. There remains some question as to what occurred in Norway during the transition from capturing some few reindeer to the ownership of large herds. Thus, it has been of particular interest to read studies concerning not only the Norwegian Saami, but to more general studies on hunting groups (Woodburn 1982; 1988; 1998; Endicott 1988; Endicott & Endicott 1986; Spencer 1959) and pastoralists - particularly on the ways that these groups allocate, distribute and manage their animals (Agrawal 1999; Behnke 1994; Behnke & Scoones 1993; Runge;1981) - and historical studies and reports on what took place in North America as rangeland areas became settled and conflicts arose with those interested in cattle (Webb 1959; Alchian & Demsetz 1973). Together these studies have provided inspiration and insight into similar processes that have also been occurring in Norway, and have highlighted the concepts and categories used to discuss these processes.

For a presentation of the wolf case, see Bergstrom 2003.

Claiming reindeer in Norway

Specifically, Spencer's work on ownership marks on arrows led me to look for archaeological studies of comparable findings in Norway. Similarly, Webb's studies of the settling of the west in the United States - including the importance and problems of introducing branding of cattle - began a very drawn out study to collect accounts and "snippets" of references to ear-marks. Collecting the scant references to ear-marks perhaps best illustrates the following point: whilst aiming to gain a breadth of understanding of the general topic through reading many and diverse studies, it has often only been small parts of the studies that have had direct relevance. This is because research concerning reindeer in Norway has been typically split by discipline. Wild reindeer are the concern of biologists and more recently of ecologists; interests in the environment, often including studies on pastoral resources, are often related to these studies. Anthropologists study the Saami as a people, whereas ancient sites are studied and reported on by archeologists. Copious reading of bibliographies in the various studies reveals a clear overlap among researchers within a discipline, but little overlap between disciplines. Until recently, few have been interested in topics crossing over traditional disciplinary borders. Fewer still have been interested in the particular topic of reindeer as property. Mention of ear-marks can be found, among other places, in legal, anthropological, and archaeological studies and in local histories. It can also be traced in original policy documents and in minutes of meetings. (All references are recorded in the text.) An important exception to the fleeting references is the work of Solem who recorded a number of his experiences and impressions in working with legal issues in the far north during the 1920-30's (1933). Solem both presents and analyzes the significance of the emergence of ear-marks. Bjorklund and Eidheim write on their cultural significance (1999). Oskal and Sara's work is very insightful and revealing with respect to reporting on current practices of claiming un-marked animals (2001).

There have been a number of works with a more direct relevance to this chapter. Vorren's archeological studies of the Norwegian Saami are based upon extensive field and archival studies (1944; 1973; 1980; 1989). His work is particularly insightful in attending to the questions of the transition from hunters, to owners of a limited number of animals and finally to the emergence of extensive herding. Both Vorren's work and the historical studies of Berg on Norwegian Saami are based on extensive archival work (1990; 1994 a, 1994 b). Their work is highly regarded and has been published in refereed scientific journals. Rather than replicate their work, my intention instead is to gain insight from the different perspectives these and others bring to my defined topic. Whilst both historical and archeological studies

tend to focus on the intricacies of a specific time and place, my study differs in a major way by analyzing this information in an attempt to identify general patterns.

This section shows that there are individual, community and public ways of valuing reindeer. These ways of valuing may not only vary, but may also contradict one another. They can include economic interests, but may also encompass other ways of valuing such as distributional issues (equity) and social welfare issues. Additional support for these ideas concerning property regimes has also been raised among a number of those attending two recent international conferences on property issues held at the Agricultural University of Norway⁴⁴ in 2003 and 2004 (Cousins & Thembela 2004; Mehta 2003; Vatn 2004. See also Burns & Carson 2005; Carson 2004.).

In the third chapter on reindeer (Chapter five), the state emerges as an actor. The state's interests in sovereignty and economic development are demonstrated as having substantial effects on Saami herders. This chapter draws particularly on the anthropological studies of Paine (Norway) (1957a; 1957b; 1970; 1985a; 1985b; 1987; 1987; 1991; 1992; 1994), Beach (Sweden) (1981; 1982; 1985a; 1985b; 1990; 1993; 1997; 2000) and Ingold (Finland/global) (1976; 1978; 1980; 1983). Whilst drawing on these sources, my approach differs in that it adds institutions to the typical anthropological focus on actors. I am interested in recognizing and analyzing the interaction between actors and the institutions they act within and upon.

Paine has been undertaking fieldwork in Norway from the late 1950s through to the 1990's. His work is highly regarded - and rightfully so. Whilst his first works concentrated on particular places and times, his more recent work, including Herds of the Tundra, takes a broader perspective both in terms of time and area (1994). As discussed above with respect to key sources, I found myself returning to Paine's work at different point in the study and was rewarded with fresh insight each time I did. Many references to his works are used in the following chapters.

It was during the rationalization period (1970-80's) in Norway that Ingold presented his theory about the progress of ownership of reindeer, based on a combination of his fieldwork in Finland and a literature review of reindeer herding and owning in other countries (1980).

⁴⁴ The Agricultural University of Norway changed its name on January 1,2005. Its new name is The Norwegian University of Life Sciences.

He suggests that there are three economic stages of reindeer ownership: hunting, carnivorous pastoralism and ranching. Whilst the first two, he says, are associated with common access to land, the latter is distinguished by divided private access to pastures. Ingold's theory is based upon the assumed rationality of the relationship between reindeer and owner, with an evolution of this relationship towards "scientific, rational exploitation" of both land and animals (ibid.: 261-2). Here, the idea of effective management is directly tied to rational property allocation.

Ingold's book is largely developed upon an understanding of reindeer herding, in his field study area, at a particular time. Whilst he raises a number of interesting ideas, a number of which are referred to in my work, the work is also problematic in a several important respects. First, Ingold's analysis treats reindeer systems as if they were independent or isolated from the context of the broader society. This is highlighted where he chooses not to discuss the effects of policy on the choices that herders make. Similarly, he takes no account of external effects, including the surrounding society and interests in, for example, the ownership of land. As will be shown, interests in associated goods and effects of exogenous events are important to understanding developments in how reindeer have come to be owned and managed. The development trend that Ingold identifies in Finland, rather than being a universal development pattern for ownership of reindeer, may be better explained by the introduction of Finnish policies preventing nomadic movement of Saami herders. Norway and Sweden, however, introduced other policies - policies that partly recognized the ancient rights of the Saami people. Within these countries, multiple rule systems provided the opportunity for Saami to continue to herd their reindeer collectively. Ingold's idea of an evolution of reindeer ownership is thus open to the same kinds of criticism as social evolutionary theories more generally. Empirical cases reveal differences within different contexts. As different actors have different interests, and they act within different contexts, rule systems also come to vary both in time and space. The diversity of rules and regulations, creating particular structures, is illustrated in this case to be context dependent - a result of historical processes and strategic actors in a particular place. In his study, Ingold discusses reindeer property regimes as if they were an independent rule system. In a later study, Ingold does discuss not only changing social relations, but also the effects of changes of worldview changes (1986). In my study, I show that reindeer property regimes are not independent rule systems. Among other things, it is demonstrated that it is not only interests in reindeer, but also interests in associated resources, that influence the development of rule systems associated with reindeer.

With respect to Beach, I was introduced to his more recent work after a presentation of my work to the Uppsala Theory Circle in Sweden where he was opponent to my paper (1981; 1982; 1993; 1997; 2000). In later reading his work, and in comments that he offered, I recognized one of a number of "blindnesses" that I have struggled to remove. Because I have learnt about my topic through the work of others, a number of choices have already been made by them regarding what to include and what to exclude. Through Beach's work (and also that of Svensson (1997)), I realized that the history concerning Saami and their reindeer differ in Norway and Sweden in ways which, although slight, nonetheless provide insight to historical struggles and areas of contention. For example, it remains unclear to me how many Saami and reindeer were affected when Russia closed the border in 1852. Whilst the Norwegian history focuses on the large number remaining in Norway, the Swedish history tends to discuss the resultant problems of the large influx of "Norwegian" Saami to Sweden; the stories do not quite concur. In part, this can be explained by the migratory nature of the Saami and their rights to move across the national borders. But it also reveals the differing interests of states involved and serves to explain the basis of prolonged and contentious debates in the following decades.

As with Paine, Beach's work spans decades. His initial work was highly detailed and based on extensive field experience. His later works offer more reflected ideas about the roles of Saami, their reindeer and their position (and juxtaposition) in the Swedish society. I have benefited by his work in a number of ways, which is revealed through the many references made to him. Specifically this includes his ideas about the introduction of mechanization to herding, ideas of landscape and problems and issues arising in relation to tourism. Finally, I have tried to learn from his caution with respect to the categorization of the Saami and to the distinctions between extensive and intensive herds.

In addition to anthropological studies, this chapter draws upon the work in legal history conducted by Bull (1997; Bull et al. 2001). Bull's work is mainly based upon archival studies carried out not only in the national archives, but also within the reindeer districts. She has amassed and pulled together pieces of information and accounts to draw a much more intricate and complete picture of the emergence of reindeer herding law than has previously existed. Although appearing late in my study, Bull's work has been important in confirming, deepening - and at times correcting - my understanding of the processes and outcomes of reindeer law. My approach differs from a legal approach, because it does not just concentrate

on legal rule systems. This study looks at the body of social rule systems (forms of control) being brought to bear on the terms and conditions by which reindeer are accessed, used, managed and controlled by involved actors. It recognizes complex rule systems, including both formal and informal systems.

The fourth and final chapter concerning the reindeer case (Chapter six), takes World War II as its point of departure. By this time, the issues have become very complex and divided. There are many actors with diverse interests and many arenas within which they can pursue their interests. The number of studies and literature with relevance to this period are diverse and numerous and references are provided within the text. There are also a number of original policy documents created during this period that have direct relevance to the topic. I have been interested in understanding the different perspectives being presented - in following the interests and strategies of different actors, including those presenting their studies - rather than in arguing a particular position. This section introduces politics more directly than the previous chapter. The chapter reveals the internationalization of the Saami arena. Different actors are seen to make use of different arenas to define not only the animal in question, but also the associated goods - and the concept of property itself. Svensson's work on the Swedish Saami and their claims to land lies closest to this perspective (1997). Although having a different main focus (i.e. land in Sweden), Svensson's work has provided insight into the politics of decision-making affecting, and affected by, the Saami.

The chapter focuses on the dichotomies of different rationalizations underlying national programs greatly affecting the Saami. On the one hand are discussions of human rights and welfare - recognition of social and cultural values that come in addition to considerations of economy. On the other, are programs of rationalization with a focus on reindeer as a source of production. The two ideas reflect different conceptions of property. Interests of meat producers are revealed in their choice to restrict their definitions of property to serve private economic interests in wealth maximization. For others, cultural interests are better reflected by property concepts that include public interests, such as cultural heritage. The focus on different ways of valuing differentiates my approach from a classical economic approach. In a classical economic approach property regimes are seen as being introduced to allocate commodities and services effectively. In my approach, the particular animal matters - it is not an undifferentiated commodity. Animals are recognized for more than just their value as economic goods and bads. There are also social and moral claims affecting the rule regimes.

As a result, complex property regimes are formed and reformed for reindeer. There are more obligations than the simple obligation to respect an owner's rights - reindeer property regimes also include obligations on behalf of the owner to the animals and to others to whom the animal might affect. Given these different ways of valuing, rule formation is political.

Phase V: Analysis of the case

Phase five provides an analysis of the case. The case is analyzed in light of chosen concepts, categories and theories. The outcome of Phase five is presented in both the discussions at the end of each empirical chapter and in the final chapter of the study. This phase of the study provides a means to gain insight into the particular case and an opportunity to test the fit of the concepts, categories and theories. In doing so, it can be questioned to what degree the concepts provide insight to the case. In addition, one can assess whether they contribute to creating depth and breadth to the accounts.

Phase VI: Reconceptualization

Phase six offers a reconceptualization of categories, concepts and theory garnered from work on particular cases. The process is partially revealed in both the discussions at the end of the case chapters and in the final discussion. As discussed in Phase three, there are a number of questions and criteria central to the final decision of which concepts, categories and theories to include in the final framework. An attempt has been made to ensure that the concepts and ideas are clear and that they avoid overlap. My intention has been for these ideas and concepts to build-up logically, be mutually enhancing and not contradict one another. The outcome of Phase six is presented in the first chapter.

The numerous cases in my study were not chosen to prove or disprove a theoretical approach to property. Instead, they represent the many different historical events that have been identified as central to the creation and re-creation of reindeer property regimes in Norway. As such, my study brings together ideas that have often been divided by discipline. An important test of validity of the GPR theory has been its ability to create a coherent study that can account for, unify and explain this diversity of cases and the myriad of changes over time.

At this point, one might question if the conclusions drawn from a single case can form a valid basis for theory development. To such a challenge, I would once again point out that the study hardly stands alone. Rather, it builds upon the work and insight of many others. The

general property regime theory neither contradicts nor opposes CPR theory. Instead, it recognizes CPR theory as being defined to address a special case: where there is a convergence of needs and interests among agents with respect to a (common pool) good at a particular point in time. GPR theory attempts to broaden the generality of CPR theory. Similarly, the insight offered in the theoretical work of Burns and Flam (1987) and Burns and Carson (2005) are central to GPR theory. Whilst these studies have been more focused on policy regimes and organizational arrangements, GPR theory extends the work to include property regimes. My own modest research achievements, therefore, rest firmly on the broad foundation of the many that have gone before me.

Introduction- Reindeer Property Regimes in Norway

The empirical case chosen for the study is property regimes in regard to reindeer in Norway.

Claims over reindeer have a long, rich history in Norway. From ancient times, furs of wild animals were a scarce and valuable resource. From ancient times, the northern inland areas of Fennoscandia were considered by most to be uninhabitable by all but the Saami⁴⁵ people. Outside authorities recognized that a decline in Saami production would negatively affect their own power base - with the result that agreements were made protecting Saami hunting rights⁴⁶ (Odner 1985:5; Vorren & Manker 1957:200). The Saami controlled the coveted resources of the tundra, a control which gave them power. But the power was by no means absolute. The Saami traded with Birkarls from Finland, were plundered by the Vikings, and were taxed by up to three different states. Tributes to kings were demanded in kind and consisted "... of the skins of beasts, the feathers of birds, whale-bone, and ship ropes made from whale-hide and sealskin." (Ohthere 892/1984:20)⁴⁷. Did interests to secure more hides

⁴⁵ The Finnish Saami historian Korpijaako-Labba explains that the term Saami, based primarily on ethnic criteria, is largely a reference to the people who lived in Lapland and used the natural resources for fishing, hunting and pasturing (1998:172, 179). There is no consistent use of the term. A common factor often referred to is a type of asbestos ceramics found throughout the area Saami traditionally occupied (see Figure 8, p.82). Language is also an important uniting factor. Paine, an anthropologist with extensive experience among Norwegian Saami, explains that the term "Lapp" was an administrative term, used to categorize groups of people (1957a). It was used by the national census bureaucrats to refer to those who possessed and used the Lappish language. Relics of this term are still to be found in geographical place names such as the reference to the northern areas of Norway and Sweden as Lappland. During the past three decades there has been an increasing recognition and pride in reclaiming a Saami ethnic identity. In conjunction with this, the Saami people throughout Fennoscandia have chosen to identify themselves through their own national belonging, their own language and cultural ties - as the people from the land of Sapmi. It was in conjunction with this that they took in to use their own term for themselves - Saami (also written Sami, Saami, Sami, or Samek). In this paper, this general use of the term is used. For consistency, and out of respect, the term Saami is used throughout the paper despite the fact that in earlier periods the term Lapp would have been common vernacular.

Of the approximately 4.5 million people living in Norway, about 30,000 have registered themselves as being Saami, i.e. less than 1% of the total Norwegian population. Less than 10% of these Saami currently herd reindeer (Paine 1991:388). Dependent upon the definition used, it is estimated that the total Saami population is somewhere between 60,000 to 100,000 people (For reference to the current bureaucratic definition, see the chapter on International Influence). In addition to the 30,000 to 40,000 Saami who live in Norway (of these there are an estimated 2,200 reindeer herders), there are approximately 17,000 in Sweden, 6,000 in Finland and 1,900 in the Russian Federation (Helander 1994:23,27). Although a minute percentage of national populations, the Saami continue to represent a substantial percentage of those living in the interior areas of the northern-most areas of Norway.

⁴⁶ "In an agreement from 1328 between the (Swedish) people of Halsingland and those who traded on the king's behalf (Talje agreement) it is stated that no one should hinder the Saami from their hunting (Odner 1985:5-6)." In 1584, the Swedish King declared that extensive areas of the north be left to Saami use (Vorren & Manker 1957:200). And "... as late as the 18th century, the Saami were still able to invoke the principle of special right vis-a-vis intruders, though, by this time, such pleas were usually ignored" (Hauglind and Minde 1980 cited in Odner 1985:5-6).

⁴⁷ In 872 AD King Harald I, the first king of Norway, sought to solve his access problems to the northern resources by declaring as his property "all the lands, waters and seas" (Sandberg 1994). This was a declaration of divided access rather than absolute ownership. Through this, the King claimed the rights to his "fair share" - when, for example, a whale was killed, the King owned half and the people in the area owned half (Sandvik 1993 cited in Sandberg 1994:11).

on a regular basis create the impetus to begin herding, to have closer, more predictable access to animals? Maybe. In about 890 AD the Norseman Ottar (also written Ohthere) informed King Alfred of his trip to the north of Norway, and of his knowledge of the Saami and their herds of reindeer. There are different interpretations of his writings - of whether, as many believe, Ottar in his reference to his personal ownership of 600 reindeer exaggerated to earn prestige with the foreign king.⁶⁶ What is clear is that long ago the relationship between some Saami and reindeer shifted from hunter and hunted to owner(s) and owned.

For some Saami, reindeer herding was to become a way of life. For some, reindeer came to be an economic commodity, but even among these groups other ways of valuing also remained important. Throughout the processes of change over many years, the arenas within which Saami herders act have grown from an arena defined by the location of the Saami themselves - where interaction with others was largely restricted to who could be reached by foot or sled, to global arenas. The number and variety of actors has grown similarly. It is no longer only outside actors who come to the Saami. The Saami have also sought out and created new arenas to strengthen their claims to access, use and management of both reindeer and the associated resources involved in management and use of them. This widening arena has brought with it new impulses for change, new struggles to exert differing perspectives, values and interests in:

- who can claim,
- what is claimed,
- who has a right to define these things - who has a right to be included in making decisions, and finally,
- how costs, benefits and risks of resource access, use and management will be distributed among recognized claimants.

Today, there are Saami who continue to own reindeer, but over time the Norwegian state has used its political authority to constrain the potential claims to these animals. The state is involved in setting limits to: the number of reindeer that can be owned, who can own and how

⁶⁶ Ottar was a wealthy Norwegian landowner. In a meeting with King Alfred of Wessex he related the story of a voyage he took to northern areas of Norway. King Alfred, in turn, recounted this as an addition to his translation of *Orosius*. Ottar specifically mentions his ownership of 6 decoy reindeer. It is this which historians agree to as being the first written reference to tame reindeer. What is disputed among the many interpretations is to what extent the account refers to Saami moving nomadically with a large number of owned reindeer (Berg 1994a; Krupnik 1993; Laufer 1917/1974:95; Meriot 1984; Storli and Sara 1997:10; Wheelersburg 1991, see also translated manuscript Ohthere 892/1984).

claims to rights and obligations to reindeer are to be recognized and exercised. The constraints imposed by the state represent fundamental changes in the rights and obligations of the Saami concerning access, use and management of reindeer and their habitat. They represent fundamental changes in who it is that defines how reindeer are to be conceived. Underlying the Ministry of Agriculture's portrayal of reindeer is an interest in promoting a market economy. Inherent in this idea is an underlying assumption that: reindeer are commodities, commodities are interchangeable, and market price reflects the value of the product in question. In Norway, the main commodities derived from reindeer marketed outside of the Saami community are meat, fur and dropped antlers. Reindeer herding outside herding districts is minimal and within these districts it is limited to the Saami people. The price of reindeer products thus reflects the value of the slain or collected resource. But traditionally to the Saami, as with the animals of other pastoralists, much of the value of reindeer lies in the living resource - in its ability to reproduce, in the status and security of having a large herd and in the meaning to the community that reindeer herding provides to the very identity of what it is to be Saami. These are values that are not necessarily reflected in price, and are certainly not interchangeable. These are values of goods not captured in the concept of a commodity.

The following chapters relate the history of the formation and reformation of property regimes in regard to reindeer in Norway. The chapters are divided into three periods roughly defined according to the changing level of arenas that both Saami and others affecting reindeer property regimes in Norway acted within and upon. (For a chronological overview of the entire period, see Figures 6 and 7.) The first empirical chapter includes both historical background and the emergence of reindeer management by the indigenous Saami people. During this period, the most important decision-making arena for the Saami was their own *sii'da*, or local community group. The chapter follows changes in Saami use of reindeer as game to the ownership of a limited number of animals and finally to the management of some Saami moving together with large herds of claimed and managed animals by some groups of Saami. Together with this emergence of extensive herding was the differentiation and definition of three groups of Saami - Coastal, Forest and Mountain. Their differing interests to reindeer contributed to conflicts arising between them.

The state is recognized as an important actor in the second empirical chapter of this study. Decision-making arenas broaden to include the state. This brings with it different

perspectives, values and interests with respect to reindeer and different strategies between new actors and Saami as well as between groups of Saami. In addition to the state's direct role in rule and law-making, it is also seen to affect rule regimes created to reindeer even when it is pursuing other interests entirely - such as its interest in sovereignty. The chapter discusses the emergence of a number of laws concerning reindeer beginning with the Lapp Codicil, and including the Reindeer Law for Finnmark, the Common Lapp Law of 1883, the Additional Lapp Law, the Reindeer Pastures Convention and the Reindeer Herding Law of 1933. Whilst laws concerning reindeer are certainly central to an analysis of emergence and change of rules and rule systems, the chapter also discusses emerging practices concerning reindeer property regimes particularly the emergence of ear-marking, practices concerning the claiming of unmarked animals and the increase of theft of reindeer.

The third and final empirical chapter takes the period following World War II through to the shift to the new millennium (2000). During this period there is an increased participation by relevant actors in international arenas. Again, the chapter presents the emergence of laws (the law and the Act of 1978 and the Amendment of 1996). And, again, it discusses practices including both the case of hydro-power development in a pastoral area at Alta and herder's practices in their implementation of policies designed to rationalize reindeer production. The chapter also takes note of the effect of changing contexts - including both the effects of World War II in changing attitudes towards indigenous people and the effect of Chernobyl on reindeer, pasture and eventually on rules regarding use of both.

The three empirical chapters are each followed by a discussion relating the empirical findings back to the theoretical ambitions discussed in the opening chapter of my study.

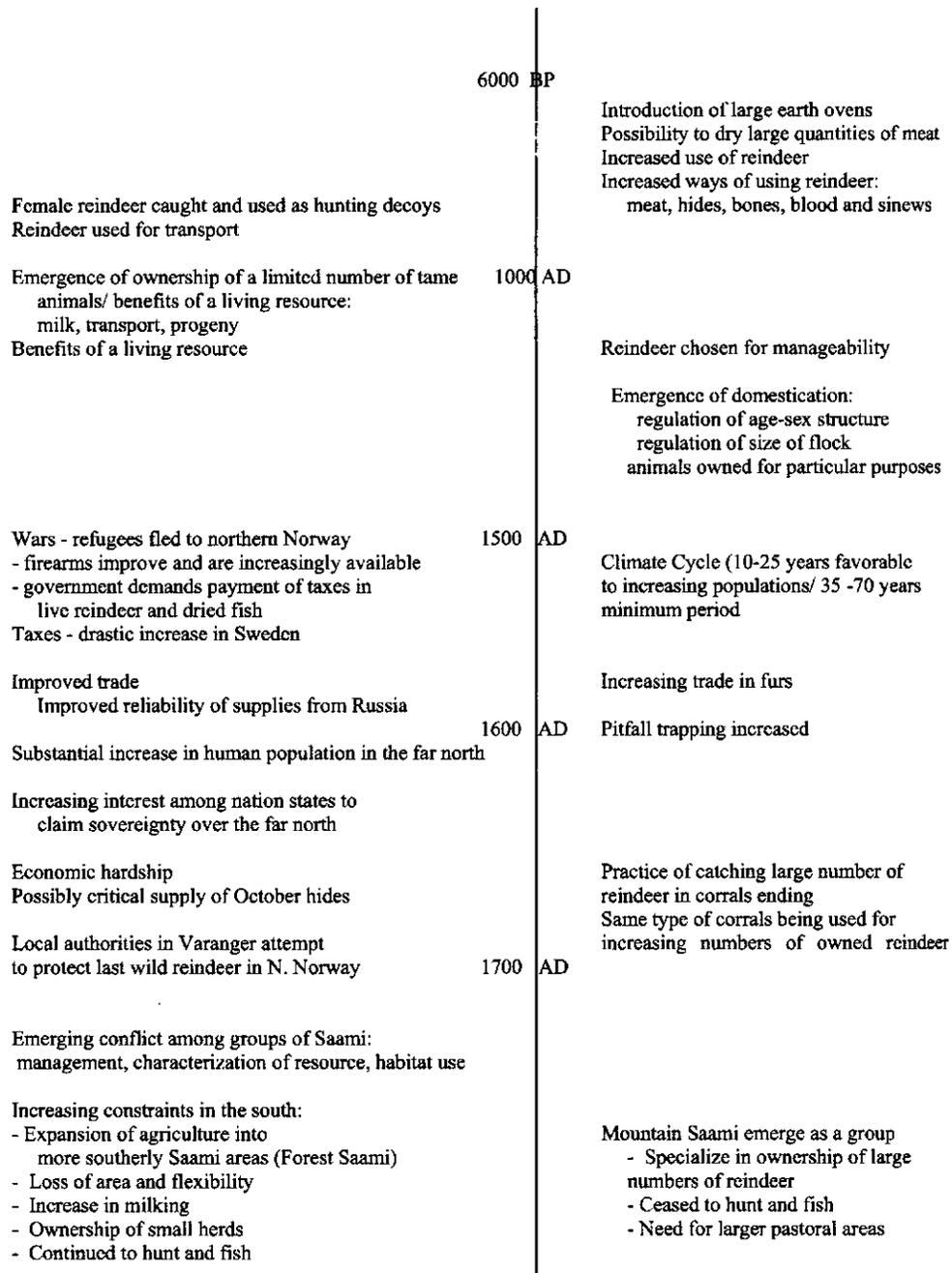


Figure 6. Timeline of the emergence of extensive reindeer herding, 6000BP-1720AD

Ear-marking emerges	1720	Thomas von Westen - extensive efforts to bring Christianity to Saami
Denmark/Norway and Sweden interested in establishing border/ sovereignty over northern most areas	1740	Lappekodusillen agreed to
	1751	Saami recognized as a "nation" Reindeer herding recognized as a profession Free movement allowed for reindeer herders across the newly established national border
Earmarks recognized by courts		
Finland comes under Russian rule	1809	
Border between Finland and Sweden established	1810	Game becoming increasingly scarce
Border between Norway and Finland closed and controlled	1845	First general game laws introduced
50,000 reindeer lost access to traditional pasture	1852	
National crisis in Finnmark	1854	
Reindeer Law for Finnmark		Increasing reports of theft of reindeer
Common Lapp Law (provinces south of Finnmark)	1883	
Common responsibility		
District divisions		
	1892	Period of Social Darwinism begins Additional Lapp Law Ministry of Agriculture established
Norwegian Game Law		Period of Norwegianization underway
Norway attempts to renege Lappekodusillen	1919	
Sweden rebuts - 30 years of negotiations result in Reindeer Pastures Convention of 1919		
	1933	Saami begin to organize (own newspaper) Reindeer Herding Law
Saami Reindeer Herders Association established (NRL) '48		
Hunting Law	1951	Reindeer Pastures Convention revised
Nordic Saami Council	1956	
Alta (1968 - 82)		Trollheimen case (1957 - 84) Reindeer Herding Act (1978) Period of Rationalization (1970's-80's)
Addition to Norwegian Constitution - protection of Saami culture (§110A)	1987	
Saami parliament created 1987/1 st session	1988	Korsjøfjell decision
ILO Convention Nr. 169		
	1996	Amendment of 1996

Figure 7. Timeline with respect to reindeer property regimes in Norway, 1720 – 2000

The Local Arena - Saami and Reindeer

Background: increasing interests to reindeer

The climate of the Arctic is harsh and highly variable. Historically, this environmental reality was considered to be an insurmountable hinder for most; an exception in the northern areas of Fennoscandia being the Saami people (see Figure 8). Survival here depended upon seasonal movement to enable the use of a variety of natural resources including bear, beaver, fish, moose and reindeer. Although petroglyphs from 6,000 - 2,000 years ago indicate interaction between people and reindeer (Helskog 1988; 2001, see Figures 9a, 9b), it appears that it was not until the Bronze Age that the inhabitants of the north began to increase their utilization of reindeer as their primary prey.

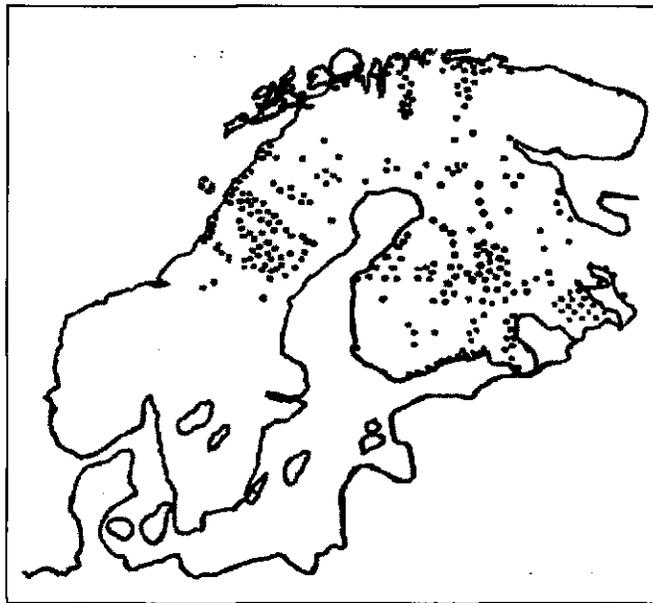


Figure 8. Map of Fennoscandia indicating areas where ancient asbestos ceramic remains are found. These remains are associated with the Saami people and are therefore believed to reveal their historical distribution. (Forsberg 1989:15)

Forsberg has traced the development of stone and iron tools, as well as the changing composition of faunal remains in different types and locations of campsites in northern Sweden during the period 6000 BP through 1000 AD (1989). He suggests that changes in technology, particularly large earth ovens, allowed for the drying of meat, and hence for food storage. This change enabled groups of Saami to increase their utilization of reindeer - a

species that due to its characteristics of both migration and flocking is available in large numbers for short periods of time. Forsberg argues that the dependence on reindeer as a primary resource continued to grow during the period 1000 BC to 1000 AD. Uses of reindeer broadened such that by the end of this period virtually every part of the reindeer was in use: meat and hides, but also sinews for sewing and bones for tools (ibid.). Supporting Forsberg's recognition of the particular importance of reindeer are additional evidence in the form of petroglyphs and other cultural relics, songs and narratives which have been passed through generations (Vorren 1974/75; Storli and Sara 1997, see Figures 9a, 9b), integration within the Saami religion including the spiritual recognition of a master and mistress of reindeer (*Tshorve Radien* and *Tshorve Edne*) (Hultkranz 1994:360, 366); travelers' reports⁶⁶ and the close to 1000 terms which Saami use in relation to them (Itkonen 1948 cited in Aikio 1989:176).

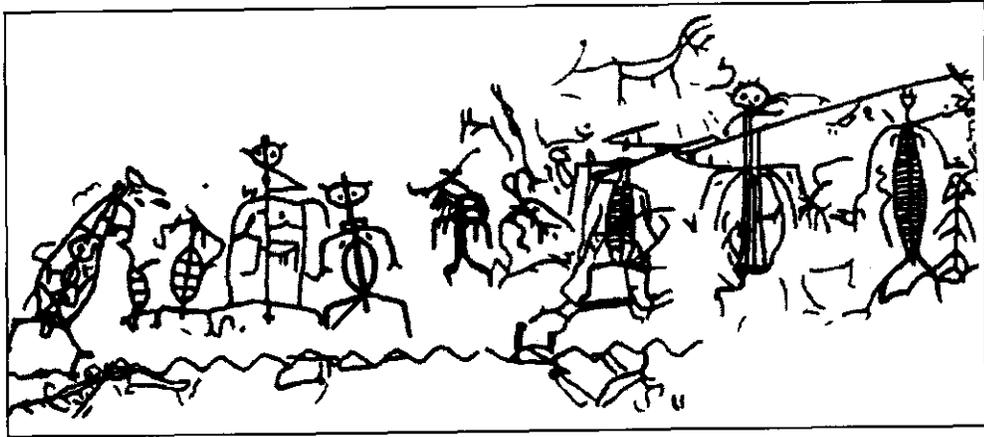
As a living, wild resource, migratory animals were presumably not the exclusive property of either particular individuals or families. This was the case in Norway more generally at this time, as is recognized in the ancient oral law, *Gulatingsloven*, §95.1, a modern translation being "[w]ith weapon, shall each and everyone have the right to hunt game, irrespective of who it is that owns the outlying fields⁶⁷." As with other natural resources - including wild foods, water and trees - it was most likely only after individuals did something to reindeer either alone, or together with others, that they would have had any recognized claim to use⁶⁸. Woodburn, an anthropologist doing work on hunter and gathering societies, has suggested that this seems to be generally true of all goods in a society where there is no protracted production process involved and where there is no/limited means of storage or accumulating wealth (1982; 1998, see also Endicott 1988/1997).

⁶⁶ Paulus Diaconus (Vamefrid), in about A. D. 780, wrote the *History of the Langobards*. This is believed to be the first reference to the Saami use of reindeer, although they are not named explicitly (Meriot 1984: 373).

⁶⁷ The *Gulatingsloven* is an ancient law code. It was originally oral and was passed on through chosen individuals. In the original *Gulatingslovens* § 95.1 reads, '[v]apnom skal dyr veida, hvar sent ma, hverr sem mœc a.' It was translated by Professor Brandt, "*Med Vaaben maa enhver veide Dyr som kan, hvo der saa eier Skoven*" And then given a modern translation by Professor Robberstad, "*Med vapen skal kvar og ein (hava rett til a) veida dyr, kven det so er som eig utmarki* (Lier-Hansen 1994:91).

The term "outlying fields" is a translation of the Norwegian term "*utmark*" - a particularly difficult term to translate. It refers to the area beyond that directly associated with buildings and plowed agricultural lands. In modern usage, the term carries with it recognition of the common rights of access for each and everyone to walk/hike, and collect berries and mushrooms (*allemannsretten*) in these areas.

⁶⁸ For general discussion on rights among hunting and gathering groups, see for example: Barnard and Woodburn 1988/1997; Dowling 1968; Leacock 1954; Testart 1987; Woodburn 1998.



Figures 9a, 9b. Examples of petroglyphs of Saami hunters and reindeer found in Norway. The depictions are from Hemmeluf/Jiepmaluokta in Alta. They represent different periods. The top picture is from 6200 - 5200 BP. The bottom picture is estimated as having been made from 5200 - 4000 years ago. (Helskog 1988; 2001:6-7).

Recognized claims may have been as Locke suggests with respect to all "wild beasts", *res nullius* property - things which had never previously had an owner and are thus considered the property of the captor or captors - of those who applied labor to procure the animals (1698/1997:V§28-30). In a similar vein, Barnard and Woodburn suggest, "... what I as an

individual obtain or make by myself - the berries I pick, the digging stick I make - is mine on the apparently universally recognized grounds that work (including the exercise of personal skill and creativity) transforms material things into property" (1988/1997:24). Labor is an often cited and recognized basis for justifying claims made in regard to access and use of goods. Such claims are often individual claims. Hunting of reindeer is often done collectively. A group of hunters, or at times an entire community, may join together to ensure a successful hunt. Reflecting this, it is found that within hunting societies, the particular means of claiming access and user rights to a slain animal varies⁷².

Evidence suggests that this was the case among the Saami. For example, archeologists working on Kjelmøy, SOT Varanger, Norway, have found identity marks etched onto arrowheads. Given the use of these types of marks in other hunting societies, the Norwegian archeologist, Olsen, in writing about the find suggests that also the Saami marks were used as a means to identify the hunter⁷³ (1984: 109-110, see Figure 10). Nonetheless, the marks do not necessarily indicate that the successful hunter could claim all rights to use of the slain animal. A hunter's rights to large game animals within a hunting society are often limited to the right to distribute the game and/or the status associated with having hunted successfully over time⁷⁴. Olsen surmises that given the relatively few bone arrowheads found with identity marks on Kjelmøy, that the marks were only used by a limited number of the men participating in the hunt (1984:110). Among the North Alaskan Eskimo, Spencer reported this to be the case (1959). According to Spencer, hunters would not use a mark before they felt they had acquired the skill and prestige necessary to justify their having it. The plausibility of similar use of such marks by Saami hunters is strengthened by a special social practice. Successful hunters were buried in sacred places, reserved exclusively for this purpose (Leem 1767/1978:457). In other words, although those with identity marks did not have exclusive rights to the use of reindeer, their abilities and skills were recognized by special status not only in the present, but in the ever after, too.

⁷²See for example Barnard & Woodburn 1988/1997; Boas 1899; Dowling 1968; Marshall 1961; Thomas 1959.

⁷³ Similar uses for such markings are/were found, for example, among such diverse groups of hunters as some groups of Alaskan Eskimo (Boas 1899; Ford 1959:126,133; Spencer 1959:150; Stanford 1976), Bushmen of the South African Kalahari (Thomas 1959:167; Marshall 1961:231-249) and among the Barak of Malaysia (Endicott 1988/1997).

⁷⁴ For general discussion, see Barnard and Woodburn 1988/1997:25; Dowling 1968:505.

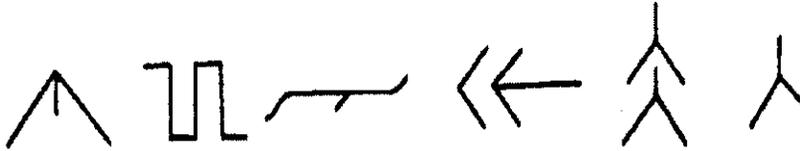


Figure 10. Illustration of property marks found on arrowheads on Kjelmiay, Norway (Olsen 1984: 111)

Although some reindeer were killed with arrows, most were trapped and slain as the result of group effort. In a book concerning relatively modern hunting groups, Blehr goes so far as to argue that, "...when a hunting society became dependent on *tarandus* [wild reindeer] as a resource, success was possible only through the use of one or more ... communal hunting techniques" (1990:322). In other words, given the characteristics of reindeer to migrate in large numbers, a communal effort was the surest means of capturing them. When hunting is planned based on the knowledge of animals' migratory routes and behavior, communal hunting is a reliable means of gathering large numbers of wild animals and ensuring that they can be killed. Evidence of ancient traps and fences, as well as the division of labor found in many hunting and foraging societies, suggests that a defined group, often familial, not just the individual captor, was directly involved in the hunt and would have had certain rights to the catch (Vorren & Manker 1957:91,175). With specific reference to the Saami, Meriot writes,

The fruits of the hunt belonged to all the members of the community irrespective of whose lands were hunted. The gains of the hunt were shared out in proportion to the number of males over one year old in each participating family. All those who had been called by the organizing committee to take part had a right to a share of the profits. The only people allowed to benefit without being physically present were the old people, those without means, or people either permanently or accidentally handicapped, who were unable to provide for themselves ... Over a long period, the whole *sii'da*⁷⁵ cooperated and each member had his particular role to play. (Meriot 1984:379, see also Odner 1992a: 28-29.)

Typical of hunter societies where natural resources are readily available, the Saami are believed to have been an egalitarian society at this time. Although access to particular animals fluctuated throughout the year, the variety of fish and game available in this area of the tundra meant that a supply of food was basically stable and plentiful throughout most of the year, given low human demographic pressure (Syroechkovskii 1995:180-81). Families often

⁷⁵ Saami traditionally lived in groups of families referred to as *sii'da*. The number and composition within the group often varied both seasonally and annually. For a discussion see Odner 1992b; Sara 1993; Storli and Sara 1997.

spread during the summer gathering again during the winter in small groups, *sii'da*, but they were not dependent upon doing so. As a result, groups were flexible in size (from a few families to up to 20-30) both throughout the year and from one year to another.

At times the need for collective action and decision-making arose within and between *sii'da*. To address such issues, each *sii'da* chose a leader(s). Leadership was either based on a group with one person from each family, or one person who was chosen to lead (*sii'da-ised*), often based on an evaluation of skills and respect for age⁷⁶. There were a number of functions associated with this role. The *sii'da* leadership group or *sii'da-ised* organized and coordinated what needed to be done with respect to common work, or obligations, to be carried out, as well as distributed rights to access and use of hunting and fishing areas among families. In addition, ~~s/he~~they represented the *sii'da* to the larger society by, for example, collecting taxes from the group. The position also included the role of judge. If the *sii'da* members were dissatisfied with the decisions of a *sii'da-ised*, they chose a new leader (Dunfjeld 1979:8; Vorren & Manker 1957:175). Revealing the balance of power among the Saami, it was not the leader's role to impose universal prescriptions. Rather, the *sii'da* was an egalitarian forum, a forum where particular problems require judgment of a specific case and its context⁷⁷. Changing configurations of the *sii'da*, together with shifting leadership and many, if not most, decisions being taken by consensus, continue to be elements of Saami decision-making. The term *sii'da-ised* also continues to be used among reindeer herding Saami with reference to their chosen leaders (Beach et. al. 1992; Paine 1994; Sara 1993).

Whilst originally the concept of *sii'da* is associated with a particular territory⁷⁸, there is reason to be cautious in identifying it with ideas of clearly defined borders demarcating mutually exclusive user rights to all types of resources within a specified land area (Odner 1992b)⁷⁹. Rather than land ownership, rules concerning access and use within a *sii'da* were associated with forms of activity and the ecosystems where these activities took place. The boundaries between *sii'da* were usually naturally occurring borders such as rivers; what Vorren (1989:11) refers to as ecological borders, occurring as a result of the type and manner of natural resource use rather than mediated and strictly defined lines emanating from power struggles. In a

⁷⁶ Although usually a man, the leader could be a woman.

⁷⁷ For general comments on the topic of egalitarian forums, see Burns and Flam 1987:54.

⁷⁸ For a discussion on the concept of *sii'da*, see Eidlitz/Kuoljok (1985).

⁷⁹ For further discussions on the concept of territoriality, see Endicott & Endicott 1986; Powell 1997; Rodgers 1963; and Ruggie 1993.

comparable situation among the pre-colonial Indians of New England (USA), the ecological historian Cronon writes, "[conceptions of land tenure mimicked systems of economic use" (1983:72). Just as the composition of the sii'da itself was fluid, dependent on natural and social conditions, there is reason to believe this may have been the case with respect to adherence to particular territories. Under most conditions, agreed upon areas offer safety to the group from possible enemies, reduce potential conflict and ensure an adequate supply of resources⁸⁰. They also ensure that people from other sii'da do not unnecessarily disturb game, and hence scatter them (Odner 1992b: 80).

For fish within a particular lake of limited size or for animal species that have limited and clearly defined territories, defined boundaries may be unproblematic. But for some essential natural resources collected by the Saami, strictly adhered to borders would have prevented them from collecting vital resources, at least occasionally. Although there is great seasonal variation, reindeer migrate most often in a pattern that is "regular or expectable". They tend to be concentrated in high numbers for short periods. There are also - given physiological changes in reindeer throughout the year - particular periods where the quality of meat and milk (fat content) and/or hides (warmth) is preferred (Driver 1990). Agreed upon rules of use and access would be designed to take such things into account. In other words, it was not simply a question of allocating rights to a stipulated quantity of reindeer. Agreed upon rules would have also included distribution considerations with respect to variations of quality of the potential products⁸¹. In addition, movement of reindeer affects the location and timing of herds, and the size of herds and behavior of animals also vary. Agreed upon rights of access reflected all of these things, environmental conditions (animals' physiology, climate conditions) as well as the interests of the people (quality of meat, fat content, quality of hides) and therefore, the resultant need for flexibility⁸² in rules concerning rights - and constraints to rights concerning access and use of reindeer.

⁸⁰ According to Dentan, under direct confrontation with enemies, the generally non-violent Saami take flight, picking up, moving and hiding rather than fighting (1978). Golovnev & Osherenko report this same type of behavior with respect to the Nenets in Siberia (1999).

⁸¹ See, for example, Arrow 1996:xiv; Hiatt et al. 1968:155-6; Ingold 1980:244; Odner 1992b: 87-93; Syroechkovskii 1995:180-181; Tanner 1979:182-3.

⁸² There is a growing literature that points to findings of rules that rather than being highly specified are designed to be flexible. According to these studies, such rules and rule systems are developed as a means to access, use and manage fluctuating resources, such as wildlife, fish and pasture. See, for example, Behnke 1994:7; Naughton-Treves 1999; Scoones 1995a, 1995b; 1999; and - with relation to fish - Buck 1989.

This is exemplified in the work of Odner who reports on residual rights of Saami from different sii'da within other sii'da - such as coastal fishing rights (1992b).

Activities that concerned the local groups were commonly confined to the areas that had been allocated to them for fishing, hunting and pasturing purposes. If one family proved to be a nuisance to other groups, it could be removed to another part of the territory (Tanner 1929:356). Without permission it was generally forbidden to hunt or fish in the allocated territory of another group. However, hunting could be permitted if a person who temporarily visited informed the host about his intentions, and handed over to him a chunk of meat from the carcass after the kill had been made (Tanner 1929:361-2). That is: symbolically acknowledged the host's first right to hunt. Some resources seem to have been outside the jurisdiction of the sii'da. Thus, as far as I can understand, fishing in the salt sea was also open to members of other sii'da. (Odner 1992b: 89).

For the largest hunting efforts, where many people needed to be working together to ensure that sufficient kills were made, the capture would have been divided contingent, for most, upon participation. No one was refused the right to join in the hunt of reindeer and seal which were available in large numbers for limited periods of time. Similarly, salmon fishing during their early spring migration and whale hunting, particularly for those sii'da along the coast, were collective efforts that tended to include, rather than exclude, people from other sii'da (Sillanpaa 1994:38). Dunfjeld reports that also access to beaver may have been dealt with in this manner (1979:8). In contrast, where individuals hunted and/or fished independently, they may have retained use for the immediate family (Vorren 1989:18).

In addition to considerations of the characteristics of the animals and different ways that actors valued them, agreed upon rights to claim reindeer may also have been defined through considerations of social affiliation. Writing particularly of the adaptations of Coastal Saami, Engelstad argues that being in such a harsh climate would seemingly necessitate that any enduring claim to natural resources in this area would also need to include social ties to others as well as the knowledge, skills and technology that would make accessing them possible (1984:20). More specifically he suggests that small task groups within or possibly between sii'da, which varied in "duration, composition, amount of cooperation, and degree to which the resultant product is shared ..." would have allowed the Saami to respond to the fluctuation of resource availability and abundance.

Rules regulating access accommodate the type of resource, its characteristics and consideration of constraints imposed by particular situations. With respect to the latter, no individual, or family, is expected to starve. Even today, the Saami use an expression (*mis Ice*

vuostasriek'ti) to refer to the first right to resources. It recognizes intra- and inter-community mutual aid and reciprocity; that others who might come into dire situations have the right of access and use should the situation require it (Hagvar 1989:143-4).

Although differing from exclusive claims to all rights within a particular land area, it is clear that the Saami both recognized and acted on agreed rules designating and enforcing claims to natural resources. Particular rules to particular resources, such as reindeer, were created based upon a combined evaluation of the characteristics of the good in question, the type of effort required and the technology available to access, harvest and process it, ideas of territoriality and the social context within which they were found.

The emergence of reindeer management

The transition from hunting to herding of reindeer marked a major change with respect to the types of claims made on reindeer. Understanding this from a perspective of property regimes may provide some insight to one of the questions that continues to be debated with respect to the history of reindeer herding, namely "What actually took place during the domestication process in the transition from hunting to herding reindeer?" It is suggested here that the transition is best understood as a continuum⁸⁴, rather than any type of sudden change from one state to another. Simchenko (1976 cited in Pitul'ko 1999) has suggested that from the beginning of the Holocene, the most common feature of reindeer hunters was seasonal migration within a particular area. Reindeer, in turn, are attracted to the salt in human urine (Leem 1767/1978:402; Solem 1933:9) and to the smoke from fires as a protection against biting insects (Gran et al. 1992:20). The ownership of a few tame animals may have come about in that after years of moving with the reindeer, the reindeer became accustomed to the

⁸⁴ The question of why the arctic people of Fennoscandia shifted from hunting to herding continues to be debated by a diversity of scientists from different disciplines. Examples of these include: Beach et al. 1992; Berg 1994a; Forsberg 1989; Golovnev and Osherenko 1999; Hambleton & Rowley-Conwy 1997; Ingold 1980; 1986; Krupnik 1993; Laufer 1917/1974; Lundmark 1989; Meriot 1984; Storli and Sara 1997; Vorren 1944, 1974/1975.

⁸⁵ In this study, continuum is a reference to variation between extremes - not an evolutionary transition from one particular state to another through time. Salzman uses the concept with relation to discussions about the migrations of pastoralists stressing variation due to the variety between, and variation of, factors which herders must take into account including timing, direction and length of a move; as well as non-economic factors - social, religious, health and political (1975). Later in the paper the concept of continuum will again be used to underline the variation of ways of herding among Saami, particularly with reference to herd numbers and amount of control over animals (see sub-section "Differentiation between Groups").

Saami (Krader 1959), that as Morey suggests with respect to the dog, a new niche opened where association with human beings gave some animals an advantage⁵⁵ (1994).

People would also have recognized the advantage of this, the location of the animals, for example, being more predictable. Saami nomadic traditions of moving seasonally from place to place would have been retained, both because of the reindeer and their wild counterparts, and to enable the Saami to continue to collect other game, fish and timber, needed for their daily life and for trading with sedentary or "fishing/coastal" Saami and other settlers along the coast. The knowledge, skills and the technologies acquired whilst hunting reindeer, would have remained relevant and applicable to the emerging relationship developing between these groups of Saami and the reindeer. The reindeer presumably would also have continued much as they had: moving between different types and areas of pasture, but where some management decisions were now taken by people and more protection being offered against predators (Zeuner 1963). As a first step towards domestication, this substitution of human for "natural protection" would have altered selection pressures.

There is reason to distinguish between two periods with respect to taming and claiming of herds of reindeer - a long period with relatively few tame animals and a later period characterized by pastoral herding of a larger number of animals (Krupnik 1993; Sara 1993; Solem 1933). During the first, the Saami began to tame a few females that they tied to trees

Morey proposes that dog evolution is "best viewed as the product of selection pressures in a new ecological niche, in this case a domestic association with human beings" (1994:336). Behavioral compatibility, he suggests, was a major determinant for the establishment of domestic populations. Morphological change, including smaller overall size and the length of the snout being proportionally reduced, distinguish the dog from their wild wolf relatives. "Surely, the consistent appearance of these traits in animals living within so many different cultures raises the possibility that some selection pressure other than human preference brought about the changes" (ibid. 341). This has been further supported by the findings of zoologist Wayne who studied the sequence of DNA in modern canids (1993, see also Belyaev 1969 and Trut 1999 with respect to foxes). Wayne concluded that, "[d]ogs are gray wolves, despite their diversity in size and proportion; the wide variation in their adult morphology probably results from simple changes in developmental rate and timing" (1993:220). Morey concludes, "[i]t is important to stress that a domestic relationship does not mean that natural selection has become something other than natural. It is not a process that distinguishes human factors from others in the environment. Natural selection is simply the statistical summation of the reproductive fates of organisms that use their physical and behavioral equipment to compete for genetic representation in the next generation. Dogs are no exception. Tameness and other traits were the currency of competition from the onset of the domestic relationship, regardless of whether people had goals for the animals or were even aware of what changes were unfolding" (1994:346). Intentionality is what Morey questions with respect to domestication. He does not deny selective breeding, which he underlines has been tremendously important in establishing the variety of breeds of domesticated animals. What Morey questions is the need for "purposeful action" in the initial domestication process. Over time this process has resulted in genetic differentiation between populations of animals. Rindos presents a similar view: "[m]ethodical selection is thus a systematic endeavor to modify a breed according to some predetermined standard, whereas unconscious selection is merely the result of man's immediate actions in effecting, over time, a change in the domesticate's gene pool" (1984:2). The processes are the same. Reindeer domestication, at least initially, was a result of the latter of these two processes.

to lure in males during the rut (Laufer 1917/1974; Othere 892/1984). Simonsen, an archeologist, argues that among the Saami of northern Norway, there was a major and sudden shift in migration patterns in the period 200-300 AD (1972). After hundreds of years, the Saami changed from residing in winter camps along the coast to using these areas for summer camps, and likewise shifting their seasonal use of camps in the mountains. He reasons that "... every type of reindeer nomadism, even the most primitive combination of it with hunting and fishing, makes it necessary for the reindeer owner to follow the herd the whole year, not like the huntsman. ...Thus the reindeer owner has to be at the coast in the summer, and inland in the winter, since this is the annual cycle of the reindeer herds"⁶⁶ (ibid.: 191). Whilst compelling, the idea of a continuum, with different adaptations to fluctuating occurrence and abundance of resources among both groups and areas, is perhaps a more appropriate way to conceive of the change. It is in line with this that other two archeologists (Engelstad 1984; Renouf 1989) have challenged Simonsen's claim that there was an exclusive use of the coastal area. In addition, Olsen presents archeological evidence that indicates that summer habitation may have begun up to 800 years earlier (1984). Odner adds his skepticism that such small herds would have required the Saami to migrate (1992a: 33).⁶⁷ In Simonsen's support are pollen analyses from northern Sweden which also indicate that from early in the first millennium the settlement pattern follows the cycle of reindeer, away from earlier camps held near lakes, rivers and the ocean in the summer (Aronsson 1991:101). Given the extensive area that the Saami inhabited, its ecological variation and interactions of the different groups of Saami with others, it is likely that variations of adaptations were introduced and practiced at different times in the various areas. Nonetheless, although the

*** Faunal remains from the site in the first period (1500 BC - 0) have a distinct winter character - there are remains of species that are only available in the winter, permanent dwellings with possibilities for having fires indoors and burials which took place on the surface as the ground would have been frozen. In AD 200-300 there was a change. Remains from summer species are found, dwellings are more typical of summer and burials are deep. "Immigrants could not have altered the environment, but would have had to acclimatize themselves to it. There could only have been one exception to this rule: that the immigrants - or the cultural influence - brought with them an innovation in daily life which altered the relationship between man and nature, making him independent of nature or opening up to him a new ecological niche. Such an innovation was reportedly found in central Siberia 300 years earlier - domestication" (Simonsen 1972:191).**

The migration pattern referred to by Simonsen is that found in the provinces lying farthest north, particularly Finnmark and Nord-Troms (1972). Reindeer in the areas from Sar-Troms and south including Nord-Trøndelag, often migrate to the coast in the winter. This is primarily because the coastal areas are milder than the inland mountainous areas that are prone to icing and large quantities of snow during the winter (Dunfield 1979:12).

" In an archeological study, Hambleton and Rowley-Convy argue that the bone remains indicate that the age structure is inconsistent with what would be expected for a herd raised for meat, and therefore conclude that the reindeer that were utilized were wild (1997:69). However, it is argued in this paper that the tame reindeer that the Saami kept at this time would have been valued as a living resource. Therefore the authors' reasoning for dismissal of owned reindeer at this time seems problematic.

variation may have been substantial at any particular point in time, an historical perspective indicates common trends.

There is clear evidence that Saami tamed and castrated male reindeer for transport⁸⁸. Historical records, including the *Historia Norvegia* (1180-1190), refer to the Saami as nomads who moved from one place to another on skis or reindeer (Meriot 1984:373). Just as the innovation of drying meat opened up new opportunities for the Saami with the new possibility for storage, the innovation of reindeer drawn sleds allowed for an increase of both the distance that could be traveled and the amount of things that could be moved, and therefore accumulated (see Figure 11)⁸⁹. It then becomes significant that all sii'da included waterways that in addition to providing access to vital fishing resources, also served as transportation routes in both summer and winter (Vorren 1989). Sleds also made it increasingly possible for outsiders to gain access to the Saami. "Certainly," writes Vorren "if the reindeer had not existed as a means of transport, the exploitation of Lappland [northern Norway and Sweden] by different States would have been hampered (1974/75:250)". This may help to explain references, already from Ottar, that non-Saami owned reindeer that Saami shepherded (ibid.; Ohthere 892/1984). The new technology, therefore, not only transformed how much could be owned and what the Saami were able to do, it also transformed the access others had to them and how both they and others could utilize the environment. Reindeer sleds were so effective (and alternatives so limited) that reindeer remained important for transportation in the inland areas of the far north all the way through to the late 1800's when roads and railroads were constructed (Aronsson 1991:104-5).

The climate and terrain of the tundra contributed to the Saami living quite independently. This is not to say they did not interact with others. On the contrary, trade, plunder and tax collection were repeating events in their lives. Trade came to be well established⁹⁰. But, it was not regular and markets, when available, were highly limited with erratic supplies

⁸⁸ "The only conclusive differentiation between tame and wild skeletal remains of reindeer is to be found in the remains of castrated males, as there is a clear differentiation in their horn structure. Other indicators which are used include the skeletal remains of different aged animals (finds of predominately adults is typical of hunting), finds of juvenile teeth (indicating their presence in the camp) and finds of the complete skeletal remains in the camp (antlers of wild animals are often left at the slaughtering site)" (Hambleton and Rowley-Conwy 1997, see also Vorren 1974/75).

⁸⁹ Burch has found sleds to be a crucial factor for enabling property accumulation among Eskimos of northwest Alaska (1975; 1988). "The umiak was important in this respect, but sleds were nearly as helpful during the winter months" (Burch 1988:107).

⁹⁰ See, for example, Olsen 1987:68; Sawyer 1984.

(Hansen 1984:70). Saami may well have chosen to incorporate trade as one of their many survival strategies (Hansen 1985a: 137-8). Supporting the assertions of continual albeit sporadic contact with others, the anthropologist Beach who did his field work on reindeer husbandry in Sweden writes that there is evidence of "... cultural, linguistic and genetic flows in all directions throughout all periods" (Beach et. al. 1992:56).

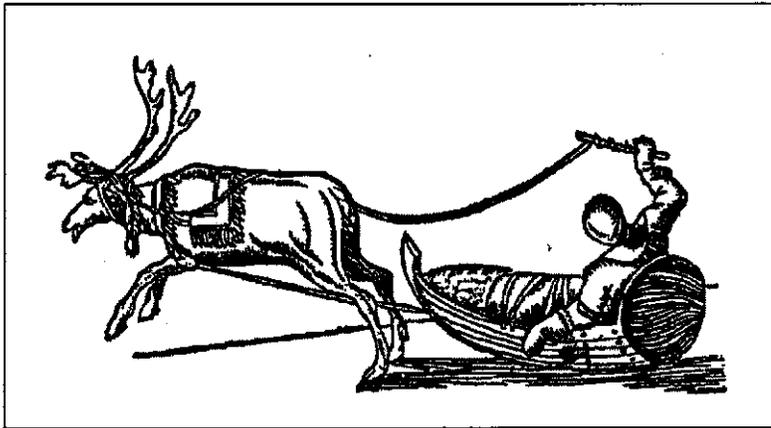


Figure 11. An illustration of reindeer being used for transport from Schefferus' book in 1673 (Vorren & Manker 1957:35)

One example of evidence of cultural flows between farmers and reindeer herding Saami is documented and described within the field of linguistic research. The Saami terms used for milk and milk processes are Scandinavian in origin from at, or before, the Viking period (Nissen 1914-16:54-5; Solem 1933:23; Wiklund 1923:224-5)¹⁰. There is reason to speculate that the Saami appropriated and transformed the technology they saw on agricultural farms, making it applicable to their own needs and preferences. As with meat that can be dried and stored, the high fat content of reindeer milk lends itself to long-term storage both through making cheese and through the Saami method of boiling the milk and then either freezing it for winter use (Leem 1767/1978:395) or pouring it into large barrels which were buried to avoid freezing such that they could be used during the late winter/early spring when other food sources were scarce (Falkenberg 1985:11). Evidence of milking is further supported by literary sources, including Magnus (1555), which refers to the milking of reindeer (cited in Korhonen 1989) and by tax records of Northern Sweden from 1504, where there is mention of milking herds of between 15 and 40 tame reindeer (Wheelerburg 1991). Over time, Saami

¹⁰ See also references to Rank 1965; Mebius 1965 cited in Anderson 1981.

women became responsible for milking; men continued to hunt and fish. Gendered patterns of reindeer management emerged together with the new uses of the reindeer. These cases indicate that for hundreds of years a limited number of reindeer were valued, used and managed long before the emergence of herding a large numbers of them (for pioneering work, see Hatt 1918; 1919; Wicklund 1923; for more recent work, see for example, Berg 1994a; Ingold 1980; Sara 1993; Wheelersburg 1991).

Herding as a way of life

Enabling conditions

Throughout the 1500 and 1600's many Saami remained dependent upon hunting, fishing, foraging and limited trade for life's basic necessities: for food, clothing, housing, and other everyday items (Hambleton & Rowley-Conwy 1997; Hansen 1985a: 127; Leem 1767/1978). In addition, some Saami had small herds of reindeer. The composition of their herds reflected how they were used: there would have been a large proportion of castrated males as these were used for transport, rather than a predominance of breeding does which one would find in a herd kept primarily for meat. As typical of transitions within agriculture, the Russian reindeer historian Krupnik refers to this extended subsistence period as having "...elements of *livestock breeding* that existed within the basic framework of a foraging economy" (1993: 163, emphasis in original). This refers not only to the types of selections the Saami made in having animals for particular purposes (transportation, milking), but also to their breeding decisions and actions such as regulating the age-sex structure and the size of the herd (ibid.: 103).

Large claimed herds appear in the 1600s; by the 1700s they are well documented. There are also reports from the late 1600's that some Norwegians owned herds of domesticated reindeer which the Saami shepherded (Odner 1992b: 17-18). The Norwegian archeologist, Vorren has spent much of his career investigating this period of transition (1974/75; 1980). He reports on the great importance of wild reindeer in areas inhabited by the Saami as evidenced by a great number of pitfalls and fence trapping systems which were built over several centuries. In one of his studies Vorren compares tax records that specify the general areas where Saami families were situated with archeological findings indicating the manner in which housing within *sii'da* were positioned. In addition, Vorren crosschecks his findings with written sources from the late 16th and early 17th centuries. His reconstruction of pitfall trapping systems together with his finds of elongated and narrow villages indicates dependence on

wild reindeer together with the emergence of large-scale nomadic herding. The elongated villages are a response to settlement along the route the herded reindeer take, whilst the pitfalls are to capture wild reindeer. Also Hultblad describes the changes of the early 17th century (1968:72-3). His work focuses on groups of Saami within Sweden. Hultblad reports that during this period collective reindeer hunting was still to be found but that rights to collective salmon fishing had been lost to the Swedes. As with the findings of Vorren, Hultblad also describes traditional cellular shaped sii'da being replaced by sii'da with elongated boundaries that he also accords to the new establishment of extended northwest-southeast migration routes. Additional evidence of a transition is supported by finds of corrals originally developed for trapping large numbers of wild reindeer. These are identical in form to those taken into use by the new extensive herders (Olsen 1984:231-233; Vorren and Marker 1957:51-3, see Figure 12).

Although extensive herding is believed to have occurred first among the Saami, evidence of similar changes are to be found throughout the entire Eurasian Arctic by the early 1800s² (Krupnik 1993). Krupnik in writing about reindeer herders of northern Eurasia refers to the changes in this period as a "reindeer revolution" both with respect to the speed and extent of them. The question of why remains a puzzle, but one where a number of pieces suggest themselves as being central. Krupnik argues convincingly that climate could have been favorable for the production of both wild and tame reindeer (ibid.: 170; 103). Reindeer populations fluctuate greatly in response to environmental conditions. Meldgaard shows that for wild Greenland reindeer, climate has the primary importance with respect to reconstructing demographical patterns (1986:65-70). Cool summers allow for the regeneration of lichen, the major food source of the reindeer during the rest of the year. In addition, reindeer are able to develop a rich layer of fat during a cool summer that aids them through the winter: they graze more and are less plagued by biting and disease-carrying insects. Reproduction rates are directly affected through both the improved endurance to rut among

² Syroechkovskii suggests that it was the Korvi-Izhemets who migrated into the Kola Peninsula from Pechora with their domestic reindeer herds that predicated the change to extensive herding in the north (1995:230). This study does not suggest that it is not entirely possible that other nomadic reindeer herding groups with whom the reindeer herding Saami may have come into contact influenced them. Quite the contrary. Nonetheless, the dates Syroechkovskii suggests (the late nineteenth century) fit poorly with other historical evidence documenting the transition, including the internationally agreed to *Lappekodusillen* of 1751 (see following chapter). In contrast to Syroechkovskii, Wiklund writes, "There does not seem to be any direct connection between the Lapp [Saami] method of reindeer management and that obtaining in Siberia, the westernmost offshoot of which is found among the Samoyeds on the tundras of northeastern European Russia" (1923:224). Wiklund's observation on management techniques supports, at least initially, that this does not appear to be a direct, or initial, explanation for extensive herding among the Saami.

the males and the fertility of the females. Similarly, stable winter conditions without heavy snowfalls and winter thaws, such that icing is at a minimum, allow access to food throughout the winter.



Figure 12. An example of a corral used in extensive herding closely resembling those used to capture wild reindeer. The photo is from Skapdalen in the Essand District. (Photo by L. R. Natvig, August, 1925, in: Falkenberg 1978: 39.)

Meldgaard discusses the large fluctuations of reindeer numbers among the wild populations, which reflect what he terms "reindeer cycles" (1986). He has shown that within these cycles, populations are at a maximum for a period of 10-25 years. This is followed by a minimum period that lasts from 35 to 70 years. In a maximum phase, the animals expand their range and in the minimum they retreat to inland areas, sometimes for the entire year. During a favorable period, with cool summers and cold winters, and without excessive snowfalls and icing, wild reindeer would have been more easily accessible to hunt/capture both in numbers and in distribution because of their expanded range⁹³. It remains a point of academic debate as to whether or not the Greenland studies are applicable to Norway. If they are, there is

⁹³ According to Meldgaard, "...the primary regulating factor is the existing weather and thus climatic change becomes the driving force in the long-termed population fluctuations. The effect of rain, snow, temperature, and wind on forage availability and growth is well known, and the animal movements of the caribou [wild reindeer] are ultimately determined by temporal and geographical differences in these climatic parameters. Also animal mortality and natality are to a large extent determined by factors such as thickness of snow cover, formation of snow and ice crusts following thaw periods, and weather conditions during calving. The existing weather thus seems to play a decisive role in the regulation of caribou numbers and the geographic distribution of the animals on a year-to-year basis" (1986:69).

reason to consider the implications this would have had in the Saami situation. An increased availability of wild reindeer would increase the opportunity for Saami to build up their own herds. During a minimum cyclical period that would have followed, the reduced wild herds would have retreated using more restricted areas. This would have meant that pastoral areas, previously used by the wild reindeer, would have become available to the increasing herds of domesticated reindeer.

Climate cannot explain why extensive herding came about, but it certainly could have enhanced the potential for change. Also, the growing acceptance by this time of rights to access and use reindeer and obligations to control and manage claimed reindeer and that others would recognize, respect and enforce these rights and obligations would be an enabling condition. As suggested above, during this transition the Saami would also have developed the knowledge and capability needed to manage and breed their claimed animals. Also this is an enabling structural condition. The exogenous climate factor may well have fostered the increased production of both wild and tame animals such that the Saami could depend upon hunting and trapping an increased number of wild animals whilst they built up their own herds. The endogenous factors of an understanding and acceptance of individual, familial and/or sii'da rights and obligations to use and manage, as well as the improved management and breeding capabilities of those claiming a herd similarly may have fostered the opportunity to increase the size of herds. These conditions would have provided not only an opportunity for change, but also a reward for the extra effort involved in managing animals. As we shall see, this was a turbulent period in the area inhabited by the Saami. Events largely external to them, to which we now turn, exerted increasing constraints on the existing lifestyle of the Saami which created need, and subsequently may well have served as catalysts of change.

Catalysts of Change

At the state level, three kingdoms (Denmark/Norway, Sweden and Russia) continued to vie against one another extending their power struggles from accessing the riches of the area to proclaiming their sovereignty. From the time of Ottar (892 AD) there is written documentation that the Denmark / Norway extended its interests to this region (892/1984, see also Sawyer 1984:53). The Vikings and merchants of Novgorod held supremacy in the twelfth and thirteenth century that later was replaced by Russian control. Sweden also made its claim. And with the

...dissolution of the Union of Kalmar in 1523, the claims of all the rival kingdoms reappeared. For example, though the King of Denmark-Norway forbade the Birkarls (Finnish traders) to levy trade taxes on the coastal Saami, Gustavus [Gustaf] Vasa turned them into official tax gatherers for the purpose of expanding Swedish territory. One of his successors, Charles DC, however, had to give up both his pretensions to Swedish hegemony over Finnmark and his expeditions to Petsamo and Kola, following the 1611 war against Denmark-Norway. (Meriot 1984:382).

In the wars that were waged, refugees fled towards northern Norway in search of both food and security. Throughout the 1500-1600s, numerous attempts were made at solving the border problem. The most tangible results concerned multiple taxation of the Saami; from an agreement between Russia and Sweden in 1593, and again in an agreement in 1613 in the aftermath of the war of Kalmar which allowed taxation of some Saami by both Denmark/Norway and Sweden (Bjarnar 1989:64; Hansen 1985b; Odner 1992b: 13; Aarseth 1982:23).

Prior to the double, even triple, taxation of the Saami, taxes or tributes were moderate, and often combined with trade. From the middle of the 1500's, payment for furs had begun to be made in butter and flour which reached the Saami in January/ February in time for the traditional bottleneck of food supplies in late winter/ early spring (Hansen 1982:48; Lundmark '1989; Orton & Beach 1998:92). Paine asserts that Russian trade at this time was both reliable and substantial providing grain not only for the Saami, but also for their animals (1957a: 54). In fact, in what appears to be a direct result of an increased and stable grain supply during the critical late winter period, Lundmark found that the population in Lule Lappland, Sweden, increased from 100 families in the middle of the 16th century to 200 families by 1610 (1989:34-5)⁸⁵.

This was an indicator that things were improved. But, they were not to stay that way. Kivist writes that as a direct result of the costs of waging war and the need to provide Swedish soldiers with food, taxes of the Saami in Sweden were drastically increased by decree in 1602 (1989:14). Rather than being demanded in hides, these taxes were required to be paid in dried fish and live reindeer. By this time both were valuable as commodities, but they were also

⁸⁵ For further information about this period, see also Jokipii 1987:13; Minde 1989:11-13; Wiklund 1923:228.

⁸⁶ Lundmark writes, "[c]oncerning the population increase after the transition to reindeer pastoralism, there is a remarkable correspondence between Krupnik's results for Siberia and the development in Lule Lappmark. Krupnik points out that the population increased 4-4.5 times in about 150 years among the western Siberia Nentsy and the east Siberia and Chukchee after the transition to reindeer pastoralism. In Lule Lappland there were about 100 families in the middle of the 16th century and at the population peak of reindeer herders in the late 18th century, there were about 400 families paying taxes in the area" (Lundmark 1989:37).

possible to use directly, as food for the soldiers. The drastic increase in taxes created a crisis among the Saami. The new taxation system crippled them economically. Not only was the amount high, the effect of change from payments in diverse pelts and other products which were additional resources for the Saami, to payment in fish and reindeer, was directly competitive with their own needs. And, their own needs had increased with their increased population. Food shortages and general poverty were reported by both sheriffs and Saami (Gothe 1929:58-9). By 1620, the government was forced to reduce the rate by half. By 1635, payment in live reindeer had disappeared completely, and the fish tax was further reduced to one fourth of the original amount (Kvist 1989:44-45). The extreme need that the Saami faced forced a change in Saami use of their claimed reindeer. Their ways of valuing reindeer had earlier led Saami to distinguish between uses of living, claimed reindeer and wild reindeer. During this period this distinction became blurred as the Saami began to use their claimed reindeer also for meat, a utilization that also the army was undertaking with its reindeer. This change in categorization, in conceptualization, of how their claimed reindeer could be used fueled in turn a growing interest and need to own more animals, as use for meat requires a continuous renewal of the supply.

It was also during this period that Sweden was attempting to force Saami to settle through the provision of both a local government and a defined area in which to live. The Swedish historian Gothe writes that through the introduction of an administrative structure, the policy was an attempt on the part of the State to increase political control over the Saami (1929:48-9). As he explains, each family was to be provided a home with waters to fish and land for hunting and capturing reindeer. The State introduced regulations that each tenth reindeer hide was to be paid as tax and all extras were to be sold to them; they forbid these Saami to travel with hides. In this way the state was not only facilitated in their collection of taxes, it was also able to "protect" the Saami from outside influences and therefore to bind them to Sweden. The increasing control, the general limitations imposed on trade and particularly the severance of traditional trade with long-established partners certainly affected the Saami (Hansen 1985b:x). The policy appears to have been most effective for the State in the areas farthest south where the government had both more control and interest given the growing conflicts with agriculture. (The effects of the escalating conflict between herders and farmers together with discussions of the increasing importance of nation states will be discussed more fully in the following chapter.)

Whilst the most important trading commodity in the far north remained fish during the 17th century, interests in fur rose (Odner 1992b: 15). Entrepreneurs from the south of Norway became increasingly keen in accessing the riches of the north through the Saami, but also through new outside traders who moved into the area expressly for this purpose (Berg 1994a: 12; Hansen 1982; Lundmark 1989; Olsen 1987:70; Vorren 1974/75). Among other effects, the increase in numbers of outside traders and their pressure on coastal areas and its natural resources resulted in Coastal Saami being pressed further and further up the fjords (Hauglind & Minde 1980). Hansen has conducted research on the topic of Saami and historical trade in Norway. He writes that by the middle of the 1600s, traders tried to force those who were in debt to them to make their payment in furs (Hansen 1982:46). In many areas, large numbers of wild reindeer were caught in pitfalls and corrals, requiring the cooperation of a group of people. Using tame reindeer for transportation, the resulting large numbers of hides could be collected and moved to the coast or southward (Hansen 1982:49; 1984:60-1).

Firearms that had begun to appear in the late 1500's became increasingly prevalent and efficient during this period, not least because of the wars being waged (Reimers 1989:99; Vorren 1989:31). A professor working during the 18th century, Knud Leem (1767/1978) writes that new ways of hunting developed together with the increasing use of firearms. Dogs could be used to hold the reindeer in one place until the hunter could get close enough to shoot, or tame reindeer could be attached to sleds to find the wild ones after which the hunter could use skis to get closer. The introduction and use of firearms meant that individuals could now stalk reindeer independently and throughout longer periods of the year. This may well have meant that they could also keep the slain animals for themselves and their immediate families (see also Odner 1992b: 95-96)*.

By the middle of the 17th century the practice of catching large numbers of reindeer in corrals had ended. "... A written source, from about 1700, states that the pit-fall constructions in the Varanger area (found in the northern most region of Finnmark, Norway) ... were no longer maintained by the Lapps [Saami] (Vorren 1974/75:249)." A possible explanation is found in the book *Speculum Boreale* (1698). Here it is written that although hunting reindeer was still taking place, the number of wild reindeer was decreasing (cited in Meriot 1984:376). Similarly, Nielssen writes of the Coastal Saami that, "...although clearly near its end, hunting

* This is in part surmised from studies of Eskimos and other Northwest Indians that have found that the introduction of firearms tends to disrupt traditional sharing relationships (Ingold 1980:68).

wild reindeer was still practiced, but apparently on an individual basis (1986:25)". In 1702, local authorities in Varanger attempted to protect the last wild reindeer found here through the creation of a defined hunting season (ibid.).

In evaluating possible causes for the change to extensive herding, Krupnik has suggested that a shortage of the right type of hides would have been even more critical to the Saami than the often-suggested shortage of meat (1993). Whilst there were substitutes for meat - other types of game and fish - there were no substitutes for the warmth, protection and durability provided by reindeer hides. And this was particularly so for trading partners with which the Saami continue to have a long-standing relationship. Saami northern coastal trading partners face long periods of standing still, or sitting in boats under frigid conditions. The hides provided from animals slain in October are those that provide the most warmth. Being limited in number, these were often reserved for their trading partners as a matter of survival (ibid.: 120-1, 176). Just as these coastal partners were dependent upon the Saami to provide the warmest hides, so the reindeer herding Saami were dependent on them for marine goods and supplemental supplies⁷⁷.

As a general typology, Burns et al. refer to the type of relationships the Saami had with their coastal partners as mutually contingent reciprocity (1985a)⁷⁸. The relationship itself is more important than any particular transaction. Although there was certainly variation between individuals, geographical areas, and time, as compared with relationships with traders they might not meet again, or settlers with whom they competed for land, these relationships created mutual benefits and obligations over time. In a situation of increasing scarcity of wild reindeer, some Saami were in the process of increasing the number of their domesticated herds. The need for a reliable provision of October hides to their neighbors, as well as hides from other seasons for their own diverse needs, may have been a catalyst for a transition to a reindeer economy where some Saami came to transform the way they conceived of and consequently defined their claimed animals shifting both their rules and conditions such that they could become directly dependent upon their claimed reindeer, rather than on hunted animals.

⁷⁷ For a description of a similar situation with respect to the Tlingit people in the Canadian Arctic, see Cruikshank (1998:6).

⁷⁸ Such relationships are characterized by an interest in maintaining an enduring relationship - to fostering goodwill and trust. There is a diversity of goods and services that are exchanged. Emphasis is not only put on immediate reciprocity, but also on a consideration of future consequences (Burns et. al. 1985a: 63-67, 72; Gluckman 1965:48-9).

Differentiation among groups of Saami

The decreasing number of wild animals was partly an effect of the increased pressure of trade. In addition, the decrease reflected changes in reindeer property regimes - changing definitions and delineations of who could access, use, manage and control reindeer in what ways. Before exploring this more fully, there is reason to explore the emerging differences between the northern and southern areas inhabited by the Saami. Hunting and pastoral areas of the southern-most Saami were increasingly being expropriated by settlers whose claims to land ownership were not only supported, but encouraged, by the state. For Saami living where agriculture was possible, land that had been readily available was becoming relatively scarce. The loss of pastoral and hunting areas meant a loss not only of production areas, but also of mobility and consequently of the flexibility needed in the management of migratory animals. Reindeer are dependent upon a diverse habitat to ensure their survival and fitness under widely varying climatic conditions. This is true within a particular season, throughout an annual cycle, and from one year to the next dependent on variations in climate. Consequently, although herding routines tended to be similar from one year to the next, retaining a choice between pastures according to changing needs continued to be considered as, or more, important to Saami reindeer herding than guaranteed access to particular spots. Given the land claims of settlers, the Saami of the south were faced with new constraints in terms of limitations of space, and therefore flexibility (Beach et. al. 1992:84; Berg 1994a; Sara 1993).

Generally these Forest Saami, as they came to be called, practiced a combination of hunting, fishing and herding a limited number of animals. Some chose to fish more intensively, either in the area or by moving north. Where agriculture was an option, and new immigrants a threat, there was a stronger incentive to settle in an area to ensure that it was not overtaken, as well as to maintain full control over one's animals. As a result, some used the opportunity created by the State to settle permanently on plots that were being made freely available". Many chose a combination, but in doing so they were faced with new constraints. Saami choosing to own cattle, for example, needed to milk daily and were no longer able to migrate either far or often. They tended to keep a few reindeer mainly for transportation and breeding (Odner 1992a: 25). Saami in these new situations chose to own a limited number of

The state began to parcel out lots for private ownership by order of council on May 27, 1775 (Austena and Sandvik 1998:206).

manageable animals - both qualities characteristic of milking, or traditional, herds. Such herding is often referred to as intensive¹⁰⁰.

Although there is variation in how the concepts "intensive" and "extensive" herding are applied and defined, the tendency is that intensive herding is used to refer to small herds that were kept near the home resulting in a smaller range that was used more intensively with regular benefits from the production of milk and cheese, as well as the production of young (Beach 1990, see Figure 13). In intensive herding, women often had responsibility for the production process as they were responsible for milking and handicrafts, the men then were able to hunt and fish. These management considerations came to be an integral part of the property regimes practiced with respect to these animals.

Among the Forest Saami¹⁰¹, the manageability of their reindeer would have been as important as numbers claimed as control over the animals increased the opportunity to utilize other resources more fully. Therefore, there is reason to speculate that the transition of the characteristics of the reindeer of the Forest Saami continued through their selection for particular behavioral traits. The process is well recognized among scientists working on understanding the changing genetic composition in animals. Glutton-Brock has researched on

¹⁰⁰ Beach suggests the need for greater awareness of the use of the term "intensive herding" and the commonly polemic term, "extensive herding". Rather than diametric extremes, Beach explains that often these two concepts are used comparatively in a particular context. In a 12-page appendix, Beach elaborates on the need to be more precise with respect to use of terms extensive and intensive. Confusion has built over time as the terms have been used differently in different periods and in different places (1981:499-510). During the 17th and 18th centuries, the terms tended to refer to differences in land utilization. But in the early 19th century, it was no longer comparisons between farming and herding that were most important. As controversies arose between the two, and tolerance for herding abated, the question of damage inflicted on crops became central. The terms intensive and extensive came then to reflect the control particular herders had over their animals where intensive herding referred to animals under more stringent control than extensive animals. Since that time, the terms have been used at times with reference to the mobility of animals and at times with reference to control herders have over their herds. As a result, the terms are apt to be used differently from place to place or even from one season to another (Utsi 1948:98). Beach underlines and illustrates that there is no reason to assume any necessary correlation between long routes and less control. He suggests that they may be better understood as suggesting a continuum (continuum is being used the same way here as it has been earlier in this text - to refer to a range, see footnote 84). In choosing to forward the discussion, Beach writes that it is his intention to clarify these concepts to allow for their use as comparative tools irrespective of both temporal and spatial context. In using the terms intensive and extensive herding in this work, I have attempted to be clear with respect to their meaning in terms of both control and mobility.

¹⁰¹ For similar reasons to the discussion of extensive and intensive herding found in footnote 100, the categorical terms Mountain, Coastal and Forest Saami are applied with a certain degree of caution in this study. Just as with Beach's recognition of inconsistency with the application of the concepts extensive and intensive, any type of constructed categorizations presents the appearance of homogeneity. Use of the terms can therefore obscure, or mask, the high diversity within groups, in these cases with respect to numbers of animals owned (indeed if reindeer were owned at all), where they were located, the degree to which they/the sii'da migrated with their animals and the type of control herders practiced over their reindeer.

the historical development of domestication in animals. She refers to the type of genetic changes taking place in Saami claimed reindeer as artificial selection, to differentiate it from selective breeding (1981:134). Rindos, following Darwin, refers to it as unconscious selection (1984:1-2). With specific reference to reindeer, Chaplin argues "... when man concentrated on a particular species, some form of wildlife management was being exerted. In the case of the reindeer it is an almost invisible step to full domestication" (1969:239).



Figure 13. Saami milking reindeer (Paine 1994:58)

Pressures farther north, were different. Here, agriculture was limited to the ownership of cattle. There were now more Saami both as a result of larger families and because Saami from other areas, particularly Finland, had migrated into the area¹⁰². More people created a demand for corresponding increases in food just to meet their basic subsistence requirements. At the same time, Saami living in these areas were being confronted by more and more

¹⁰² During the 1500s the areas of Finland that had been inhabited by Saami, and used for pastures for their reindeer, were colonized by Finnish settlers who practiced slash and burn agriculture. This had dramatic consequences for both the Saami who had to choose either to assimilate or move farther north and for wild reindeer and other game as substantial areas for grazing were destroyed (Odner 1992b: 40; Storli & Sara 1997:22). In addition, many Saami from both the south and east fled wars and colonization (Sara 1993:50). Also towards the end of the 18th century, Saami moved because of an increase in mining operations that, among other things, destroyed pastures (Vorren & Manker 1957:194).

outsiders, their things, and their corresponding monetary economy (Berg 1990). The result was an increased pressure on wild reindeer both as a source of subsistence products and as a commodity. This came not only from the Saami but also from new settlers and traders. In stark contrast to the more southerly areas used by the Saami, with the exception of the increasingly congested coastline, land in the far north was still available. Rather than settling to claim ownership to a particular plot of land, the strategy of the nomadic "Mountain Saami" was to specialize their economy concentrating on increasing their numbers of reindeer.

Claiming a large number of reindeer introduced new management challenges. Claiming more animals created a corresponding need to access more pastures and for these Saami herders to manage and control their reindeer as the animals moved and dispersed through large land areas. In this type of extensive herding, animals run and rut freely. The movement of an extensive herd is orchestrated, as the Saami have traditionally moved together with the animals. But, there is not complete control, and some animals move astray. This is particularly true when threatened by predators such as bears, wolves and wolverines, or when, for example, mushrooms are available. Individuals came to claim the rights to the use of particular animals, whilst the management and control of reindeer herds was, and for many continues to be, done collaboratively with other Saami. With a limited number of animals, claiming is unproblematic as individuals recognize their (and others) animals. As numbers increased, herders began to mark their animals to make their claims visible. This has been important with respect to claiming reindeer and will be discussed at a number of points throughout the remainder of the text.

In addition to the problem of visual recognition, increasing numbers of animals were often correspondingly difficult to handle. Large herds, with often increasingly wild behavior of animals required more attention. Together with increasing numbers of reindeer in the 17th century, there was consequently an increasing interest among herders to shepherd large herds collectively. In addition, the larger the herds became, the less time and interest owners had in hunting and fishing. Extensive herders were dependent upon the active participation of sii'da members to ensure that they could maintain control over their animals and not lose them to others, or to the wild. In 1767, Prof. Knud Leem wrote,

But it is to be particularly noticed, that the inhabitants of the mountains, abounding above the rest in a great quantity of rein-deer, have very seldom leisure for the chase, nor is there need they should, when they are so very much occupied in

watching and pasturing their herds; and they can well forego this laborious and unquiet mode of life, furnished as they are besides with an abundance of those things they have use of." (sic, Leem 1767/1978:413).

As Leem writes, extensive herders had ceased to hunt, neither having the time, nor the need, to do so (1767/1978). Within the Saami society, where the ability to manage herds and the number of animals owned are both indicators of quality leaders (see page 87 with reference to *sii'da-ised*), those having large herds gained special respect among the Saami people. But the changes came with conflict.

With the transition to extensive herding, Mountain Saami began to use larger pastoral areas than the original *sii'da* arrangement allowed for. Emerging extensive herders had interests in territorial agreements becoming increasingly flexible to allow for the increased size of their herds. These Saami benefited most by being able to take advantage of favorable, and move away from adverse, ecological conditions; to choose pastures based on the combined interests and needs of both herders and animals. Conflicting interests arose between the multiple claimants. Already in the late 1600's, Adelaer reported that the Mountain Saami were grazing their herds on Coastal Saami pastures (1690 cited in Paine 1957a: 172-3). Their reindeer both ate and trampled the lichen Coastal Saami needed for their own animals during the winter, and the Mountain Saami reindeer ate the grasses that the Coastal Saami needed to feed their cattle and sheep. Complaints by Coastal Saami were filed against Saami from inland districts who advanced with their herds to the coastal areas, and intruded into the grazing and hunting territory of the Coastal Saami (Solem 1933; Vorren 1974/75)¹⁰³. Although the Coastal Saami won most of the court cases, because of loss of access to pasture during critical periods and marginal use of reindeer by them (tame reindeer for them were by this time mainly seen as a means of transportation), the Coastal Saami lost the "war" to the large herds of the Mountain Saami (Odner 1992b: 17). By the middle of the 19th century, there were very few Coastal Saami families that had any reindeer at all (Paine 1957a: 173).

Conflicts also arose between Mountain and Forest Saami. In a court case from 1738, Forest Saami filed suit against Mountain Saami. They argued that the Mountain Saami forced themselves into an area they had not previously used. The Mountain Saami were accused of scaring away wild reindeer (which the Forest Saami hunted during the winter) allowing

¹⁰³For example, on February 26, 1679, during negotiations held in the market square (*torgei*), Coastal Saami in Varanger complained that the herding Saami led their reindeer into the coastal reindeer pastoral areas degrading the lichen (Solem 1933:27).

instead their own reindeer to pasture in the area (Hansen 1985b:xl, footnote 103). As explained above, the Forest Saami had, for a number of reasons, chosen to continue to herd small numbers of reindeer. This was incompatible with the choice of the Mountain Saami to herd large numbers of animals: small herds tend to be subsumed into larger herds. Even today, one of the largest threats to a herd owner is when one's herd comes too near large herds of wild reindeer¹⁰⁴. The result may well be that Saami reindeer join the wild herds where it is virtually impossible to retrieve them (Beach 1985a: 9; 1990:266). Small herds are also far more prone to particularly difficult climatic years simply because with fewer animals all tended to be in the same location and susceptible to the same conditions. Reporting on the changing situation of the Forest Saami and revealing the variation also within categories of Saami (see footnote 101), Wiklund writes, "In some cases their small reindeer herds have increased; in others agriculture has become their chief occupation. In many districts they have given up reindeer breeding entirely and have become peasants or have succumbed to poverty and disappeared" (1923:225).

Despite protests of both Coastal and Forest Saami, a limited number of Mountain Saami, enabled by the large size of their herds, continued the expansion of both the numbers of animals they claimed and the space they used. In doing so, they constrained the livelihood choices of other Saami. The Mountain Saami had power in part because of the number of reindeer they claimed and the subsequent status this inferred. Power of actors to limit the opportunities of others is not a situation limited to the Saami. Writing of the general phenomenon, Burns and Flam explain, "...some actors have more power than others to form and reform the system. In other words, they enjoy the privileges of being able to make the system ... conform more to their purposes and interests, rather than vice versa" (1987:53). During the period of transition from claims by some Saami herders on a limited number of animals to claims of an extensive number of animals, there were changes with respect to livelihood choices. Rather than support the earlier egalitarian society, these choices not only suggested - but actually contributed to - increasing differentiation in power among and between both particular Saami and groups of Saami.

Extensive herding meant that a limited number of people could claim a large number of animals. That these Mountain Saami could do so was enabled in part by extensive changes in

For a recent example from Alaska, see Rozell 2001.

the area, including an increasing market economy that brought traditional rules and customs into question. Reindeer became not only an exchangeable commodity as it had long been, but among this select group it also came to be held as living capital, or stored wealth. Valued by some actors in this way, reindeer were kept in the expectation that one could increase the quantity of animals and consequently increase their current total value, as well as their potential future value. Changes also came because, as will be shown in the following section, national interests and an international agreement supported the interests of the extensive herders.

During the emergence of extensive herding, the Saami maintained the use of a *sii'da-ised*. The skills of a reindeer herder were highly respected within the Saami society. Numbers of claimed animals were recognized as reflecting such skills. As long as the *sii'da-ised* retained the trust and support of the group, s/he was usually the one that had the greatest number of animals as this was seen to reflect his/her skills as a herder. With the power to represent as well as decide over the *sii'da*, those having the largest herds were in a position to create conditions which further enabled them to increase the size of their herds - and therefore their individual wealth and subsequent power. Thus, many of those with increasing numbers of reindeer became increasingly powerful both socially and technically. Having gained more power, they were in a position to continue to do so. Given major changes in the larger Saami society, others were no longer in a position to check this change in what might earlier might have been characterized as a balance of powers. Differences arose both among and between Saami individuals, *sii'da* and larger groupings of Saami. And, given the increasing number of other groups of people in the area, members of the *sii'da* were much more restrained than they had been earlier in the options of moving to other areas. In other words, during the transition, leaders were in a position to create new rules in action - and hence introduce what were often conflicting rule systems. Distribution of pastures changed to a first come basis, although there was a tendency for groups to follow particular routes from one year to the next. Under the new conditions, extensive herders were able to impose their interests, strengthened by the size of their herds. The conflicts with other Saami came about in part because these groups were constrained from using similar strategies due to: limits in land size, ownership of small herds they were not in a position to increase and that were consequently vulnerable to large herds, and/or they were not interested in doing so - choosing instead to continue with traditional methods of utilization and management.

With these new changes came what many explain as a radical change in the concept of *sii'da* (Beach et. al. 1992:65; Vorren 1973:192-93). The territorial concept of *sii'da*, derived from a common way of utilizing natural resources, changed between the user groups reflecting their changing ways of utilizing resources. Where once all Saami used lakes and rivers as the basis of their territories, the Mountain Saami with their extensive herding now found it advantageous to move along mountain ranges and other central landscape formations. By the first half of the 1800s, the Mountain Saami had established long north-south migratory routes that overlapped to such a degree that borders were no longer possible to draw (Vorren 1980:253-5; Hultzkrantz 1994:354; see also Maps 2a, 2b, Chapter 5, p. 125). In this transition, many small herds were overrun by large herds moving north-south between the northern most areas of Finnmark and Nord-Troms, Norway and Finland. Similarly, herds from Sweden moved westward and into the Saami areas south of Finnmark/Nord Troms during the summer. Earlier grazing rights within particular areas had historically been agreed upon between *sii'da* by mutual consent among Saami with joint interests. Changing circumstances created diverse and at times contradictory interests among Forest, Coastal and Mountain Saami. The concept of *sii'da* lost its association with a particular area - instead becoming associated with the people or families belonging to the tent, or group of tents and their reindeer herd (Solem 1933:184). Despite the change, the concept of the *sii'da* continued to refer to a group of Saami, most often with familial ties, that jointly utilized natural resources. Common management among these nomadic herders continued to be well suited to extensive herding for the same reasons cited earlier: groups rather than individuals could more easily manage herds of reindeer. Individual members of *sii'da*, therefore, whilst owning particular animals continued to share an interest in coordinating their interests in developing and maintaining common rules of management.

Casimir writes about pastoralist and is particularly interested in rights claims made with respect to pasture (1992:166). In one of his articles he discusses two conditions under which the tendency to monopolize pastoral resources is absent. The first condition Casimir presents corresponds with the first conception of *sii'da*: when resource availability is both predictable and plentiful. Whilst Saami moved seasonally and were able to collect and capture a variety of natural resources, this was the case. The effort involved in harvesting these resources also limited the ideal size of a range. In the transition to exclusive extensive herding, the second condition Casimir discusses becomes applicable, namely the low predictability of the existence of resources. The extensive herders with large numbers of animals had become

solely dependent upon their reindeer. Therefore they were dependent upon finding appropriate types of pasture under varying conditions. Again, the benefit in monopolizing particular bounded land areas was minimal. The herders were better served by a flexible arrangement that provided for the possibility to utilize different pastoral areas under varying conditions. Although for quite different reasons, the social grouping providing for common management of the *sii'da* remained an effective way to utilize the natural resources of the area. The Mountain Saami could adapt existing rules to the new conditions they faced. In both cases social cohesion is brought about through shared understandings and rule systems that facilitate collective labor in managing and/or harvesting the resources(s). Given the particular interests of Saami in owning reindeer, it can also be noted that both conceptions of territoriality within the *sii'da* appear to be more consistent with the availability, needs and use of animate and other natural resources in the area, than with specifically defined land areas¹⁰⁵.

Rather than the increasingly tame behavior of animals of the Forest Saami, the herds of the nomadic Mountain Saami were more similar to their wild counterparts. Extensive herders generally had less contact with their animals. Whilst it was advantageous for the Forest Saami to choose animals particularly for manageability, extensive herders had less interest in tame, highly manageable animals. It was - and remains - more important to them that their reindeer can survive in natural conditions. This promoted similar selective processes to that of wild herds where such things as the characteristics of bunching as protection against predators, synchrony in breeding and predictability in their seasonal patterns were important. These Saami herders also chose to keep natural herd leaders, but as these animals were castrated they could not affect the genetic composition of future herds.

During the transition, until the early to mid- 18th century, wild reindeer continued to be accessible (in most places)¹⁰⁶ and legally available to all to hunt. During this same period, some people may well have continued to feel justified in hunting any reindeer - tame or wild,

¹⁰⁵ See Lancaster & Lancaster 1992:358.

¹⁰⁶ The last wild reindeer were reportedly shot in the Kautokeino District in 1891 and in Alta in 1916 (Vorren and Manker 1957:70). Berg writes that they were first exterminated in the common border area of Norway and Sweden in Nordland/Norbotten in the early 1600s (1994a: 12). There is reason to be more skeptical with respect to this date. As discussed earlier, Meldgaard in his studies on the effects of climate on reindeer in Greenland found that large variations in numbers of wild reindeer herds were best explained by climate variation (1986). In minimum periods, herds were found to retreat to areas where they might well spend the whole year. This may well have been confused with local extermination. As this period can last for decades, and given the extensive social changes occurring during the 1600s, the pastoral lands used by the wild reindeer were most likely taken into use for other purposes, and therefore not available when wild populations could have increased again. Also, the belief that they had been exterminated locally could well have affected local actions.

believing living resources were fair game, accessible and usable by all. Some people may have hunted tame animals because these reindeer were an easier target¹⁰⁷. Or, they may have hunted the tame animals by mistake. For any or all of these reasons, wild reindeer were considered to be a menace by extensive herders with intentions to increase the numbers of animals they owned¹⁰⁸. Ridding an area of wild reindeer enabled these herders to base and justify their claims in part on location. Writing in the late 18th century, Toraseus reported overdriven, extensive felling of wild reindeer, "[t]he Saami come when they want and kill them all - both small and large - harming both themselves and others and are therefore hated by other Saami" (1772:10 cited in Vorren 1980:252)¹⁰⁹. In Lundmark's historical studies of the Saami, and particularly of the evolution of extensive herding, he supports this where he writes,

We have some reliable information about virtual wars of extinction against wild reindeer because the herds of tame animals had a tendency to disperse and follow wild animals. When, on the other hand, tame animals dominate an area, the wild ones are attracted by the herds and become easy prey. Furthermore, the domesticated herds and their herders force shy wild reindeer from the best grazing grounds. (Lundmark 1989:36).

Reindeer herding was in the simultaneous processes of being transformed by the Saami whilst they were, in turn transformed by it. Not only was the organizing concept of *sii'da* changed, the way reindeer were defined changed among the Mountain Saami eliminating the concept of "wild reindeer" from the area. They increased the use of pitfalls and corrals to capture and slay wild reindeer both as a source of wealth, and as a means to eradicate them. During the transition, the Mountain Saami came to adopt the same type of corrals to control and manage their claimed animals (see Figure 12, p.97).

For both the small farmers who continued to hunt and for the Forest Saami choosing to milk their reindeer, and continuing to rely on a diversity of livelihood strategies, wild reindeer would have continued to be seen as an important source of their subsistence (Aasmundtveit

¹⁰⁷ From a case study in Alaska, Beach writes that reindeer owners had reason to fear subsistence caribou hunters. "Many caribou hunters will not hesitate to shoot reindeer should these be available (1985:1-11). Being less wild, the reindeer are easier to hunt than caribou, and their availability is not so seasonally determined. Hunters have told me in a straightforward manner that they have shot hundreds of reindeer 'because it was so easy', or 'because reindeer taste better than caribou'. When I was guarding the reindeer herd in the winter, among the many predators I had to watch for were subsistence hunters, especially if we were close to a village."

¹⁰⁸ The Russian reindeer specialist, Syroechkovskii, similarly reports that throughout the Arctic areas "... whenever natives developed large scale reindeer breeding, herds of wild reindeer disappeared. They were no longer regarded as useful animals but as an enemy of a major new occupation that provided sustenance to the people" (1995:189).

¹⁰⁹ The original Norwegian text: "*Lappene kommer nar de vil og dreper dem alle bade sma og store - seg selv og andre til skade derfor sadane och afandre Lapper hatade ar*" (Toræus 1772:10 cited in Vorren 1980:252).

1991). For the same reason, highly mobile and less controlled extensive herds and more settled and intensively herded animals represent not only different, but also incompatible ways of conceptualizing, defining and managing reindeer and their habitat. Extensive herding so transformed the Mountain Saami's idea of and way of utilizing wild reindeer that it was in their interest to completely remove them as a category from the areas where these Saami practiced their herding. Through acts of extirpation, extensive herders aimed to capture exclusive rights to reindeer in the north. Rights of access and use by other Saami were no longer recognized as legitimate. To the Mountain Saami, all reindeer were now defined as tame animals and consequently were being claimed by them as personal property. Through their actions of extirpation and extensive herding the Mountain Saami transformed the conditions within which they herded and in doing so created an opportunity to further increase the size of their herds. However, as pointed out, although the extensive herders were a small, powerful and admired group, they were not the only ones making claims to reindeer. There remained other groups of Saami with other values and interests and consequently other property regimes with respect to both tame and wild reindeer, as well as to the associated resources of the area including both game and land. During this period of transformation, the practices undertaken and rules that evolved with respect to herding had the unintended consequence of laying down a foundation for conflict between the Mountain Saami who primarily practiced extensive herding, and the Forest Saami who tended to practice more intensive or traditional husbandry and herding¹⁰. This conflict continues until today.

Discussion

In this chapter, properties of reindeer are shown to underlie the diverse and changing ways that they were valued and claimed. Reindeer migrate and flock implying at any one place and time that the location, timing and size of herds varies. At certain times of year, in any particular place, there may be large numbers of animals for a limited period. This has implications for how reindeer can be captured and/or slain which, in turn, underlies the claims made on them. In order to secure a successful hunt, Saami developed a lifestyle that enabled their movement - they came to migrate at first to access game. Historically groups of Saami hunted and/or trapped wild reindeer. Later some groups of Saami began to migrate together with their reindeer. Also physiological attributes (fat content in meat and milk and the insulating quality of fur) affect the ways Saami came to value the quality of reindeer products and hence affected the claims made on them. Even today, reindeer hides provide some of the

It should be noted, however, that both extensive and intensive herders were found throughout the entire area.

warmest clothing available - something especially valued in arctic regions. Particularly October hides came to be highly valued by Coastal Saami who were dependent on staying warm and dry whilst sitting out in their boats for extended periods.

Finally, as one of a highly limited number of animals in the world, reindeer are amenable to domestication. As Saami began to tame and manage reindeer, their ways of valuing them came to include use of reindeer milk and use of their transport capacity to move through the arctic terrain. Reindeer are gregarious and curious by nature. Whilst these are general characteristics of reindeer, there are, as with any behavioral trait, more pronounced expressions of this in some individuals than others. This led to an attachment between some reindeer and some people. In addition, reindeer bunch as a means of protection against predators; they exhibit predictability in their seasonal patterns and synchrony in breeding (Beach 1990: 270, 290; Ingold 1976: 31; 1980: 82, 129, 131). All of these behavioral traits are important for management. Whilst the Saami would want to enhance, for example, manageability - the other characteristics are also important for the herders in managing their animals whilst on migratory routes, in for example, herders' decisions to move as well as in their selection of pastures during both the rut and birthing. Through management decisions particular animals exhibiting these qualities (gregariousness, flocking, and birthing at the same time as others) would both be favored, and others removed (those that wander excessively, are aggressive or shy) through negative selection and predator pressure.

One aspect of the emerging property relationship between new managers and the animals being claimed concerns changes in the reindeer themselves. This refers to physical and ecological changes enhancing potential uses and/or management including better control of the animals. As ownership of living reindeer emerged, intentionally or not, the Saami began to change reindeer to better fulfill their interests, wants and needs. As Cronon writes,

Environment may initially shape the range of choices available to people at a given moment, but then culture reshapes environment in responding to those choices. The reshaped environment presents a new set of possibilities for cultural reproduction, thus setting up a new cycle of mutual determination. Changes in the way people create and re-create their livelihood must be analyzed in terms of changes not only in their social relations but in their ecological ones as well. (Cronon 1983:13).

Those writing on the domestication of reindeer argue that breeding selection choices affected the reindeer (Chaplin 1969; Clutton-Brock 1981). This, in turn, changed some of the

management choices available to the Saami as their reindeer became easier to control which again affected the reindeer.

The findings of this study thus support a growing number of authors that underline that characteristics and attributes of resources influence the property regimes created to them. Their work covers a large variety of goods - including, but not exclusively, natural resources. The classic work coming to this conclusion is Netting with his work on pastures in Switzerland (1976,1981). Netting argues that groups of users come together to jointly manage the resource because it is difficult to exclude outsiders from accessing and using highland pastures. Fowler writes about plant genetic biodiversity (1994). He asserts that because plants are biological entities they are continually changing. Variation complicates attempts to create rules to claim them. Further complications are introduced as qualities of plants differ greatly with respect to what is being claimed - genetic codes, parts of a plant, a population, and/or a species. Brewster and Staves focus on what they term 'unusual property' (not land) including slaves (1996a). Their work asserts that there are essential differences between claiming land - the basis for much of property theory - and claiming, for example, a person; a thinking, feeling being. Such differences introduce, among other things, considerations of ethics into property claims. Dolsak and Ostrom in their recent book, Commons in a New Millennium, also conclude that the nature of a resource influences property regimes created to them (2003, see also Ostrom 1999/2000:350). In line with the findings of Schlager et al. based on property regimes associated with fish and pastures, Dolsak and Ostrom assert that three distinctions are particularly important - whether the resource is fugitive or stationary, whether it is possible to store it or not, and whether the geographic scale is limited or extensive (1994).¹¹¹

Throughout the period covered in this chapter, a variety of ways of using and valuing reindeer emerged in addition to its original use as a source of meat and hides (see Table 3). Given technological innovations, adaptation from agriculture and changes in the reindeer through the domestication process, it became possible for some Saami to increasingly meet their needs

A number of additional studies can also be mentioned. Cole writes mainly about pollution but also includes a number of references to wildlife (2002). Goldstein concentrates on living - or green - trees and wood (1998). Among those writing about wildlife are Lueck who writes about bison (2001) and Naughton-Treves & Sanderson who write about wildlife more generally (1995). See also Hurley et al. (2002); Libecap with respect to oil, minerals, fish and land (1989/1993:26); and Agrawal also with respect to pasture resources (2002).

through the exclusive use of reindeer. By trading with, plundering or taxing these Saami, other actors - including the state - were able to benefit from Saami knowledge and skills.

Table 3. Actors and their ways of valuing reindeer: as "game" and "domesticated" animals (6000 BC - 1500 AD)

Reindeer as "game" and "domesticated/tamed" animals:		
Actors Interests	Saami eventually Mountain, Coastal and Forest Saami	"Others" including tax collectors, the army and trappers
Reindeer as live resource (tame/domesticated):		
Milk	X	
Progeny	X	
Transport	X	X
Reindeer as slain resource (game):		
Meat	X	X
Hides	X	X
Sinews, blood, etc.	X	
Income	X	X
Taxes	X	X
Status/prestige: hunting skills	X	?

"X" represents the claimed interests of particular actors. "?" represents when it is unclear whether or not particular actors made such claims.

Throughout the changes of the period, the structure of daily life for the Saami presumably stayed much the same. Nonetheless, in the transition in their use of reindeer to include not only game but also "tame" animals, substantial changes to their interests to access, use and management emerged. These would have been initiated or accompanied by changed or altered cognitive ideas of the claims that could be made to these particular animals. Saami groups that tamed reindeer came to differentiate between wild and tame animals with respect to how they were utilized. Rather than the meat, hides, blood, bones and sinews that continued to be collected from wild reindeer, the stream of benefits of tame animals centered around the benefits of a living resource: of a hunting decoy, of transport, milk and/or progeny. These differing values and interests in how wild and tame reindeer could/should be used necessitated a change in the types of claims being made to them. The transition required an adaptation in the reindeer rule regimes that combined claims of rights and obligations and that recognized constraints to the claims of both.

There are a number of indications of types of changes in rules that would have enabled and/or enhanced documented changes in access and use of reindeer. In a transition from wild to

tame, claims to the potential benefits associated with the kept animals would no longer be limited to those appropriated during and after slaughter. Whilst rules to accessing and distributing wild reindeer were retained, rules of access and use of tame reindeer must have shifted to recognize and include management skills of both men and women, on enhancing survival, improving production and - at least to a limited degree - caring for and controlling the animals, creating a substantially different set of demands for the emerging claimants than existed for hunters. Rules among the Saami, among those who jointly utilized both the animals and their habitat, must have emerged, been amended and altered. This would have been necessary both as a means of recognition and an enhancement of the changes in the ways reindeer were coming to be valued. In addition, given that reindeer can provide for basic needs of people as they provide a source of food, constraints on the extent of the rights that could be claimed were imposed by the society. Meat was shared. Rules were introduced allowing for the slaying of another's animals under specific conditions. Even today recognition of constraints on exclusive claims to reindeer is practiced as it is generally agreed that a reindeer can be slain and eaten by someone in dire need.

The change from hunted to herded led to new, increasingly complex ideas of how reindeer were to be defined, of how they could be used and managed and of who could use and manage. This change, as discussed above, comes about in part from changes in the reindeer and in part from actors' ways of conceptualizing and defining the good (see Figure 14). Actors' cognitive ideas of reindeer frame potential claims to rights, obligations and constraints with respect to access, use, management and control. One such change was a shift from seeing reindeer as undifferentiated animals to particular ones being recognized as unique individuals (Ritvo 1996). Just as people recognize their pets, Saami are able to recognize their reindeer. This is possible - as compared with many technological inventions that are reproduced exactly - as animals' appearances vary. Owners of reindeer often recognize their animals based on color, markings and antler formation. Recognition is necessary in distinguishing "mine" or "ours" from "yours".

Shifts in the cognitive structures underlying new ideas of ownership and management would have taken time. To be able to use reindeer as a living resource, these reindeer needed to be managed, or controlled, over an extended period. This meant there was no longer an immediate return for the efforts extended with these animals: many of the benefits were

delayed". In addition, new problems would have arisen with respect to both care of the animals and damage they caused. Given the propensity of reindeer to migrate, there would have been little incentive to try to have more animals than could easily be recognized, managed and controlled until such time as rules emerged and were generally accepted both within and between sii'da protecting both claimants' rights and their animals. Acceptance of the implications of the differences of wild and tame animals - and people's relationships to them - needed to be recognized by both the community as a whole and by the claimant, so that the particular animals in question would not unintentionally be killed. As the legal theoretician, Rose, in writing more generally on the process of negotiation of property rules and laws writes, "It is not enough then for the property claimant to say simply, 'It's mine,' through some act or gesture; in order for the statement to have force, some relevant world must understand the claim it makes and take that claim seriously" (1994:18). In part, this is a recognition of the often referred to obligation of the need of others to respect a claimant's rights. But at least with respect to animals, obligations also encompass something more.

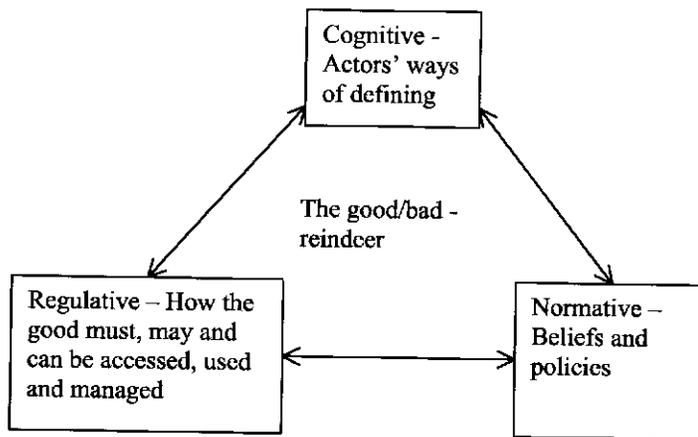


Figure 14. Emergence and change in property regimes

Given animals' needs to move and eat, they pose a potential threat to the interests - often overlapping interests - of other actors in the area. Claims to rights concerning use of reindeer will be seen in this study to increasingly include an expectation from the community that the

For general discussions of delayed benefits within hunting societies, see Woodburn (1982,1998).

claimant manage/control their claimed animals - or compensate in some way if damage is done. We will also continue to see changes in reindeer rule regimes to the rights being claimed and to the obligations to claimants to control and manage their animals. Agreed upon rules arose in part from those developed with respect to participation in and distribution of rights and obligations of hunting. The emergence of additional rules for this new situation required that new rules be tried and amended in accordance with new practices. Over time, Saami began to develop an agreed upon rule system for accessing, using, managing, controlling and protecting particular claimed reindeer.

The chapter has shown the period of the emergence of extensive herding to be a turbulent time, at least with respect to claiming reindeer. Particular individuals and/or groups of Saami were in a position where through changes in technology and management it was possible to accumulate and transport wealth, and through an increase in the value of reindeer hides it was rewarding. Given an interest in increasing the size of their own herds, it was desirable for these herders to decimate wild reindeer populations. At about the same time, the State recognized live reindeer as a means to feed and support their armies, and they ceased to enforce the exclusive hunting rights of the Saami that they had previously recognized. Traders demand for fur escalated; changes in technology in both transportation and firearms increased the possibility to acquire and transport larger quantities of furs than earlier for Saami, settlers and traders¹¹³.

New extensive herders, as well as settlers, saw wild reindeer as a menace to their modes of production. These actors redefined the concept of "reindeer" to encompass their private interests with the consequence of eliminating "wild reindeer" in the far north. The creation of large herds, with a limited number of Saami as claimants, allowed for the accumulation of wealth, power and full participation for these few in the monetary economy.

Farther to the south, in competition with settlers who were supported by the state, Forest Saami further developed traditional strategies of accessing and using multiple natural resources, including wild reindeer. Because small herds of reindeer are subsumed by larger

Olsen proposes that firearms are the main factor for the demise of wild populations of reindeer (1987:70). Odnor raises his skepticism to this, but offers no alternative (1992b: 39). If one focuses on the struggles between actors to claim reindeer, it seems plausible to suggest that although technically the last wild reindeer in the north of Norway may well have been shot, changing relations among groups of Saami, and between the Saami and their reindeer are arguably more fundamental in explaining the subsequent extermination.

herds, extensive herding was incompatible with the Forest Saami's ownership of small herds of animals for milking and transport. It also threatened the often settled, marine-based Coastal Saami as the Mountain Saami allowed their herds to trample lichen in the area and eat the grasses the Coastal Saami needed for their own animals. The chapter illustrates cognitive structures concerning concepts, such as the concept "reindeer" affect property regimes. It has been shown that ideas of how reindeer are conceived underlie the claims that actors make to them. By the end of the period, different groups of Saami had different, conflicting and incompatible ideas of how reindeer were defined - and consequently how they should be used and managed.

However it was not only cooperation and competition between groups of Saami that was to define the interrelationships between them. The state, to which we now turn, became an increasingly powerful actor in defining, introducing and enforcing rules and laws. In so doing, the state contributed to legitimizing the changing balance between the groups of Saami. For hundreds, indeed thousands, of years, Saami lived if not in isolation, at least highly independently, making and living by their own rules. During most of this time, reindeer were but one of many sources of game and subsistence. Processes of technological, ecological, legal, economic and social change contributed to reindeer becoming increasingly important among some groups of Saami. Other groups of Saami concentrated upon other natural resources and/or livelihoods. But even among these other groups, there were those who continued to own and manage limited numbers of reindeer. It is not merely a coincidence that in the period where extensive reindeer herding became entrenched, nation states were emerging as increasingly present and powerful actors. Policies reached between Denmark / Norway and Sweden, for example, were to directly affect the Saami. As we shall see, once defined as national subjects, the Saami became actors within a larger arena where new regulations, rules and laws were to create new opportunities, obligations and constraints to both of these with respect to the claims made on reindeer. Why these new rules came about, how they were enacted and how they were affected by and affected the Saami and their claims to reindeer are the main areas of interest in the following chapters.

The National Arena: Saami, Farmers and the Role of the State

The Lapp Codicil

In the early 1700's, the northernmost areas of Norway, Sweden (including Finland) and the Kola Peninsula (Nordkalotten) remained a system of commonly held districts. This constituted the last area in Europe without clearly defined boundaries between nation states (Sandvik 1989:10). In the aftermath of the inter-Nordic war Denmark/Norway and Sweden agreed that a border should be established. Although late in the process, the interest in establishing national borders was nonetheless representative of the times when nations sought "territorially disjoint, mutually exclusive, functionally similar, sovereign states" (Ruggie 1993:151). Each of the involved states continued to have its own interests in pursuing sovereignty over the north. The Swedes were interested in an ice-free harbor and in ensuring continued trade with inland Saami. The Norwegians were primarily interested in protecting their coastal interests and associated trading centers further inland (Bjarnar 1989:63, 69). Both recognized that, at least with respect to the inland areas, the Saami remained almost exclusive users. As had been the case for hundreds of years, access to the Saami continued to provide the states with a means of accessing the natural resources of the area. In addition, proven jurisdiction over the Saami now also came to imply a basis for territorial control (Hansen 1985b:ix; Aarseth 1989:79).

In the negotiations that ensued, there was no clear or straightforward argumentation for the basis of establishing the national border. In the more southerly areas, private property and geographical boundaries were used. But as established farms became increasingly spread and scarce, other principles needed to be found. State actors turned to records of historical agreements and jurisdiction through such things as tax records, claims to (land) ownership and historical possession; each using the arguments best suited to their national interests. In recognition of the complexity and ambiguity in the area, Peter Schnitler was engaged by Denmark/Norway for the period 1742-45, following the example of a commission established for the same purpose in Sweden in 1738 (Bergsland 1995:98). Schnitler was hired to document through records and interviews with, amongst others, the Saami. This investigation also examined the various claims regarding which rights and which authority the respective governments had practiced with respect to the different users of the land areas (Hansen 1985a;

1989:53)¹¹⁴. In his report Schnitler argued that nomadic herding, which was prevalent in the area as it had been from time immemorial, was essential for the very existence of the Saami nation (Instilling 1904, appendix nr.7; cited in Bjarnar 1989, footnote p.78). Arguing that the nomadic movement between winter and summer pastures was an ancient practice in a particular area (Tysfjord), and that it needed to be recognized as such, also served Sweden's interests in securing access to the inland Saami (Bjarnar 1989:67). As the claim was not disputed by either nation, the same reasoning was then applied to other areas - both to the north and south (Jebens 1989:168). Although the national actors were concerned with distribution between themselves, the distribution effects of the new government policy among the Saami were substantial. As an example, Haarstad writes that during his research he found a letter from the King of Denmark and Norway dated from 1743, which opened for Saami reindeer herding in the Rjaros area, in the mountains bordering Sweden (1992:297). The motive for the state is made clear. The area east of Femunden was an area that the Swedes were also interested in securing. For Norway, it was important to document Norwegian use. The Saami have since used the same letter to secure and document their rights in this particular area and this claim has remained uncontested. Similarly, Schnitler informed King Christian VT that it would be difficult for the Danish/Norwegian state to claim sovereignty over the mountainous areas if the Saami were not taxed, as the Swedish crown did. The collection of taxes had been stopped in this area during the 1720's as part of Thomas von Westen's extensive efforts to bring Christianity to the Saami. Although initiated as an enticement, the act had great implications because the Saami could no longer document their use of particular places through public record. In 1743, by order of the King, taxing of the Saami was resumed both as evidence of the King's possession of these areas and as documentation of their continued use (Bergsland 1995:98-106; *ham* 1994).

The final agreement between the nation states of Norway and Sweden took the form of an addition to the agreement of 1751 (the Stromstad Treaty), commonly referred to as the *Lappekodisillen* (the Lapp Codicil)¹¹⁵. It is essentially an agreement allowing for the free

¹¹⁴ Elgvin is skeptical about the research carried out and the subsequent conclusions based upon them in Schnitler's work (*Lappekodisillen*) (1993). He points particularly to the different types of questions which were asked of Norwegians and Saami, the former with respect to establishing boundaries, the latter with respect to establishing an individual's credibility. Elgvin writes, "[o]f 71/2 pages, there are 20 lines about Saami geographical information and about how long they have been in the area" (ibid.: 17; 40). Furthermore, he comments that it is only to a very limited degree that reindeer laws have been built upon a Saami way of conceptualizing reindeer.

¹¹⁵ The actual name is "*Ferste Codicill og Tillceg til Grends-Tractaten imellom Kongerigeme Norge og Sverrig Lapperne betreffende*". It was concluded on October 7-18, 1751.

movement of the Saami over the newly established national border. In keeping with the period of Enlightenment and its ideals of rights and equality, it was common among colonialists of this period to recognize common law and practices among the existing groups in areas they overtook (Tully 1994). The *Lappekodisillen* was thus representative of agreements made by Colonialists during the mid- to late 18th century (Arnesen 1988:11). Recognition of common law tended to be recognized with respect to traditional use of local resources. This was also largely true of the *Lappekodisillen*. The Codicil thus legitimized, through judicial recognition, two different property systems: the traditional and state systems. This thereby introduced legal pluralism, and consequently resulted in periodically conflicting rule systems. While nation states through the *Lappekodisillen* acknowledged and legitimized the existence of differing systems, this would not always be the case. Nonetheless, the foundation was laid and has, in fact, never been rescinded.

Some points of the newly negotiated agreement deserve special attention. Paragraph 10, central to the Lapp Codicil, refers to the reindeer herding Saami and their nomadic practice from time immemorial. The migration routes referred to were of Finnish and Swedish reindeer herding Saami into Norway to pasture their animals during the summer, and a similar movement of the Norwegian Saami with their reindeer entering Sweden and Finland during the winter. Farther south (current Nord-Trendelag), a limited number of Norwegian Saami moved during the summer to Jamtland in Sweden (Elbo 1952:348). In addition to securing the right to free movement over the national borders, the right to use the "land and water" and more general natural resources associated with, and necessary to, the nomadic lifestyle were also secured, as were the rights to both fish and trade (Pedersen 1989:207). Paragraph 16 requires governments to ensure adequate pasture for the Saami reindeer, although it remains a condition that in so doing the animals should not cause damage to settlers (Jebens 1989:172).

Despite the motives behind the agreement being driven by national interests, where the Saami were not even a negotiating party, the *Lappekodisillen* in fact recognizes a people whose way of life precluded them from fitting into the defined territorial areas of the newly defined nation states¹¹⁶. Precisely because the livelihoods of some Saami were based on migrating animals, they received special recognition in this international agreement. Once the herders were recognized, the agreement itself became broader, seemingly equating reindeer herding

¹¹⁶ **This is not to say that the *Lappekodisillen* recognized Saami conceptions of ownership, which was a returning problem in later years.**

with being Saami - despite many Saami never having herded and others by this time having chosen other livelihoods. The agreement, for example, stipulates the neutrality of the Saami "nation" should there be war. As such, it was recognition of both the rights of the Saami as an independent people and of their collective right to reindeer herding as a profession. The right to herd was legitimized as the commonly held right of the Saami people - a right held in common by the Saami to this day¹¹⁷. The national recognition of interests in reindeer had therefore changed. Reindeer were now more than an object of trade; reindeer were recognized as being the basis of a particular livelihood. As the *Lappekodisillen* has never formally been replaced or repealed, there is growing acceptance that it judicially remains an active document (NOU 1984: Chapter 6). What remains unresolved is whether it recognizes traditional rights or if it is the agreement itself that creates these rights (NOU 1997: 6.2).

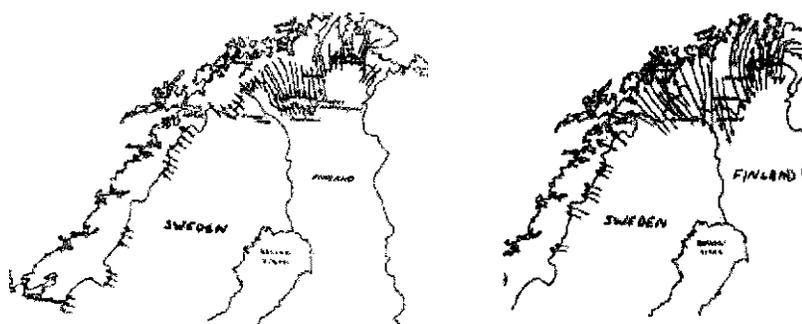
Although certainly existing prior to this date, the *Lappekodisillen* introduced more clearly the differences between property rights *per se* and issues of sovereignty. Most of the property issues discussed up to this point in this case had dealt specifically with inter-personal or inter-group relations, rules of rights and obligations established within local decision-making arenas by the community involved. With the introduction of the *Lappekodisillen*, issues of sovereignty - of "... community territorial claims made in opposition to other groups" - came to be more explicit (Cronon¹¹⁸ 1983:58). Together with the increasing power to delineate and enforce, sovereign claims became increasingly important to the nature of political communities. Such claims reflected questions of representation and the power of differing groups in society to promote their own interests, within national acts, which defined the structure of rights and obligations. This introduced limitations and constraints to what could be claimed, by whom and in what ways.

Although the *Lappekodisillen* refers to traditional movement of the Saami reindeer herders, it was in fact the newer trends of extensive herding that were recorded and protected in the agreement. As discussed in the previous chapter, reindeer herding Saami had owned limited numbers of animals long before some Saami began to migrate extensively. Vorren, for

¹¹⁷ The right to herd in the reindeer herding districts is currently recognized as a collective right held by the Saami. This is not the same as saying that each and every individual Saami has the right to herd. Restrictions began to be introduced in 1978 strictly limiting/defining who it is that may actually herd (see chapter on "An increasingly global arena").

¹¹⁸ Cronon works within the field of ecological history. His empirical cases are drawn largely from areas of New England, USA. American Indians originally inhabited these areas and share a similar situation with the Saami. Cronon writes, amongst other things, on the changing property relations that occurred as a result of intra- and inter-community claims arising in the wake of immigrants' arrival from Europe.

example, points out that in the period 1717 (Thomas von Westen's findings) to 1742-4 (Major Schnitler's examinations) nomadic routes had all become longer (1973:192, see Maps 2a, 2b).



Maps 2a, 2b. The maps indicate migration routes for reindeer over the national borders prior to 1751 (a) and prior to 1852 (b). It can be noted that the routes had become longer; particularly north to south in the northern areas, and from Sweden to Norway farther south (adapted from: Storli and Sara 1997:35).

Writing of the Varanger Saami, Odner reports: "... [i]n the second half of the 17th century that some families began roaming with their reindeer herds in the mountains on a year round basis ... the process towards reindeer pastoralism had not come very far by around 1700" (1992b: 17). Odner continues to explain that as the century progressed "full-fledged pastoralism" evolved with movements between the Varanger peninsula in the summer and in the forested areas of northern Finland and South Varanger in the winter. By 1770 most of these Mountain Saami were purchasing all of their supplemental goods (ibid.).

Extensive herding continued to expand, both with respect to numbers of animals and in the amount of area used, but the actors involved remained limited. As earlier, small herds continued to be overtaken, restricting the options of other Saami to own reindeer in a more traditional manner (Aarseth 1989:57). Precisely because the *Lappekodisillen* legitimized some groups of Saami to migrate over long distances and to use large tracts of land, it further enabled them to increase their wealth through the accumulation of ever-larger numbers of reindeer. But the increased number of animals also created a problem: owners were less able to recognize their own animals¹⁹. To be able to make and enforce claims, owners needed to

This is somewhat unclear. Individual animals do differ from one another. Solem reports that many Saami are able to give precise descriptions of their animals based on hair color, horn formation and form of body, such that even if ears/ear-tags are no longer attached, reindeer or their hides can be identified from the descriptions owners provide (1933). Nonetheless, there seems reason to surmise that although particular animals could certainly be recognized, in herds numbering thousands individual identity of each would be extremely difficult.

be able to easily recognize who owns which animals. It became evident to these herders that they needed to establish their exclusivity to protect their investment. As discussed previously, the process of establishing rules is a part of this. But as the size of herds grew, these herders needed a means of making their claims visible to others. As the question of possession was at times unclear, it was not enough for the owners to know that they owned their animals; their claims to these particular animals also needed to be recognized and respected by others.

Earmarks - visible claims of reindeer

The emergence of marks of ownership is a creative attempt on the part of owners to establish their exclusive rights to particular animals (for examples of earmarks and types of marking, see Figs.15a, 15b).¹²⁰ As discussed in the previous chapter, as an initial strategy, extensive herders took actions to eliminate wild reindeer. This had multiple advantages for them. Their herds would not be subsumed into wild herds and habitat would be available to their animals. And, not the least, others could not claim that they believed they were hunting wild animals. While effective, elimination of wild reindeer was not sufficient in clarifying disputes of ownership. With expanding numbers of often increasingly uncontrolled animals, conflicts between the herders about which animals belonged to whom were bound to increase. In the previous chapter, it was discussed that while special status was accorded to successful

120

There are a few hints in property literature that claiming animals, particularly migratory animals, may differ in some fundamental way from claiming other types of property, most notably land. One such reference, however, is found in Demsetz' often cited article "Towards a Theory of Property Rights" (1967). Demsetz chose to base his theoretical work on an empirical case done on Montagnais Indians and their claims to beavers under the conditions of an increasing fur trade in Canada. Leacock conducted the study in 1954 in Canada. Demsetz' forwards a hypothesis that there is a natural progression from hunting to land-based rights. What is of particular interest to me, however, is a limitation that Demsetz recognizes in his work. Referring to the Plains Indians' use of grazing species, Demsetz notes that dependence on migratory animals would set limits on the Plains Indians' interest in ownership of land. Despite the important insights offered by Demsetz' article, it was this sentence that captured my attention. As I read the sentence, Demsetz is implying that these actors' interests differ in some fundamental way. While under some conditions actors chose land, there are other contexts where actors may have other (overriding) interests, purposes and desires. Many, if not most, of those citing the work of Demsetz have not chosen to make this constraint explicit. Instead, his work has been seen as presenting a generalization to be applied under all contexts. There is therefore reason to go back and look at exceptions such as the Plains Indians, their interests, and the animals moving over large areas. In doing so, we can ask: how do people's interests in these animals affect the types of claims they make to these goods? And, if the claims differ in some fundamental way from other types of claims, what implications might this have to how we understand property regimes more generally? So, it could be said that I follow Demsetz' lead when I, too, chose an animal, reindeer, to base my study upon. In contrast to Demsetz, however, I purposely chose an animal that migrates. I ask an underlying question that Demsetz chose to overlook, namely: In what ways do the characteristics of a particular animal affect the types of claims that people make to it?

In addition, Demsetz has also chosen to focus at particular points in time - defining a before and after. He does not discuss what happened in the transition between the Montagnais' focus on beavers to their focus on land. Or, in the terms of this study, what happened when there were overlaps among claimants and between overlapping claims to beavers and the associated resource of land? (For comments on this, see Epstein 2001: 6) See also Anderson & Hill and Webb concerning the emergence and use of branding, and laws governing branding activity, in the USA (1975; 1959).

hunters, social rights and obligations would have required them to distribute meat among sii'da members. To collect and benefit from these rights and obligations, the reindeer had to be slain. Thus, ownership marks in arrows could be associated with the means of killing, in this case, with the arrow. Claiming a living resource, and an interest in capturing private gains, introduced a need to identify not only the claimant but also individual animals.

Whilst a limited number of tame animals were kept, marks of ownership would have been superfluous. But with the growing size of the herds, the attachment between the animals and people was weakened. Combined with the natural tendency for reindeer to move, the new situation required a way for owners to be able to control which animals were theirs (Ingold 1980:19-21). Solem writes that earmarks, as proofs of ownership, were both natural and necessary in the transition from a few tame animals used for hunting and transport to large herds that were more or less half-wild (1933:235). He traced the first written references on property markings of reindeer to the 17th century¹²¹. These earliest records for the Saami refer to trials and errors of branding and horn-marking - both inappropriate to reindeer as neither are enduring; hair grows over brands and horns are dropped yearly. Earmarking proved successful and its use spread rapidly and widely. Once ear-marks became established and recognized, the marks further enabled the Saami to increase the size of their herds. Although referring to a later period, Falkenberg captures the importance of the marks when he writes,

An earmark is first and foremost a sign of identification. An earmarked reindeer is therefore not any reindeer, but an animal that belongs to a particular person and belongs home in a particular area and in a particular herd. But herds can spread and reindeer can blend with foreign reindeer. A Mountain Saami is therefore interested in the surrounding areas as far as his marked reindeer can go. I remember how surprised I was to begin with at how intimate and detailed knowledge the Raros Saami had about local areas in large parts of Trondelag, Hedmark, Herjedalen and Jamtland, and how encompassing their relationships with Saami in these areas are. But, the point is that for reindeer herders such relations are necessary and a condition for him/her to be able to hold himself *a tour* with where his/her marked animals are to be found. (Falkenberg 1978:75, author's translation).

By the 18th century, reference to earmarks was being used in court cases - a sign that they were accepted as evidence and as legal recognition of ownership (Solem 1933:228). The period of the mid 1700's corresponds with the establishment of extensive herds. The technology of earmarks provided herders with a durable mark to visibly register their claims. They afforded a visible means to claim a moving good, essential in disputes between

¹²¹ With respect to 17th century see Hogstrom, 1746:83-4; Tornasus, J. 1690/1900:44,52- Scheffer J 1675-379 all cited in Solem 1933:228-9. With respect to the 18th century, see Leem, K. 1767/1978: 146, 403-4, see also Smith 1938:330.

claimants particularly where animals covered substantial areas. Through time, it became apparent how different interests in claiming and defining reindeer affected the variation in the rule structures concerning the use of earmarks.

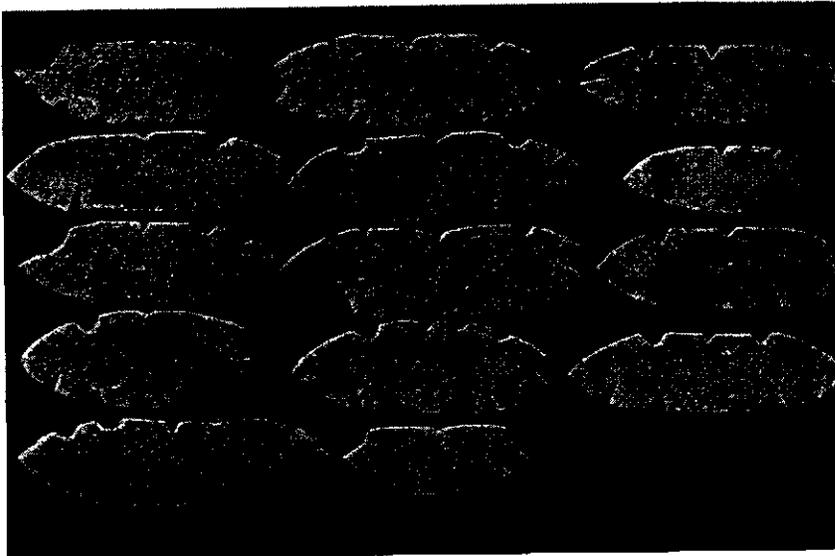


Figure 15 a. A picture of leather copies of earmarks used to register Saami marks (Solem 1933)

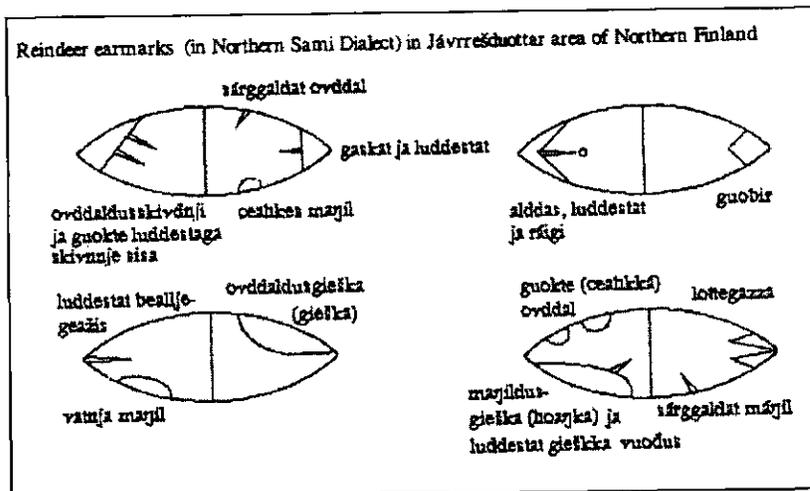


Figure 15b. Examples of types of cuts for earmarks and their Saami designations (Northern Sami dialect of Northern Finland). (Näkkälajärvi 1996:85)

The Reindeer Law for Finnmark

The clarity and freedom of movement provided for under the Lapp Codicil lasted into the following century. The agreement was used as a common Norwegian source of law from its inception in the mid-1700's and through to the 1800's (Smith 1984:134). At the same time, the basis for a new controversy was being laid. The right to herd quickly became tied to questions of the rights to (exclusively) use vast tracts of land.

An example of this is provided by Austena and Sandvik where they recount the historical background of the term 'commons' in the north and south of Norway (1998).

The question may be raised why in 1775 and afterwards the Norwegian institution almenning (commons) was not applied in a legal system in Finnmark. In fact civil servants used this term from the 1690s to around 1850, probably by analogy of the general articles on commons in the royal lawbook of 1687, Christian V's *Norwegian Law*. The articles 3-12-1 to 8 date back to chapters VII 61 to 64 in King Magnus the Law Mender's national lawbook 1274-76. Article 3-12-1 begins by asserting that the "commons shall remain as it has been from ancient times," thus ensuring the people traditional ways to use resources on the "king's common (3-12-2)". (Austena and Sandvik 1998:207)".

It remains difficult to historically account for why groups of established farms south of Finnmark, ki delineated rural districts, were allowed to purchase commonly used areas (such that they were not open for grazing to people from outside the district), while in Finnmark, the commons came to be interpreted as being open to all - despite the clearly established user rights of the Saami herders (ibid.). When the concept of commons originated in the 1600's, the concept of *sii'da* referred to a group of people associated with an area - not unlike the groups of farmers to the south who made joint use of outlying fields (Korpijaako-Labba 1998). Sandberg notes that in 1666, the King sold off "crown lands" in the north as a means of financing the wars he was waging on the continent (1994). These were bought back in 1682. This transaction was used in the 19th century (the period when Social Darwinism flourished -discussed later in this chapter) to justify why these lands were no longer to be considered commons. Once repurchased, it was argued that the lands changed character becoming purchased state property rather than jurisdictional state lands (ibid.: 25-28, see also Hauglind & Minde 1980:491). In the meantime, the proclamation of 1775 allowed a person to

Lier-Hansen discusses the ancient Teutonic legal system that continues to influence the Norwegian view of rights to use the outlying fields (*utmark*) and wilderness areas. In this tradition user rights take precedence over property rights (1995:92-3). What is particularly important with respect to these rights, writes Lier-Hansen, is the equality it assumes among all people. Everyone is accorded equal rights of access and use. This tradition not only continues to exist, it has been further supported in the recent Outdoor Recreation Act of 1987/88 (*Om Friluftsliv*).

both register and occupy land in Finnmark. Although part of the intention of the law was to encourage settlement of the Saami, it had little effect (Paine 1957b: 176). It may be that the concept of full ownership of the land, and what that legal concept then implied with respect to possibilities for land owners to exclude other users, remained foreign to the Saami. The Saami did not see the relevance of claiming a particular parcel of land, but were more interested - as their historical experience has shown - in accessing rights of use to a variety of natural resources in a variety of places.

At about this point, international relations directly affected reindeer herders. In 1809, Sweden surrendered Finland to Russia. In 1810, the border between them was established. In 1814, as a consequence of the Napoleonic wars, Norway came under Swedish rule, rather than the previous Danish rule. Despite Swedish recognition of a Norwegian constitution, this last act aroused great protest in Norway with the consequence that Norwegian patriotism began to rise (Groth 1996:115). Changes continued and in 1826 the border between Norway and Russia/Finland was confirmed¹²³ (see Maps 3a; 3b). Although the Russian state did not recognize the *Lappekodisillen*, it was originally agreed that Saami could continue to cross national borders in accordance with historical use. However, in 1852 a Russian claim to extensive Russian Saami fishing rights on the Norwegian coast was rejected by Norway. Russia retaliated by formally closing the border and enforcing the decision to deny Norwegian Saami access to their traditionally used pastures. Sweden-Norway reciprocated in kind.¹²⁴ In the ensuing chaos, the various Saami groups chose different strategies. Elbo reports that many of the Saami from the Kautokeino area in Norway, who had formerly traveled to pasture grounds in Finland, emigrated to Karesuando in Sweden (1952:348-9). These Saami, with their estimated over 20,000 reindeer, made use of the mere formality of nationality (Wiklund 1923:229). The Norwegian state further legitimized this move by referring to the rights of the Saami to move as being secured in the Lapp Codicil (Bull 2001: 41). By registering their nationality as Swedish rather than Norwegian, these groups were able to access both their traditionally used and additional pastures in Finland because the Swedish-Finnish border had not yet been closed (ibid.; Elbo 1952:348-9). Among the reindeer herding Saami remaining in Norway, it is estimated that herders of approximately 50,000 animals lost access to traditionally used pasture (Landbruksdept. 1932:2; Aarseth

¹²³ Convention February 14, 1826; Law of July 24, 1827.

¹²⁴ See, for example, Bull 2001: 22; Elbo 1952:348; Nissen 1914-16:66-7; Sillanpaa 1994:48; Wiklund 1923:229, footnote 4; Aarseth 1989:78.

1989:78). This created a nationally recognized crisis, as reindeer herding by this time had become one of the most important sources of income in the far north. In the ensuing chaos, reindeer owners protested. Their demands brought about a special law, exclusive to the northern most region of Finnmark. Attempts by the government to entice Mountain Saami to become Coastal Saami failed completely¹²⁵ (Bull 2001: 28-36, for location of some of Norway's provinces, see Map 4, p.173).

The Reindeer Law for Finnmark was enacted in 1854¹²⁶. It stipulated reindeer herding districts and separated winter and summer pasture areas. These constraints were introduced to control the number of animals pasturing in any particular place and time so that lichen could be protected for particular seasons. The law was based upon the territorial idea of the *sii'da*, but rather than recognizing Saami interests in flexibility the borders were strictly defined. The law, specific to herding, was requested by reindeer owners and was seen as protecting their needs and interests. As the State owned most of the land in the area, and as other interests to the inland areas remained limited, the new law was not contested by alternative land users (Berg 1994b; Storli and Sara 1997). Both through the courts (see below) and through legislation, the Saami were seeking a clarification of rights and obligations with respect to both their ownership of reindeer and the animal's need for habitat.

Demanding state intervention was unproblematic as long as the law was developed based on Saami interests and traditions. In fact, at this point in time, the state appears to both protect and develop reindeer herding in order to respect reindeer herders' rights (Bull et al. 2001: 264). However, as will be shown, new regulations, laws and amendments came to be introduced, building upon other ideals, ideas and interests. As the State became increasingly able to enforce what were often diverging interests in these marginal areas, clashes grew between the nationally delineated rules and laws, and the often conflicting agreed upon rules of use which had developed over time among groups of Saami. During this particular period, however, these decision-making arenas remained largely isolated from one another.

Bull writes that Saxlund and Hauge reported to the parliament in 1853 in Ot. No. 42 (1853) that, "Naturally enough, it has been shown that Mountain Saami retain such an overwhelming love with that they have inherited from their Ancestor's Life, that not even a well conceived argument could convince any of them to change their occupation, realize the gains from their reindeer and become Coastal Saami, with less than absolute necessity being eminent" (2001:36 - author's translation).

¹²⁶ Law of September 7,1854.

Theft of reindeer

By the late 1800s, ownership of reindeer was well established. Nonetheless, looking at the margins of how ownership is defined, to who has a right to what, and to how claiming and exclusion work in practice provides some insight into the practices of property - including uses and interpretation of rule systems. Earmarks and natural body markings (hair color, horn formation, scars) have already been discussed. They provide a means by which Saami can recognize and claim their own animals. Earmarks and natural body markings also provide a means to both report and identify theft of animals. Accompanying the increase in the number of animals claimed by the Mountain Saami was an increase in the number of reported thefts. Defining incidents as "theft" indicates a circumstance where an owner claims that his/her property has been taken from him/her unjustifiably. By seeking some form of retribution, the claimant indicates his/her expectation of the willingness of the general society to recognize, respect and enforce an owner's claims. At the same time, the action itself may reveal other stakeholders' claims to goods. Additionally, different justifications appealing to potentially different groups and/or arenas, and consequently use of different rule systems, may well be forwarded by the different actors to legitimize their actions.

Theft of reindeer can take place in two main ways: theft of a living resource in which earmarks are altered (or made on unmarked calves); and theft through slaughtering the reindeer for one's own use. Reflecting the Saami concept of first use, reindeer that are slaughtered to keep a family from starvation are rarely reported. Need is thus seen as legitimizing the action; it is recognized as a constraint on the extent of the rights that can be claimed.¹²⁷ In contrast, slaughter of a doe in order to claim her unmarked calf is considered among the worst types of reindeer theft (Solem 1933: 222-226). According to rules among herders, theft of reindeer is not associated with any particular territorial boundaries among the Saami. If animals with marks from another owner come into the area occupied by sii'da, it is the responsibility of the sii'da to "take care" of it until the owner comes to claim it. Unmarked calves belong to the owner of the doe, and if the calf is alone it belongs to the sii'da where it is found - unless claimed and identified by another. This right to claim is

A recent example, however, indicates that there are exceptions - and may indicate less flexibility in the law than in common practice. The Supreme Court recently sentenced a man who, having shot a reindeer calf, was caught in the process of slaughtering it. In trying to reduce the charges against his client, the man's lawyer argued that theft leading to imprisonment normally reflects the theft of live animals when they are subsumed into the herd of another herder. The Supreme Court, however, going against what has been common practice among the Saami, claimed the need to set an example. They ruled that this information was not pertinent to the sentencing. The sentence of 18 days, together with a fine, was left standing (Hansen, K. 2000).

strictly limited to reindeer-owning Saami. Settlers are not recognized as having any right to claim ownership of unmarked reindeer because all rights to own reindeer, in what came to be defined as the reindeer herding districts, are seen as belonging to Saami. Additionally, because wild reindeer had been effectively exterminated in these areas, any attempts by settlers to claim unmarked reindeer are considered theft.

The state also attempted to claim ownership to unmarked reindeer by defining them as "lost property". This way of defining reindeer equated these animals with other types of property that owner's had waylaid. The state's claim made no recognition, for example, of the special characteristics of calves as "being tied" to their mothers, or of the natural tendency of reindeer to move (it was not the action of the owner that led to the property being lost, but an action taken by the "property"). Nor did it recognize the exclusive ties between Saami and reindeer in this area. The Saami objected to the state's claims. Their viewpoint, as cited by Solem was that "[i]t can neither be right nor just, calves cannot be lost (unowned) property. The state does not own reindeer; it has no right to the calves, they are the property of reindeer-owning Saami" (1933:226, author's translation). The Saami began to use earmarks to ensure that individual ownership of the reindeer was clear. But in their reaction to the state's claim, the Saami forwarded their claim jointly as a collective means of excluding other claimants.

In his examination of court cases involving Saami, Solem notes an increase in the reports of the theft of reindeer from the late 1800's (1933). He reasons that it is doubtful that this is simply a reflection of an earlier Saami interest to settle these cases internally, although certainly this also happened. In comparison, Solem refers to the frequent use of the courts in Saami cases involving illegal fishing or trapping of beaver. Solem believes that the increased reports of reindeer theft arose as a direct result of the increased size of herds. With smaller herds, the Saami were able to maintain full control over their limited number of animals. Any attempt by others to kill or capture their reindeer would have easily been detected. But with many of the larger herds, there was less control of the animals. Saami, with their extensive herds, move over larger areas. Individual animals often become separated from the herd. As a consequence, access by others to these owned reindeer was increasing in the same areas where wild herds had been decimated.

The problems encountered by the extensive herders was also recognized by Smith, who writes in 1865 that owned reindeer herds of thousands were still to be found, but less frequently

than in the preceding years (1938). He suggests that the reduction in numbers of animals reflects not only the favorable market prices at the time, but also the increasing risk that large herds imposed. The owners, writes Smith, had far less control over their animals than those who managed limited sized herds (1938:280). The animals ranged widely, and were not all adequately earmarked, which meant that it was relatively easy to steal substantial numbers of them. By 1938, in the northern most areas of Norway, reindeer theft was the most common breach of law. Even today, it continues to be major problem for owners of reindeer (Hansen, K. 2000:42). Smith reasoned that among the extensive herders of the late 1800s, the work of herding exceeded the owner's capacity to manage their animals due to their large herds and limited control over their animals (1938:280). Keeping the animals together was difficult and many animals were lost. As a result, it became necessary to reduce the size of the herd to bring it into balance with the availability and capability of herders (ibid.).

The theft of reindeer was recognized as being an increasing problem for Saami herders and was taken up in 1878 as one of numerous issues by the Fjeldfin Commission. Generally the Commission supported Mountain Saami's interest in proposing increasing specificity and stringency in rules. But with respect to reindeer that were "left behind" when the Saami moved from their summer to winter pastures, the Commission suggested that those slaying these animals should be acquitted from any charges of theft if there were sufficient grounds to justify the fear that during the winter the animal would otherwise have died of hunger (Bull 2001:176-177). In other words, Saami obligations to care for their animals were recognized as providing the basis for them to claim them. Constraints on Saami rights to claim were introduced when this care could not be ensured.

In analyzing theft of reindeer, it can be noticed that the opportunity to steal animals increased. Given the increasing number of uncontrolled animals ranging throughout the districts, many Saami, as well as settlers, may have believed they had a legitimate right, through the application of their labor (through hunting), to claim reindeer which were wild in terms of their behavior. The relationship where responsibilities for animals infer certain rights of ownership became less clear. While willing to accept that individuals could own a limited herd where the animals had a clear function as a living resource, the minute distinction between a marked and unmarked animal ranging freely in the tundra may not have been recognized by all as a legitimate claim that needed to be respected, particularly when the animals, and the way they were herded, posed a potential threat to one's own way of life.

In addition to these types of reasoning, Paine provides examples of the purposeful killing of another's animals often officially recorded as theft or poaching (1970:64). He writes that in these cases, the killing is meant to be a clear signal to the owner that s/he/they should not expect others to watch over her/his/their animals. In these cases, the "theft" may well leave both his mark - and the animal - to ensure that the message being sent is not misunderstood. Beach et al. also write about the same phenomena occurring in Sweden in recent times.

Individuals or groups that are denied partnership or cooperation, however, can resort to other stratagems to attain their ends. They might simply drive their reindeer into the traditional range of another group, let the deer mix and let their *de facto* presence establish a herding claim there and an object of herding efforts by others. One can always claim that this was an emergency measure or that the deer strayed there on their own. In fact, this can be partially true, for in a system of regular extensive management, freely roaming reindeer can mask herder intentions - one can purposely let the deer stray in the desired direction ... The herder who forces his deer upon others and then leaves the work to them might come to wish he were in a position to defend his animals. It is a herder's way of underlining that there is also a need to control animals, a duty to shepherd, both to share the work that this entails and to protect one's own animals. (Beach et al. 1992: 76).

Again, we see actors' interests revealed in the acts of claiming, establishing and maintaining property rights and obligations. In this case, through the act of killing animals that are not considered to be properly shepherded, herders are underlining the responsibility of owners to care for and provide adequate pasture for their own animals. Reindeer need to be controlled, or husbanded, both to protect them and to keep them from harming or infringing upon another's property. Reindeers' ability and need to move and eat, however, indicates that simply marking them is not a sufficient strategy on its own. Given that reindeer migrate, collective management is attractive. Collective management, in turn, depends on all members of a group participating. There is thus an obligation to members of the *sii'da* to participate in shepherding the reindeer and obligations directly related to the resource. All of these aspects of control, or obligations, are consequently integral to understanding the emergence, change and consequent variation of property regimes. With respect to conflicts with non-herders, the latter became the most prominent issue in the years that follow.

The Common Lapp Law of 1883²⁸

Whereas the Reindeer Law for Finnmark was invoked to protect reindeer herding and ensure its continued existence, the Common Lapp Law was initiated to reconcile conflicting interests farther south between farmers and herders, as well as between herders on both sides of the

The complete Norwegian name of this law, commonly referred to as *Felleslappeloven 1883* is *Lov angaaende Lappeme i de forenede Kongeriger Norge og Sverige*. It was signed on June 2, 1883.

national border. Already in 1843, the first Swedish-Norwegian Commission was appointed to address "the Lapp Question". They were, however, unsuccessful (Wiklund 1908:95). The loss of access to Finnish pastures following the closing of the national border exacerbated the situation and resulted in Norwegian Saami having much more limited benefit from the *Lappekodisillen* than when it was originally negotiated (Nissen 1914-16:87).

From about 1860, the Norwegian government was actively attempting to reduce conflicts between settlers and reindeer herders. It financed the purchase of farms situated in such a way that it was impossible for herders - even herders with strict control over their animals - to avoid damaging hay and meadows. In addition, the state built fences around vulnerable areas and suggested legislation for compensation for damages to settlers' property. These particular laws were stopped in Parliament as they were considered much too stringent for the reindeer herders (Bull 2001: 20-21).

During renewed, intense and difficult negotiations, the Norwegian government tried to renege on the *Lappekodisillen* and close the border, objecting that there were no longer joint national interests. Sweden rebutted that it was not national interest, but the reindeer herding Saami interests, that were the basis for the original agreement - and that it was therefore not justifiable for one of the national parties to withdraw (Berg 1990). The controversy was actually fueled by more than reindeer herding. Land was no longer solely valued as reindeer pasture. At least as important as the question of access to herd reindeer, was the increasing damage to meadow, hay and forests in the government-encouraged settlements in the Troms area in Norway (Wiklund 1923:228-9). Also emerging with the period of National Romanticism was an increasing feeling of irritation among Norwegians of "being used" by Sweden (Groth 1996). To Norway's complaints and accusations, Sweden rebutted that the Swedish reindeer herders' migration was in part necessitated "...as the influx of Lapps [Saami] from Kautokeino in Norway to Karesuando in Sweden was causing difficulties in exactly the area to which the greatest number of Swedish Lapps who visited Norway belonged" (Marainen 1984:29). Supporting this, the legal historian Bull reports that by 10 years after the closing of the Norwegian/Finnish border, 51 herders with a total of 11,000 reindeer had moved from Kautokeino, Norway to Karesuando, Sweden (2001:42). And furthermore, although it was officially Swedish Saami crossing the border, these herders had originally been Norwegian Saami that were in fact returning to their traditionally used pasture areas (ibid.: 77-78).

After almost 20 years of negotiation, Norway and Sweden agreed to the Common Lapp Law in 1883 for an initial period of 15 years, despite Norway's strong interest in closing the national border to reindeer migration. The law, among other things, continued to recognize the rights of Norwegian and Swedish Saami herds to seasonally migrate across the national border with their reindeer herds. As argued by Aschehoug, during this period the acceptance of the Swedish reasoning – that the Lapp Codicil could not be reneged on by either side - strengthened not only the Swedish Saami position, but also solidified the legal status of the *Lappekodisillen* (1875:75). He reasons that because Norway could not independently decide to withdraw from the agreement, both states had effectively reconfirmed the broad user rights of the Saami.

Swedish herders entering Norway were only a part of a more general conflict, which was escalating between herders and farmers more generally. As expressed by Vice Minister of Agriculture Kjerschow in the draft law of 1882, both sides fueled the conflict between Saami herders and farmers.

On the whole I have experienced that small damages and insults in this relationship between reindeer herding Saami and farmers often create an unusually strong bitter anger between the parties. The opposing interests arising from their professions, their different nationalities and languages and the above mentioned irritation amongst at least some of the farmers, that to their properties are attached a burden, which is unknown in the southern areas of the state, whereas on the other side the Saami carry the constant feeling of, that the farmer's plowing and planting the land has robbed and continually bit by bit robbed them of access to areas, where they or their ancestors moved freely about. The relationship on its own is precariously - without regard to either the size or number of damages - strained, and on that account it is in this relationship more than anything else desirable, that the legal regulations on reciprocal rights and responsibilities are as much as possible clear and defined, and that the result of getting cases and damages - large or small - settled or adjudicated, is easy ... ¹²⁹ (Kjerschow, Ot. Prp. No. 2 (1882):14-15 cited in Bull 1997:105, author's translation)

Both Saami and farmers, and not least the Norwegians, recognized, despite their conflicting interests, that they were in a changing situation where many of the old rules no longer applied.

¹²⁹ In Norwegian: *I det Hele toget har jeg gjort den Erfaring, at smaa skadetilfølelser og Fornærmelser i dette Forhold mellem Flytlapper og Fastboende ofte vække et ganske usædvanlig bittert Sinderlag hos Parterne. Dertil bidrage deres Leveveies modsatte Interesser, deres forskjellige Nationalitet og Sprog samt den oven nævnte Ærgrelse hos ialfald en Del af de Fastboende over, at der er pååbundet deres Eiendomme enn Byrde, som er ukjendt i de Sydlige Dele af Riget, hvortil på den anden siden kommer den hos Lapperne tilstedeværende Følelse af, at de Fastboendes Opdyrking af Landet har berøvet og fremdeles lidt etter lidt berøver dem Adgangen til Strækninger, hvor de eller deres Forfædre strejfede frit omkring. Forholdet er saaledes i og for sig - uden Hensyn til Skadetilfølelsernes størrelse eller Antal - spændt, og på Grund deraf er det i dette Forhold mere end i noget andet ønskeligt, at Lovreglenene om gjensidige Pligter og Rettigheder ere saavidt mulig bestemte og tydelige, og at Udgangen til at faa Sager og Skadetilfølelser - store eller smaa - opgjorte eller pådømte, er letvindt, ...*

The context had changed. Actors and their interests were changing. The diverse actors were all interested in the establishment of laws that clarified the new situation, although their interests in what those laws might be differed widely (Sillanpaa 1994:47). As the political philosopher Waldron writes: "[t]he authority of law rests on the fact that there is a recognizable need for us to act in concert on various issues or to co-ordinate our behavior in various areas with reference to a common framework, and that this need is not obviated by the fact that we disagree among ourselves as to what our common course of action or our common framework ought to be" (1999b: 7).

The Common Lapp Law contains three main principles that continue to be found in current reindeer herding law:

District divisions - establishing where there is a right to herd. This was to be based on traditional Saami herding areas. (§6)

Reporting requirements - each reindeer herder who moved into a new district (also seasonally) was required to inform the sheriff of who they were with, where they were located, the number of reindeer they had with them and who were the owners of these animals.

Common responsibility - requiring the compensation by all Saami in an area if a particular owner could not be identified with respect to damages caused to crops (§9) (Berg 1994a, b).

The principle of common responsibility is unusual. It builds on the idea of guilt by association. Particular reindeer herders in a district have to prove their innocence in order to not be included in particular cases of damage retribution. This goes against the commonly accepted principle in Norwegian law that builds upon presumed innocence until proven guilty. Writing in justification of the principle, Nissen explains:

It is founded in part in the actual condition that Saami reindeer herding to a large degree is to be characterized as "common management", and in part because of practical need. Where there are numerous herders within the same District it is, practically speaking, impossible for a landholder to determine, which of the owners it is that owns the reindeer that have caused the damage. Even if one has seen the reindeer, when the damage was occurring, one cannot recognize the one animal from the other. Reindeer are many in number and quite alike in appearance. And the proof of ownership - the mark in the ear - is recognizable only to the Saami. To read reindeer-marks from several meters distance is possible for a Saami, but not for a farmer unless he has been with the Saami so much that he has come to be known as one. (Nissen 1914-16:86, author's translation).

Nissen goes on to say that there is an additional constraint in identifying particular owners because reindeer are not able to be captured by hand, and few farmers are adept at throwing a lasso. Finally, even if a farmer were able to capture a limited number of the animals involved, it is the whole herd which often causes the damage. There is, therefore, no way of knowing who owns the remainder of the animals (ibid.).

Nissen identifies many of the particular challenges of enforcing the responsibility for ownership of migratory animals. First, given the nature of the animals, Saami find it rewarding to herd their animals jointly. This continues to mean that identifying the owner of single animals is not synonymous with identifying the owner(s) of the herd. In addition, although earmarks served as signs of ownership among owners, they were inaccessible for outsiders in identifying responsibility for damages. Nissen intimates that because the signs of ownership were not recognizable to landowners, an alternative was needed to the method commonly accepted and recognized as fundamental in the Norwegian law system. As a way of instituting farmer's interests, common responsibility and fines were introduced for reindeer owners not controlling their herds - as well as for all of the other herders registered as having reindeer in the same area (unless they could prove their innocence). The introduction of common guilt creates a multiple rule system for the Saami: in this case introducing a law that contradicts a basic underlying principle of the Norwegian legal system, namely the idea that one is innocent until proven guilty.

In its formulation, the newly introduced law recognized the common management system of the Saami. Again, we see evidence of actors invoking different rule systems. Both of which promoted their own interests and reflected the special needs introduced with ownership of migratory animals - namely, the animals' need to move and eat. An example of actual practice is presented in the writing of the Saami Utsi referring to his youth in a reindeer herding family 25 years earlier (1920's) (1948:98). He writes, "[n]ot before the cooler autumn weather did the animals tend to come down and encroach on the farmers' fields along the shore. Each Lapp community had a 'foreman' or vice-foreman who ensured that a rotation of herders kept the deer from damaging the crops." He has footnoted this sentence with the following comment, "During the years that I took part in the summer herding,

compensation had to be paid only two or three times. Usually the sum was easily agreed; if not, one Norwegian and one Lapp not involved in the dispute adjudicated. Similarly, if one of the farmer's dogs chased and killed a reindeer, we declared ourselves satisfied if the farmer immediately shot his dog." The quote indicates that it was not only the Saami who needed to control their animals. Just as reindeer can decimate a field, so too can a loose dog cause havoc in a reindeer herd. Rules in practice and rules in use - at least in this area - took into account that both herders and farmers had responsibilities and obligations for the animals they owned.

In Bull's presentation of the Common Lapp Law of 1883, she refers to commentaries given during the legal process concerning Saami rights to herd based on historical use (1997:37-41). The concept of "use" here extends beyond rights to pasture, including the right to fell trees, hunt and fish. Bull argues there is reason to assume that Saami rights to herd, based on their historical use, were commonly acknowledged by all members of the committee, as no protests were raised to these commentaries. This is supported by a Superior Court decision in 1862 that recognized nomadic Saami as the first inhabitants of the north; specific to the rights of reindeer herding Saami, this decision specifically refers to the Lapp Codicil (Smith 1984:132). The point is essential: once acknowledged, the recognized legitimacy of these types of rights cannot then simply be reneged by the State at a later date. The Common Lapp Law, §3, took as given that Saami nomadic reindeer herders were either Swedish or Norwegian citizens and it recognized their right to herd in areas they had historically used (Bull 1997:38; Severinsen 1979:39). The law, therefore, recognized that reindeer herding had established legal grounds based on ancient use. According to Bull, the question raised seems to concern how far protection of these ancient rights extends (1997:41). Although the Common Lapp Law prioritized the use of land for agriculture, it stipulated that acceptable pastureland needed to be provided in compensation for land areas that had been overtaken. As Berg notes, this ensured, at least on paper, that the Saami would be able to continue to herd even if forced from their traditional pasturing areas (1994a). The Common Lapp Law also, in accordance with Saami interests, gave very detailed rules and regulations with respect to the marking and registering of animals (Storli and Sara 1997:56)¹³⁰. While these points were (and remain) important for the Saami, the Common Lapp Law was mainly introduced to

¹³⁰ Similarities can be drawn to the situation found in the west of the United States with respect to cattle in the mid-1800's when the value and number of the herds increased and land became increasingly scarce (Anderson and Hill 1975).

protect farmers against damages caused by reindeer (ibid.: 17; Sara 1993:42; Severinsen 1979).

The changes brought about by the process and enactment of the Special Law for Finnmark and the Common Lapp Law run deeper than analysis of the laws alone can provide. Decision-making was moved away from the proximity of both the good and the actors in question. The laws were negotiated and passed in the national capital, in a new negotiating arena for the Saami, far removed from the Saami in both a geographical sense and a political one - Oslo was considered "foreign". Representation, geographic placement, skills of the actors and the social rule systems all constrained the Saami people's ability to negotiate. The language and rules of conduct for discussions - of what could be said, by whom and how - were all unfamiliar. The Saami themselves could not participate directly and were instead represented by government officials with responsibility for reindeer herding. As a result, the Saami were in a weak acting position, which affected not only these particular laws but also their capability and opportunity to influence future decisions (Dyck 1985:12)¹³¹. The foundation was shifted with respect to determining who had the authority to stipulate overarching questions of management, including where reindeer herding could take place, how many animals could be owned, and how they should be marked. At first this was uncontroversial and built largely upon Saami traditions. But, as Fowler points out in writing about the historical global development of claims to plant genetic resources, "[c]ertain choices, it seems, involve a forfeiture of control, at least by certain actors. Such choices restructure the context and change power relationships" (1994:273). As we shall see, once shifted, the power of controlling the negotiating arena created an opportunity for the state's priorities to dominate over Saami interests - the state at this time being primarily comprised of landed politicians and bureaucrats¹³². Nor should we believe it was only the Saami that were being affected by changes in access rights to natural resources. Far to the south, small farmers (cotters, freeholders and laborers) were facing similar struggles against large landholders.

¹³¹ For general comments, see Bums et al. 2000:4; Giddens 1984:342-3.

¹³² The Norwegian Constitution was consolidated in 1814 after the transfer of Norway from Denmark to Sweden. Although the constitution proclaims equality, there was in fact a clear division between large landowners and civil servants on the one hand, and cotters, freeholders and laborers on the other. This duality was visible in, among other things, the right to vote and hold office. Only "property owners" who paid taxes were considered "active" or "real" citizens. Therefore, it was these people who were conferred the right to vote and hold office in parliamentary elections. They comprised between one third and one half of all adult men over the age of twenty-five. Due to allodial rights of inheritance, this structure was largely maintained from one generation to the next (Aubert 1989). It is also the case that most Saami were excluded because the State had claimed the rights to all land in Finnmark in the late 1700's. This was recognized as problematic and amended in 1821 (Grunnloven §50, Arnesen 1988:13).

Changing regulations with respect to game in Norway

Just as was the case in north, the remainder of Norway also continued to experience increases in population, improved infrastructure and technology, including transportation and weapons, a decreasing number of wild animals and substantial changes in land use towards agriculture and silviculture. As a direct consequence of the emergence of an increasingly defined sovereign state, laws concerning the control of natural resources were introduced. Controversy arose between those claiming natural resources as state property to be managed on behalf of the social interests of all of its citizens, and those arguing of the need for privatization as a means of promoting industrialization (Thuen 1995:60). The consequent controversies and struggles, and the subsequent decisions being reached, provide a context for understanding the differing attitudes, emerging beliefs and interests people had concerning rights to natural resources in Norway at this time. When comparing the attitudes and situation in the north and the south of the country, the similarities seem striking. Struggles over the rights of access to wild animals, for example, are important in both areas. Even more striking, however, is that in the recently published history of environmental management in Norway by the Norwegian Ministry of the Environment, from which much of the following section is drawn, the Saami do not receive any mention at all (Nattestad 1999).

In the south of Norway the pressure on wild stocks grew, while in the far north wild reindeer had been replaced by owned, or "tame", animals. By the early 1840's, game was becoming scarce in the markets of the capital, Christiania, and exports of game and skins were falling, despite a high demand¹³³. Not only were those directly dependent on these goods being affected, the city-dwellers were also made to feel the increasing scarcity of wildlife both on their dining tables and in their wallets. Although this seemed to convince many Norwegians that changes were needed, major differences arose between small farmers and the bureaucracy as to what type of regulations should be enacted. At this point in time, the Ministry of the Interior had the overall responsibility in Norway for natural resources including land (agriculture), fish, forests and game.

¹³³ As a reaction to scarcity, continental countries began to invoke periods of protection for some types of game and fowl. In 1730, Denmark tried to introduce similar regulations within Norway as Denmark had invoked itself with respect to moose, deer, wild reindeer, hare and wild fowl. Bounties for wolf and bear were introduced at the same time. Long and loud protests resulted in revision and then revoking of the regulations in 1733 and 1744 respectively (Nattestad 1999:73).

Early in the 19th century, Halvor Rasch, soon to become a professor at the University of Christiania, proposed what he termed as a 'scientific basis' for game management. Rasch's management plan had the goal of ensuring the largest possible harvest of natural resources at the national level (Soilen 1995:14). The plan was well suited to national bureaucrats, largely comprised of large landowners, who supported it (see footnote 132). Small farmers, however, were quick to note the dual interests of the bureaucracy. It was during this same period that many bureaucrats, inspired by English sport fishermen and hunters, began to take up similar pursuits in Norway. Heated controversies arose when it became clear that the scientific arguments were being used to support the private sporting interests of the bureaucrats (Nerttestad 1999:73-4). The introduction of "rational" management quickly boiled down to a division of rights of access, or as Sainen writes, "... the poor man's bread against the ruling class' desires" (1995:16). In 1818, exclusive rights to hunt moose on private land were created, but were generally ignored.

Although considerably weakened from the original suggestions by Rasch, the first general regulations for game were introduced in 1845. They took the form of constraints on rights of access - e.g. periods of time when hunting was prohibited. This was expanded on June 22, 1863, to include restrictions on certain types of hunting methods, particularly the use of pitfalls (*gravfangst*) (Reimers 1989:99). The regulations were not, however, respected by Norwegians or foreigners. The number of game continued to decline. During new rounds of revisions, the central question became that of who was to have rights to access and utilize game. Just as in the case of the Saami and reindeer, with the increasing scarcity of wild game came a demand from the diverse array of actors involved for more precise regulations and controls with respect to rights of use, as well as control of abuses of those rights.

In 1871, the Norwegian Hunting and Fishing Union was established to protect sporting interests. It was an exclusive group with royal ties - King Karl was the original protector. Certainly not a neutral organization, it is interesting to note that the Union became highly influential in advising the Ministry of the Interior. The Union was particularly called upon for their professional expertise/opinion in establishing policy with respect to hunting. Their opinion was clear - in order to control the decreasing numbers of wild game resources, these animals should be put under "rational management". To do so, the Union went on to claim that landed property owners must be given the exclusive right to all forms of hunting (Soilen 1995:14). Given the mountainous conditions in Norway and the migratory nature of some of

the animals involved, this was considered a more appropriate alternative of securing private rights than the system of enclosure being introduced in England¹³⁴ - as it created not physical, but legal boundaries that delineated user rights.

In 1899, after difficult negotiations, land owners' rights to hunt game on their own property were strengthened at the expense of the traditional common rights held by all (*allemannsretten*¹³⁵) (Lier-Hansen 1994). The Hunting Law substantially extended hunting rights to large landowners and was heavily criticized. Again, precipitated by increasing scarcity, and made possible by an increasingly powerful nation state which equated clear boundaries of land with the rights of exclusive use, the bundle of rights held by land owners was increased. Nottestad writes that many saw this as particularly paradoxical, because just prior to this, the government had legislated to extend the right to vote to all men (1999:75). Yet, by extending landowners rights, the government was producing further inequalities based upon ownership of land.

Once exclusive usufruct rights to game, including reindeer, were established, large landholders became increasingly interested in exercising their rights. As such, there are similarities to be drawn with the situation of the extensive Saami herders. The extensive herders sought to eliminate wild herds in a particular place as a means of more clearly delineating their ownership, and to ensure that their own herds were not subsumed into wild herds. For similar reasons, large landholders, south of what would become the reindeer herding districts, in establishing their exclusive user rights to wild reindeer, became increasingly interested in limiting the extent of tame, or owned, reindeer. Owned reindeer in an area make it nearly impossible to hunt, as the status of the animal cannot be determined before one checks to see whether or not there is an ear-mark. The inherent incompatibility of

Munsche, among others, has written about enclosure in England. Particularly apropos to the discussion here, she writes, "[i]f, however, the exact meaning of the game laws is sometimes difficult to establish, their intent is not. The purpose of the game laws was to ensure that the hunting of game - particularly hares, partridges and pheasants - was the exclusive privilege of the landed gentry" (1981:8). Not unlike the distinction drawn in classifying reindeer as wild or tame in Norway (see discussion in on this later in this chapter), enclosure in England also meant that the concepts of "wild" and "tame" had more to do with ownership than with behavior or breeding. "In essence, enclosure was a process by which wild animals were confined to a specific area where they were bred and nourished until the landowner permitted them to be hunted and killed. While such animals were never fully domesticated, they did cease to be wild - and that altered the approach of the law to their protection. A wild animal, by definition, had no owner; thus, if it was captured or killed, no person suffered a loss... After enclosure, the animal ceased to be wild and acquired, in at least a limited sense, an owner" (ibid.:4). ¹³⁵ *Allemannsrett* continues to be recognized and practiced in Norway. Rather than establishing exclusion to goods, *allemannsrett* legally provides for establishing inclusion of the individual right for each and everyone to access outlying areas and to gather such goods as berries and mushrooms.

the two conceptualizations of owning reindeer continues to divide the Saami and large landholders to the south.

The period between and following World War I and World War II, and the ensuing economic crisis in Norway, brought further changes. Recreational hunting and fishing were associated with wartime speculators and war profiteers. Little could be worse in the collective eyes of a post-occupied nation. The government reconsidered its position: in the revised Hunting Law of December 14, 1951 more focus is given to increasing the contribution of natural resources to the well-being of small farmers in the rural districts of Norway, as well as to the reintroduction of access of all to hunt - further supported as a clear goal in the recent Outdoor Recreation Act¹³⁶ (Stortinget 1951; Stortinget 1987, see also Lier-Hansen 1995; Nottestad 1999:80). Among the regulations introduced was the possibility for smallholders to combine their land holdings with respect to establishing the right to hunt. This was to be decided by the majority of landowners (proportionate voting rights based on land size). The 1951 law also stipulated that rights attained by combining properties were to be made available to the community at a low price. In addition, municipalities (*kommuner*), through their ownership of county forests, enabled a broader group of the community population the right and opportunity to hunt at low prices. The 1951 law also established the right of municipalities to create hunting rights through expropriation (Anonymous 1984:434-435). In 1972, the Ministry of Environment was established and in 1976 the Directorate for Hunting, Game and Fisheries was transferred to the Ministry of Environment from the Ministry of Agriculture (Granberg & Ree 1989:15). The Wildlife Act of December 14, 1981, replaced the earlier Game Law (Stortinget 1981). Substantial changes were introduced with this law and included the new possibility to force landowners to participate in combining land areas to establish areas large enough to allow for large game hunting. This was done to further increase the opportunities available to the general public to hunt (§27). Hunting wild reindeer continues to be a popular activity in the south of Norway (see Figure 16). During the past 50 years access to all to hunting has steadily increased.

In practice, the state limits regulations to hunting quotas, but relatively recent legislation also opens for the potential to impose constraints for habitat management. Following the lead of Sweden, changes in June 1993 have allowed for the prohibition/regulation of the sale/lease of hunting, or usufruct, rights by the Ministry of Environment (Lier-Hansen 1994:91). This

6 Om friluftsliv St. Meld. 40 (1986-87)

means that, at least in theory, the state has asserted a right to intervene in questions of management on private land. Should the state, for example, decide that reindeer production is to be prioritized, it now has the legal means to prohibit actions that are not in line with that goal. The new regulation thus links the idea of guardianship with hunting rights: it introduces the possibility for the state to claim obligations of rights holders.¹³⁷ Writing on the general property implications of the constraints imposed by guardianship, Brewer and Staves explain, "[i]t offers an alternative to a model of absolute ownership that would permit the destruction of the thing owned by the owner" (1996:11).



Figure 16. Hunting wild reindeer in Norway (Lier-Hansen 1994:115)

In fact, as a result of national hunting and forestry policy and policies regarding the extermination of predators, the number of wild reindeer has increased dramatically in Norway over the past three decades - an increase that has led to an increased economic value for landowners (Sevatdal 1998). In practice, state management has proved controversial. Strong interests and beliefs among and between landowners, hunters, herders and environmentalists have contributed to heated controversies about management principles and policies with

¹³⁷ For general comments with respect to the topics of guardianship and stewardship, see Goldstein 1998; Sax 1993.

regards to ideal numbers of reindeer. Given the highly migratory nature of reindeer, attempts to manage the numbers of animals in the south are complicated by the right to hunt being attached to particular hunters within particular land areas. On the one hand, hunting quotas have often gone unfilled, leaving different numbers of animals than government authorities intend¹³⁸. On the other, pressure from landowners to allow hunting when numbers are relatively low has led to situations where some have argued that populations are threatened.

The Period of Norwegianization

Additional Lapp Law of 1897¹³⁹

Returning again to the far north and the late 19th century, we continue to see increasingly defined regulations in regards to Saami and reindeer. For the first time, in 1853, it is legally stipulated that reindeer must be shepherded. In the revised special laws for Finnmark of 1888, it became a requirement that fencing was to be erected whenever requested by others (1877 §23; 1888 §16). In addition, it was agreed that a fence was to divide the national boundary in the northern areas¹⁴⁰. The Saami also requested that earmarking should henceforth be witnessed, and that reindeer be rounded-up and marked at a time agreed upon by all involved reindeer owners (Berg 1994a; Solem 1933:217). It was during this period, following Darwin's publications, that the idea of social evolution became prominent (1859; 1864). In line with this way of thinking, the idea emerged and gained credence that reindeer herding was a transitory developmental phase, which over time would disappear in favor of sedentary farming. As previously discussed, at the end of the 19th century, large private landowners, backed by the state, were in the process of strengthening the rights associated with owning land. Reflecting this was the establishment of an Agricultural Advisory Sector (*Landbruksdirektorat*) in 1877, and then later on February 17, 1900, the establishment of a

¹³⁸ The large fluctuations and uncertainty involved in setting annual hunting quotas gives some pause for reflection of our understanding of the variables involved, and the interplay between them, in reindeer production. In an article concerning fishing resources, Wilson et al. raise fundamental questions about the underlying assumptions of management models (1990:180). They specifically address the question of uncertainty with respect to estimating change in size and abundance of populations. All of our models, they write, are based in our belief of our ability to predict. "This kind of information is fundamental to our conventional idea that we can manage wild populations for sustainability or whatever other criteria we choose to employ; we simply need to make sure that current population levels are consistent with the desired future population levels. It is further assumed that this control can be exercised simply by constraining harvests of this kind of predictable connection between current and future population abundance, then most of our traditional management control measures are based on faulty assumptions." They conclude, "[i]f, however, the underlying model is incorrect and we frequently encounter situations in which prediction is off in terms of the direction and timing of change, the social costs of uncertainty escalate." The article may give pause to Norway's reindeer specialists and the highly fluctuating and varying numbers of reindeer in the country.

¹³⁹ In Norwegian: *Tilleggslappeloven av 1897*

¹⁴⁰ This was completed in 1957.

Ministry of Agriculture. It was decided to locate both agriculture and reindeer herding within this newly established Ministry. There was at least one compelling reason for the government to continue to allow reindeer herding: it continued to be economically important, at least in the northern-most district of Finnmark. Reindeer herding therefore contributed to the governmental objective to maximize state earnings. Writing of the comparative situation in northern Sweden, Wiklund says, "[t]he state could ill spare them [the Saami], either as producers of meat and hides or as exploiters of enormous districts which are absolutely useless for other purposes" (1923:240).

While the Common Lapp Law introduced the concept of districts, it did not stipulate their location, nor that herding had to necessarily take place within their borders (Severinsen 1980:40). The question of the right to herd was, and remains, ambiguous. Left unattended, the question continues to be raised to the present day: does the right to herd inherently include a right to pasture and right to manage? To this, legislators now also changed their opinion with respect to the question: From where does the right to herd emanate? Rather than recognize ancient rights, these legislators asserted that the right to herd was given by the law. By June 1863, land needed to be purchased, rather than just claimed, and a prohibition was introduced on the number of properties an individual could own (Paine 1957b: 176). But the state stipulated that "... the ground of the State should not be sold when it existed in different forms of collective use, notably as grazing land for reindeer and cattle, as moving routes for reindeer between the coast and inland (and as ground for cod drying along the coastline). This was a major clause, the parliamentary committee said, and it is still the leading principle in today's law" (in Austena and Sandvik 1998:214). Already by this time the specification theory was stressed by the Norwegian government and stipulated that land not taken into specific use was unowned land (Ot. Prp. 21, 1848). Reflecting the political climate of the day, it was specifically stated that it was not possible to obtain ownership through nomadic use. Austena and Sandvik assert that, "[t]here is reason to believe that the specification theory is part of the basis for the opinion that the state was the owner of land and water in Finnmark" (1998:206). In 1888, three parliamentary representatives suggested the establishment of a commission to determine where Saami had a right to graze their animals and to suggest appropriate borders¹⁴¹. The new commission was created with representatives from both the

¹⁴¹ **By Resolution of July 12, 1889, it was decided, "At der bliver at nedscette en kommission, hvem det overdrages at undersøge Lappeforholdene i Hedemarkens, Sender- og Nordre-Trondhjems Amter og at afgive**

government (two representatives) and landowners from the area (two representatives), but with no Saami. In fact, a suggestion that the Saami be represented was rejected (Bull 1997:83; Elgvin 1993:41-2). The composition of the Commission undeniably represented a conflict of interests. In their recommendations, the Commission suggested delineation of reindeer herding districts as well as supplementary rules to the Common Lapp Law (Bull 1997:17).

But even at this time, there were differing views. The findings of a "Commission to Research Lapp Conditions in Nordlands District", published in 1894, discusses Saami rights to the commons in a number of places. It concludes that the area should be made available to reindeer pasture (Hauglind & Minde 1980:491). And, in fact, the 1848 decision, while denying Saami ownership to the land, did recognize user rights among the reindeer herders to pasture, hunting, fishing and harvesting wood (Pedersen 1999:31-2).

In the transition from the late nineteenth to the twentieth century, interest continued to grow for the establishment of Norway as an independent nation with its own flag, foreign ministry and consulates (Jokipii 1987:17). As a consequence, national border areas again became of particular interest in establishing what was to be Norwegian territory. It became official, albeit secret, national agricultural and forestry policy to limit "Swedish Saami [reindeer herding] traffic" and to colonize the pastoral areas they had used. Not only were Saami rights ignored, the state was actively involved in supporting agriculture through the building of roads, laying of telephone lines, the provision of cheap agricultural loans and granting permission to build summer mountain farms (*sceter*) in traditional herding areas (Beach et. al. 1992:60; Marainen 1984:22-23). The Norwegian state had interests in the land of the north being permanently settled, which served to further legitimize state sovereignty claims to these areas.

With particular respect to reindeer herding, tensions between Norway and Sweden increased despite the 1883 agreement. Reindeer herding issues were among the most controversial topics discussed (Sillanpaa 1994:48). Unbeknownst to both Saami and the general public, secret negotiations were held on these issues between the Swedish and Norwegian governments in 1912 (Beach 1985b: 25). One outcome of these negotiations was the forced migration of groups of Saami from the northern-most areas (Karesuando, Sweden) to more

Forslag til Fastsettelse af Grendserne for lappernes Betesret samt til Ordning forovrigt af Forholdet mellem disse og de Fastboende i dencevnte Amter" (cited in *ham* 1991, see also Bull 1997:17).

southerly ones (Marainen 1982:68). These Saami herders shared neither language, culture nor methods of reindeer management (Lundholm 1996:111; Marainen 1982). Furthermore, the increased numbers of people and reindeer in the more southerly areas placed additional stress on the use of local resources. Antagonisms rose between those Saami who had moved into these areas and the local indigenous Saami groups (Beach 1985b: 25-6). Many indigenous herders were forced from the field through the competition and thereby increased stress on pastoral areas brought by the incoming Karesuando herders into the area. Utsi, one of those Saami who moved during this period, reflected on the confrontations which arose in the wake of Karesuando Saami moving into these areas, "[a]djustments and learning have been mutual, but in the main our 'extensive' summer herding has shown its worth and prevailed" (Utsi 1948:100). It is not difficult to imagine the conflicts this must have caused. Despite the positive light cast on this situation, it is also obvious in Maker's writing, "... the Karesuando families have brought the industry new life in areas where it had decayed, either by gaining control themselves or by stimulating the original inhabitants to competition" (1947 cited in Utsi 1948: footnote 13).

In the areas south of Finnmark, increasing numbers of animals came over the Norwegian border from Sweden with minimal guidance. These may have been herders moving away from the overstressed areas where the Karesuando herders had moved in. As seen during the period preceding the *Lappekodisillen*, migrating with herds is a way for reindeer herding Saami to claim rights to herd in an area - irrespective of whether or not they have used these areas historically. To allow for flexibility, herders respect one another's need to access different pastoral areas under unusual conditions. But, this privilege can be abused by herders interested in establishing rights to claim a particular area. Just as the conflicts between groups of Saami in the mid-1700's, conflicts now arose between those Saami with historical claims to particular areas and the new groups of Saami with large herds (and consequently increased need for pasture) and often little control over their animals. The change also reflected, in part, the increasing integration of Saami in the market economy in Sweden, and the Saami's subsequent need for cash to purchase goods. This, in turn, prompted a different type of work with greater economic rewards; it encouraged larger herds where herders could afford to slaughter some animals in exchange for cash. In this sense, these reindeer were increasingly seen as a commodity. These larger herds crossed into Norway where they interfered with both the local intensive husbandry of reindeer and with farming (Berg 1994a; Bergsland

1995; Haarstad 1992). Both Norwegian herders and farmers increased their demands on the state for new regulations, and for compensation for damages.

In 1905, following a referendum indicating the Norwegian people's unanimous support, Norway declared its independence. This declaration was also recognized by Sweden. Integral to this, was the official agreement by Norway that the *Lappekodusillen* continued to be binding for both Norway and Sweden. This was formalized through one of the treaties of the 1905 agreement: the "Convention relating to the Pastoral Saami Rights to Reindeer Grazing Lands" (Sillanpaa 1994:48; Smith 1984:33). State interests remained central in securing and documenting land use and ownership, particularly to farms established by Norwegian citizens. Farmers were also interested in this, but part of their interest likely came from a desire to limit Saami herding and as means of ensuring restitution for crop damages, rather than strong nationalistic feelings (as many farmers had family on both sides of the national border) (Falkenberg 1988:20). In the proposition from the Saami Commission for an amendment to the law on reindeer herding, the purpose of the proposed districts was now made explicit. The Commission saw both district herding boundaries and common responsibility among the Saami as means of controlling and enforcing retribution for damages caused to farmers' crops (Saami Commission of 1897:197 cited in Severinsen 1979:39). Among the responses that came during the hearing period, which still did not provide any Saami accounts, were objections from farmers that the suggested districts included areas that were not traditional herding areas. There was concern that this might imply that the Saami had rights where they had not previously. The Commission maintained the original borders suggested, but explained that the inclusion in the districts gave farmers the right to claim restitution for damaged crops, and clarified in July 1894 that, "... the district divisions have in no way whatsoever influence with respect to determining borders for Saami rights, which will be the same, whether or not the distinction divisions are created" (cited in Haarstad 1992:288, author's translation).

Saami access to resources was greatly diminished during the transition. There were substantial areas outside of the proposed districts that the Saami used, but which were not traditionally connected with a particular *sii'da*. None of these areas were suggested by the Commission to be included in the districts. It was seemingly not the Commission's intention to document areas used traditionally by the Saami herders - but to what degree, and in what way, Saami used the same areas that farmers claimed. The Commission was not interested in

Saami rules in understanding land - that, for example, for the Saami the areas were not only an economic or physical basis for their existence, but also brought people together and constituted a spiritual world (Hultkranz 1994:361, see also Svensson 1988). Casimir writes that pastoral groups are known to have "geographical preferences and spatial attachments" which are not synonymous with owned territories. In his words, "... known pastures foster feelings of security and well-being" (1992:167). It is precisely these ideas that the Saami activist Ahren reveals where he writes, "[o]ur identity is created out of our closeness to nature. The understanding we have of nature as a room, has bound us to places that give us security" (cited in Fjellheim 1995:65, author's translation). The areas where the Saami moved represented their cultural landscape. As such it formed as much a part of their culture as, for example, their language, their clothing or their art. In this respect it was, and for many continues to be, a part of the Saami themselves (Falkenberg 1988:21, 33). Writing of a similar situation, albeit from the area around and including Arusha National Park in Tanzania, the human geographer Neumann explains that the landscape "...not only *represents* their history and their links with ancestral kin, but the mountain landscape itself is the *physical manifestation* of their history" (1998:178 - original emphasis). The Saami had both offering places and holy mountains with associated rules of access (S. Fjellheim 1995:73; Hultkranz 1994). But the Saami Commission, if they considered it at all, believed such things were outside of the Committee's mandate and not directly relevant to establishing Saami user rights to land areas: they defined their mandate as establishing user rights to the outlying mountain fields of the area.

Severinsen believes it was inappropriate for the Commission to create district boundaries, rather than carrying out its mandate to determine the boundaries of Saami rights to access and use land areas (or more specifically Saami rights to graze their animals) (1979:42). She recognizes that at the time, neither the Saami nor the Commission meant that such boundaries established an area outside of which herding (or other types of access) was not to be allowed. But the distinction was soon lost. Although created for a particular purpose, once boundaries exist they give the appearance of permanence and consensus, particularly to outsiders. Rose examines the significance of visual signs of ownership boundaries, such as fences and maps:

In property, vision and visual metaphor are essential modes of persuasion in the ways that human beings think they can and should interact with their environment. Vision mediates between what is given by the surroundings and what the viewers think that they and others can do, either to accommodate to their surroundings or to shape them anew. (Rose 1994:297).

Already with the Additional Lapp Law, the introduced district boundaries came to be associated, in practice, with the right to herd. Herding was now prohibited outside of districts without the consent of landowners who, for the most part, saw it as competitive to their own interests. As a result, 33 municipalities (*kommuner*) outside of the districts chose to prohibit herding within their areas (Berg 1990; Elgvin 1993:52). Prior to this time, it was not uncommon for landowners to own reindeer. This practice provided farmers and Saami with some common interests with respect to the reindeer (Nissen 1914-16:64-5). The new regulations regarding where reindeer could be owned caused sharp divisions and largely severed this basis for common interests in cooperation - although some farmers continued to own reindeer that Saami herded within the districts.

The Reindeer Pastures Convention

With respect to relations between Norway and Sweden, long and comprehensive negotiations ensued finally culminating in the Reindeer Pastures Convention in 1919 (Wiklund 1923:229). Rights to migration and numbers of animals that could be pastured in the neighboring country were reduced. The intention of the Norwegian state was to limit Swedish Saami herders to pasture their reindeer only in uninhabited areas. It was now clearly stated that reindeer herding should not be a limiting factor for agriculture (Marainen 1984:24). The agreement was revised in 1951 and again in 1972 for an agreed upon period of 30 years¹⁴² (Berg 1994a: 14; Elbo 1952:854). These agreements continue to allow for the free migration of reindeer-herding Saami, albeit in decreasing numbers, more restricted time periods and to smaller and smaller areas (Berg 1998:175; Elbo 1952:355-6; Orton & Beach 1998:93; Sillanpaa 1994:49; Utsi 1948:100). In a joint declaration made under the signing of the 1972 agreement Norway and Sweden have attempted to protect Saami culture and industry by permitting cross-border migration so long as there are Saami herders in each country, whose reindeer are co-dependent upon grazing in the neighboring country. Despite the positive tone this sets, the Norwegian government also pointed out that the signing of the 1972 agreement replaced the earlier Karlstad Convention. As such, it released the Norwegian government from its previous agreements. Specifically, the Norwegian government now claimed the right to renege the Lapp Codicil of 1751 (Smith 1984: 133). The government's right to do so remains a contested point and will be further discussed later in this study. The Finnish-Norwegian

¹⁴² **Convention February 9, 1972; Norwegian law June 9, 1972.**

border remains closed and following the Convention of 1981, reindeer fences have been erected along the entire border (Arnesen 1988:12, 14; Sillanpää 1994:49).

Social Darwinism and Norwegianization

During the same period in which the Additional Lapp Law and the Reindeer Pastures Convention were being negotiated, Social Darwinism, which had begun to be visible in the Common Lapp Law, became more explicit (Minde 1986:84; 1989:6). Doctrines of race and racial hygiene were regarded as scientific disciplines, where the Saami people with their Brachcephalic features were regarded as an inferior race. The firm belief that higher social orders would spread, and replace the perceived lower social orders, was used to justify the conceptual hierarchy of development in which populations moved from hunting/fishing, to pastoralism, and finally to the ultimate 'civilized' activity of farming and trade¹⁴³. With respect to the conflict between reindeer herding and agriculture, Vice Minister of Agriculture Kjerschow wrote in his draft law of 1904:

[a] choice must therefore be made between these interests. And, the choice must, of course, be decided not least with consideration to the current interest's relative value for society as such. There can be no doubt that this choice is given by the unyielding law of development¹⁴⁴ (cited in Berg 1994b: 24-25, author's translation).

And further, in this same draft (1904:196), and repeated in the draft of 1922 Kjerschow writes,

[g]iven that its position is as an historical anachronism, it should to no degree create an obstacle for the development to more appropriate and better serving societal interests, and as such are the boundaries for its demands given. And, these boundaries must in accordance with the conditions of nature be yielding.¹⁴⁵ (Cited in Bull 1997:41-42, author's translation, see also Nissen 1914-16:63-4).

In retrospect, we can note the pervasive influence of this way of thinking. Previously, recognition of reindeer herding served state interests in establishing national borders. Given

¹⁴³ An example of the theoretical literature concerning property in this period that clearly sets forth the understanding of the stages of development can be found in Letourneau's *Property: its Origin and Development* (1892). As an example, he writes, "[t]his segmentation of the horde or tribe into clans, then of the clans into numerous families, would lead to the parceling out of property at first indivisible. Other innovations followed this movement, above all, the discovery and development of agriculture ... Once entered on its path, it is impossible to stop" (ibid.). This builds upon the ideas of Social Darwinism by such writers as Morgan and Nilsson (1878; 1868).

¹⁴⁴ Original Norwegian text: "Det maa derfor træffes et Valg mellem disse Interesser og Valget maa selvsagt bestemmes ikke mindst af Hensynet til de paagjældende Interessers relativt Betydning for Samfundet som saadant. Dette Valg kan da ikke være tvilsomt Det tilsiges af Udviklingens ubønhørlige Lov."

¹⁴⁵ In Norwegian: "... i og med dens Stilling som en historisk Overlevering, der i ikke ringe Grad virker som en Hemske på Udviklingen af bedre berettigede og formaalstjenligere Samfundsinteresser, er Grænserne for dens Krav givne. Og disse Grænser må efter Forholdets Natur blive vigende."

the supported expansion of agriculture, herding was experienced by some, and consequently now defined by them, as an "impediment to progress". The Ministry of Agriculture carried out an evaluation of this period in 1976. Here, it is written that with respect to ... "Norwegianization policy at the end of the 19th and into the 20th century, the theory emerged that the use of land for the purpose of reindeer herding was only a tolerated use" (Ot. Prp. Nr. 9 for 1976-77 p.42; 47, author's translation). In accordance with this understanding, national practice came to be based on a judgment that the legal basis for reindeer herding was the law, as it was at any time, given by parliament (ibid.). Claims of sovereignty, within the now clearly demarcated national borders, imposed regulation. What remains unclear to this day is to what extent claims based on historical use are subject to these restrictions. (This point will be returned to in the following chapter.) Such laws and regulations appear to go against earlier judicial recognition of Saami rights from ancient practice and were clearly politically motivated. Arnesen provides a telling example (1988). In §32 of the 1897 law, it is written that Swedish reindeer herders must be made exempt from changes to the degree that changes reduced their rights with respect to the 1883 law. The implication is clear: Norwegian Saami herders' rights could and would be reduced (ibid..15). Given the belief that reindeer herding would eventually disappear and be overtaken by agriculture (based on a presumption that this was both natural and desirable), and the fact that Saami were still not represented on the new commission, the Saami suffered major losses in the newly proposed law and its consequent regulations. The need to compensate reindeer herders for lost pasture was omitted completely. Rather than recognize and promote reindeer herding as an economically viable activity, the new law restricted expansion of herding at a time when reindeer herding was in fact rapidly expanding (Dunfjeld 1979:44-45). In this sense, the law was anti-reindeer-herding, rather than pro-development.

The potential uses of land were defined and constrained by powerful farmers and backed by the landed bureaucracy. Rather than promoting an economic system that generally promoted efficiency through privatization of rights and obligations, the state attempted to craft a property regime that promoted its delegates' particular ideals, ideas and interests¹⁴⁶. The imposed idea of modernization, rather than revealing an inevitable march towards progress and development, instead exemplifies change that is evaluated and defined differently by the involved actors. While reindeer herding Saami benefited from flexibility in claims enabling

¹⁴⁶ For general comments on these types of processes with respect to the establishment of property regimes, see Brewer & Staves 1996:17-18.

access to a diversity of pastoral areas, settlers' interest lay in creating a clearly defined and delineated rule system that enhanced predictability. Attempts by Saami to continue their historical use of traditional pasture areas outside of the newly created districts were met with fines. Through new regulations and policies reindeer herding came to be further constrained and contained.

In King Harald's opening speech to the 3rd Saami Parliament in 1997, he apologized for the treatment of the Saami people by the Norwegian State. The King referred, in particular, to the period of forced assimilation beginning in the middle of the 19th century: the period when the Saami's rights to herd, among other things, came to be increasingly limited and defined by the government. The King's statement implies a questioning of the modernization project and recognition of diverse meanings and beliefs about what the concept of development implies. During the period of Norwegianization of the Saami, the two strongest weapons of the state were the enforced use of the Norwegian language and the imposition of Christianity. Through zealous missionary work, including forced baptism, the State sought to eradicate the traditional Saami religion. Implicit in the state's actions was a belief that moral progress could be hastened by induced farming¹⁴⁷. It embraced what Giddens explains as "an unfolding model" of development, "...one that treats social change as the progressive emergence of traits that a particular type of society is presumed to have within itself from its inception" (1979: 223). In addition, as has been discussed, given that Lutheranism is a state religion in Norway, there was a belief that religious conviction could be used as evidence of national belonging and therefore as a further means to establish territorial sovereignty¹⁴⁸. The Norwegian language was required, and the Saami language prohibited (1898-1959), in both churches and schools¹⁴⁹ (Dyck 1985; Hoem 1980; Lund 1980; Magga 1994:45). Economic sanctions were imposed on those refusing to comply.

Largely in response to the fear of Russian and Finnish expansion, the government also introduced a law in 1902 (which remained formally in force until 1965) that only people who could speak or write Norwegian, and who used it on a daily basis, could purchase land

¹⁴⁷ For a comparable situation in the Canadian Arctic, see Cruikshank 1998:7.

¹⁴⁸ The drive towards Christianity considerably predates attempts to force Saami to use the Norwegian language. There were, for example, 17 churches along the coast of Finnmark in the 16th century and the church had the predominant role in education. The period 1717-1742 is often given as it is synonymous with the beginning of the work of the evangelist Thomas von Westen. While Westen encouraged use of the Saami language, this was stopped after he left the area (Helander 1994:29).

¹⁴⁹ Ministry of Churches Instructions of 1898, "*Instruks angaaende Brugen av Lappisk (Finsk) og Kvamsk som Hjelpesprog ved Undervisningen i Folkeskolen*" (cited in Dunfield 1979:10, footnote 2).

(Magga 1994:44-5). The law was not specifically intended for the Saami and was rarely used against them (Eriksen & Niemi 1981). But it could be, and as such it promoted a further stigmatization of the "foreignness" of both the Saami culture and language (Sillanpaa 1994:40-41). Roads were built to connect the Saami and Norwegian areas, as well as to divide Norway and Sweden - the latter of which created difficulties for Swedish Saami reindeer herders. Finnish immigrants and Saami were also discriminated against with respect to working positions within state owned mines and in public offices. In fact, a secret office was established which had the function of coordinating all of the Norwegianization, or assimilation, activities. These policies were followed until after World War II to such a degree that many Saami chose to hide their cultural identity. It was not until 1948 that the Education Commission began to change its previous policies and allow use of the Saami language. It would take a few more decades before the Saami as a group would publicly reclaim their collective identity; some of the older generation may never do so (ibid.; Gaup 1999:6; Minde 1986:84).

Throughout the period of Norwegianization, despite a clear policy of assimilation of the Saami people as a whole, reindeer-owning Saami still remained visible. As the profession within the districts remained distinctly Saami, it was these herding families and *sii'das* that continued to define herding, including its many social and cultural practices. They were consequently able to maintain many of their traditions and ties to the land. Particularly in the southern Saami areas, but also in the north, many Saami recognized that it was largely among the herders that the Saami language was being actively used and maintained, and so it continues to be. Similarly, many traditional Saami values and norms were, and continue to be, retained and practiced¹⁵⁰ (Danell 2000:114; Kalstad 1996:29; Thuen 1995:36-7). As Helander points out, "[p]arts of the traditions cannot be properly explained or learnt through conceptions or books. They have to be experienced in concrete situations." Reindeer herding was a very "concrete situation" (1994:33). Over time, it remained comparatively stable, continuing to define not only an economic relationship between the Saami and their animals, but also a cultural identity: social rules, language and successful use of the natural resources of the tundra which herders, other Saami and Norwegians continue to recognize (rightly or wrongly) as defining characteristics of the Saami people. The strategy of owning reindeer

¹⁵⁰ Aikio reports that in Finland reindeer herders have not preserved the Saami language. This may be because reindeer herding in Finland is not exclusive to Saami (1989:179). Government policies in Finland severed cultural and economic ties in the industry. According to Aikio, present day young herders hardly master 10 Saami terms where formally herders used almost 1000.

must then be recognized as an evolutionarily stable strategy - a strategy able to persist in the particular physical and social environment of the north¹⁵¹. Its symbolic importance continues today despite many Saami never having owned reindeer, and less than ten percent of Saami today being characterized as herders. Drawing on its symbolic importance, Crown Prince Haakon officially visited and was photographed with reindeer herding Saami underlining his publicized interest in addressing racism (Isaksen 2000:4). The picture below appeared in many Norwegian newspapers (see Figure 17).



Figure 17. Crown Prince Haakon officially visited reindeer herding Saami (Photo: Scanpix/Knut Falch in Dagsavisen, April 25,2000)

The Emergence of a National Law for Reindeer Herding - The Reindeer Herding Law of 1933¹⁵²

The late 19th and early 20th century introduced substantial changes with respect to mechanization within Norwegian agriculture. Farmers were no longer as dependent as they had been earlier on collecting fodder and allowing their animals to graze in the outlying fields. One might expect that the conflict of interests between farmers and herders would also dissipate - this was not the case. Although emanating from incompatible interests in summer

¹⁵¹ For general comments on the stability of rule systems, see Bums et al. 2000:16.

¹⁵² *Reindrifisloven av 1933*

fodder¹⁵³, the conflict between the two groups had become embedded as a conflict of interests more generally. The Saami had (and continue to have) usufruct rights to resources, which means that to benefit from their rights, they must actively use them. Landowners in these areas, on the other hand, held all the residual rights associated with their land - irrespective of their actions. Clearly, it increased the value of a farmer's land when all of the rights associated with it could be claimed, and were recognized by others, as belonging exclusively to the landowner. Farmers had no incentive to recognize Saami rights to herd, irrespective of whether or not they had use for the pastoral resources at any particular time. Also, district borders by this time seemed to be considered, at least by farmers and the government, as given and no longer requiring any justification. Farmers claimed exclusive landed property rights in the areas outside the border; Saami continued to argue, by way of historical use, to their rights to access and use some of these areas (Severinsen 1979:47-51).

During the negotiations of the Additional Lapp Law, it became apparent to the Saami that they were losing ground so long as they continued to act as individual agents. Not only were they not consulted in hearings, they had also not formed any organized political associations. As a consequence, individual opinions were aired that often conflicted with one another. They were, as they remain, relatively few in number, peripheral to the capital and a heterogeneous group¹⁵⁴. Traditionally, decisions were made among small groups, most often within the *sii'da*. As a people, the Saami had no overarching hierarchical decision-making structure. *Sii'da* arrangements provided a forum for decision-making that represented the interests of those present at that particular time. This was appropriate to the nomadic lifestyle that required flexibility to particular situations rather than a rigid set of rules. It is not then particularly surprising to learn that the Saami had minimal influence on national politics. In comparison, large landowners were organized and continued to have strong proponents, both within the parliament and through lobbying.

Saami interests continued to be split. Many of the interests of extensive herders, particularly those of the far north, mirrored those found in the Norwegian society. Given that agriculture was highly limited in this area, there were fewer conflicts over pasture among the different users. As a result, with respect to the national laws, the Northern-most Saami still only had

Particularly in the late summer/ early fall reindeer utilize grass and may decimate crops. During the winter they eat lichen, a resource that is not exploitable by other domesticated species.

¹⁵⁴ For general comments with respect to the marginality of indigenous groups see Dyck 1985. For a discussion of the emergence of Saami organization at the time, see Minde 1986; 1994.

rules regulating their internal conditions (within Finnmark). With respect to reindeer herding, they were generally satisfied with the current situation and had no particular interest in a new national law. Political activity in the north was led through established Norwegian political parties; the most politically active Saami in this area acted out of personal interests and were from outside herding communities (Minde 1986; Pareli 1988; Aarseth 1978). Predictably, it was in the south that Saami began to organize as an identified group. The first Norwegian Saami meeting was held on the initiative of Elsa Renberg in 1917, from February 6th until February 9th. Of the 140-50 people who attended, 90-100 were Norwegian Saami, mostly from the south. The Saami of the south had more interest in lobbying given their conflicts with farmers. Also, reflecting more interaction with Norwegians, they had more experience with both the Norwegian meeting culture and the language. Although, in general, Saami herders still constituted a broad continuum with respect to characterizing their herding, extreme viewpoints continued to divide the extensive herders (who had large herds and were highly mobile) and the intensive, or traditional, herders (who had fewer animals over which they had relatively high control).

At the February 1917 meeting, and during the pursuant negotiations, Daniel Mortensen, an extensive herder originally from Sweden, represented the view that reindeer herding should concentrate on the rational production of meat and that the Saami should be integrated within the Norwegian society, particularly through use of the Norwegian language. Despite marked differences, both he and Elsa Laula Renberg were recognized as strong supporters of Saami interests (see Figures 18a, 18b.) Renberg represented the interests of the smaller herders and she argued that traditional herding involved much more than just milking. Traditional herding, she claimed, was also concerned with protecting the Saami way of life - not least the Saami language and their unwritten rules (Berg 1994b:99-100; Pareli 1988, with respect to Mortenson, see also Nissen 1979). That a woman represented the traditional view illustrates the strong position women had, and were interested in maintaining, within traditional herding. Saami women continued to own their own reindeer, and continued to make use of their own earmarks, also after marriage. The differences between Mortenson and Renberg illustrate a dichotomy between the functions of property as a wealth producing institution on the one hand, and as a reflection of the social nature of property on the other. While the first reflects the market and exchange, the alternative discourse focuses on other types of social goods and collective interests, including considerations of social welfare often

encompassing "traditional" interests such as traditional creative forces (Helgasen et. al. 2000:174).

As suggested by this dichotomy of interests, debates that arose at this time about earmarks revealed more than just an economic interest in determining ownership of the unmarked calves. It was suggested by the government, and supported by Mortensen, that each reindeer family should have and use only one earmark to identify their reindeer, although a wife could keep one mark that was hers prior to marriage. Aikio recalls, as a Saami child growing up in Finland, that both his mother and grandmother owned and controlled their own draught reindeer: "[i]n Sami families, the women were always economically independent of the men, and this was especially emphasized by the fact that the women, like everyone else, only used reindeer that they personally owned" (1989:169). The attempt to consolidate the signs of ownership would effectively concentrate control of reindeer to the men, shifting the shared responsibility of the family.



**Figure 18a. Daniel Mortensen
(Pareli 1988:104)**



**Figure 18b. Elsa Laula Renberg
(Pareli 1988:1)**

Although in terms of efficiency one ear-mark was sufficient for a family, other qualities of the marks and the differentiation they allowed for in identifying animals within a family meant - and would continue to mean - that many Saami refused to accept the government's recommendation to consolidate the family earmarks to one mark. Among the reindeer owning Saami, it had become a tradition that children, upon birth, received both their first reindeer (ideally one of the relatively scarce white ones) and their own earmark - an adaptation of a family mark. Gifts of reindeer bestowed on babies, children and youth created a choice for these Saami of the possibility of becoming a reindeer herder. In this sense it was a socializing act whereby the family passed on herding knowledge, and how to recognize different marks. Nakkalajarvi explains this practice:

After first learning their own marks and those of their close family members they can then apply the same model in learning the earmarks of others. This is how a foundation for learning earmarks (and also the actual marking of ears) is learnt at a pre-school age. At this point children are also handed the necessary tools needed for marking calves, that is, a lasso and a marking knife. (Nakkalajarvi 1996:86).

Over the hundred years in which earmarks had been used, the Saami continued to develop the marks so that they incorporated both information of relatedness to a family (through adaptations of an original mark) and distinctiveness from others (Paine 1992:13). The knowledge that reindeer owners associate with particular ear-marks allows them a way of categorizing knowledge about individual animals: knowledge important to decisions about management of the herd, such as which animals to slaughter (Kalstad 1996:26). The quantity of information that herders can read in an earmark led Beach et al. to write that earmarks are "...a form of communication which only the active herders are in a position to understand" (1992:85).

Despite the complexity of the earmarks, Saami have taken both effort and pride in recognizing the marks of one another (ibid.; Falkenberg 1978:49). Certain marks came to be associated with successful herders, with the consequence that the mark itself became valuable (Smith 1938; Solem 1933). The marks were also purchased by farmers who owned reindeer that were herded by Saami (Falkenberg 1978:51). In addition, owning a number of marks provided a choice if reindeer were purchased from another herd and needed to be re-marked. A number of marks also allowed for the sale of the mark in question (ibid.:50). Mortensen sent his view supporting the consolidation to one mark to the Ministry of Agriculture, and presented this as being representative of the

Saami viewpoint. Numerous newspaper editorials and heated discussion among the Saami were exchanged, where, among other things, Mortensen was accused of manipulating the committee's majority¹⁵⁵. In a meeting held at Jajavatn in October 1920, with respect to the proposed § 19, the Saami recorded in their minutes:

[t]hose that have met require that legal decisions allow use and respect ear-marks as property which can be inherited or purchased and most strongly protest that any type of boundary is set over the number of reindeer earmarks that can be owned and registered by one and the same Saami whereas those meeting do not have anything against that the law sets a maximum for the number of marks that the same individual Saami can use at the same time. (Cited in Berg 1994b:62, author's translation).

In the draft law of 1922, the difficulties with respect to earmarks were recognized. But the administration also states its own interests: "[t]he purpose of the marks is first and foremost to create evidence for ownership of property of reindeer. But it is also, therefore, a means to be used by public authorities to be able to carry out necessary control" (cited in Berg 1994b:68). It was believed to be in the public interest to limit the number of marks as much as possible, in order to simplify the administrative tasks of control and enforcement.

The state recognized the negative economic consequences for itself if it allowed for reindeer herding to be acknowledged as an economic activity, and so the drafted law lay dormant from 1922-1932. When the Reindeer Herding Law was reconsidered, the question of the number of earmarks remained unresolved. In the end, it was decided that each district would decide the particular number of marks to be allowed, but the law made mandatory that all marks be registered (§18). Through the coming decades the administration continued to pressure the Saami to rationalize the use of ear-marks, both through limiting numbers of marks and number of herds, and later through the introduction of plastic colored and numbered tags which were understandable to "outsiders" (Paine 1994: Chapter 2). Each profession was actively resisted by groups of Saami who recognized the traditional marks not only as outward signs of ownership, but as integral to their culture. Resistance led to variations of the rules from one place to another. Eventually it led to the Ministry of Agriculture agreeing to the mandatory retention of the traditional system, with the optional

¹⁵⁵ South Saami Anton Jonesson in editorials in *Dagsposten* of February 24 and March 8, 1921, suggested that the decision took place under questionable circumstances. The meeting was held during a time when only three herders could meet because of calving time; and, it was assured that the decision could be changed at a later date. Instead, Mortensen sent the decision directly to the Ministry of Agriculture, despite earlier agreement that the final document would be put before Saami for their comments before it was delivered (Berg 1994b:53-55).

use of the plastic tags¹⁵⁶ (Reindriftnytt 1984:12). Saami terms continue to be used to refer to the specific types of marks and ways of marking. During fieldwork on reindeer in the early 1990's, Elgvin writes, "[o]ne sign that the ear-marks tie herders to Saami tradition is that Saami words continue to be used about the marks. It was the only time I heard the Saami language in reference to herding" (Elgvin 1993:198, emphasis in original, see also Falkenberg 1978:43).

It was not until 1933 - over a decade after the original draft had been completed - that Vice Minister of Agriculture Kjerschow's drafts, together with further negotiations, resulted in the Reindeer Herding Law. The new national law continued to build upon the same three main principles (district division, reporting requirements and common responsibility) established under the Common Lapp Law. These remain integral to current reindeer herding law. In addition to the heated discussions on earmarks, the Saami forwarded three demands during the negotiations of the new national law. All three were concerned with delineating the meaning of the "right to herd" both in specific areas and with respect to other interests. The first two were:

- Particular areas on state owned property to be designated for the free use of reindeer herding.
- In other areas, defined by traditional use, guarantee to be given that the areas would not be "protected from" herding in the future, and that the State purchase or expropriate pasture to replace pastoral areas which had been lost in the past (Pareli 1988:111).

Both proposals were rejected. The third main demand from the Saami was that additional areas on islands, along the shore and in the mountains, should be protected for reindeer herding. This was included (Berg 1994b). The law also introduced the term *fellesbeite*, or "common pasturing area". Rather than recognizing group claims to a particular area, use of the new term opened the legal possibility for all herders to be able to pasture their animals on any of these areas. This legal introduction of open access to pasture was quite different than the practice of Saami herders. By this time, Saami *sii'da* had again established recognized rights of access to particular areas. Initially, Saami herders took no notice of the introduced legal change and continued to follow their common practices. Nonetheless, the introduced

¹⁵⁶ Yet another change was scheduled to begin in the spring of 2001. Reindeer are to be given a zebra code in their ear which will include information about the animal's owner, as well such things as the animal's age, sex, and weight at last weighing (Rapp 2000b:56).

change meant that there was no longer any legal possibility for a herder or *sii'da* to seek support in the law for claims to limit others access to a particular pasture area (Nilsen & Mosli 1996: 42, 102). It legally meant that some herders could utilize a different rule system in justifying their right to access new pasture areas.

Reflection on this process has tended to suggest that the Saami fared poorly from the negotiations. For example, Sara writes that the new law was mostly concerned with protecting agriculture (1993:43). It established that the central administration, through the office of the Governor, was formally empowered to define and to decide: where borders between spring, summer, fall and winter pastures should be; the timing for movement between them; and the number of reindeer a particular herder could own. In addition, the government now also had the authority to restrict the total number of reindeer in a particular district. The new law made it possible to introduce a general prohibition of reindeer herding claiming that herding in a particular area was believed to cause severe damage to agriculture, livestock, forestry or fodder in the outlying fields (Severinsen 1979:46).

The Herding Law of 1933 was designed in accordance with the bureaucratic needs of the government. It implicitly established and recognized two parallel institutions: the administratively designated foreman and vice foreman, and the traditional *sii'da-ised* (leader). These two positions were developed upon different normative and cognitive constructions. According to Sara, the two positions require different types of knowledge and inter-personal understanding (1993:45). Although the individuals could have been the same, as often as not, they were different. In typical situations of legal pluralism, different actors make use of different types of arguments, both in the claims they make and in their legitimization of these claims¹⁵⁷. This often gives the appearance, whether or not intentional, of speaking at cross purposes. In this case, questions of legitimacy and the over-riding authority of government and government regulations were often set against customary interpretation of rules. As Cruikshank writes with respect to indigenous communities facing a similar situation in

¹⁵⁷

In its current usage, legal pluralism views law as historically derived - the result of a diachronic process. It reflects "... the heuristic notion that law is pluralistic in many social contexts" (Wiber 1993:137). The concept is broad. It can be said to address the process of establishing and maintaining rights. Given diverse systems, the result is often one of complexity; of overlapping claims to both rights and obligations and constraints to both (see also Griffiths 1985; Meinen-Dick & Bruns 2000; Moore 1986; Pospisil 1971; Silliman 1981-82; von Benda-Beckmann 1989; Verdery 1999; Wiber 1991; 1993). This, in turn, is partly responsible for creating the dynamics of change and transformation as different stakeholders create, exploit and at times reinforce the plural jural situation (see, for example, Benda-Beckmann 1993; Merry 1988:879; Moore 1986:321; Wiber 1993:141).

Canada, "[m]anagers in turn are out in the difficult position of mediating between communities and the bureaucracy, having to make compromises between competing interests while carrying out government directives" (1998:57).

Sara is generally critical of the 1933 law for the losses and difficulties he believes it caused Saami herders. Without negating these difficulties, Vorren is more optimistic in his appraisal of the impact of the law (1968). He argues that it was this law that administratively established reindeer herding. According to Vorren, it is precisely this administrative recognition within the Norwegian system, this bureaucratization, which may have ensured the continued existence of herding. Within a bureaucratic system recognition is extremely important. In the words of Brewer and Staves, who have looked at conceptions of property to "things" other than land, "[i]n order for reification to work, not only does the 'thing' in question have to be conceptualized in such a way that it can become part of an administrable system of property law, but the state also must consider that the 'thing' has sufficient value to be worth state protection" (1996:12). In Vorren's view, this is exactly what the national Reindeer Herding law did (1968). Therefore, he argues, despite the losses the Saami incurred, the establishment of this law was also the guarantee of the continued existence of Saami herding; it provided an implicit recognition that reindeer herding was no longer considered by the state to be a transitory stage of development. It was also this law that legally established that, within the district borders, reindeer herding was an exclusive right of the Saami people - defined as extending to those Saami who had at least one grandparent practicing the herding profession (Berg 1998:166).

Vorren's point is persuasive; administrative recognition is paramount in a bureaucratized society. But just as the acceptance of national law required a forfeiture of control, so, too, did administrative establishment. Neither is it a neutral activity. As was pointed out with respect to the Reindeer Law for Finnmark, there are inherent power implications in the invocation of particular social rule systems. In the words of Burns and Flam, "[t]hey structure and distribute opportunities for initiative, for access to and use of important resources, and for carrying out control activities in relation to other social agents" (1987:87). It was this loss of power to Saami herders that Sara recognized in his critique of the affect of the new law. Ways of characterizing, defining and using reindeer were now increasingly defined by the state. Expert knowledge came to be defined by the government as external to the Saami community - veterinarians determined how animals were to be slaughtered; reindeer agronomists, as well

as biologists determined pastoral carrying-capacity; and economists determined economic policy. According to J. C. Scott¹⁵⁸, state imposed systems are not simply descriptive systems (1998:3). Rather, they create systems by giving their own selected and defined categories the force of law. In the Saami case, claims to knowledge were divided up among the state-named experts, with no one particularly concerned with how the pieces, should they have understood them correctly, interacted. Traditional knowledge of particular animals, of herds and of the inter-relationship between the animals and land was marginalized, as was knowledge of, and interest in, inter-relationships between the animals and the Saami society¹⁵⁹ (Beach 1997:145; Kalstad 1998; Paine 1994). With respect to these ideas Paine has written:

[t]he key process, I suggest, is the placing of an ethnically distinct livelihood under state license. On the one hand, this provides a pretty strong guarantee that Saami - some Saami, at the state's discretion - will be able to continue with reindeer pastoralism; but on the other hand, there are strong indications that it will no longer be Saami herd management they practice. (Paine 1994:141).

Through new regulations, the State was increasing its control to define herding and therefore implicitly invoking its interest in reindeer as agricultural meat producers. Among other things, this raises issues of responsibility and representation. With respect to responsibility, creating a nationalized, bureaucratic system sidelined Saami knowledge, and the Act may have contributed to both powerlessness and alienation among herders to affect their own livelihood. With so many decisions being made by the state, Saami reindeer owners lost control over many herding decisions. The question of representation is addressed in the continuing discussion below.

It is Berg's contention that although the Saami did not gain many new rights under the new law, neither did they have major losses, and many of their existing rights were strengthened or further legitimized (1994b). The adeptness of Daniel Mortensen and Elsa Lauula Renberg, Berg argues, and their ability at times to work together, was part of what determined "the Saami view". But their lack of a common objective meant that, in retrospect, many Saami were to be dissatisfied - no matter what the outcome was. What was generally agreed upon, and what made the negotiations possible, was the same incentive previously discussed: despite different beliefs, values and interests in the eventual outcome, there was a shared

¹⁵⁸ In his book, Seeing Like a State, J. C. Scott writes about the diverse reasons for state failures of policy (1998). His many examples illustrate the difficulties of imposing and applying state rules and policies under differing national contexts and conditions. Scott highlights, in particular, the conflicts arising between actors in practice.

¹⁵⁹ For a comparative case, see Helgason et al. 2000. The article presents the case of Icelandic fishermen whose knowledge, role and identity was replaced by the governmental introduction of a formalized system in the fishing industry in Iceland.

interest among involved actors in further defining, clarifying and acknowledging rights, obligations and constraints. As the negotiating process ensued, and more actors were brought into the process - including different government offices, and, more specifically, particular individuals - the actors may no longer have had to act as representatives for a particular group or idea, but from their own interests and understandings. Berg emphasizes that there were substantial differences not only between, but also within the two Saami sides, suggesting that the generally held belief that the Saami fared poorly in the negotiating process stems in part from the divergent interests among the Saami themselves (1994b, Chapter 4). The outcome was not a planned policy for a specific objective; the differing actors had their own ideal of what that was. Berg's analysis supports the general contention of this study that the debate of who "won", which continues today, is evidence that no particular actor(s) triumphed. Rather, it was the political process of negotiating and contention that produced the policy - not some preordained idea of what that policy should have been, or would be.

Unmarked animals: wild or tame?

As has been discussed, Saami recognized the need to lay unequivocal claim to particular animals and developed earmarks as a means of identification of ownership. But what happens if this feature is missing? What is the proprietorial status of unmarked reindeer? In the following examples, actors utilize rule systems from different arenas and jural systems to legitimize their claims. Earlier the existence of multiple rule systems was exemplified by differences between traditional systems and the state. In the conflict discussed below, multiple systems emerge within and between state departments and branches of the government.

Under normal circumstances, a calf is earmarked during the fall round-up. This is a relatively straightforward process, as calves tend to stay with their mothers. Ownership of the calves is linked to ownership of the does. Nonetheless, there are always some calves that remain unmarked; the doe and calf may avoid round up, the mother may be killed and/or the calf may wander. An unmarked reindeer is referred to as a "maverick" or a "whole ear". Based upon his fieldwork in Finland, Ingold explains that an unmarked reindeer or "maverick", which would have been the property of the individual owner had it been tagged as a calf, becomes the property of the association where it is found, because it feeds on the commonly used pasture of this area (1980:259). Mavericks tend to be termed as problem animals when they cross association boundaries to graze, but are no longer a "problem" at slaughtering time.

On the one hand an open boundary means the deer, wandering further and further afield in search of better pastures, are free to drift into neighboring districts, where their maverick increase is lost to another association. Whilst complaining of excessive grazing pressure caused by the presence of others' stock on their pastures, 'host' associations employ a variety of underhand tactics to prevent the strays from returning, and thereby secure a good haul of mavericks at their neighbors' expense. (Ingold 1980:257)160.

In a recent book written on the legal history of reindeer in Finnmark, Norway, Oskal and Sara explain the elaborate practice that has evolved with respect to clarifying rights to mavericks among reindeer herding Saami in Norway (2001: 325). Rules differ with respect to the age of the calf. This is because a young calf is expected to eventually rejoin its mother - providing a clear indication of to whom the calf belongs. If calves remain unmarked late into the fall and weather conditions do not allow for marking, herders hair-mark the calves. This provides a year for incorrect markings to be noticed. If mistakes have been made, it is common for an agreement to be made between those involved. For example, if one has unmarked animals, it is common to give one of these away in exchange for the calf that was marked in error.

Although more unusual, it also happens that an unmarked 1 1/2 year-old is noticed during fall round-up. Normally, these animals are no longer with their mothers. According to Oskal and Sara, news of such an animal spreads quickly (ibid.). Once the herd is gathered, a contest is then held where those qualified attempt to lasso the animal. The one who is successful has earned the right to mark the reindeer in question. Constraints on participation are key to this practice. Those considered as having a right to participate include all members of the households belonging to the *sii'da*, as well as workers who have worked for more than a year and who have their animals in the herd. All others are excluded. Even guests that have animals in the herd are excluded. Among those qualified, no differentiation is made between them. In other words, no notice is taken of how many animals one owns, or of what percentage chance there is that the calf does indeed belong to a particular individual (ibid.:325-6). While this practice has developed to claiming unmarked calves within a *sii'da*, problems also arise between *sii'da*.

Oskal and Sara also explain the rules that have developed between *sii'da* with respect to claiming unmarked calves (2001: 331). These rules cover a myriad of situations, including calves that an owner believes belong to a different mother than that with which the calf is

¹⁶⁰ With reference to Sweden, see also Beach et al. 1992:76-77.

currently found, situations where one sii'da is on its home ground and another is moving, and situations where both sii'da are moving. The rules concern not only the actual ownership of the calf, but also the work involved in dividing the herds to determine ownership. Understanding the situation of herd mixtures provides meaning for which rights and obligations the sii'da has with respect to later decisions. Much weight is consequently placed on discussing and agreeing to descriptions and designations of the actual situation when herds mix. Through these agreements it is determined who has responsibility for what type of shepherding. For example if one sii'da is stationary and the other is moving through the area, it is those moving that have the greater responsibility for keeping stringent control over their animals. Under such conditions, if the herds become mixed, those in the area would expect to be compensated for participation in a round-up. According to Oskal and Sara, reindeer's propensity and necessity to move has created a common interest among herders in developing and recognizing mutual obligation concerning the care of one another's animals (ibid.).

Another instance of interests in claiming unmarked animals is to be found along the border of Norway and Sweden where tame and wild herds meet. In this case, "whole ears" may be lost: they are not visually identifiable if subsumed in the wild herd (Falkenberg 1978:46). Even more problematic, however, is the case farther south, on the district border dividing herders from large landowners. As already discussed, this was a politically established border reflecting landowner interests as well as the historical rights of the Saami.

Outside of the reindeer herding districts, the right to hunt (one element of the potential bundle of rights to wild reindeer) is accorded by ownership of land; a certain acreage secures the right to hunt a certain number of reindeer. This is an alienable right - landowners have a right to sell or lease their right to hunt reindeer independently from the sale or lease of their land. The right to hunt reindeer is lucrative for landowners. It is not surprising, therefore, that landowners are interested in having the right to hunt recognized on their land.

In the following example, based on the works of Severinsen and Finset, a problematic distinction between tame and wild is used to illustrate the resulting difficulties in claiming and defining ownership, or the rights to use, unmarked reindeer (1980; 1998). In the north, the state laid claim to unmarked calves, but the Saami rejected the State's claim (see section on "Theft of reindeer" earlier in this chapter). Saami reasoning of who had rights to these animals had effectively stated that all reindeer in the north are "tame", because only Saami

have a right to herd. And, because this is their collective right as a people, it is only Saami herders that have rights to claim unmarked calves, although the particular owner might be unclear.

Farther south, in Trollheimen¹⁶¹, on the border between reindeer herding districts and non-herding districts, the distinction between tame and wild lies at the crux of determining ownership of unmarked reindeer (see Map 4). The example illustrates multiple and conflicting rule systems that are employed by actors in their attempts to define and/or interpret rights and obligations to the access, use and management of reindeer. As was the case further north, reindeer herding in the south had meant that there were no longer any wild reindeer to be found. Despite the Reindeer Herding Law of 1933 designating clear borders for the reindeer herding districts (which split this area), reindeer herders had continued to use the whole area - resulting in a number of court cases being raised against them for illegal grazing (Finset 1998:13-14).

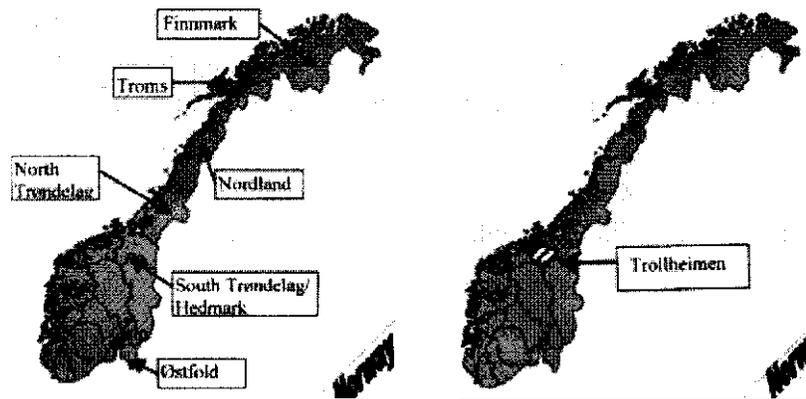
Under the occupation of Norway during World War II, the Germans demanded that the Saami slaughter their animals as a source of meat for the German soldiers. Capitalizing on the ability of tame animals to survive without their respective shepherds, the Saami responded by allowing their herds of reindeer to roam untended while the Saami themselves also took refuge in the mountains¹⁶². During the war, the rate of poaching of these unsharped animals by both the Germans and civilians was high. At the end of this time, poaching remained so high that in many districts, despite slaying fewer animals than normal, Saami were unable to increase the size of their herds. In addition, many of the animals had become so wild that they could not be caught. The majority of the calves born during this period were consequently unmarked. In 1948, the South Trandelag district demanded that the unmarked animals be slaughtered, with the proceeds to go to the district's reindeer herding fund. Although the Saami appealed the decision, it was upheld by the Superior Court - although the decision took 12 years (1960)¹⁶³ (Elgvin 1993:122-126). Given the Court decision, it seems

¹⁶¹ In the 1880's, the secretary of the Trondheim Tourist Organization (Trondhjems Turistforening) referred to the approximate 2500 km² area between Sunndalen in the south, the fjords to the west, Surnadal and Rindal in the north and Orkdalferret/Dovrebanen in the east as Trollheimen (Finset 1998:12; Lauritzen 1996). The name continues to be used.

¹⁶² Another strategy used was that Saami attempted to evacuate their animals to neutral Sweden (Bull 2001:247).

¹⁶³ Many of the Saami owned animals that were released and crossed the mountains to the west. The government declared that the area that they had crossed to (Femund) should be for wild reindeer. Therefore, three of the landowners there were given permission to shoot these animals - despite the fact that the area was within a reindeer-herding district (Elgvin 1993:122-126).

reasonable to assume that during this 12-year period stray calves continued to go unmarked. By this time, in terms of behavior, these Saami animals were quite wild and correspondingly difficult to handle.



Map 4. Maps indicating some of Norway's provinces and the location of Trollheimen in Norway.

It may have been behavior of the reindeer and the perceived availability of, and access to, them that sparked local interest in hunting. It may be that people had become accustomed to hunting (poaching) during the war. Equally important was the increasing interest in, and value of, game hunting within Norway. As Severinsen relates, between 1959-70 local Game officials and the Oppdal Commons Board (an established local landowner group) applied to the government for permission to hunt wild reindeer in Trollheimen (1980). Their applications were rejected. During the same period, on two separate occasions, reindeer herders were accused of unlawfully hunting "wild" reindeer because they had shot unmarked animals. Neither of the two Saami were found guilty as the courts found both to be acting in good faith - in the belief they were still carrying out the eradication of "tame" animals. In the first case, in the local court of Nordmeire, March 31, 1964, the ruling also established that feral, unmarked reindeer in Trollheimen were now to be considered as "wild reindeer". The subsequent case was held on November 22, 1968, also heard in Nordmeire. In this decision, the court reasoned that although, in all probability, the present populations of reindeer in Trollheimen were descended from tame reindeer herds that had been in the area both before and after the war, the herd in question had been living in such a way that it reflected no recognizable signs that, in accordance with the Reindeer Herding Law, it characterized regular, tame reindeer herding. Legally, the case justified that there were no identifiable acts

of possession to give sufficient notice to the public that the Saami had appropriated these particular animals. As a consequence, the court ruled that these reindeer were to be considered "wild".

As has been previously discussed, nomadic herders decimated wild reindeer as a means of clarifying and claiming their exclusive rights to reindeer in the far north. In Trollheimen, landowners were interested in securing the opposite right: the right to exclude tame reindeer herding altogether, to the advantage of wild reindeer hunting. The Oppdal's Commons Board sent in its first application on July 7, 1957, seeking permission to hunt on their land. They applied again in 1962, 1963 and 1964 - all without results. Numerous meetings to discuss these issues were held throughout the 1960s between landowners and government: the Ministry of Agriculture; the Governor's office of both Sor-Trøndelag and Møre and Romsdal; the Directorate for Hunting, Game and Freshwater Fishing; and local game offices. The meetings gave no clear results and on May 19, 1969, the Oppdal Commons Board again applied to the Directorate for Hunting, Game and Freshwater Fishing, for permission to hunt. In their application they referred to the court decisions of 1964 and 1968 that unmarked reindeer were to be considered as wild. They requested hunting permits for the appropriate number of reindeer in accordance with the size of their land. In a response of July 21, 1970, their request was rejected with the reasoning that not all owners in the area were in agreement about wild reindeer hunting, and that the relationship to tame reindeer herding had not been clarified (Finset 1998:15; Severinsen 1980). But the Directorate also followed this up with a letter to the Ministry of Agriculture where they gave permission for wild reindeer hunting from the hunting season of 1972 in specified municipalities (*kommuner*) in Trollheimen. Here they stipulated that it was the hunter's responsibility should they fell a tame reindeer. However, it was also stated that reindeer herders should keep their animals away from areas where there were no existing contractual agreements with landowners with respect to grazing rights for their reindeer.

This decision created both a strong reaction in the local media and in a local municipal council (Rindal) where a unanimous decision was taken against the right to hunt, and in support of the continued right to carry-out reindeer herding. Their explanation of the decision reads: "[i]t is clear that wild reindeer hunting in this area will ruin all possibilities for Saami families now living here to maintain the basis of their existence in their chosen profession - a profession that no others can feel competent to replace" (cited in Severinsen 1997:39, author's

translation). On May 31, 1972, the council requested that the Ministry of Agriculture rescind the prohibition on tame reindeer herding in Trollheimen. At the national level, following a political interpolation and later a debate, permission to hunt wild reindeer was rescinded (Finset 1998:15). Nonetheless, large landowners continued to apply for the right to hunt.

On June 3, 1976, landowners accused and sued both reindeer herders and the State for economic injury incurred during four seasons of lost hunting rights. In February 1978, the case came up. Sixty-two landowners, including people from Sunndal, Surnadal and Rennebu had by now joined together with the Oppdal Commons Board, in addition to other similar groups. In a decision of March 22, 1978, the Orkdal Regional court (*Heradsrett*) affirmed that reindeer herders did not have the right to graze their animals on landowner's property. The court, however, found it doubtful that in Trollheimen there were wild reindeer in the sense meant by hunting laws. As explained in the court's decision, "[t]he accuser's have not, under any circumstances, been able to prove that in 1972, or later, there have been wild reindeer in Trollheimen. Belief and suppositions in this direction are inadequate. There cannot, therefore, be any question of compensation for loss of income for wild reindeer hunting" (cited in Severinsen 1980:41, author's translation, see also Finset 1998:21-22.).

Both parties appealed. The North Trondelag Court of Appeals reaffirmed the decision with respect to compensation for the loss of income. The conflict continued; the status of unmarked reindeer stood in limbo.

While the Ministry of Agriculture designated unmarked reindeer in Trollheimen as wild, the Hunting Law interpretation, in the jurisdiction of the Ministry of the Environment was that the animals were not wild. This was particularly unclear given the decision by the Ministry of Environment with respect to Hardangervidda farther to the south. Here there had also been reindeer herding, but it was abandoned as being untenable both because herders were unable to secure stable access to pastures and because of the relatively large herds of wild reindeer. The Saami and other herders left, often without all of their reindeer (Enerstvedt 1993:102-7, see also Reimers 1972:613.). These animals had reinhabited the south, becoming feral, and interbred with wild reindeer (Lier-Hansen 1994:15). Through a political decision that created national parks in the south, including the important wild reindeer habitat of Hardangervidda in

1978¹⁶⁴, all of these animals were declared to be wild. Politically, no distinction was made by the Ministry of Environment between the few remaining distinctly "wild" reindeer populations in Norway, and all of the other unmarked reindeer except in Trollheimen.

In Trollheimen, landowners continued to demand recognition of their rights to hunt. The municipalities within the area were split - as they had been since 1931. Those farthest to the north, including Rindal, had lifted the prohibition against herding in their areas in 1931. But the 1933 National Law that based divisions on the right to herd on the District borders overturned this (Finset 1998:28). During the repeated court cases concerning Trollheimen, the Rindal county council repeatedly applied to have the prohibition to herding rescinded. Severinsen reports that in interviews she had with Saami in the area, that they were unwilling to accept that the prohibitions were legitimate (1980:174). Consequently, in their everyday practice they did not consider them as valid laws that needed to be respected. These Saami argued that they had a moral right to herd in the area where their parents herded throughout their adult lives, and where there was good reindeer pasture. This case differs from others where Saami herding groups claim the right to herd based upon ancient use. It was in 1874, that the Saami Nils Kant moved from Roros to this area. In 1884, he began to herd reindeer, a profession his descendants have since continued (Finset 1998:13). Recognizing this, the Superior Court ruled on October 21, 1981, (Rt. 21/10 1981:1215-1247) that the Saami had no historical claims to herd in this area. As such, grazing reindeer in the area was judged to be an illegal activity and the Saami were consequently required to pay restitution.

Given this was a decision by the Superior Court, it is legally binding for all parties - those involved in the actual lawsuit, as well as the Parliament. However, given a balance of powers, the government and the Parliament can overturn such decisions through the creation of new law. This is what happened in 1984 (Finset 1998:23-24, see also Arnesen 1988, Chapter 3). On December 21, 1984 [Ot. Prp. nr. 12 (1984-1985)], the Ministry of Agriculture proclaimed a law exclusive to the particular case of Trollheimen. In this new law, Saami in the Trollheimen area are granted the right to herd "... both because it is a good use of the natural resources in the area ... and because the possible termination of Saami reindeer herding in Trollheimen could mean a weakening of the basis for the Southern Saami culture,

¹⁶⁴ **Hardangervidda National Park includes both state and privately owned land. It was established with the understanding that agricultural interests, particularly in the border areas of the park, will retain a high level of access to the resources of the park. These rights include, for example, hunting rights to reindeer on the privately owned properties (Anonymous 1979/1984:H: 498).**

which, in today's society, is already in a precarious position (cited in Finset 1998:33, author's translation). According to the Vice Minister of Agriculture, Peter Aas, the intention of the new law was not to increase reindeer herding in the area. Rather, it was to provide a legal basis for the existing herding (April 16, 1986, *ibid.*).

The Parliamentary decision demonstrated a radical change from earlier decisions that tolerated and later limited the extent of herding. Through expropriation, this decision actually increased the pastoral area for Saami reindeer herding. The decision reflects changes in negotiating arenas for the Saami, as well as in negotiating configurations of actors. Earlier there was a shift from the Saami making their own rules and regulations, to moving to a national arena. By the 1980's, the Saami were actively involved in international negotiating arenas. This is discussed more explicitly in the following chapter, "An increasingly global arena". At this point, it is important to recognize that the State also occupied a new position. A change had by this time been introduced into the Constitution to support the continued existence of the Saami culture. Although the new paragraph gives no judicial basis for force (Smith 1990), the new law introduces both a political and moral dimension for discriminating in favor of the Saami over other Norwegians, when the situation is judged to be influencing Saami culture - as it was in this case. There are, however, multiple viewpoints and interests surrounding such decisions. Prosecuting attorney Otto Jebens wrote in the newspaper *Adresseavisen* (Oct. 24, 1987), that he thought it absurd that the government was rewarding the Saami for illegal behavior (cited in Finset 1998:29).

Similar to the Trollheimen case, there have also been court cases in the district border area of ROTOS where landowners have argued that the pasturing of reindeer interferes with already established rights of landowners to herd their sheep. Attempts of settlement, through the use of fencing, continue to be disputed by both sides. As was the case with respect to establishing district borders, the question becomes: Do you fence sheep in, or reindeer out? And, what is the significance of a fence - does fencing extend, solidify and/or change rights? Answering these questions would place the fence in very different locations - the location contested since 1897. In the Korssjafjell case of 1988, sheepherders' rights were upheld by a Superior Court ruling. This case was considered to be particularly important as it was within a reindeer herding district, but the court ruled the area in question had not been traditionally used for reindeer herding. Although in accordance with the Saami Commission's original statement back in 1894 that the establishment of districts did not establish new rights within the districts

(see earlier section in this chapter on "the Additional Lapp Law of 1897"), the court decision was felt by both the Saami and, in light of a new ethnic consciousness, by some government representatives, to go against established practice. In addition, Bull raises doubt with respect to the legitimacy of the Court's reasoning (1997: 80-90). She points out that the decision was largely based upon the findings of the Saami Commission of 1892. As previously discussed (see pages 149-150), this Commission had a biased composition (two government representatives, two local farmers and no Saami) and therefore had clear interests in promoting farmers' user rights to land and pasture rather than those of the Saami.

Debates concerning whose animals should be allowed to graze and where and when this grazing can occur also continue with respect to wild and tame reindeer. Conflicts between hunting rights to wild reindeer and pasture rights for tame reindeer are, in fact, increasing as the particular adaptability of reindeer in these northern pasture areas is recognized - and there is less and less use of outlying fields by farmers for their livestock. The Vaga Tame Reindeer Association, a group of non-Saami reindeer owners operating south of the reindeer herding districts, in writing its own history, reminds readers of the incompatibility of tame and wild reindeer (Vaga Tamreinlag 1992). They point out that even today both groups have their supporters and that the battles between them are often hard and result in dividing people. Reminiscent of the government's original mandate at the end of the 19th century to support those activities which are most economical to the nation - used at the time as a reason to prioritize agriculture over herding - the Vaga group writes that in 1980 tame reindeer herding in Southern Norway provided a substantial economic value, despite it being a marginal activity. Nonetheless, these herders also recognize that monetary value is only one part of the issue. The right to hunt, including the right to hunt wild reindeer, continues to be strengthened with respect to it being a right of every Norwegian (*allemannsretten*). They write, "[w]e have been living in a time with a 'flood' of material wealth and people have a lot of free time. Hunting, fishing, and trapping are meaningful activities for many. These people have been good at organizing themselves, and through goal oriented work this group has managed to influence the outcome, for example, of wild reindeer court cases" (ibid.:64-5, author's translation).

In other words, while the controversy has remained, the sides have realigned. Many Norwegians, particularly men, are interested in the right to hunt¹⁶⁵. Depending on the particular situation, this right may be purchased or landowners may share their rights with friends, family and/or neighbors locally. While highly interested in the sport and associated social aspects, the distribution and sale of meat is also important (Ekman 1983; Saether et. al. 1992). Often it is sold privately, outside any records of its value. The heated controversy between large and small landowners of the late 1800's has, to a large degree, coalesced into a joint group sharing of a common interest in hunting - although conflicts still erupt in isolated cases where hunting rights are sold to "outsiders" at high prices. But, given the improved economic status and increasing leisure time of Norwegians generally, and supported by legislation after World War II supporting the rights of all to hunt (see earlier section in this chapter on "Changing regulations with respect to game in Norway"), the two sides have found a common front in uniting against tame reindeer herding, which they define as incompatible with their joint interests.

Discussion

Attributes of reindeer

In the previous section it was shown that the attributes of reindeer underpin the diverse ways that they came to be valued and claimed. Reindeer make use of extensive pastoral areas; movement of reindeer is thus shown to create high costs of exclusion. This has meant that even today, many Saami herders have chosen to herd collectively - and that hunters also find it advantageous (as well as being highly social) to hunt in groups. Shepherds jointly take care of the animals belonging to sii'da members to protect them from predators, assist them in finding adequate pasture and to keep them together.¹⁶⁶

Management considerations include interests in avoiding risks associated with reindeers' susceptibility to both climatic changes and variations in pasture. This is true both within a season, between seasons and over a number of years. Fluctuations are important with respect to knowing where to find animals, ensuring adequate pasture for them and knowing there will be sufficient quantities of animals to fulfill one's needs and interests. There is an increasing

¹⁶⁵ There are approximately 360 hunting and fishing societies in Norway, with approximately 50,000 members. Of these, about 10,000 hunt reindeer annually (Anonymous 1979/1984). In other words, there are almost five times as many reindeer hunters in Norway as there are Norwegian Saami reindeer herders.

¹⁶⁶ See, for example, Netting (1976; 1981); Nugent & Sanchez (1993) and Agrawal (2002:345). These are examples of studies that find that people come together to share the costs of common pool resource management of pastoral resources.

scientific recognition of the complexity of population dynamics, including fluctuations of migrant animal populations in both space and time - and the consequent difficulties in monitoring change over time (Hanna et al. 1996; Holling & Sanderson 1996; Mehta et al. 1999; Scoones 1995)¹⁶⁷. Fluctuations may occur within a herd, population or species. Fluctuations can lead to severe problems. This is the problem faced by reindeer herders with small numbers of animals under, for example, severe icing conditions where a herder may lose all of their animals. This may have catastrophic consequences for the individual and family. In years of extreme weather, these conditions may affect large numbers of animals.

Actors' values

Numerous catalysts of change, including the increase of a market economy and governments needing food for their troops and income to support their wars, led to differentiation among the Saami groups making claims to reindeer. Additionally, new actors, including farmers and different government Ministries are recognized as having different ideals, ideas and interests with respect to reindeer and to associated resources (see Table 4). As with the Forest Saami, large landholders have an interest in wild un-marked reindeer as game. In addition, they are interested in not only securing, but also expanding the rights associated with their land. As there were, and remain, differing interests among involved actors - there are also differing interests in property regimes created to claim reindeer, in defining and delineating rights, obligations and constraints to both with respect to reindeer and associated resources. This arises in part because reindeer are not an "undifferentiated product". Many and diverse uses are claimed (meat, hides, milk, cultural identify - language, basis for claiming national sovereignty). As discussed earlier, part of the basis for this is inherent in the characteristics of reindeer themselves. But this also partly lies with people. Perspectives, ideas and interests that actors claim can be quite diverse, including recognition of values other than the traditional, narrow economic factors which are often claimed to influence actors' decisions and strategies. In the opening chapter, it was suggested that "the qualities and characteristics of a good (or bad) underlie the diverse ways that it is valued and claimed". Recognition of actors' diverse interests and values from the outset of a study requires a modification of this statement.

While focus here is on reindeer, many of the current debates with respect to reindeer numbers consider the topic of pasture resources differentiating between the areas of pasture available, and the changing quantity and quality of particular types of fodder. Specific to reindeer, see, for example, Riseth (2000). See also Meinzen-Dick&Pradhan (2001:12).

To reformulate this, we might say that actors concern themselves, attach values and have interests in goods and bads with particular characteristics. Historically Saami conceptions of property were derived in ways that accommodated the ways of that they valued reindeer. Reindeer, in turn, is characterized in part by its need to move and eat and its ability to reproduce. According to Maine, all societies choose definitions of property from their own experience (1924). In his words, "[t]he explanation which appears to cover the greatest number of instances is, that the objects of enjoyment honoured above the rest were the forms of property known first and earliest to each particular community, and dignified therefore emphatically with the designation of property" (ibid.: 285). While the point seems intuitively obvious, its potential implications have been given little attention. While Saami rules for claiming and defining property arose from their experience with their large, migratory animals, farmers defined and claimed property based on their interests in land. Thus, Saami and landholders came to have different cognitive bases in developing and putting into practice their diverse beliefs, values and interests of what "property" could or should be. This was unproblematic as long as the different actors were separated spatially, each with their own rule system(s).

Table 4. Actors and their ways of valuing reindeer: as a commodity, a tradition and a nuisance. (1751-1933)

Actors Ways Of Valuing	Forest Saami	Mountain Saami	Farmers	Norway/Denmark and Sweden
Meat	X	X	?	
Hides	X	X	?	
Commodity		X	?	
Cultural Identity/ cultural heritage "living language"	X			
Nuisance or tolerated use			X	
Basis for tax collection				X
Land Areas:				
Pasture/Outlying fields	X	X	X	
Area of ancient usage for herding	X	X		
Areas of sovereignty				X

"X" represents the claimed interests of particular actors. "?" represents when it is unclear whether or not particular actors made such claims.

The role of the state

Throughout this chapter, it has been explored how the state became an increasingly central actor with respect to reindeer and the associated good - land. In the beginning this chapter examined Denmark/Norway's and Sweden's common interest in distinct land areas as bases for claiming territorial control, which eventually led to their joint agreement of the Lapp

Codicil. Because reindeer migrate and because herders historically came to practice moving together with their animals, the Saami way of life was at odds with defined and enforced national borders. The states were not only interested in a defined border, but also in claiming as much land as possible. Both countries recognized Saami reindeer herding as a basis for strengthening their claims.

In the international agreement of the Lapp Codicil between Denmark/Norway and Sweden, both nation states recognized the rights of the Saami as a people to herd reindeer based on the recognition of ancient usage. This recognition served the state's interests in claiming areas of land in their pursuit of national sovereignty. The Lapp Codicil was finalized late in 1751. At this time, extensive herding was a fact, but hardly a tradition. Nonetheless, at the time of the agreement, recognition of extensive reindeer herding best served the Danish/Norwegian state's interests in establishing defined nation states. Hansen hypothesizes that an explanation for the discrepancy between the borders proposed by Norwegian and Swedish governments may be that the Swedish proposal reflected traditional borders, while the Norwegian proposal was based upon the newest routes of the Mountain Saami (1985b:xxxix). Clearly, had the traditional areas proposed by Sweden been those agreed to, the Saami would have had a different legitimate basis for claiming herding areas - a basis which may have been more beneficial to, for example, traditional intensive herding Saami. Codifying customary law introduces subjective interests because of the necessity to define which acts or beliefs are to be recognized, or legitimized, as relevant and valid¹⁶⁸. Different actors use different types of reasoning to legitimate and justify their claims. The Danish/Norwegian state claimed extensive routes used by the Norwegian Saami as "traditional". But these routes were larger land areas than what the traditional routes actually indicated. Recognition of this benefited not only the Norwegian state but also the extensive herders. The state recognized and therefore legitimized the elongated routes as "traditional". Alternative claims of "traditional use" went unrecognized and consequently lost - or, more accurately, never achieved - state recognized legitimacy. Codifying extensive use supported extensive herders' legitimacy, including the right to practice almost unlimited movement between different sets of grazing resources: the high mountains and coastal pastures of Norway in the summer and the winter

Similarities can be drawn between this and the codes of common conduct that were drawn up in the colonies, which both fixed and legitimized particular uses/actions during highly dynamic periods (Chanock 1985; 1991). Berry points out that codifying is not a neutral process (1995). It reinforces particular rights and legitimizes them for certain actors, and as such can be seen as an agent of change (see also Colson 1971; Mackenzie 1995; Ranger 1983).

lichen-rich forests of Sweden and Finland in the winter. As such, the agreement further enabled the increasingly powerful extensive herding Saami in extending the length of migration routes and herd numbers.

In capturing reindeer - both literally and figuratively - the Mountain Saami secured many of the benefits in the northern areas of Norway. This was at a considerable cost to both other Saami, who had previously shared rights to wild reindeer, and to other settlers, who through a changing situation had gained access to this good - and both of whom were now excluded to varying degrees. However, those who bore the costs of the Mountain Saami claims did not simply acquiesce. Groups of actors joined together and continued to make claims on reindeer, legitimizing their claims in other arenas and making use of other rule systems.

Mountain Saami participated successfully in the commodity economy through a combination of private ownership of individual animals and collective management of their herds over extensive areas. While this was increasing in the northern-most areas inhabited by Saami, farther south farmers backed by the state entered and settled on areas used by Saami and claimed these areas as farms. At the outset, differences with respect to their utilization of natural resources between the Saami and other Norwegians were not particularly striking. They all hunted, fished and gathered to cover their needs. But as the nation state grew in importance, so too did the importance of landed property and agriculture. Those that came into power and those who had the power to define organizational and judicial concepts, were most often also owners of large farms. For them, usufruct rights to hunt wild reindeer came to be seen as an addition to the collection of property rights of bounded land areas. Reindeer herding, in turn, came to be defined by some as problematic within a nation-state where strictly drawn boundaries were growing increasingly important. Herding came to be defined as problematic within a system where definitions of "property" were derived not from migratory animals, but from land that was fixed and boundaries that were rigid. In this view, the farmhouse defined the center, inner fields surrounded it, outer fields were available to pasture domesticated animals, and "wilderness areas" were to be found outside that again.

In this chapter the state is shown to become an increasingly strong and powerful actor. A domination relationship was established under the Reindeer Law for Finnmark when the Saami not only permitted, but actually demanded state intervention. Through their demands, these Saami recognized, and hence legitimized, the authority of the national government to

control the property relationship between Saami and their reindeer. Their demand introduced a change in the power relationship between these actors. In writing of this phenomenon more generally, Burns and Flam explain, "[o]nce, several, or many people explicitly or tacitly permit someone else to make decisions for them for some category of acts (or spheres of activity) such a rule defines a domination relation, with a certain probability of obedience on the part of subordinate actors" (1987:22).

The power inherent in the changed relationship became increasingly visible and tangible over time. When these landed bureaucrats defined themselves, their way of utilizing resources, and their consequent property systems as normal and desired, the Saami were placed in juxtaposition and defined as different. The Saami status with "their own nation", which had been formally recognized with the *Lappekodisillen*, came to change. Saami cognitive ideas concerning reindeer and their way of utilizing them came to be considered from the national hold as inferior. Herding, according to government representatives, came to be considered as nothing more than a transitory stage. It became "a tolerated use" - tolerated in part because of an international agreement that the state was unsuccessful in negotiating itself out of, and in part because as a primary industry reindeer herding continued to be important economically, particularly in the northern-most region of Finnmark.

Throughout the 1800s, the Ministry of the Interior held responsibility for natural resources (land, water and game). Thus it was the same Department that came to recognize two different ways to privatize some of the user rights concerning reindeer. In the north, ear-tags demonstrated the exclusive rights to the animals. But the state was also becoming increasingly involved in stipulating rules of management and, at least in Finnmark, continued to claim ownership of almost all of the land and habitat of the reindeer. In the south, the State claimed ownership of the reindeer, but transferred hunting rights exclusively (at least initially) to large landholders. With the introduction of the National Herding Law in 1933, the herding system was included within the bureaucratic system. While ensuring the continuance of herding, the changes also had power implications similar to those incurred by the Saami when coming under state law; the Saami lost further control and influence over their own situation.

Politics of property

Complex rule systems

The case illustrates that multiple and often complex property regimes have been applied to make claims on resources. The way land was utilized in the southern Saami areas was only

partially a consideration of efficient use of the land. Even when herding was lucrative and expanding, political decisions imposed restrictions outside of the herding districts that constrained its expansion. In addition to economic interests, actors' choices revealed, for example, their cultural background, ethical beliefs and power structures. Similarly, the way different groups of Saami chose to manage their reindeer was not simply determined by market price. There were both historical and social contingencies and contexts; these were illustrated in differences between the settlers and the Saami, as well as differences between different groups of Saami. Actors referred to social interests in both rights and responsibilities, as was exemplified by Renberg's claims during negotiations of the introduction of a national herding law. Renberg claimed that intensive herds provided not only milk, but that they were also the basis of a living Saami language and culture. She forwarded cultural values of reindeer in her claims for traditional herders. Renberg referred to social rule systems that come in addition to the economic. These other conditions and ways of valuing, while certainly influenced by market prices, are also important in understanding and analyzing actors' struggles over rights and obligations to access, use, manage and control reindeer. Actors' cognitive ideas and their interests in defining reindeer, land and property more generally, as well as their interests in participating in the decisions being made, underpinned the claims being made.

Kalstad argues that recognition of the traditional Saami culture as a premise for reindeer management policies needs to be distinguished from policies that see culture merely as a by-product (1997; 1998). Other products or ways of living cannot simply replace reindeer; the cultural ways that Saami value their reindeer rejects the economic concept of interchangeability and instead exemplifies the non-equivalency of things. Whilst relatively few Saami are reindeer herders⁶⁹, virtually all reindeer herders in Norway and Sweden are Saami. Reindeer herding is particular to these Saami because it is they who have traditionally undertaken this practice - not necessarily because no one else could, but because no one else has. Over time, reindeer herding Saami came to be defined by what they did. And, prior to heavy state involvement, Saami herders and their herding practices, in turn, defined reindeer herding. In the words of Paine, "[t]he herder's life gives men and women a strong sense of autonomy. They know they are doing what they do best and that it is something most other people cannot do, and they know that this is so because they are born to it - because they are

⁶⁹ In 1997, there were an estimated 3,300 reindeer herding Saami owning approximately 210,000 reindeer in Norway (Reindrifftsforvaltningen 1998).

Saami" (1994:138). In this respect, Saami ownership of reindeer constitutes part of their Saami identity. Neither another thing nor even another animal can simply replace the cultural value of reindeer - nor, can one put an economic value on it. Earmarks are thus an expression of a deeper value held not only by the individual owners of particular animals, but also by the Saami as a people. And, as has been shown, reindeer and extensive herding are central with respect to outsiders' recognition of distinct Saami rights (see sub-section on the *Lappekodusillen*).

Cultural values attributed to reindeer are additional to traditional market or economic values; cultural values do not replace the latter and nor are they necessarily a result of them (Austena and Sandvik 1998). In developing a theoretical approach to the emergence and change of property regimes, there is a need to recognize that much of social life builds on such non-rational foundations and non-instrumental discourse, on other types of rule systems than only economic ones. In discussing the formation of change of rule systems, Burns et al. assert, "[t]hese contribute to maintaining social order and to providing a stable context, even for rational decision-making and action" (2000:11). Such ideas and rule systems structure choices just as rational economic factors can and do.

In addition, property is not only a question of having or of possessing something. Property regimes as social relationships are (at least) two-sided. In demanding that others must respect the rights of claimants, a moral dimension of responsibility not to harm these others through use of the good arises (Waldron 1999b: 49-50). This manifests itself largely in demands that the Saami control their reindeer to ensure that the animals not damage farmers' crops. In Rose's book, Property and Persuasion, she discusses this in terms of why property law vacillates between the clarity of highly specific laws and "murky" interpretations (1994). She explains that while clarity reduces transaction costs, as it allows for the prediction of judicial outcomes, it also precludes the possibility of applying ethical beliefs including fairness, equity and responsibility to a particular situation or case. The Trollheimen case demonstrates the interests of different actors as well as their attempts to justify their interests. In this case, differences arose between communities, groups, Ministries, and branches of government.

Multiple rule systems

This chapter has provided a number of different examples illustrating multiple rule systems. The Lapp Codicil formally recognized both customary Saami law and statutory law. This was

not uncommon during the period of Enlightenment. In addition, there were situations where interests of the state and different ways of valuing the multiple properties of reindeer led to the creation of different types of property rules - even within the same system. The Reindeer Law for Finnmark was introduced because of the extreme situation reindeer herders faced in the northern-most region of Norway. As a consequence, the rules introduced for this area varied from rules in the other districts. Given Saami's migration, this had the potential to create difficulties when there were different rules in different places - both within and outside of Norway. Another example was the introduction of "common responsibility" among reindeer herders under the Common Lapp Law. Rather than presumed innocence, this built upon presumed guilt among herders unless a herder could prove otherwise. Two systems were simultaneously used as a means of addressing different practices and interests among the actors involved.

In addition to the legal pluralism introduced by the laws of different countries, and by acceptance at the national level of both national and customary rule systems, multiple and potentially conflicting rule systems also are shown to occur between different governing bodies and levels. Multiple rule systems occur in part because rules are not fully designated at the uppermost level and then simply implemented at lower levels. Rules and practices are also formed and reformed as it is perceived to be necessary, or beneficial. The Trollheimen case illustrates the struggle of different actors, including different governmental actors, to exert their power to define how reindeer can be used and managed, and by whom, in accordance with their own cognitive idea of what reindeer are. These various definitions included: the Ministry of Agriculture which claimed that the unmarked reindeer in a particular area were not tame and therefore wild; the courts which ruled that the animals were feral - and seemingly therefore neither tame nor wild; the Ministry of the Environment which stated that the reindeer were not wild (even though other reindeer farther south in the Hardangervidda National Park, with a similar background, genetic make-up and behavior had been declared and were managed as wild by them); a local county council which demanded that the Saami should have the right to herd in the area; local land owners who repeatedly demanded, also through the courts, the right to hunt; and the local Saami families who claimed their ancestral right to herd¹⁷⁰. The final outcome was largely influenced by a changing international climate

¹⁷⁰ In the negotiations concerning "The Natural Foundation for the Saami Culture" (*Naturgrunnlaget for Samisk kultur*), the Saami Committee recommended that the word "defensible/sufficient degree of tameness" (*forsvarlig*

with respect to indigenous rights. It came as a contradiction to the National Herding Law of 1933 - enacted prior to World War II and consequently prior to the changed post-war political climate in Norway. The actors involved in the Trollheimen case strategically used the contradictions among the state actors.

Changes in degree and in kind in rules and rule systems

The economic historian Libecap has worked extensively on the nature of property rule systems. Much of his work indicates an increasing specificity in property rules over time. For example, in one of his later articles Libecap writes, "... a common result of rising resource values and greater competition for resource use is a demand for an increase in the specificity of property rights" (1998:89, see also Admassie & Burns 1996:40; Waldron 1999b: 7). His work builds upon a number of empirical cases. It is justifiably recognized as a great contribution to understanding the emergence of property regimes. Libecap's work highlights and demonstrates the increasing specificity of rules, what has been referred in the conceptual chapter as "changes in degree". He points out that in many situations actors with quite different interests nonetheless share an interest in rules being specified. This reduces uncertainty, and thus transaction costs. Repeatedly in this chapter, as for example with the presentation concerning the Common Lapp Law in this chapter, evidence has been found to support Libecap's idea that one finds an increased delineation of property rights over time (1978; 1986). We have seen, for example, increasingly detailed rules and regulations emerging with respect to marking and registering reindeer. Whilst these types of changes do occur, as Libecap also acknowledges, they are not the only types of changes made to property regimes.

Libecap also acknowledges the central role of social, economic and political forces in shaping the different environments under which property rights emerge. These factors, he explains, can lead to quite different institutions over time and through space (1986:238). Whilst acknowledging this, Libecap does not discuss the processes by which this occurs. Nor does he discuss that the outcomes with respect to rules that may differ in some fundamental respects. Yet, these latter types of changes do need to be distinguished from changes in degree - as they often involve cognitive changes, that is, changes in kind. Changes in degree may well affect changes in distribution among current claimants. But changes in kind have

***tamhetsgrad* be dropped from the Reindeer Management Act (NOU 1997, Nr.4:6.3.1). This proposed change acknowledges that the concept of tameness is not necessarily an indicator of whether or not reindeer are owned.**

the potential to completely transform how the resource is defined, and hence who it is that will be able to make claims on that resource. Changes in kind have been illustrated in this chapter through the state's changed interest to promote settlement in the far north and the subsequent redefinition of reindeer herding as a "tolerated use".

Libecap stresses economic value as the driving force of changes in property laws. In his earlier works he implies that all actors agree to property rules and laws once enacted, and that everyone will embrace the new increasing specificity once a particular track is determined (1978; 1986; 1989). In a more recent work, Libecap explicitly recognizes that part of the tension and conflict of property relations arises from these same agreements (1998:77). Introduced laws, policies, rules and regulations concerning rights - and I would add obligations - are apt to affect distribution between actors, as well as the incentive structure not only to existing users, but also to potential new entrants, and even different decision-makers. Given that the different actors and arenas within which they act are often different from the arena(s) where the laws are created; there is a continued or renewed contestation and struggle between the involved parties. We find, for example, struggles between those who seek to change or amend laws and those who support them because they maintain their own beliefs, desires and interests. While this is in part a question of distribution of rights, the struggles also reflect differences in ways of valuing and assigning meaning - both with respect to the good in question, and to property more generally⁷¹. Therefore, far from a law, or group of laws, that maintains the same intent, enhanced over time by increasing degrees of specificity (differences in degree); the Trollheimen case demonstrates movement in opposing and/or contradictory directions. This occurs through the strategic use by differing agents of differing decision-making arenas. Rules introduced based on differing cognitive ideas (differences in kind) recognize differing bases of justification and legitimization. Establishment, reference to and use of these multiple rule systems introduces property politics.

Overlapping rule systems in practice

Whilst political control has traditionally been concentrated in Oslo, Norway's capital, direct control of reindeer requires proximity and possession, and hence direct access to the reindeer. Property rules and rule systems are seen to affect and be affected by those who have the rights and power to benefit directly from different types of use. Analyzing practices of property provides insight into the strategies of various actors. In the case of reindeer, the Saami were

⁷¹ See Benda-Beckmann 1995; Hurley et al. 2002.

strengthened by their proximity to their animals. They were able to continue to make, utilize and enforce their own rules and rule systems - a practice recognized as legitimate through the Lapp Codicil and supported through later legislative decisions. At the same time, new laws were introduced based upon changed perspectives with respect to both the Saami and their reindeer. No single group of agents was able to both politically and physically control and use resources. As a consequence, the content and enactment of new rules and laws continued to be influenced by both those in proximity to the resources, and thus able to directly control reindeer, and those with the authority to create and, at times, enforce national laws.

Current questions, such as those being raised in Reiros with respect to where fencing should be erected, illustrate how interpretations based on individual and group conceptions of fairness and morality enter into overlapping claims of property rights and relations. Different actors promote different rules, justifications and criticisms in support of their differing positions and beliefs (Burns et. al. 2000:8; Fowler 1994:225). This supports the legal pluralist Verdery when she writes, "[i]f property is a relationship between persons with respect to things, then conflicting definitions of that relationship give the things in question ambiguous states. Property rights may also appear ambiguous because several different social actors enjoy overlapping claims to something" (1999:55). Determining who owns unmarked reindeer and who has rights to utilize reindeer habitats has not turned out to simply be an application of existing law. This is not necessarily because any particular law is unclear. At times there have been contradictions between rules, regulations and laws as well as contradictions between the intents and interests they are meant to serve. Consequences of the application of rules, regulations and laws are experienced by some actors as unfair, unjust, or unfavorable. Actors therefore continually adapt rules and laws to particular problems at particular times, rather than treating them as a coherent whole which might anticipate all possible scenarios in the unknown future. Actors use their power, be it in their proximity and experience with reindeer, their social positions, or in their selective use of arenas in interpreting and therefore defining their interests in reindeer as property. This sets negotiation processes, and struggles between stability and change, into motion again.

According to Gluckman, it is at such times and in such circumstances, through the judgment and interpretation of rules and laws (or it might be said, through the subjective element of practice), that not only social, but personal values and prejudices emerge and are introduced (1969:169). On the one hand, contexts differ and as a consequence certain rules may be more

pertinent and applicable than others. On the other hand, actors' interests, purpose and desires in asserting, interpreting and controlling rules also differ. By exerting their free will, people can and do create new situations. Examples in this section have examined various strategies of actors, such as in the use of multiple rule systems in Trollheimen. In this case, migration of herds into new areas was demonstrated as a way of claiming rights to pasture irrespective of historical rights to use a particular area, and involved the breaking of rules and regulations - including the theft of reindeer. We can thus note that social rule systems neither determine what actors do, nor the outcomes of their actions. Rather, they provide a structure which may be followed. The breach of law is always a possible, even probable, event. Where and when it occurs can provide insight into actors' interests and their strategies with respect to struggles over goods and bads¹⁷². The case of reindeer property regimes in Norway illustrates a continuing struggle among and between actors over the power to influence and define those regimes, based in part on their differing cognitive, normative and regulative rule systems. Individual actors, groups of actors, as well as the Saami as a people, continue to base claims on the values and interests inherent in their divergent social structures. In addition, different groups, as well as groups within groups, are affected by and interpret rules differently, creating differences in practice. Consequently, interests often contradict rather than compliment one another. This creates renewed interest among some actors to amend, change or transform property rules and rule systems again.

Resolutions of struggles result in complex property regimes. In the case of the reindeer story, some outcomes have been dictated in the form of a state resolution. They have tended to reflect the relative strength of different branches of government or actors within the administration. Other outcomes have been imposed by powerful groups upon marginal ones. Nonetheless, marginalized groups resist this and struggle for the recognition of rights to use and manage reindeer and pasture, and are strengthened by both their distance from the dominant group and their proximity to the resources in question. Outcomes are often left open - a product of both the continuity and contradiction of multiple rule systems. During periods of contestation, new actors are enabled or constrained. They can choose, or be forced, to join the struggle to define and delineate property regimes to goods (and bads). In this politics of property, new actors enter the negotiations. They introduce new issues and

For general discussion see, for example, Gururani 2000:189.

possibilities, new ways of defining the resource itself and the associated resources. As such, they re-frame the very question of what is in dispute.

An Increasingly Global Arena

Saami organization and the welfare state

The aftermath of World War II introduced a new context. The entire north of Norway, affecting Saami and Norwegians alike, was devastated by the scorch and burn practice of total destruction that the Germans practiced on their retreat from the country¹⁷³. Houses, boats, tools and out buildings were destroyed. The post-war period in Norway was thus necessarily a period of reconstruction. Another result of the war was a shared feeling with all the inhabitants of the area of having experienced a common fate. The common experience was central in contributing to what has become a strong belief in Norway of the right for democracy and welfare for all.¹⁷⁴

The government prescription for reconstruction was straightforward. Standardization was promoted to ensure the ideal of equity, that everyone in need would have access to the same. Standard housing, standard education and standard health care were provided to all. Reconstruction and modernization processes thus contributed to the further loss of the distinctiveness of the Saami culture with the consequence that many Saami became assimilated and many also moved away from what had been traditional Saami areas. According to Minde, "[t]he idea of demanding positive discrimination to give minority cultures the chance to develop, was seen as old-fashioned and reactionary" (2003:90, see also Minde 1985). As per the intention of those forming post-war policy, many of the Saami became integrated, albeit to varying degrees, into the Norwegian society. A significant exception was again the reindeer herding Saami. The contrast between them and other Norwegian citizens became even more pronounced than it had been earlier. As the drive towards standardization increased, the reindeer herding Saami became increasingly visible and different (Bjorklund 2000:16; Thuen 1995:32).

In June 1948, the Norwegian Saami Reindeer Herders Association (NRL¹⁷⁵), financially supported in part by the Norwegian Ministry of Agriculture, met for the first time. The meeting marked a turning point in that the NRL was officially recognized by the government

¹⁷³ Bjorklund estimates that about 10% of Norway's Saami were living in Nord-Troms and Finnmark, the regions burned by the Germans (2000:13-14). Together they represented about 1/3 of the approximately 70,000 Norwegians living in the area.

¹⁷⁴ See, for example, Bjorklund 2000:6-12; Stordahl 1994:57-8; Thuen 1995:61.

¹⁷⁵ *Norske Reindrifstamers Landsforbund* (NRL)

as representing herders' interests. In addition to reindeer herding Saami, representatives from the state administration attended. The main goal of the organization remains today as it was originally, to support the reindeer herders' economic, social, cultural and professional interests and, in this respect, advance herders' demands to the district and national administration (Dunfjeld 1979:37; Aarseth 1978:18). Central issues taken up during the meeting included the need to protect pastoral areas against new and competing uses of the land including forestry, hydroelectric development, mining operations, roads/railways, settlement and tourism¹⁷⁶. The meeting also covered other issues important to the Saami including the question of educational politics - particularly the right to use the Saami language in local schools (Aarseth 1978:21).

During the NRL meeting there were intense discussions about who could belong to the organization - those Saami who earned their main income from herding, or the broader group of Saami reindeer owners that included those that owned reindeer in addition to their other activities. In support of the latter, Toven, an owner of a limited number of reindeer, argued that those Saami who have previously owned reindeer but have had to give up herding, or those that owned a limited number and were therefore not full-time herders, should have been allowed to join. But the majority of those attending voted in favor of restricting membership, and therefore restricting the rights that might be associated with it, to full-time herders (Vorren 1978). As the government came to recognize NRL as the legitimate voice of reindeer herding Saami, it was only full-time herders, and therefore most often large herd owners, which were officially recognized. As such, the power of large herd owners was further strengthened through the establishment of the NRL. The decision of NRL to exclude small herders meant that other ways of owning reindeer among Saami went unrecognized and unsupported and were therefore invisible to the state system. Small herders who continued to live by a diversity of activities were further marginalized, their claims to ownership again

¹⁷⁶ Tourism creates problems for reindeer herding particularly when cabins are built, but also when foot tourists disturb the animals. But, it also creates opportunities. The Saami, Utsi, writing of his time as a boy in the 1920's explains, "[s]ummer life was inseparable from foreign tourists, many of them English or American: several ocean liners on a 'Midnight sun' cruise sometimes arrived on the same day (1948:98). The whole area around our camp would swarm with people, each intent on taking home a piece of Lapp handiwork or at least a bit of reindeer antler. Sometimes a small round-up was arranged for them, in advance, through a local tradesman, the sum paid being divided equally among the resident reindeer-owners." In footnote 9 Utsi explains that this money was not shared with the "families of miscellaneous origin" who came to the area purely to live off of the tourists. Although Utsi clearly disapproves of what he terms "tourist Lapps", this group provides another example of some Saami using a diversity of means to ensure their livelihood as compared with Utsi who came from a family of extensive herders.

overpowered. Nonetheless, as earlier some Saami continued to own a limited number of animals and continued to claim the cultural importance of doing so.

In the post-war period, despite a policy that only tolerated reindeer herding, tame reindeer herding was expanding also outside of the Districts where use of the outlying fields for which agriculture and livestock-rearing was of less and less interest to farmers. Reindeer herding remained an economically viable option. Proximity to both pastures and reindeer continued to favor reindeer herding Saami in this regard. In addition, Saami interests were increasingly being recognized. In 1956, Saami from Norway, Sweden and Finland came together. They established the Nordic Saami Council to represent their common Saami interests in the region¹⁷⁷ (Magga 1994:45; Nuttall 1998:19; Sillanpaa 1994:61).

Following World War II, the Labour Party led by Prime Minister Einar Gerhardsen became increasingly interested in reorganizing minority policies. As a follow-up to this and the growing interests in human rights, the state set up a national Saami Committee (*Samikomiteeri*) to suggest ways to improve conditions for the Saami, and particularly the conditions for Saami herders. They submitted their recommendations in 1959 (Minde 2003:77). They forwarded a proposition suggesting that new pastoral areas be opened for reindeer herding. The recommendation was raised for debate in 1963. No action, however, was taken on the Saami Committee's proposition (Minde 1985: 422). Instead, in 1960, the Ministry of Agriculture established a reindeer herding law Committee to draft a new Reindeer Herding Law. Rather than refer to the findings of the existing Saami Committee, the reason provided by the Ministry of Agriculture for needing to draft a new law was that the 1933 law was dated, as there had come to be substantial changes within, and competing with, the reindeer industry. Hydroelectric power development, mining and increasing mechanization of agriculture and silviculture were seen as particularly important. The draft document, presented six years later in 1966, explicitly recognizes Saami rights to herd based on historical use. In §1 the Committee wrote,

In the areas where reindeer herding has been or is carried out, based on historical use, this industry shall continue with the rights and duties which have traditionally been associated with the industry and in accordance with the decisions which are

¹⁷⁷ The Labour Party, which governed the nation during most of the post-war period, argued against the establishment of a Nordic Council based on the belief that Saami interests were best served by developing parliamentary channels within the existing political system (Thuen 1995:42).

laid down in this law¹⁷. (Innstilling 1966:54 cited in Bull 1997:35 author's translation)

In addition to the text itself, a commentary is given which underlines that the purpose of the paragraph is to explicitly recognize that reindeer herding rights emanate from historical use. Given this, the Saami have established their rights of use to traditional areas. These rights, according to the committee, cannot simply be overrun by the creation of law. The committee called for recognition of this both in future law and in future judicial interpretation in the courts (Innstilling 1966:29 cited in Bull 1997:15-16).

By 1963, the Norwegian Parliament recognized that Saami were equal members of the Norwegian society. This was recognition as an individual, rather than a collective right (Magga 1994:45). An attempt to implement this new belief administratively is indicated in the newly used term "Saami-speaking Norwegians" (Stordahl 1994:58). There was to be no discernible difference between being a "citizen of Norway" and "being Norwegian" (Thuen 1995:56). In addition, the post-war drive for international decolonisation triggered a further rethinking of the appropriate place of aboriginal people within liberal democracies (Dyck 1985:3). Internationally, this led to the agreement in 1966 of the Covenant on Civil and Political Rights. Within Norway, both Saami and non-Saami raised concern with respect to the situation of the Saami and their cultures, not least to the deterioration of their language (Sillanpaa 1994:55). After decades of being forbidden to use their native Saami language publicly and children being forced to use Norwegian in schools, fewer Saami used the language and terms had begun to disappear. Concern was raised again by medical reports in both Sweden (Haraldson 1962) and Norway (reported in Lofotposten 1964, cited in Bjorklund 2000:13-14) of high levels of infant mortality, high levels of deadly accidents contributing to low life expectancies, and low incomes among Saami groups, particularly reindeer herding Saami, that were far below the levels of other Norwegians - comparable in fact with those people living in developing countries.

During this period, in 1964, an attempt was made to transfer the administration of tame reindeer to the Directorate for Wild Game, Hunting and Freshwater Fishing. This was met with protests from the Saami - particularly because, yet again, they were not even consulted (Elgvin 1993). The change was not enacted.

17* In Norwegian, "Pa de områder hvor reindrifft har vaert drevet eller drives i kraft av alders tids bruk, skal denne nceringfortsatt kunne drives med de rettigheter ogforpliktelser som fra gammelt av har tilligget naeringen og etter de bestemmelser som er fastsatt i denne lov."

The draft Reindeer Herding Law is in keeping with the international Covenant on Civil and Political Rights, which came into force that same year (UN 1966). Article one of the covenant states that "an ethnic minority has the unique right to control its own natural resources." This is further supported in Article 27 where it is agreed that an ethnic minority has a "right to protect this material basis for cultural maintenance."

Despite the recommendation of the Committee and the national commitment to the 1966 Covenant, the proposal for a new herding law met with strong resistance, particularly from agricultural interests (*Norges Bondelag, Norges Bonde- og Smabrukerlag*) as well as forestry sectors (*Norges Skogeiers Forening, Skogbruksforening*) and from groups of landholders (Bull 1997:36; Sara 1993:110; Aasmundtveit 1991:10). The Ministry of Agriculture also opposed the Committee's proposal. In its preparatory document for the new law, the Ministry expressed that reindeer herding rights are fully given by the law. In addition, they wrote,

Which rights at any particular time should be extended to the reindeer herding industry, must be decided on the basis of a weighing of interests against adjacent industries and interests taken from an overarching consideration for Society¹⁷. (Ot. Prp. Nr. 9 (1976-77): 42 cited in Bull 1997:36, author's translation)

Given strongly divergent views representing the differing interests of the actors involved, the Parliamentary Agricultural Committee explicitly chose not to take a standpoint on questions concerning the grounds for the Saami right to herd. Nor did the new law take a standpoint as to how overlapping interests/competitive uses of land should be weighted against one another. Nonetheless, §15 suggests that such a comparison needs to be made with respect to decisions of use within particular areas. Without a means to implement it, this idea proved to have major weaknesses in practice (Arnesen 1988:29).

In addition, despite the recommendation of the 1959 Saami Committee to extend the pastoral area made available to reindeer herding and despite the economic profitability of herding at the time, the new law made no provision for new pastoral areas to be created south of the already established herding districts. A new interest had by this time emerged - the environment. Environmentalists argued that an increase in pastoral areas would have major effects on the large areas of "wilderness" (*utmark*) (Elgvin 1993:60). As seen in the previous

In Norwegian, "Hvilke rettigheter som til enhver tid skal tillegges reindriftsnæringen, må bli d avgjørende grunnlag av en interesseveining mot tilgrensende noeringer og interesser ut fra et samfunnmessig h

section with respect to the terms "wild" and "tame", particular actors attempt to label and define in this case the landscape, making use of certain concepts to increase their legitimacy to claims of use (or non-use)¹⁸⁰. Often, as is the case with the Saami, extensively used areas appear to others as wilderness areas. Claiming the outlying fields as wilderness areas supports a strong interest among the general Norwegian population to access outlying areas for recreation and tourism; for hiking, camping and building cabins. In this case, use of the term ignores Saami traditional use of these same areas as pasture or cultural landmarks - use which the Saami point out is responsible for these areas existing as they do today (Beach 1993:100; 2000). (This topic is further discussed in the section on the Amendment of 1996.)

It was also during this period, in accordance with the welfare policies of late 1950's and 60's, that the state began to use economic subsidies as a means to both support Saami generally and reindeer-herding Saami specifically in efforts to promote more efficient production. Specific to herders, this included subsidies for fences, slaughterhouses and the purchase of live animals. In addition, housing subsidies enabled the Saami to build modern houses provided that they built in or near a village/town. In addition to the government's aim to provide standard housing and services to all and to flatten out economic differences both between Saami groups and between Saami and (other) Norwegians, this subsidy was also intended to encourage settlement of the Saami and to ensure that their children attended school, compulsory at the time for all Norwegian youth to the age of 16¹⁸¹. Extensive herding had, by now, changed character bringing about major changes in the family. The long migrations and increasingly wild behavior of herds required both high mobility and physical strength to handle the animals. As a result, herding became increasingly men's work where the men were away for extended periods. With the introduction of the housing and schooling policies, this trend was further accentuated such that families were split with women, children and elderly often settled in one place (Falkenberg 1985:16, 25). Many women from reindeer herding families came to work outside the home, earning an additional income and hence enabling the family to further increase the size of its herds (Berg 1995:11; Bergsland 1998: 169; Kalstad 1997:121).

¹⁸⁰ See, for example, Banes & Duncan 1992; Duncan and Ley 1993; Toogood 1995.

¹⁸¹ The current compulsory age for attending school is 19.

Alta

In 1968, the Norwegian state through the state water board (NVE) began planning the development of hydroelectric power in the Alta-Kautokeino watershed, an area traditionally used by groups of Saami to pasture their reindeer. Initially it was environmentalists (eventually including the Ministry of Environment) who protested against the effects that damming a major river would have on the environment. Massive protests followed that included Norwegian environmental groups including the Norwegian Conservation of Nature Society (*Naturvernforbund*), NRL and local Saami interests. Then, a group of reindeer herders, presenting themselves as the Saami Action Group (SAG) staged a protest. Clad in their traditional costumes, they erected a Saami tent and initiated a hunger strike on the lawns of Parliament (1979). Although few in number, their action was highly visible and effectively raised the question of development at Alta from an environmental question to a moral one with a focus on ethnic rights. They came to be supported by both NRL and the Assembly of Norwegian Saami (NSR¹⁵²) (Andersen & Burns 1992; Kapstad 2000; Berg 2004; Minde 2003; Thuen 1995: Chapter 10). Their words and actions introduced new ideals, new ideas and hence new meaning to the on-going events of Alta. The protest was incredibly effective. The Saami became visible to the Norwegian people. Prime Minister Oddvar Nordli halted construction saying that notice needed to be taken of "the Saami's legitimate rights" (cited in Minde 2003: 90). In a changed international context, the event of the protest was able to transform national understanding of Saami claims, legitimizing and giving meaning to them. The Saami came to be recognized by both the state and the Norwegian people as "an indigenous people".

Whilst this became the general sentiment, not everyone agreed with it. The protests of the Saami Action Group again split the Saami with Coastal Saami referring to the protests as a "Reindeer Plague". It was their opinion that such protests were undemocratic and would only lead to further conflict. Rather than drawing attention to their differences, the Coastal Saami claimed themselves as "Norwegians", loyal to the King. They wanted to be treated within a Norwegian system (Björklund 2000:26-27; Thuen 1995). They also argued that reindeer herders were not representative of the larger Saami population. Fishing and farming, they reasoned, have also always existed and Saami practitioners of both of these livelihoods continued to be threatened by what they claimed to be the continued pressure on them from the reindeer economy (Thuen 1995:37-8).

' Norske Samers Riksforbund (NSR)

At the state level, after a pause of reconsideration, the government maintained its view that herding was a tolerated use on state land and their assessment that the effects on the Saami would be minimal. Government experts determined the effect of the flooding of pastoral areas on reindeer herding by estimating the carrying capacity of a set acreage; of the number of animals that the pasture could support on a yearly basis. This, however, was not in accordance with the way the Saami herders used these lands. For herders, these areas were central to migration routes between winter and summer pastures. Large numbers of animals used the area for short periods of time. Therefore, in the view of Saami herders the issue was - as earlier - not defined as a reduction of a bounded area of land. For these Saami herders, the Alta project reduced important migrating options and possibilities and therefore greatly reduced flexibility (Bjerklund & Bratenberg 1981; Thuen 1995:35). As pointed out earlier, flexibility is crucial to reindeer herding as conditions vary over time. Major protests including civil disobedience and legal cases were brought against the state by the Norwegian Conservation of Nature Society and Saami herders were initiated to stop construction. Permanent tents were erected in the area and protesters repeatedly chained themselves to the construction site. Arrests of both Saami and environmentalists followed but went largely unheeded in the repeated decisions of the courts during the period 1978-82. In 1987, the electrical plant was put into operation, albeit at 50 per cent of the output level planned originally.

The Saami lost large tracts of pastoral areas. But whilst the events of Alta constrained migratory options, they also enabled the Saami. The Saami began at this point to define themselves as "an indigenous people" (Minde 2003). Recognized as such, the Saami could introduce international law into their legal case - particularly Article 27 of the 1966 Covenant. Article 27 recognizes the collective rights of ethnic minorities to the natural resources they have historically been dependent upon. In addition, the Saami drew in principles from the Human Rights Committee in Geneva - where Norway was heavily involved. In the Supreme Court decision, Saami communities/sii'das were recognized as an ethnic minority having standing, as being legal parties (Svennson 1997: 43). The court decision did not support the Saami claim of a right to deny the state the right to expropriate the lands. But, the decision did award the Saami a right to compensation based upon their

established usufruct rights. In doing so, the Court also upheld the grazing rights of Swedish Saami in Norway (Alta dommen Rt. 1982:241; Magga 1994:45).¹⁸³

In the Fall of 1979, a joint meeting of NRL, The Assembly of Norwegian Saami (NSR) and the Norwegian delegation of the Nordic Saami Council was held. As a result of the meeting they forwarded a request to the government to clarify the Saami rights situation. A delegation was chosen that met with Prime Minister Odvar Nordli on 29 Feb 1980. As a direct consequence of the conflict and on the initiation of this joint action, the Ministry of Justice established two commissions on 10 Oct. 1980 to investigate and advise with respect to Saami rights questions, a committee for Saami Rights (*Samerettsutvalget*) and the Committee for Saami Cultural Affairs (*Samekulturutvalget*). Saami were well represented in both. Svensson writes that in addition "the Department of Justice agreed that legal principles that are contained in international law and that has already been endorsed and ratified by the Norwegian government clearly bind the state in activities toward the Saami" (1992: 375-376). In other words, the state again recognized multiple rule systems with respect to the Saami - now at the national and international levels. The Supreme Court decision can also be seen in the broader context of Scandinavia. One such example is the decision of the Swedish Supreme Court in the Skattefjall (Taxed Mountain) Case of 1981. Also here although the case cannot be said to be a victory for the Saami, the court did confirm that it was possible to establish ancient rights and claim ownership even in cases where use of an area was nomadic and seasonal¹⁸⁴. The Court also underlined that user rights, which are recognized in the area, should be regarded as constitutionally protected in the same way as ownership rights. This was further strengthened by the doctoral work of Korpijaako-Labba in Finland (1994; 1998). She has documented historical recognition of Saami ownership by the state. Given the common historical heritage of the Saami people predating the establishment of national boundaries (and the Saami expanded international network to utilize such knowledge), these cases are also recognized as having significance, and therefore legal legitimacy, in Norway (Sillanpaa 1994:90-91).

¹⁸³ For references on Alta, see for example, Anonymous 1984; Andersen & Burns 1992; Arnesen 1988:73-77; Beach 1993:111; Beach et al. 1992:61; Bjerklund 2000:38-41; Bjorklund & Bratenberg 1981; Bratenberg 1995; Kapstad 2000; Orton & Beach 1998:98-9; Paine 1985; Sillanpaa 1994:91-2; Thuen 1995; Temnesen 1972.

¹⁸⁴ For information on the Taxed Mountain case, see Beach 1985b; Hafstrom 1982; Orton & Beach 1998:97; Sillanpaa 1994: 190-91, Svensson 1992; 1997.

The Reindeer Management Act and the Law of 1978

It was in the changing national context of the Saami being recognized as Norwegians that reindeer herding came to be officially recognized by the state as a "primary industry" - equated with agriculture (original agreement 1950) and fishing (original agreement 1964). Through a new Act, as of 26 April 1976, the same type of welfare and economic policies introduced for farmers and fishermen became applicable to reindeer herders, albeit in a separate agreement. The social welfare policies were developed in Norway after World War II, building upon a broadly supported philosophy of solidarity¹⁸⁵. It was agreed that people working in the primary industries should be ensured a standard of living comparable to industrial workers. NRL promoted that reindeer herding be recognized as a primary industry. Nonetheless, they had their own ideas about what this meant. NRL argued successfully against the Ministry of Agriculture's intent to send all funds through the same channels as were used for the agricultural agreement. NRL's point, which came to be accepted, was that reindeer herding was distinct from agriculture, both because of the nature of the industry and because it was important for the Saami people as an ethnic minority. These points came to be reflected in the main goals of both the Act and a new law on reindeer herding (1978) which continued to be negotiated throughout this period.

In the fall of 1976, the Ministry of Agriculture forwarded their proposal for a new law [Ot. Prp. Nr.9 (1976-77)]. This proposal differed markedly from that forwarded a decade earlier by the Reindeer Herding Law Committee. NRL strongly criticized the proposal, but reflecting differences among Saami groups it was supported by another Saami organization (NSR). During parliamentary debate, numerous changes, comments and dissension were introduced [Landbruksdepartementet 1977 - Innst. O. Nr. 98 (1976-77)]. A small majority managed to postpone a final decision being made. The same proposal was then resubmitted in 1977. Despite much debate, an amended document was passed with a small majority. It came in to effect on July 1, 1979.

The Reindeer Management Act of 1978 introduced three administrative levels: local district boards, regional councils and the national level. The local boards (37 in Finnmark, 41 in the

¹⁸⁵ Another example of this is that Norway became actively involved in the drafting of the UN Declaration of Human Rights (1978). This, in turn, has had consequences internally. As Stordahl in writing of the implication of Norway's international commitment to the Declaration expresses, "[a] democratic and humanistic nation which had committed herself to the idea of equal rights, could not risk not to be believed to fulfill these ideas within her own borders" (1994: 57-8).

rest of the country) are comprised of active reindeer herders. They coordinate daily activity, coordinate management and slaughter, and report sanctions. A Herding office, each with a reindeer agronomist, supports the local boards. Six Regional Councils of five members each are appointed at the regional level. They include both herders and farmers whose names are forwarded from the districts and two representatives forwarded by the Saami parliament. The regional level has responsibility for regulating conditions between the herding districts. The national level is comprised of seven members in total, the Ministry of Agriculture names four and three are named by the Saami parliament. In recognition of where reindeer herding is practiced, the new national administration has been located to the northern municipality of Alta¹⁸⁶. This national level has responsibility for advising the government on policy and for national budgeting for the profession. The changes introduced are quite significant in that each level is designed to have a majority of representatives from the reindeer herding industry. In addition to management responsibilities, the levels are also provided with economic resources¹⁸⁷ (see Figure 19).

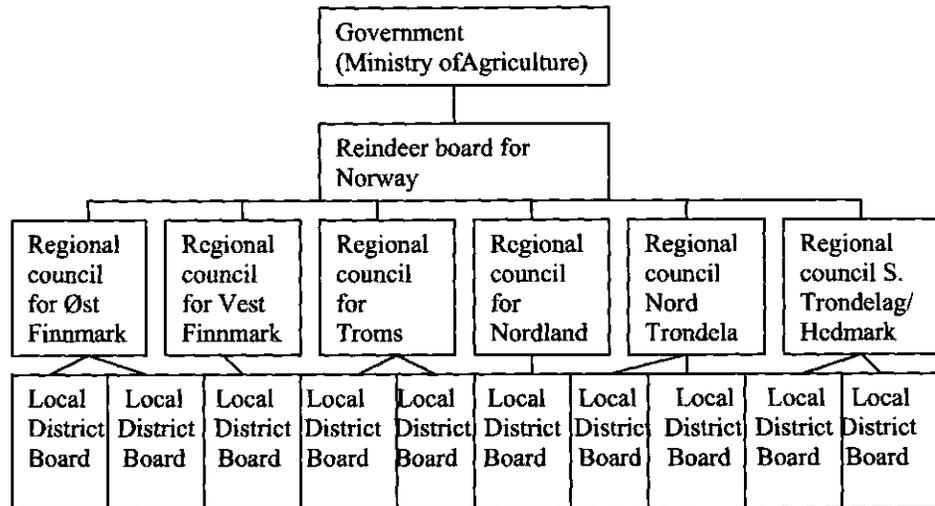


Figure 19. Administrative levels created under the Reindeer Management Act of 1978

The main aims of the new act and law are stipulated as follows: to increase meat production, to maintain the Saami culture, to help the herders have a good and stable economic situation

¹⁸⁶ Information on the Norwegian reindeer husbandry association can be found at <http://www.reindrift.no>.

¹⁸⁷ See, for example, Arnesen 1988:26; Bull 1997; Grut 1996:69; Jentoft 1998.

and to maintain a settled presence in the northern most areas of Norway. From the state-hold, it can then be said that reindeer are now being defined as a commodity, a source of culture, a basis for full-time herding families' welfare and a strategic brick within Norwegian military strategy. Already then in the law, and in its implementation, we find an inherent potential for contradiction of purpose, a foundation for the creation, interpretation and implementation of multiple rule systems.

Introduced in the new law are a number of constraints including regulations on who is eligible to own reindeer. One now needs to belong to a traditional/registered herding family, as well as to an authorized management unit, often a family unit (Kalstad 1998). The 1978 law in seeking to limit the number of reindeer herds introduces both restrictions on groups of Saami and a prohibition for non-Saami to own reindeer within the districts. Previously the introduction of districts had had the consequence of breaking ties between the commonly held interests of farmers who had herded outside of the districts with the reindeer-herding Saami (see Additional Lapp Law). Nonetheless it was not uncommon for non-Saami Norwegians to own animals that the Saami shepherded within the Districts (*verde-systemet*). As a consequence of the increased exclusion introduced in the law of 1978, Saami lost a source of income and, at least as important, they again lost a common tie as a basis for cooperation between herders and landowners (Bull 1997:23).

In keeping with the new distinction of reindeer herding as a recognized primary industry, a main intention of the new law and agreement was to create the necessary conditions for rational development. A system was established whereby economic data was collected on a yearly basis to provide a foundation for decision-making concerning, for example, numbers of reindeer, who could herd and the size, type and level of subsidy programs. Later, ecological data, particularly carrying capacity and levels of degradation of pastures, was added in a similar manner. Despite the aims of the Act specifically listing the importance of reindeer for the Saami culture, no explicit attempt was made to include cultural expertise on such things as reindeer practices or Saami rules concerning the access, use and management of reindeer in the new, systematic evaluations that were being made. This was seemingly assumed to be taken care of through the inclusion of Saami to local boards. But, as the anthropologist Beach points out in writing of the comparable situation within Swedish Saami reindeer herding, "...the objectives of optimizing reindeer management are not necessarily congruent with the long-term goals of sustaining a viable Saami culture" (2000:200). Whilst the goals of

economic and cultural viability may be mutually supportive, they may just as well be opposed. Therefore, although the state acknowledges that there is a relationship between economic and cultural objectives, what that relationship is comprised of and how it might be fostered to contribute to the multiple objectives of the government remains unclear and as such poorly addressed and poorly understood. With respect to both funding of new research and defined expertise within the Directorate of Reindeer Husbandry, social issues and considerations were, and continue to be, sidelined (Danell 2000; Kalstad 1996:28; Lie & Karlstad 1999). A recent research report of the Norwegian Reindeer Husbandry Administration heavily criticizes the reindeer administration for having too little expertise to deal with the types of problems currently arising in the industry many of which are social and cultural in nature. The report notes, for example, that only two of the Administration's employees hold law degrees (Utenriksdepartementet 2000).

With respect to the question of representation, Saami protested that despite inclusion on the Boards that their knowledge was being sidelined. The new act was therefore experienced as alienating the very people it was meant to support. As Sillanpaa writes,

Many Sami reindeer herders were concerned that the legislation gave the state the final right to regulate internal relationships among those engaged in reindeer husbandry rather than the Sami resolving these matters themselves as they had historically done. Section 7 of this Act provided for regional committees appointed by the county councils which were given wide powers, including the licensing of reindeer owners; this, in effect, placed the rights of individual Sami to practice reindeer pastoralism in the hands of these councils. The NRL, at this time, questioned why the reindeer owners were not able to elect their own councils as had been recommended in the 1966 report of the committee. (Sillanpaa 1994:71, see also Paine 1994:160.)

Saami representation, and even more specifically Saami herder representation, was increased through the Act at all three decision-making levels (see pp. 202-203). As discussed with respect to the lack of Saami representation when state laws first were introduced, over time this change is apt to be highly significant. Saami are now better placed to define issues and interpret them. But initially, rather than acknowledging Saami experience and knowledge on their own grounds, the Act had already defined how herding was to be defined and how it would be practiced. In other words, although in many respects the state can be said to be devolving Saami authority through the boards and foremen, they are also requiring the local district boards to enforce state policies. The Act itself can, therefore, also be interpreted as a further attempt to incorporate the herders into the Norwegian system.

In addition to the issue of representation, the Saami criticized the 1978 law because it failed to address the contested issue of the basis of rights (Sara 1993:110). This is central to the herders as grazing rights continue to face increasing competition from other forms of land use. In the last decades, competition has not been so much from agriculture, but from artillery practice, forestry, hydro-electric development, roads and tourism (Anonymous 2000a; Elgvin 1993:10; Nellemann 2003; Nellemann et al. 2003; Svensson 1973; Vistnes et al. 2004). In addition to the actual land areas the question of land use also includes overlapping uses of land. One reason that undisturbed grazing is also essential particularly during the spring and summer to ensure healthy, robust animals including newborn calves¹⁸⁸. The issue of disturbance to animals is particularly problematic with respect to artillery practice, to tourists who not only walk through these areas but also seek contact with the reindeer, and increasingly to hunters of small game who let their dogs run free (Jernsletten & Kloskov 2000: 103-104). The different groups of involved actors seek out appropriate arenas that support their interests. Tourists may well promote their interests through the Norwegian tourist group or through environmental groups. With respect to governmental actors, the Ministries of Agriculture and Environment discussed earlier in the Trollheimen case, as well as the Ministry of Defense given its interest in both a settled presence in the north and an area for artillery practice, each have clear, yet substantively differing interests in defining rights and obligations to access, use and management to reindeer and its associated resources in the areas of the far north.

Similar problems are found within and between decision-making arenas at and affecting the local level. Even in cases where the Saami had been included in questions of reindeer management, they continued to have highly limited - if any - influence on non-Saami based development issues within the herding districts. This is because of the manner in which decisions about land use have been divided. To a large degree, landowners can alter the land and associated resources within the boundaries of their own landed property. In addition, local counties plan and regulate projects (build schools, zone housing developments and industrial sites) within their own borders. The uncoordinated decisions within and between counties can fragment large pastoral areas, reducing not only total land availability, but also

¹⁸⁸ According to Skogland and Malmen, "[f]requent encounters of reindeer with humans led to aggregations as a defense reaction and eventually to habitat desertion near centers of human activity. The main result is a constriction of habitat, with the consequence of larger aggregations of animals on smaller areas" (1980:140). Reimers found that left undisturbed, reindeer were able to rapidly gain weight during the summer (1972:618). See also Dunfjeld 1979:16; Nellemann et al. 2003; Reimers 1972:618; Skogland & Malmen 1980:140; Wolf et al 2000; Aastrup 2000.

further reduce pastoral options (Dunfeld 1979:22; Nellemann et al. 2003). In addition, and largely outside the control of particular counties, the state can, and does, initiate large projects (including Alta, road construction and artillery practice). Given the extensive areas of state-owned land in the far north, these large projects have the potential to reduce substantial and/or important grazing areas. Over time, the cumulative and long-term effects of the actions of these three actors (private landholders, counties and the state) have led to fragmented and significant reductions in total pasture areas (Nelmann et al. 2003, see Figure 20). The loss of area has clear implications for herders and the potential number of animals the area can support. But in addition, as has been mentioned earlier, migrating groups generally consider flexibility - the possibility for herders and their animals to come together and disperse in varying configurations through both time and space according to both need and opportunity as necessary elements in their lifestyle¹⁸⁹. According to Berg, the Norwegian state has thus played an important and central role in the degradation and fragmentation of the pastoral resources of the far north (1995).

Administratively led by the Ministry of Agriculture, reindeer herding has taken on many of the accouterments, much of the structure, of agriculture found in Norway: there are subsidies, slaughter houses, fences, supplemental fodder, heavy machinery to transport both goods and people (helicopters, motorcycles, off-road vehicles, and snowmobiles) and increasingly private access to land (Beach 1993; Kalstad 1997; Paine 1992). On the one hand, the overall structure of agriculture policy has emerged in focus. This comes in part because state defined categories in many ways organize the experiences people have "... precisely because they are embedded in state created institutions that structure that experience" (Scott 1998:83, with specific reference to Saami herders, see Bjarklund & Eidheim 1999). On the other hand, despite national legislation and regulations, Saami implementation is not always in accordance with the intent of the State. Few changes are simply implemented. In the reindeer case, the actual practice of herding in this period will again illustrate that the Saami apply their own understanding of herding in interpreting and implementing rules and regulations in accordance with their own needs, interests and desires. In addition, actors' practice and interpretation of particular regulations can have unintended effects.

¹⁸⁹ Berland and Salo discuss the interests of pastoral groups. According to them flexibility to adjust numbers of animals and herders moving together - and to be able to make decisions about routes promotes, "heterogeneity, resiliency and viability within their multi-resource niche" (1986: 4).

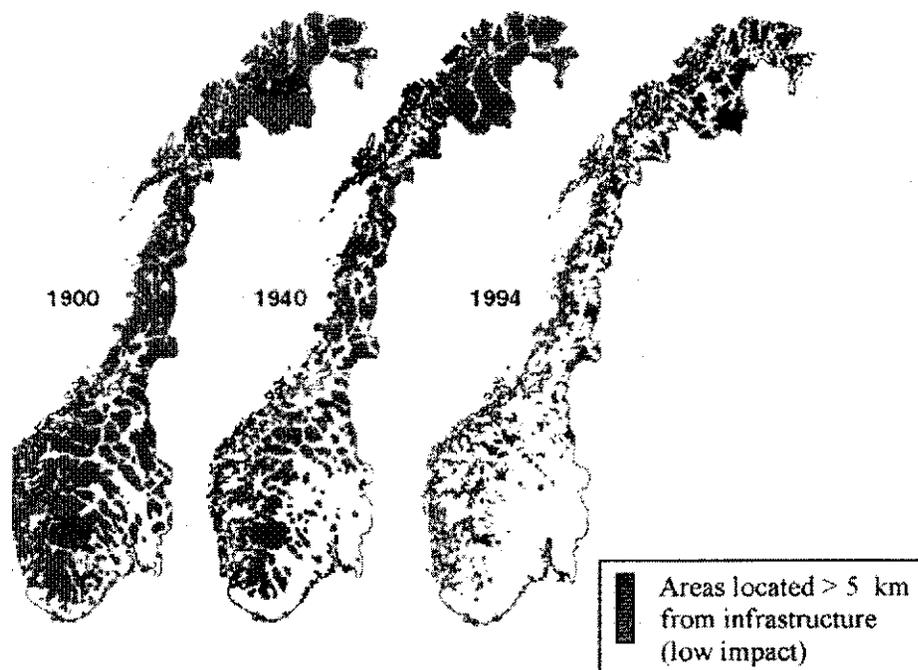


Figure 20. The distribution of areas >5 km from any infrastructure (shaded areas) over the past century, Norway, generally depicting loss of wilderness and the changes in availability of undisturbed habitat available to reindeer. (Nellemann et al. 2003).

The period of rationalization

With respect to the reindeer herding industry in Norway, the 1970's-80 have come to be commonly referred to as the period of rationalization¹⁹⁰. During this period, the state defined economic development as a technical problem¹⁹¹. In keeping with the times, state policy (Landbruksdepartementet 1976; Stortinget 1978) defined the increase in the number of Saami owned reindeer as a classic example of Hardin's "tragedy of the commons" (1968). Following the logic of Hardin, combined with the prominent ecological theories of the time of carrying capacity¹⁹² where a certain area of pasture is said to provide the basis for a certain number of animals, government defined experts argued for a drastic reduction in number of animals, as well as the introduction of privatized rights to pasture. In seeking an alternative, the reindeer

¹⁹⁰ See, for example, Paine 1994.

¹⁹¹ As an example of policy see Kosmo 1985.

¹⁹² Carrying capacity was determined according to research on the pastoral needs of wild reindeer. Question may be raised as to whether this is appropriate as a direct comparison for managed herds where herders have the possibility to move animals between different types and areas of pastures. This human element was ignored in the original estimates of carrying capacity (Bjorklund 1991; Fox 1998; Jentoft 1998).

administration drew upon the model of the Norwegian agricultural system (Berg 1995:9). Supported by satellite photos that indicate large areas of degraded pasture, these ideas continue to be the basis used by many to explain what is termed as the crisis of the degraded pastures of the north. Thus defined and explained, the remedy is given. There is an acute need for active government intervention (Brox 1990; Landbruksdept. 1985; NOU 1978; Riseth 2000).

According to the Ministry of Agriculture the intention of the new reindeer herding policy was to decrease the size and number of herds and increase meat production both in total and per head. In addition to addressing the problem of land degradation, this was meant to increase the total income per herder [Stortinget 1992a - St. Meld. Nr. 28 (1991-92)]. In an aim to reduce total numbers of reindeer in the north, a ceiling was introduced on the total number of herders and herding units in each area. This led to the introduction of constraints on who could (and can) own animals - limiting entry into the livelihood, as well as introducing restrictions as to where herders can pasture their reindeer¹⁹³. In addition, a requirement was introduced requiring plastic tags (later rescinded) as a means of marking the animals in a way that outsiders could understand/interpret¹⁹⁴.

The new regulations for earmarking were introduced by the Ministry in 1984. Particular earmarks are now associated with the production unit, with one mark being allowed per unit. Among married couples that herd together, each can have their own mark, as can each child. With this exception, the earlier government intentions supported by the extensive herder Mortensen back in 1933 have been met. The new regulations mean that those who no longer have rights to herd lose their right to their own mark. As discussed earlier, reindeer marks are not only a visible claim to reindeer, over time they have come to have additional values including an importance with respect to cultural identity. The loss of the right to one's own mark is captured by Bull where she quotes an elderly Saami women who lost her right to

¹⁹³ Reindeer Management Act (*Reindrifstloven*) June 19, 1978, nr. 49, §3.

"The state does, however, make ownership of a reindeer mark dependent on entry into the livelihood, and that entry is now controlled. Furthermore, the children of a registered pastoralist do not qualify for reindeer marks - and that is a radical break with a precious 'tradition'. (Reference to clause 17 of 1978 Act cited in Paine 1994:160) (The 1978 law required that reindeer mark owners be adults over 18 years.) Changes introduced in 1984 again allow that children of people holding reindeer marks are entitled to their own mark.

¹⁹⁴ In the regulations of June 12, 1984, "On the Marking of Tame Reindeer §2 Who has a right to have their own reindeer mark registered" - It is written that only those people who have a right to practice reindeer herding in accordance with §3 of the Reindeer Law can have such a mark. (NOU 1993: 3.17.2.1) §4 recognizes the cultural importance of earmarks. Here it is written that one will seek to protect traditional use and formation of the marks, particularly traditional family marks.

retain her own reindeer mark. After lamenting her loss, the women attempts to explain just how important having one's own earmark are. She says, "[t]he reindeer mark is a part of my identity in the same way as my "joik" (Saami personal song) and my name" (1997: 31-2). This is a poignant statement. According to this woman, losing one's right to access and use an earmark means, in fact, losing a part of one's self. The example would appear to underline that despite the multiple aims of the current reindeer policy, cultural aims - such as maintaining a Saami identity - which would tend to include, rather than exclude, group members are not given equal weight.

This is further strengthened by the attempt of a group of Saami to retain their right to have and use their traditional earmarks. Bjorklund and Eidheim discuss a court case forwarded by twelve Saami (1999). Each of these Saami owned between five and thirty reindeer which, in accordance with Saami tradition "*sytingsreinordning*" other Saami herders cared for. You will remember that it has been discussed that introduced government policy broke earlier established social ties. This first occurred when reindeer herding was forbidden outside of the herding districts - breaking ties with those farmers that herded reindeer. It occurred again when new rules were introduced prohibiting farmers to own reindeer that were shepherded by Saami within the districts. In addition to breaking ties with farmers, this same rule also applied to Saami. The twelve Saami lost both the case in the District Court (Alta herredrett 28 Feb 1990) and their appeal (Halogaland Court of Appeal 20 Nov 1992). Bjorklund and Eidheim argue that the judgments took no account of cultural meanings of earmarks to the Saami. Rather than recognize the multiple aims of the 1978 Act through recognition of cultural practices, the Court came to equate earmarks with exclusive ownership - that all rights and all obligations belong to one owner and are identified with one mark. But as we have seen, this was not how the Saami system had traditionally functioned. Rights and obligations were both private and joint. Rather than support Saami traditions, the ruling went against them - against cultural ties between Saami and between Saami and their reindeer. In the words of Bjorklund and Eidheim, "[b]y NOT providing judicial recognition to an argumentation based on Saami understanding and ideas of justice - such as those held in the *sii'da* system in the 'verdde-relations' the judicial system becomes self-fulfilling. It is only the arguments based in concepts and connections described and categorized in Norwegian law that are recognized by the state as legally relevant" (1995: 155, author's translation).

As a consequence of the introduction of the new Act and law, other rule systems used by the Saami with respect to establishing and maintaining rights and obligations to reindeer were affected. In addition to the traditional right of all Saami, upon birth, to their own designated earmark for reindeer being lost, another traditional right of inclusion, the right to belong to the local herd management decision-making groups after the age of retirement was revoked. According to the new law, participation in the state organized bureaucratic levels is restricted to active herders. Traditionally the elders in a *sii'da* held a highly respected position where their experience gained over time contributed to their status. Excluded from these groups, elders' status has dropped accordingly. The Act and law has also introduced, redefined and/or further delineated rules of who one sells meat to (meat must be slaughtered centrally and sold to a central market), rights increasingly specifying where (which pastures and even introducing fencing), who could own animals (only those allowed to have their own earmarks), regulations concerning the size and composition of herds (ratio of does: buck: calves and setting an average weight requirement for does) and even evaluations of how outside risks can be taken into account in management decisions (see section on Chernobyl). In addition, the possibility to use coercive measures should these new regulations not be followed was introduced (Paine 1994:60; 191-2; Sara 1993: Section 10).

The following pages illustrate both strategies of defiance and creative uses by groups of Saami within the newly introduced rule system. In the strategies of these Saami it is revealed that whilst some Saami were constrained by the new rules, others experienced them as an enabling situation. These stakeholders were able to draw upon rules which best served their own interests and purposes. Prime examples are the calf slaughtering subsidy and the introduction of "production units". According to the newly introduced calf-slaughtering subsidy, when herders slaughtered calves, they were paid a subsidy. The idea behind the subsidy was to reduce the total number of reindeer. But, given this increased funding, herders were enabled to reduce the number of adult animals slaughtered resulting in a substantial increase, rather than decrease in the total number of reindeer in the period 1979-89, particularly in Finnmark (Berg 1995; Paine 1992; 1994. See Figure 22.). Typical of animals owned by pastoralists, reindeer on the hoof are valued by Saami herders, perhaps even more than money in the bank, as the living resource has the capacity to reproduce as well as to provide status within the community. Large herds continue to be symbols of both power and wealth for the Saami. In this sense, the animals are living capital. The lack of recognition of

the social significance of the reindeer in the introduced state policy led to unintended consequences of increased numbers of reindeer.

The state's introduced term of husbandry or production units was introduced to replace the Saami concept of *sii'da*. It was a further attempt to rationalize production through clarifying rights by introducing exclusive private reindeer rule regimes - again equating the identified owner with all rights and obligation to reindeer. As we have seen, this is not how the Saami have owned and managed their reindeer. Whilst *sii'da* traditions allowed for flexibility and variation in pasture use, the introduced regulations have increasingly specified pasture areas to be used by individuals and times when they can use these. Specifically, the 1978 law plans and regulates the distribution of herds. Access to summer pastures are allocated to specific production units whilst access to the fall/spring and winter pastures has been defined per the changed introduction in the national law of 1933, as "commons" to be managed traditionally. But, as discussed earlier, this is not in accordance with Saami traditions where the *sii'da* collectively controlled access to particular areas. The *sii'da* system builds on a combination of individual, collective and social rights, obligations and constraints associated with each. Rather than further strengthen this system, the state's introduced concept fractures it - introducing uncertainty among Saami herders - and further undermining rather than strengthening Saami traditions¹⁹⁵ (Bjarklund 1999; Paine 1994; Jernsletten & Klokov 2002).

Whilst the calf-slaughtering subsidy was meant to reduce total reindeer numbers, the introduction of "production units" ("a reindeer herd that is owned and managed by one responsible leader" §4.2) was meant to limit the number of herders. Welfare benefits were attached to these units. The idea from the state's side was to reduce the number of animals by privatizing control. But, instead it made it lucrative for individuals within one family to claim themselves as independent "units" (rather than a common management unit), again increasing funding to the family and hence the ability to purchase, or retain, more animals (Sara 1993: Section 12). According to the findings of a study conducted by Nilsen and Mosli on the household and on economic changes in the period 1960-1990, the introduced policies of this period led to an increase in the number of production units within a herding family, as well as an increase in the number of men choosing to herd both out of interest to herd and to take

The 1998 committee appointed to revised the 1978 law in accordance with the aims of sustainability suggests reverting to the use of the concept of "*sii'da*" rather than currently used concept of "production unit" (NOU 2001:35).

advantage of the new rules (1994). From 1979 to 1989, there was a doubling in the total number of owned reindeer within the districts from 124,000 to 247,200 (NRL 1987:18, 26) as well as in the total number of herding units from 247 in 1980 to 288 in 1990 (Bergland 1998: 168, see Figures 21; 22). Although this is partly to be explained by changes in reporting¹⁹⁶, it mainly represents a virtual explosion in the number of animals owned, particularly in Finnmark. By the end of the 1980's, even the government recognized the paradox of the actual practice resulting from its introduced policies. In a report to the Reindeer Administration, the head of the Department writes, "[t]o simplify a little we can say that the economic improvements which the Reindeer Agreements brought home, in large part, have been used not on consumption but on investments in more reindeer" (Chief of Reindeer Administration in 1987 cited in Paine 1994:163).

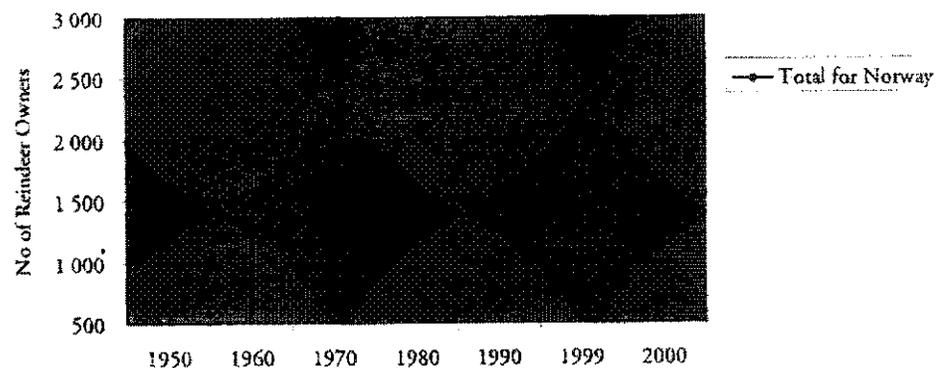


Figure 21. The development in the number of reindeer herding production units in Norway, 1950-2000 (Jernsletten & Klokov 2002:88).

Although surprising to the state, the choice to invest in more reindeer is completely in line with Saami interests. It is only paradoxical in a government system that assumed equivalence between money and reindeer, and an assumption that the government and individual Saami herders shared common interests in reducing the total number of reindeer. Rather than build on or, more importantly, an attempt to strengthen the common Saami *sii'da* management systems where agreements may well have been reached among groups of herders accessing the same pasture areas to limit the total herd size, the state imposed a new system that not only ignored, but actually broke social ties and made it economically advantageous for each herder to act opportunistically to maximize their individual situation.

As with many pastoralists, Saami herders are quite reluctant to talk about how many animals they own. In addition, the earlier taxing system was based upon the reported number of animals owned. The 1978 Act introduced controls to check the number of animals owned Saami herders.

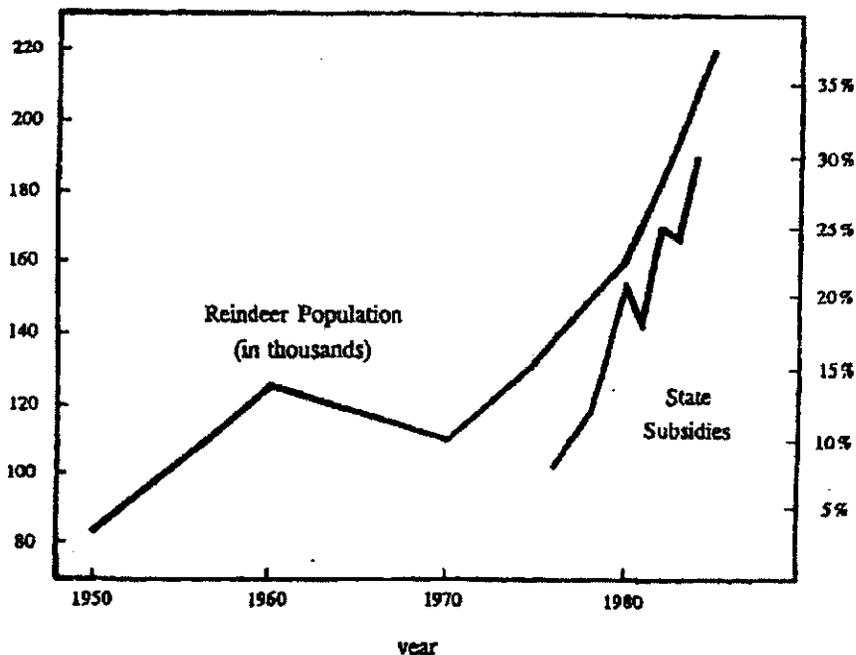


Figure 22. Changes in Saami reindeer pastoralism in Norway from 1950 - 1985. The figure indicates the increase in reindeer numbers together with the increase in state subsidies shown as a percentage of the total income of the livelihood. (NRL 1987 (1): 18, 26 and Odner 1992b: 5).

Another example of unintended effects is provided by snowmobile subsidies. In furtherance of the governmental desire to improve meat production, snowmobile subsidies facilitated change in composition of herds replacing the adult castrated males used in transportation. Nonetheless, a main intention of the program failed. A study carried out by Pelto indicates that subsidies for mechanization including loans for purchase of snowmobiles led to an increase in socio-economic stratification among the Saami - exactly the opposite effect that the Norwegian welfare state cited as a central intention when making the subsidy available (1973). In accordance with Norwegian welfare policy, the government intended to even out the incomes between Saami. But snowmobiles were initially experienced as expensive not only to purchase, but also to run and maintain. Therefore, the ability of Saami to exploit the subsidy differed. Once owned, however, snowmobiles allow herders greater mobility to herd. Like the innovation of sleds hundreds of years before, the technological innovation of snowmobiles further enable the transport of both supplies and people through the winter landscape increasing both the possible duration of trips and amounts of goods that can be

transported (Aikio 1987:355). Initially then it was the wealthiest herders, those who could afford to make use of the subsidy. These were further enabled to increase the size of their herds - accentuating, rather than decreasing the economic differences, and social power, among Saami herding families (ibid., see also Beach 1993; Linkola 1973; Nilsen & Mosli 1994: 63-67). Within less than a decade over 90% of registered herders owned snowmobiles (Nilsen & Mosli 1994; Riseth 2000). Snowmobiles came to be valued as indispensable. Those with less means borrowed funds. The increasing mechanization of the period hence brought with it an increasing integration with a monetary economy - a need as in the transition to meat production years earlier to slaughter reindeer now to enable the repayment of loans. Those with large herds could make the transition. Those with smaller herds were further pressed, further marginalized.

Kalstad has registered recent change in practices among Saami reindeer owners, reminiscent of the change at the end of the 1800's (1997:145). Again there are groups of Saami using the argument that the increasing size and power of some extensive herds have led these owners to ignore what had once again come to be accepted *sii'da* boundaries. And, again the diverse interests are characterized by claims of traditional versus economic values, as well as the difficulties faced by those with small herds being overrun by those with large herds. In, for example, the 1994 proposal that districts should take responsibility for allocating pastures, those characterizing themselves as small herders were concerned that they would be incorporated into large districts with many and large herders. This, the small herders argued, would enable the large herders to dominate the decision-making process given both their numbers and influence (Kalstad 1998).

A third example from the period of rationalization again reveals unintended consequences of the 1978 Act. In an attempt to reduce the number of production units, the government has been reluctant to allow for the establishment of new units. In addition, in 1993 an Adjustment Program was established for Inner Finnmark with a result of 52 production units being shut down (Berg 1995:15). Units that become free are only advertised occasionally. Bull reports that many Saami believe that this is both contributing to developing an aging male group of herders and that it is creating insecurity among youth wishing to establish themselves within reindeer herding (1997:26, see also Beach 2000). Up to this point, it was the *sii'da* that evaluated the knowledge, talent and social relations of a prospective herder. With the 1978 Act, the Ministry of Agriculture and its new administrative system that was to determine how

many and who could be herders. In the middle of the 1980's they stopped all recruiting (Bjorklund 1999: 61). Also this can be seen as directly conflicting with the goal of conserving the Saami culture. As Beach et al. point out with respect to the situation in Sweden, "...the Saami have been quite aware that further reductions in the already tiny number of active reindeer herders can hardly be viewed as something positive for their culture" (1992:86). Instead, Saami herders argue for the need for recruitment, for Saami-determined (be it modern or traditional) herder apprenticeship in the field (Beach 2000:208-9).

The introduced regulations constraining ownership to a limited number of herders has also been contributing to a continuing decline with respect to women's roles within herding. Where previously women moved and acted independently based on their ownership of their own animals, many have been excluded in part from the introduced permit system. The introduced production units have been increasingly defined such that they have come by definition to include the entire family. But in practice, the owners have come to be the male heads of households. Whilst reindeer provide status for them, it has led to women taking on what has come to be a subordinate role in the house, a position not at all traditional among the reindeer herding Saami. Illustrative is how young women have become dependent on brothers and male relatives for rides on snowmobiles where earlier they would have independently chosen where and when they would travel with their own reindeer for transport (Linkola 1973, see also Akio 1989; Beach 1982).

A recent example of the effect of policies introduced during the rationalization period is given by Reinert with respect to the perverse effect rationalization has had on the price of reindeer meat (2000). In 1976, when the policies were first being introduced, reindeer meat had a price equivalent to 170% the market price of beef. Today it is under 100%. It has fallen from 67 Nkr./kg. to 35-40 Nkr./kg (adjusted to the value of Nkr. in 1990). Reinert argues that given that reindeer meat is an exclusive product with a natural advantage for production in the area, and that it has the added advantage of an exclusive culture producing it, it should be able to generate a high price in the market. Instead, he argues government management has effectively isolated the industry from market mechanisms. Reinert concludes that rather than solving problems within the industry, the introduced policy from this period meant to create a competitive industry has created many new problems (ibid.).

Finally, it is also possible to note consequences to the reindeer. As has been discussed, management choices by the Saami have the potential to affect the genetic composition of their animals. Modern day reindeer herding has become increasingly extensive: people have less and less contact - and correspondingly less control over - their animals. This has been enabled in part by mechanization, but also by decades of the state's highly effective predator extermination program. The predator policy has meant until most recently that there has been little need to protect reindeer against predators¹⁹⁷. According to Ingold, this means that there is no longer selection pressure for the animals with the most pronounced social mechanisms of protection (1980). In addition, the changing technology of transportation, together with state subsidization for purchase, has promoted the replacement of sleds with helicopters, snowmobiles and all-terrain vehicles (Beach 1981:436-7; Pelto 1973)¹⁹⁸. People can, and do, live more centralized. In some cases the only contact between the extensive herding Saami and their reindeer is in the spring to earmark and castrate the new calves, and in the fall to herd animals for slaughter. All animals in the area are herded together and driven to the slaughterhouse. In the hectic atmosphere, it can be difficult for particular animals to be singled out. In these situations, "[t]he decision as to whether or not to slaughter comes to depend not on the quality, age or sex of the deer, but on whether it happens to be found" (Ingold 1976:43). The process of domestication, of choosing for manageability, is lost in the changed methods of round up, as is the selective pressure for the niche of interaction with people. It would appear extensive herding Saami are currently in an unintended process of

¹⁹⁷ In conjunction with growing interest in environmentalism, the international Bern Convention and the Convention on Biodiversity (CBD) have stressed the need to conserve endangered species. Having ratified these conventions, Norway followed up with a parliamentary white paper, St. Meld. 35 (1997-98) providing guidelines for national policy with respect to predators. One of the goals was to foster the restoration of viable populations of brown bear, lynx, wolverine, wolf and golden eagle. The government has been largely successful with its aim to increase populations. What it did not anticipate is the uproar that has followed as the conflicts between particularly primary industries and predators have grown (with respect to the wolf see Bergstram 2003). In a growing controversy, Saami reindeer herders complain that increasing populations of eagles and wolverines are creating a critical situation for the herders (Danell 2000:112; Rapp 2000a: 64). The government has admitted that they know too little with respect to both actual numbers of predators and the number of reindeer they kill. At the same time, the state is sceptical to the high number of Saami claims for restitution. For the season 1999-2000 the official number of reindeer in Finnmark was 193,193. Of these, 51,424 were reported missing. Applications for loss inflicted from predators were forwarded for 37,310 of these animals. Of these 11,744 received compensation, but only 1,167 were actually documented as being killed of predators. Comparing with five years ago, 30,000 animals were lost. Of these applications were forwarded for 17,000 with 1,791 cases being compensated (Rapp 2000c: 18).

¹⁹⁸ "Gathering by snowmobile is fast enough to keep the pressure of panic on a flock, no matter how far ahead it tries to run. The reindeer that finally becomes less sensitive to roaring engines, be they motors in snowmobiles, helicopters or motorbikes, have not become tamer. On the contrary, he has often become harder to handle and demands the escalation of herding mechanization" (Beach 1981:436-7).

selecting for maverick, or feral, behavior, and therefore away from tameness/domestication. In these cases, the concept of tame seems to imply selecting for wildness¹⁹⁹.

Because of the interests of actors in attempting to define reindeer, in attempting to determine if reindeer are "wild" or "tame" we run into the following paradoxes of terminology. The reindeer of continental Norway²⁰⁰, including most of the wild animals of the south, would appear to be "influenced by humans" and therefore, as a population, domesticated. As to the particular domesticated reindeer of the Saami, there are a number of indications that these animals are becoming increasingly wild. It appears that the genes are again being reshuffled as a consequence of human influence. Again it is illustrated that the concepts of tame and wild, with respect to these animals has more to do with claims being made to them than with genetic make-up or behavior. Definitions of wild and tame in Norway are largely political with respect to reindeer, an historical distinction that has resulted in differing rules concerning rights and obligations to accessing, using and managing them. The reindeer of northern Norway, as compared to those farther south, are tame because they belong to the Saami people, not necessarily because of their behavior or genetic make-up.

The rationalization period was not a unique policy discovered and applied in Norway alone. Rather, it was an idea spreading internationally²⁰¹ ignited in a large degree by Hardin's article, "The tragedy of the commons" (1968). Using pastoralists as an example, Hardin reasons that individuals attempt to maximize their personal gain by adding animals to common grazing pasture taking account only of their private costs. As the individual pastoralist's actions and decisions neglect to take into account the affect on of the commonly used grazing area, the result, argues Hardin, is degradation of the pastoral resources. In the wake of Hardin's article it was (and to a certain extent remains) common to prescribe the introduction of private

¹⁹⁹ This seems to exemplify Wilkonson's commentary when he writes of the "...misleading corollary of the evolutionary approach to the study of man-animal relationships: the belief that, once domesticated, species tend to remain so" (1972:115). Species, populations and particular animals change over time. This is inherent in their biological nature. Whilst people certainly influence outcomes, changes may also come about as a result of unintended consequences, mistakes or natural processes.

²⁰⁰ There are also reindeer on Norway's northern most archipelago, Svalbard. These animals face virtually no predators. As a consequence, they are as apt to found in areas where there are people as where they are not. It is often possible to come quite close to them - or for them to come close to people.

²⁰¹ Rationalization policies were introduced through development programs to a number of pastoral societies in Africa and Asia. They experienced similar failures. For example, in reference to programs in Africa Runge writes, "[n]ot only have they failed to stop overgrazing, they have contributed to further inequality in already unequal distribution of wealth" (1981:596). For a more recent example of similar thinking with respect to wildlife (private rights as a "solution" to the common property "problem"), see Smith 1996. For a general discussion of the global phenomenon, see Adams 2001. For discussion of programs in India, see Agrawal 1999.

landed property as a means of solving problems in areas of overgrazing in the belief that private systems are the most rigorous and stable (ibid.).

Since that time, in large part as a response to the policies being introduced, a plethora of empirical studies have witnessed to the fact that common property regimes have existed historically, and continue to be found today, and many of these are found to be quite stable²⁰². Repeatedly these studies underline the difference between common property defined as property owned and/or managed by a defined group and open access, which describes situations where there is unrestricted access to resources. It is the situation of unrestricted open access which given a demand which exceeds the available supply is inherently unstable - and that many agree is the situation that Hardin was writing about. In contrast, resource owned/managed by a defined group of users may become destabilized in situations of change, such as changes of technology, climate or policy. Whilst attempts to introduce privatization may function, there is no reason to assume it will necessarily be the best solution in all cases. As Runge writes with respect to pastoral systems,

The property rights paradigm predicated in strictly individual strategies, misdiagnoses the grazing problem. By failing to recognize the endogenous character of property institutions caused by the interdependence of choice, it supports solutions which may be poorly suited to the traditions of pastoral grazing societies. By seeking institutional rules imposed and enforced from the outside, it has promoted costly, top-heavy institutional regimes which restrict the potential for cooperative action. (Runge 1981:604).

Runge elaborates on a number of factors that over time come to be incorporated into local rule systems. He emphasizes social ties - obligations and benefits often of a cultural nature that are not taken into account in an externally designed and imposed system of exclusive private rights. In addition, Runge is implicitly recognizing that endogenous rule systems are complex; that they vary in response to additional social interests including culture and ethics. In addition, they vary with respect to the particular context of the place and in their being practiced and adjusted over time.

In his article, Runge raises doubts about the assumptions underlying Hardin's work, particularly his assumption of independently acting individuals within pastoral societies (1981:596). He suggests a need to recognize the interdependence of pastoralists and their way of dealing with uncertainty through collective decision-making. Considering Runge's article with respect to Saami, it is clear that Saami herders have chosen to herd collectively. They

²⁰² See, for example, Bromley 1992; Hanna et al. 1996; Ostrom 1990.

have developed their own collective rules for allocating pasture and shepherding animals. Rather than blaming this collective management system, there is reason to question whether part of the problem of pasture degradation in the north has not in fact been introduced by state policy. The introduction of different and conflicting sets of rules may well have made it difficult for stakeholders to predict one another's' responses creating increased, rather than decreased uncertainty. Not to be misunderstood, this is not to imply there are no problems in the north (particularly interior Finnmark). There are a large (though decreasing) number of reindeer and pastures are degraded.²⁰³ The problems are substantial. Instead, the critique here is meant to question the underlying assumptions, the simple diagnosis which if left unexplored is apt to continue to lead to as inappropriate prescriptions as those introduced through rationalization projects of the 1970s-80s.

Differences between actors' strategies may be interpreted with respect to which rule systems, interpretations and analyses of particular situations they act out from and which beliefs they hold. Underlying rationalization policies was a view that pastoralism was an inefficient use of resources as herders use vast expanses of land. It is only during the last decades that the scientific community has come to accept that pastoral use of land is, in fact, highly efficient - allowing for the intense utilization of a variety of plant material in different areas and at different times according to ecological conditions and particular needs of the animals and herders. Although the animals cannot be moved anywhere, at any time, as there must be adequate pasture and the animals must feel at ease, movement is both possible and necessary not only to survive, but also to thrive. Herds continue to be divided and combined at different times and places according to opportunity and need, with respect to the reindeer, the work required in herding them and the needs of the herders. The variation and interaction of herders, weather, pastoral conditions, behavior of the herd and their relationship to other herds are all inter-dependent creating uncertain conditions and therefore a need for both flexibility and solidarity among the herders in management. Ensured collective access to alternative pastures is an essential element in allowing for this flexibility. The particular management systems that have evolved in these environments characterized by change, rather than equilibrium, tend to emphasize strategic positioning - which not only allows for, but also requires, creative and adaptive solutions in the given situations of uncertainty. In this current

²⁰³ Yearly reports from NRL show an increase of numbers from the late 1970's that peaked between 1989-1991. After 1991, there has been a steady decrease - particularly in Finnmark. According to a report to the Arctic Council in 2000, the decrease has come as a result of changed government policy, an increase in predators and decreases and fracturing of Saami pasture areas (Jernsletten & Klokov 2002).

view of pastoralism, it has come to be recognized that rather than private, fenced property and independent operators (rather than exclusive rights to a particular area), there continue to be reasons to herd jointly, and moving from one place to another with defined and recognized collective rights of access to a number of particular pastoral areas.²⁰⁴

Chernobyl

Examples from the period of rationalization illustrate that practice and interpretations of rules and regulations can introduce unintended consequences into complex systems. A more catastrophic example of the limitations of controlling complex systems came on April 26, 1986. On that date, Chernobyl exploded. Knowledge about the potential effects of this disaster was very limited. On April 28 and 29, **iodine31**, caesium134 and **caesium137** drifted and rained down depositing residue over central Scandinavia and southern Finland. Due to prevailing winds, Norway (and particularly mid-Norway) was the most affected country outside of the former Soviet Union (Liland 2004:1). Given the area of radio-active fallout, the accident directly affected many Saami, and particularly many reindeer-owning Saami - as mushrooms and lichen, both of which are eaten by reindeer, bind caesium. It then accumulates in reindeer with a consequence that reindeer have become the most contaminated foodstuff in Norway (Liland 2004: 8). Revealing the limited knowledge about potential effects, in the nationally acknowledged information crises that ensued, uncertainty spread about what had happened, what could be done and what its consequences might be (NOU 1986a)²⁰⁵. This was heightened by highly conflicting reports given out by the national Directorate for Health and the Norwegian Geological Survey as to the extent of the crisis (NOU 1986a,b; NOU 1987; Paine 1987).

Uncertainty was expounded in the summer and fall of 1986 as the government on two separate occasions, with specific reference to reindeer meat, raised the acceptable level of **caesium137** in becquerel per kilogram (bq. /kg.) first on June 20, from 300 to 600 bq. /kg. and then again on Nov. 20, from 600 to 6000 bq. /kg.²⁰⁶ Explanation from the Health Directorate

²⁰⁴ For discussion of the situation in Norway, see Paine 1994; Riseth 2000. For an example of caribou management in Canada, see Freeman (1989). With general respect to pastoralism, see Behnke 1994; Scoones 1995a, b; 1999.

²⁰⁵ A further illustration comes from a recent report the Norwegian Radiation Protection Authority where they state that 18 years after Chernobyl, ecological half-times have proven to be longer than originally anticipated. Counter-measures for reducing contaminants in the production of both meat and milk continue in the affected regions of Norway (Liland 2004).

²⁰⁶ According to Liland, "[f]ood intervention levels for Cs-137 were set to 370 Bq/kg for milk and infant food and 600 Bq/kg for all other foodstuffs in 1985. It soon became evident that the contamination in reindeer meat was way above this and it would be impossible to comply with the 600 Bq/kg even if countermeasures were

was based on "an ethical conscience" with respect to the possible effect on Saami culture. For, even at 6000 bq. /kg., there were districts where most of the animals slaughtered in the year 1986-87 were considered unfit for human consumption (Paine 1987; 1989). In total almost half of the harvest of reindeer was discarded in Norway and Sweden in the first harvesting season following the accident. The Saami were cautioned not to use reindeer meat as a staple food, but many were unconvinced by governmental interpretations of the situation (Skjenneberg 1989:220)²⁰⁷. Although a number of methods were introduced to reduce becquerel levels in the animals including early slaughter (after the summer and before animals again began to eat lichen), caesium binders (Prussian Blue) and supplemental, uncontaminated feed, the fear of consuming contaminated meat spread throughout the general population in Sweden and Norway (Granefjell & Ffarstad 1997; Liland 2004). Therefore the market shifted and market prices of reindeer meat dropped dramatically (Beach 2000:195-196). The government responded to the crisis by ensuring that reindeer owners would not suffer economically. For some, compensation in the wake of the accident was quite high reducing their incentive to sell animals or control numbers (ibid.).

Chernobyl provides a vivid example of how an accident can affect rule regimes in this case reindeer rule regimes. The meltdown of Chernobyl changed the context in which Saami herders owned their reindeer, with respect to both pastoral and regulatory conditions. In this case, the state was heavily involved in both providing information and in attempting to ameliorate the effects of the crisis particularly among the Saami. Nevertheless, uncertainty predominated in a situation characterized by disparate information, unacknowledged conditions and changing regulations. The state intervened by providing advice and by changing rules concerning both food safety (acceptable levels of contaminants per kilo of meat) and human and animal health. In the disparate information provided they further contributed to a situation already characterized by confusion and inconsistency. This was again affected by state subsidies enabling certain actors over time to increase the size of their herds whilst others, given pastoral conditions were constrained. As some pastoral areas and districts were affected much more than others, balances of power between Saami herders were

implemented and there was a political will to maintain the original way of life of the Saami indigenous population. The level was thus raised to 6000 Bq/kg for reindeer meat per year. The level was lowered to 3000 Bq/kg in 1994 following the natural decrease in contamination levels. The food intervention levels today are thus 370 Bq/kg for milk and infant food, 600 Bq/kg for other basics foodstuffs and 3000 Bq/kg for reindeer meat, game and wild freshwater fish" (2004:1-2).

In Sweden the level has been set at 1500 Bq/kg in reindeer meat (Statistics Sweden 1999:132-3).

²⁰⁷ For a general discussion concerning the public's acceptance of science and scientific results, see Wynne 1992.

affected. Also, despite a drop in the availability of reindeer meat the fall in demand from outside consumers led to a fall in the price of reindeer meat (Bostedt 1998). An outcome came to be variations in the reindeer property regimes, changes introduced in rule systems to accommodate different conditions as well as different purposes and interests among the involved actors.

Renewed constellations: NRL and BES

The case has illustrated a number of examples of different constellations of actors coming together to strengthen their positions and promote their interests. Also this period reveals changes in alignments of interests between different actors. During the rationalization period, the Saami herding organization, NRL, declared their disappointment with the 1978 Act. They argued that the policy continued to support farmers', rather than herders' interests. But, it was also during this period that the needs and interests of the full-time herders represented by NRL became increasingly aligned with the state. During the first 20 years, the Ministry of Agriculture modestly supported NRL with an amount ranging from Nkr. 5,000 -15,000/year. From 1974, support increased substantially rising to Nkr. 395,000/year by 1976. Together with the newly introduced welfare policy, NRL's role changed. They assumed both advisory and organizational responsibilities for the state with respect to the reindeer industry (Dunfjeld 1979: 39-40). It is then important to remember that in defining who could belong to the organization, the organization had defined out the small herders who kept reindeer as one of a variety of livelihood options. Despite the contradictory acts of a number of herders, the major tenets of rationalization reflected many of the ideas and interests of the largest herd owners. The agreement in 1978 again brought a substantial increase in national economic support to NRL. In addition, the NRL was actively brought into assisting in the designing of regulations to implement the new act (ibid.: 62). By 1986, NRL and the government are seen as being in agreement that herding in the north is in a crisis, defined by extensive overgrazing of the pastoral resources. The solution, they agree, is to reduce both the number of herders and animals.

One result of this is that the conflict between large and small herders that had begun over a hundred years previously, emerged visibly and vociferously again in March 1987. This coalesced in the establishment of a new organization of reindeer owners, *Boaza Ealatius Scervi* (BES - translated which means "the people who live by reindeer"). The first meeting brought together 300 members - more than NRL had had for a long time. BES purposely

chose to be recognized by its Saami acronym, profiling the importance of the Saami culture to reindeer pastoralism. Herders with relatively few animals joined this new organization, indicating the continuing division between them and extensive or large herders. The earlier split, demonstrated by Mortenson and Renberg (see National Herding Law of 1933), stands. They are now divided largely between settled areas where there are a number of livelihood options and the outlying areas that have, over time, come to be dominated by extensive herding.

Despite the numbers of Saami that joined BES, neither NRL nor the government chose to recognize the new organization as a negotiating partner (Paine 1994:179-181). The Ministry of Agriculture continues to support NRL in its emphasis on increased meat production. In comparison, BES represents small owners' interests in increasing rather than decreasing numbers employed; promoting a greater division of animals among the Saami and contributing to and supporting the importance of reindeer to the Saami culture (Kalstad 1997:210-218). Differences between the two groups were revealed as a conflict of interests with respect to representation in the newly established Saami Parliament (more on the establishment of the Saami parliament below). NRL had directly approached the Parliament demanding guaranteed representation in the specification of a certain number of seats for reindeer herders. Other Saami opposed this arguing instead for a representative assembly with each person having one vote. NRL's demand was rejected. In response, NRL decided not to participate as a defined actor in the first election of the Saami Parliament in 1989. BES, on the other hand, used the opportunity and was represented (Paine 1994: 179-180; Sillanpaa 1994:117).

Controversies between the two groups continue²⁰⁸. Each seeks support in existing legislation. NRL continues to give precedence to the Reindeer Husbandry Act. Other groups of Saami

According to Bergsland, the 1990's can be characterized by the struggle to survive as a reindeer herder. He explains that the scarcity of fall and winter pastoral areas is the most important limiting factor (1998: 169). The situation is particularly precarious for owners of small herds. According to him, a number of these herders are scared to slay any of their animals for fear that they will lose the right to herd. Bergsland believes that additional income will be the most important factor for whether or not those with small herds can continue on as herders. But for both groups, the main problem remains that it is the large herders that "pull all the threads". When the large herders come to fall and winter pasture areas, smaller herders have to keep their herds separated for fear that they will be subsumed in the large herd. It is the large herd owner that decide when herds will be separated as it is they that control and have access to extra herding help. As discussed earlier, this control continues to give these herders power. This is further exemplified in a recent court case concerning the disagreement between two herding groups with respect to claiming 300 reindeer calves. The largest group has consequently

including BES have sought legitimization for their arguments in the new Saami Act that established the Saami Parliament. Whilst the Reindeer Herding Act is more specific, the Saami Act is the more recent. According to legal procedures in Norway, the more specific law takes precedence over the more general. But, more recent decisions are seen as guiding current interpretations of legislation (Sillanpaa 1994:180-181, including footnote 12). Both sides, therefore, using different bases for their claims argue of the overriding legitimacy of their own position.

The emergence of BES indicates that even today it is not only the government-recognized herders belonging to NRL that are interested and affected by reindeer policy. Interests among those with relatively few reindeer have remained strong despite all of the new regulations and laws. Among these reindeer owners, their animals continue to provide one aspect of a diverse array of activities to provide for the household. In addition, as Fjellheim points out, even among those who are not reindeer owners, many Saami are either direct descendants or second-generation descendants of reindeer herders (1995:75). Also these Saami claim a right to influence reindeer policy based upon their personal ties to them. This viewpoint gains credence when it is recognized that reindeer are an important aspect of Saami culture generally. These Saami then claim that how reindeer are owned and managed and who have rights to participate in debates and to make decisions about these things is important to the Saami as a people. These diverse interests continue to mean that with respect to these issues, Saami remain divided. The most powerful and economically best-advantaged herders are satisfied and interested in maintaining exclusive negotiations between the Ministry of Agriculture, the Reindeer administration and NRL. Here the interests of efficient meat producers are to be found. Broader Saami interests, including the right to own a limited number of animals, have remained underrepresented in these agreements. These groups seek (and appear to be achieving) support within the Saami Parliament. (More on this below.)

Despite their differences, both NRL and BES agreed on the need for new legislation with respect to reindeer husbandry. Both demanded legislation that protected Saami interests. As discussed earlier, actors may well agree on the need for new and/or more specific rules despite their differing interests in how these rules come to be defined. In an information booklet produced by NRL in 1991 (in preparation for a government requested white paper on

the greatest representation on the local board. This has led the smaller group to go outside of the reindeer administration with its protests (Anonymous 2000).

reindeer herding), NRL informs that it is in the process of developing proposals to amend existing legislation. Central to their work are issues such as: land rights, acceptance and recognition of traditional ways of herding that do not conflict with current Norwegian law and clarification of the rights of women herders as well as women herders' rights to inherit. In this document, the NRL also recognizes the need to address internal administrative problems as well as conflicts with "outsiders" that have grown increasingly violent in the last years. Finally, the NRL expresses its interest in expanding the area available for herding, again pointing out that this could alleviate overcrowding and, given the decline of agriculture in the north, that more lands are available (NRL information 1 Mar 1991; Sillanpaa 1994:73, for an illustration of current herding areas, see Map 1).²⁰⁹

The emerging rights of an indigenous people

Throughout the case different ways that actors value and hence define reindeer and reindeer herding have been traced. Similarly, and often for similar reasons, Saami and outsiders have changed their definitions of "Saami"²¹⁰. Archeologist and anthropologists refer jointly to the ancient groups living in Fennoscandia as Saami as they shared a similar type of pottery, and many shared a similar language. Despite differences between groups, outsiders referred to the Saami collectively based on their own categorizations, that for example, "these people" lived in the tundra areas and could provide outsiders with valuable furs. Over time, differences between groups emerged and with them the Saami groups' own categories of Coastal, Forest and Mountain Saami. As the state became increasingly prominent, it had interests in categorizing for administrative purposes. This was first seen with the *Lappekodisillen*, with respect to identifying who used which areas of the north and consequently who could continue to cross the newly established national border between Sweden and Norway. Here, as was the case following World War II, the state seems to equate the special conditions of reindeer herding Saami with Saami more generally.

It is in the state's bureaucratic interest to define groups as aggregates recognized for their similarities on particular aspects rather than for their diversity. This simplifies monitoring, accounting, assessing and managing.²¹¹ Particular aspects such as proficiency of the language, geographic location, and grandparents being defined as Saami are used to define some people

²⁰⁹ For examples of current problems see, for example, Rapp Feb. 23,2001; Rapp Feb. 10,2002.

²¹⁰ For a discussion of methodological implications to history, see Hansen 1985c. For discussion of comparable situation with respect to the Yup'ik and Kass'at people in Alaska, see Morrow & Hensel 1992.

²¹¹ For general discussions on the bureaucratic/administrative interests of the state see Scott's insightful book, Seeing Like a State 1998.

in - and others out. In addition to some people being defined out, events within Norway also contributed to the loss of a distinctive Saami identity. Particular actions, programs and policies including forced Christianity, Norwegianization and standardization as well as assimilation by choice, have meant that many of the Saami have become assimilated. They have come to be highly integrated into the Norwegian society, living throughout the country including in cities in the south.

On their own, the Saami remain few (in Norway, less than 1% of the total population), with highly diverse interests. For the most part, they as typical of indigenous groups, continue to live in peripheral areas. With the exception of the establishment of NRL, it was not until the late 1960's that the Saami as a people began to actively fight for their rights as a defined ethnic group, to define for themselves what it is to "be Saami". Saami interests grew together with an increasing international awareness of indigenous/aboriginal rights. The movement rekindled an interest among many in the importance and value of self-defining a Saami identity, embracing a Saami heritage and claiming recognition of Saami rights to natural resources²¹². There has come to be an increasing pride in both the traditions and cultures of the Saami people. This has also found support among Norwegians generally, including support from politicians (Stordahl 1993:128-9).

Initially in lobbying for ethnic rights, the Saami aligned themselves with environmental groups interested in maintaining undeveloped areas. They were also able to considerably strengthen their voice by joining and learning from the emerging international organizations. They enlarged their networks to include not only Saami across national borders, but also national and international non-governmental organizations (NGOs and INGOs) such as the pan-Saami organization of the Saami Council and the World Council of Indigenous People (WCIP) (Dyck 1985:2, 18; Paine 1985). Although debated, the WCIP came to define indigenous people rather broadly - specifically to facilitate the inclusion of the Saami²¹³. The Saami thus came to be defined as an indigenous people by the WCIP in 1975 (Minde 2003: 85). In addition to a Fennoscandian pan-Saami voice, indigenous groups began referring to

²¹² See, for example, Eidheim 1999a, 1999b; Lewis 1998; Orton & Beach 1998; Paine 1991; Stordahl 1996; Thuen 1995.

²¹³ The WCIP has defined three criteria as necessary to be included as an indigenous people. These are:
it should comprise a people living in a land with a population consisting of different ethnic racial groups
they should be the descendants of the original group of people who lived on the land
they do not have control over the leadership and administration of the lands they live on
(cited by Minde 2003: 84).

themselves collectively as "the Fourth World" (Dyck 1985; Graburn 1981; Thuen 1995). Far from the isolated voices representing individual Saami interests, or even, the united but relatively weak voice of a Saami interest group, the Saami became part of the 250 million aboriginal people demanding recognition of their rights in international arenas and courts (Beach et. al. 1992:61; Tully 1994:153).

As with the Saami, indigenous people throughout the world have been faced with rules and systems that neither fostered nor recognized and at worse have not allowed for their particular ways of utilizing, managing and owning resources. The new international and growing interest has created a major shift of political influence for the Saami. Through national and international activity (protests, rallies and international meetings), the Saami have become increasingly aware of the importance and potential power ethnicity provides in legitimizing their rights to claim, access and use natural resources. Their alignments with others both within and outside of Norway and the arenas they act within have come to be truly international. The growing voice of these organizations together with increased attention in the mass media eventually led to the inclusion of the concept of indigenous rights within the by then powerful human rights movement (Eidheim 1999a: 9-10; Orton & Beach 1998:106; Tully 1994).

This has been recognized by the Norwegian state through, for example, the Saami Act in 1987 including the decision to establish a Saami parliament²¹⁴ (first session 1989). The Saami Parliament provides an arena from which the Saami as a people can develop and deliver to national decisions a unified Saami opinion on both issues directly related to the Saami and on national issues (Sillanpaa 1994:120). According to Kleveland, the Norwegian Minister of Culture in 1994, "[t]he challenge must be to include minorities in our society while maintaining their right to remain an identifiable minority, as individuals and collectives" (1994:9). This, she continues, requires both that diversity be facilitated and that Saami accept and abide by the law of the land within the culture of democracy. In recognizing the challenge in these two aims, Kleveland is implicitly recognizing that the aims are not necessarily mutually supportive.

²¹⁴ **The Saami Parliament is comprised of 39 representatives, elected from 13 regional areas by Saami over the age of 18. It is mainly an advisory body. It does not, for example, include the right to veto particular land uses in herding areas (Magga 1994:46).**

As the Saami parliament is meant to be a representative body, establishment of it has again required an agreed upon definition of Saami identity; a clarification of who is and who is not to be considered Saami. The current administratively defined criteria are that anyone who themselves, or whose parents or grandparents, spoke/speak the Saami language as their mother tongue can claim themselves to be Saami. The definition includes both a determining characteristic and an element of self-determination. It is not limited to people living within a particular region (Melkevik 2000:2-3). Given the element of self-determination, it remains unclear if this group is identical with the Saami people referred to in the constitution. As Thuen explains,

Jurisprudence demands that the holder of certain rights, the legal subject, has to be defined, as well as the object of its rights. Ambiguity has to be resolved and distinctiveness constructed, which is, as we have seen, the problem facing the modern Saami. Their divergent perceptions of interests and identity have to be articulated against the legal and political framework of the encompassing society. (Thuen 1995:178-9. See also Eidheim 1999b; Stordahl 1992:129.)

Recognition of these rights within Norway raises questions with respect to special rights to the Saami group, as compared with the unit of legal recognition being the individual citizen. Within Norway, there is a legal assumption of equality between individual citizens in the state. Recognition of indigenous rights forwards the idea of special rights for a particular group - explicit recognition of multiple rule systems within the nation as was done in the *Lappekodisillen* but later overseen (Thuen 1995:3, 80).

In 1988, the following addition (section 110A) was made to the constitution, "[i]t is the duty of the state authorities to ensure that conditions exist within which the Saami people can secure and develop their own language, culture and community life."²¹⁵ This was soon followed by the national signing of the ILO Convention of 1989 "Concerning Indigenous and Tribal People in Independent Countries". Both represent a major shift in Norwegian policy with respect to the Saami. The Convention recognizes the rights of indigenous people, putting among other things, particular emphasis on rights to traditional use of natural resources of nomadic groups. As a consequence of ratification, the Norwegian government, in accordance with both its own procedures as well as conditions of signing the agreement, should integrate the convention within its own legal framework. The degree to which it has

²¹⁵ May 27, 1988, addition to Norwegian Constitutional Law (Grunnloven §110A): "*fdjet paaligger Statens Myndigheter at Icegge Forholdene til Rette for at den Samiske Folkegruppe kan sikre og utvikle sit sprog, sin kultur og sitt Samfundsliv*" (Justisdepartementet 1990). This is in keeping with the Convention on Civil and Political Rights (1966) Article 27, §6.8.

done so is debated . One result has been the creation of a Saami Commission to advise the government with respect to clarifying water and land rights of the Saami (NOU 1994; 1997). 20 years and three reports later, their work remains unfinished (Björklund 2000:44). The 15-member committee includes representatives from Saami organizations, local counties, local professions and academics. In addition, during the last decade, the Saami have lobbied for and supported Norwegian participation and eventual ratification of international conventions which link biological and cultural diversity²¹⁷. In addition to increasing use of international arenas, the Saami voice has been strengthened by Saami who having gone through the Norwegian system have become not only verbally competent in Norwegian, but also university-educated and professional leaders (Sillanpaa 1994:63). These individuals are now in a strengthened position to use Norwegian channels and methods to promote Saami interests.

Given the new power of the Saami negotiating position, reindeer herders have actively campaigned to strengthen their grazing rights. In the midst of this increasing strength, the Superior Court decision on Korsjøfjellet in 1988 was experienced as a major blow. As discussed previously it asserted, against what the Saami argued had been previous practice, that not all areas within the districts were accessible by claim of ancient rights (see Chapter 5, section "Unmarked animals"). The Court was reaffirming the original understanding of the Saami Committee of 1897 that the district boundaries were not identical with the right to herd. This appears to have come as a surprise to the Saami - despite the fact that they were using the same argument with respect to the area outside the district boundaries - a clear illustration that actors frame their questions and select their historical precedents to promote their particular interests. Laws and practice involve both a clarification and forfeiture of rights - what is involved in striking this balance continues to be defined over time in the ensuing struggles, and as negotiating positions and arenas change. The Korsjøfjell decision caused strong reactions among the Saami and among government officials newly concerned with indigenous rights. As with the Trollheimen decision (see Chapter 5, section "Unmarked animals"), the decision served as a catalyst in the call to amend the 1978 law that the Saami continued to argue did not protect their interest [Bull 1997:42-48; 80-90; Elgvin 1993:203-4; Landbruksdepartementet 1995 - Ot. Prp. nr. 28 (1994-95): 3.3.1:30].

²¹⁶ See, for example, **Jebens 1999**.

²¹⁷ See for example: **UN Convention on Civil and Political Rights, Article 27, 1966; ILO, Article 14, 1989; Agenda 21, Article 26, UNCED 1992; and the Convention on Biodiversity, Article 8j, UNEP 1992.**

The right to herd

Interests in new policy for reindeer herders continued to grow. A central issue that was increasingly being debated concerns the right to herd. From the time of the Lapp Codicil the question of what exactly the right to herd means has been carefully, and deliberately, avoided [See Landbruksdepartementet 1976 - Innst. O. Nr. 98 (1976-77): 3, 5], Whilst willing to recognize herding as a profession, recognition of the pastoral needs of herding creates direct conflicts with overlapping interests in land. An outline of the debate is found in the proposition to what was to become the Amendment of 1996 [Stortinget 1992a - St. Meld. 28 (1991-92): 17]. Here it is written that although the right to herd reindeer is basically clearly defined, its contents and extent are not delineated. It is, for example, still unclear what types of use and activities can be defined within the concept of the right to herd. Does it include the right to decide how to herd? To decide how to manage pastures? Similarly questions remain as to where geographically the right extends. This is both with respect to types of use and with relation to the precedence of usufruct rights being recognized as constraining other property rights to land. In 1933, Solem interpreted the right to herd to mean the right to habitat, but this has not proven in practice to be "a given". As the right to herd becomes so quickly tied not only the access to, but also the exclusive claims of use of vast tracts of land, the question is particularly thorny and contested.

In 1990, the Legal Commission affirmed the view that land that was Commons in 1666 has remained commons to the present. However, it went on to say that as the state has actively prevented the communities from exercising their common rights for a period of 200 years - the Commission found that these rights must be regarded as lost (*Utmarkskomisjonen* 1990 cited in Sandberg 1994). This decision was confirmed by the Superior Court.

The Norwegian Saami Reindeer Herding Association is of another opinion, pointing out that reindeer herding has been exercised in the area for centuries and has therefore established a legal basis for reindeer herding that is independent of the law given by parliament. In seeking to justify and legitimize their claim the Saami draw upon Article 14 of the 1989 ILO convention (No. 169) where special emphasis is put on nomadic people. In addition, the Convention calls for "rights of ownership and possession over lands which they traditionally occupy" (Article 8). Opposing this view, the state argues that strong user rights fulfill the state's obligation. The issue remains open. Recognizing ownership rights of the Saami

would mean excluding the rights of other Norwegians in the area many of whom have historical roots going back hundreds of years. Many non-Saami Norwegians in the local population believe themselves to be at risk of losing access to a natural resource base that, they argue, is of equal importance to them. "The claim of Saami equity is transformed into unfairness and injustice - in the form of undeserved privilege - on the part of the Norwegian" (Thuen 1995:80). Rather than equity claims that favor particular Saami rights, these Norwegians are arguing for equity as defined as access by all Norwegians to these areas (see also Skjelde 2001:16-17, with respect to Sweden, see Beach 1993:111). As with all laws, rules and regulations, the process of implementation will need to include that they be interpreted and that consequent contestation may again amend them. Whilst the State has claimed the status quo as fulfilling the intent of the Convention, others have interpreted the convention to mean the right to utilize the land in a way closely resembling the rights of a property owner: in other words, including the right to manage the area, including both the land and the water resources (Pederson 1999:139).

Interpreted through the lenses of international agreements that recognize the interrelationships between indigenous groups and their rights to traditional land areas, the state no longer disputes whether or not the Saami herders have the right to herd, but rather from where the right originates. By law, the right to herd continues to be based in the Reindeer Herding Law of 1933 (Stortinget 1933). The current proposal, to which public comment closed in 1999²¹⁸, recognizes the long-standing demand of the NRL, that the right to herd be recognized as having an independent legal foundation founded in recognition of the practice from time immemorial. The Saami Committee was divided on this question, with 13 to 4 in favor (NOU 1997 §6.2). In their discussion of this, they comment that on the one hand, they believe that there will be no outward change. The Saami have become too strong and too aware of their rights for the government to be able to further restrict or define them. In addition, Norway has committed itself to international conventions including ILO (No. 169) and the Convention on Biological Diversity (CBD), that stipulate both protection of indigenous rights and the natural resources indigenous communities have traditionally based their livings upon. Bull suggests that the group is making a distinction between the general right to the conditions necessary for some to be able to pursue a particular profession, i.e. reindeer herding, and the actual right to herd which encompasses the right of particular individuals to herd as well as

²¹⁸ **The hearing round for NOU 1997: The Natural Foundation for Saami Culture was closed as of 1 March 1999 (Justis- og politidepartementet 1997).**

the right to pasture (1997:34). An explicit recognition that the first inherently implies the second means that the basis of the right can potentially affect every conflict concerning user rights associated with reindeer herding. On the other hand, shedding some light on the government's view, a parallel can be drawn to the distinction introduced with the addition of paragraph 110a to the constitution generally protecting Saami rights. The paragraph recognizes the collective Saami rights as a people. But, this right is not interpreted as being inclusive: it does not ensure the rights of a particular individual (Smith 1990). The paragraph introduces a moral responsibility on the government, but it does not create a right in the sense that an individual will need to be compensated should s/he not, for example, have the possibility to herd as a means of maintaining her/his personal Saami identity. Interpreted in this light, it is the government's responsibility to ensure that the possibility exists for a particular profession (in this case reindeer herding) to be able to be carried out, and as a consequence that there will be an opportunity for some Saami to herd. It is not the government's responsibility to ensure that a particular herder can herd.

Saami argue that in addition to the right to herd, a recognized right based on a legal foundation other than the Norwegian statutory law may well form the basis of a right to decide about management of both reindeer and land. One of the actors in the current committee, Rorholt, suggests that the law should be explicit about this right and an additional change should be included in the revised law which stipulates that reindeer herders may make changes in management in accordance with changing conditions (NOU 1997). This implies that questions about use of, for example, all-terrain vehicles, helicopters and snowmobiles, would be at the discretion of the reindeer herders - rather than the owner of the land - the state. Given international support of indigenous rights, particularly with respect to rights to natural resources which form the basis of cultural identity, the Saami have come to be in a strengthened position to forward not only their right to herd, but also the right to manage reindeer habitat, and therefore the right to also constrain and/or exclude others in accessing, using and managing the land.

The Amendment of 1996: the right to herd, the right to manage

Throughout the case, changes have been noted that reveal differing values and interests in how reindeer can be used and in how they are valued. The power to define constrains certain uses while enabling others. Through time, interests of different actors may converge or conflict. The current divergent claims to the goods of the north again illustrate attempts of the

different involved actors to define a "reindeer" and "the right to herd". Their struggles also reveal interests in defining which arena this can/should be debated/decided within, and consequently which rules and regulations will be chosen and which actors are to be recognized as legitimate.

In 1991, the Parliament requested a white paper with respect to reindeer husbandry. The report was designed to be broad, referring to the concept of sustainability. It was meant to address not only economic development, but also social problems in the Saami core area, and the future role of the Saami Parliament with respect to reindeer policy (Sillanpaa 1994:181; Stortinget 1992a). As a consequence of the report, the government was given a mandate to reduce the total number of reindeer in Finnmark, develop a wider range of administrative powers and propose extensive revisions to existing reindeer husbandry administration. The Amendment of 1996 was introduced amidst the divergent claims of actors interested in securing rights to the goods of the north. In addition to differences between herders and farmers, there continue to be differences in the claims made by those with traditional small, intensively managed herds and others with large herds with relatively less control over their animals. These differing groups of Saami each forwarded their interests to reindeer in their attempts to define which uses are to be considered as legitimate and, as consequence, who has a right to what. In 1999, an addition to the 1978 law was introduced with the aim of getting an overview of who was herding and additional information considered necessary to develop an ecologically, economical and culturally sustainable reindeer husbandry (<http://www.reindrift.no>).

The 1996 Amendment has strengthened Saami claims to user rights within the reindeer herding districts. It also extends the possibility for the State to expropriate pastoral lands. For the first time since the Reindeer Law for Finnmark, herders believe the law has protected their interests attempting to improve or further develop herding, rather than contain it. Large landowners, on the other hand, believe they have lost rights as a consequence of the law (Grut 1996:146; 158; Landbruksdepartementet 1995 - Ot. Prp. nr. 28(1994-95): 3.3.1). In addition to expropriation, the most important introduced change in the new Amendment from the Saami viewpoint, is what is referred to as the "Reversed Image Principle" (*Speilvendingsprinsippet*, §2). Saami have gained acceptance that the very nature of their nomadic traditions, which by intent leaves few/no artifacts, makes the burden of proof on them of their historical use of land areas nearly impossible. In recognition of this, the 1996

Amendment stipulates that within the Districts, it is now the land owner who must prove that pastoral rights do not exist on their property, rather than the Saami who previously have had to prove their right to herd (Finset 1998:28). As with the introduction of common responsibility under the Common Lapp Law, this is contrary to normal law practice in Norway.

With the Amendment of 1996, it is the broader Saami interests rather than reindeer herders' interests that have gained credence. The leader of the Saami Parliament in 1994, Magga wrote with respect to this, "[a]s would seem reasonable, the assembly is extremely concerned with our primary industries. Reindeer herding and fishing are discussed at great length. We are in the process of obtaining influence in both areas" (1994). Despite the protests of NRL, the Amendment supports the idea that the Saami parliament should be delegated more power to decide with respect to questions of reindeer management. This means that the Saami Parliament, representing all Saami in Norway, now have an active political function both with respect to the yearly reindeer herding agreement and in the formation of future reindeer policy [Stortinget 1995 - Ot. Prp. nr. 28 (1994/95:2.1.3:7)]. Given the recent change, it may be projected that cultural values of reindeer owning will gain increasing importance in the far north in the years to come. An important subject of future reindeer negotiations is apt to be finding an increasing place for cultural aspects together with continuing to enable a viable herding industry - aims that have been demonstrated as not necessarily being mutually supportive.

In addition, overlapping interests to the associated resource of land have been, and continue to be, central to debates and policy decisions. In a recent example, the economic value of alternative development, including ski lifts and tourist cabins, have provided an increasing incentive for local landowners to claim their exclusive rights to develop these areas. They are often supported at the local county level. Who has a right to decide between the alternative uses of the land - land that could, and historically at times has, been used as reindeer habitat? Other associated questions are also being asked. For example, in Roros, reindeer herding has recently been used as a tourist attraction raising new questions with respect to who has a right to capitalize on this - the landowners or the Saami (Grut 1996:28-56)? In part, this is a question of economics. But it is also more. Again we see differing interests promoted by the use of different arenas. In this case Roros has created and re-defined itself, and become internationally recognized as, a cultural heritage site. In this self-enhanced image, the

community of Roros is interested in reindeer "fitting in". Tourists coming to Roros are interested in an outdoor experience that reconnects them with nature. They are looking for a mutually enhancing link between tourism, cultural heritage and nature. Reindeer can provide such a link - but probably not when experienced together with snowmobiles. Tourism introduces an interplay of a new group of stakeholders with their own perspectives, values and interests in nature, including reindeer, and consequently with interests in defining and benefiting from these goods in diverse ways.²¹⁹

And, the conflict between wild and tame continues: how to differentiate between habitat for tame and wild reindeer? The 1978 law upheld in the 1996 amendment, whilst recognizing the Saami interest in increasing pastoral areas, states clearly in §5 the need to recognize the needs of both wild reindeer and wild reindeer interests. As a consequence it has become necessary for herders not only to get permission from land owners outside of the districts should they want to herd, but now also the additional need to get permission from the Ministry of Agriculture, and in some cases from the Ministry of Environment. Generally, interest in the environment has been growing from the state's side.

Once the Cold War abated national interests in security issues including a permanent presence and use of the natural resources of the north gave way to concern over the fragility of the arctic environment (Nuttall 1998:24). Saami argue that the areas of what the environmentalists' term "wilderness" are the way they are precisely because, rather than despite, the use by the Saami herders. The view is not generally shared among other Norwegians. Reflecting a strong interest among Norwegians in outdoor recreation as well as increasing leisure time and incomes with which to enjoy it, there is heavy pressure to protect what they claim are common rights to access these areas as day hikers, but also interests in hunting and building cabins on their own terms - undisturbed by changes in management techniques that disturb the quiet. Environmentalists tend to be highly critical of modern herding methods which make use of helicopters, motorcycles and snowmobiles, and which environmentalists believe may threaten what they refer to as "the fragile environment". Joining the environmentalists in their critique, are traditional herders who add that neither do modern methods conserve the traditional Saami culture (Beach 1993:99).

For an illustration from farming in Sweden, see Svensson 2000.

Environmentalists also demand the allowance for the return of predators including eagles, bears, wolverine and most recently, wolves. Whilst during the Alta confrontations the interests of environmentalists and professional reindeer herding Saami had them standing side by side, in the current situation their interests stand them in opposition. Reindeer herders have chosen international arena championing indigenous rights to strengthen their claims. Environmentalists have chosen arenas more focused on ecological and recreational aspects of the environment. Both the recreationalists and conservationists on the one hand²²⁰, and the reindeer herders on the other, are supported by internationally negotiated conventions and national constitutional amendments, creating again a situation of multiple and overlapping rule regimes where renewed contestation can be expected under which there are apt to be attempts to redefine property rights to natural resources in the north (NOU 1997). Given the conflicting interests of other actors, the negotiations are bound to be protracted.

Discussion

Valuing reindeer and reindeer herding in changing contexts

In the changed context of post-World War II Norway, perspectives, values and interests on reindeer, reindeer herding and, more generally, for the Saami people, have changed. A policy of reconstruction introduced standardization of housing, schooling and health care and equity among and between Saami and Norwegians as both a means and an end of state policy. In this new context, the state came to define reindeer herding as a primary industry, drawing comparisons (rather than contradictions) between it and agriculture and fishing. As with these sectors, policy aims were directed to a large extent at increasing production efficiency. This was identified as a means of securing the welfare of a delineated group of herders that came to be designated and recognized by the state as practicing the profession of reindeer herding.

At the same time, also due to the changed political context, an increasingly strong human rights movement emerged carried on tides of strong beliefs in democracy and welfare for all. The state became internationally engaged in recognizing and supporting human rights. Over time this included the signing of international conventions concerning them. Reports within Norway revealed that reindeer herding Saami had life expectancies and lived in conditions that were comparable to people living in developing countries. Among some state actors

²²⁰ As an amendment to the Norwegian constitution to underline the importance of the environment, article 110b was added. It states that everyone has a right to a healthy environment and to a state of nature that ensures reproduction and diversity.

interests to address these conditions grew together with interests to contribute to improving conditions to maintain a living Saami culture. Reindeer herding Saami again came into focus. They were still in place, still speaking the Saami language, still practicing many Saami traditions. Reindeer herding Saami came by some to be equated with being Saami. Again as seen with the *Lappekodisillen*, it was the distinctiveness of the Saami, particularly the reindeer herding Saami and their continued use of reindeer over time, which provided part of the basis for them to justify their claim to particular goods. It is in this context that defining what reindeer "are", as well as addressing questions of who has the authority to determine who can own, use and manage them, and in what ways - and who can participate in these discussions - has again been raised. Defining reindeer among these claimants reveals ideals and ideas to reindeer where their value is not solely revealed by a market price. Among these actors, the value of reindeer is defined in part by cultural and social interests in the ways in which reindeer connect a people and their culture. Cultural values of reindeer and herding thus also came to be incorporated into new policies for the Saami. Rules and regulations introduced to support Saami culture and traditions can complement the interests of reindeer herders, but there is no reason that they inherently do so. In practice, actors supporting the differing claims of production efficiency and cultural interests have often been split. As a result, rules developed to enhance each have at times been contradictory, not the least because the different rule systems are designed to and are recognized as serving differing interests, values and purposes among the involved actors.

Actors of the far north also continued to make claims to the associated resource of land. In addition to earlier claims of areas as pasture and/or outlying fields, new interests emerged. The state began to actively promote development - building roads, reconstructing the area, supporting mining and forestry and, not the least, developing hydro-electric power. Whilst Saami herders value the area for its multiple pasturing options, many other actors came to focus on distinct pieces of the land. Decisions over time have led to both reduced and fragmented pasture areas. Following the experience of World War II, the Ministry of Defense also recognized the benefit of maintaining a settled presence in the far north²²¹. It also came

²²¹ As Korsmo explains, it was not only the human rights context that changed with the ending of World War II. "By 1920, Finland attained sovereign status. The three states, Norway, Finland and Sweden, emerged from World War II in different security relationships. Norway joined NATO in 1949, Sweden remained neutral and Finland signed a treaty of friendship with the Soviet Union in 1948. World War II also resulted in significant border adjustments. Finland ceded the Petsamo region to the Soviet Union, giving Norway, a NATO member, a boundary with the Soviets, and giving the latter enhanced protection for its opening to the sea at Murmansk. In

to value vast land areas as an area for artillery practice. This utilization of land is incompatible with reindeer herding both directly - as a threat to the animals and with respect to underlying beliefs about the land itself. Lately, some Norwegians - eventually supported by the Ministry of Environment - have defined themselves as environmentalists claiming interests in "undisturbed areas" - claiming not only land, but also quiet (see Table 4).

Table 5. Actors and their ways of valuing reindeer and associated resources (post-World War II - 2000)

Reindeer as basis of: a profession, a culture, a sport and a settled presence in the far north						
Actors	Saami as a people	Extensive herders	Farmers	Norwegian Ministry of Defense	Norwegian Ministry of Environment	Norwegian Ministry of Agriculture
Uses						
Reindeer						
Meat	X	X				X
Herding as an Occupation		X				X
Hunting Sport			X		X	
Cultural Identity/ cultural heritage "living language"	X	X				X
Land Area as:						
Pasture/Outlying fields	X	X	X			X
Area of ancient usage for herding	X	X				X
Development Opportunities	?		X			X
Wilderness			?		X	
Artillery practice				X		
Strategic military areas				X		

"X" represents the claimed interests of particular actors. "?" represents when it is unclear whether or not particular actors made such claims.

Strategic actors - defining roles, aligning with others and choosing arenas

As demonstrated with the calf-slaughtering subsidy and production units, rule systems provide opportunities to those actors positioned and/capable of making use of them. Agents were able to use the rules to gain access to resources and in doing so, to gain increased power. This is in part because, even today, despite increasingly specified constraints and regulations, in actual practice - in the close proximity of Saami and reindeer - final control over the resource "...in the field, in the act of herding and in the practice of territoriality, the herders are basically sovereign" (Beach et al. 1992:85). In the practice of rule systems, proximity to

their present security configurations, Norway, Sweden and Finland treat their respective sectors of the northern cap as valuable frontiers worthy of strong defense" (1988: 512).

goods provides actors with a substantial amount of power. The structure of the reindeer herding system was transformed by the state. But, because people did not simply comply, it also came, in turn, to be transformed by them. In this case, there was a virtual explosion in the number of animals owned by Saami. With the Saami, there is the constant intersection of two cultures, the Saami and the national - providing agency a wider playing field than we might find where everyone is at least familiar with, and at times play by, the same rules. This interplay of structure and agency is what makes events so difficult to predict, and history so much easier to explain in retrospect.

To strengthen their claims, actors with common interests may choose to act collectively²²². They may choose and/or create different arenas for different purposes. NRL, for example, was created to be an arena for reindeer herders. Just as large landholders had done with respect to hunting rights being exclusively accorded to large landholders during the introduction of Game Laws to Norway, the owners of large herds of reindeer constrained membership in NRL to themselves and their ways of herding. The official association for the reindeer herding Saami chose not to recognize the diversity of herding among Saami. Herding came to be defined in a way that further legitimized the interests and values of large herd owners, particularly their interests in increasing meat production and ensuring their possibility to pursue reindeer herding as a full-time occupation. Interests within the state, particularly the Ministry of Agriculture, supported the interests of the large herd owners. Whilst the creation of NRL increased the power and legitimacy of Saami herding at the national level, within the Saami areas it further marginalized small herd owners.

Despite the power and domination of the large herd owners, there remained groups of Saami with small herds of reindeer. In the changed context following World War II, groups of Saami became enabled to draw upon the growing international recognition of the validity of indigenous claims. The new herder organization, BES, emerged supporting the recognition of reindeer as an important part of Saami culture and therefore recognizing the interests of Saami reindeer owners with a limited number of animals. BES provides an arena for the interests of small herders where, after many years of being overlooked and sidelined, claims to own a limited number of reindeer are once again being raised and supported as legitimate. Small herders' interests and interests of the larger Saami population are mutually supportive in their

²²² For general discussion concerning actors coming together for different purposes, see Carson 2004:43-44.

recognition of reindeer as a basis of a living Saami culture. Small herders' interests are also coming to be recognized within the Saami parliament that has gained the right to deliver its opinion on the formation of reindeer policies. Issues are often defined differently in different arena. As such, arenas come to differ with respect to 1) how a good is defined, 2) what will be debated, 3) who are recognized as having a right to participate in debates and consequently to 4) how rule systems concerning rights, obligations and constraints to these goods came to be specified (see Figure 23).

Event/ Time period	Post World War II	Alta	Current
Strategy of Actors			
Define role	Saami as Norwegians Reindeer herder as a profession	Reindeer herders Coastal Saami Ministry of Energy and Environment	Saami as people Reindeer herders Environmentalists Bureaucrats
Align with others	People of the far north Indigenous groups	Reindeer herders and environmentalists	Traditional herders with Saami Extensive herders with Ministry of Agriculture Environmentalists with Ministry of Environment
Choose arena	Nordic Council WCIP Ministry of Agriculture	Lawns of Parliament Supreme Court	Saami Parliament Ministry of - Agriculture - Environment - Defense

Figure 23. Strategies of agents. Agents define their roles, align with others and join/create arenas in attempts to strengthen their claims to reindeer and associated resources.

Another new arena formed during the period dealt with in this section is the Nordic Saami Council. It was created to raise a voice for Saami interests generally. Despite national advice to the contrary, Saami from Norway, Sweden and Finland created a common forum that mirrored their own distribution, interests and values rather than defining their interests in accordance with national borders. Their voice was further strengthened through some of these Saami joining other indigenous groups in the even more extensive international arena of the WCIP. In writing of the opportunities created by the newly formed international arenas for indigenous people, Dyck explains, "[a]ctivity at an international level offers another

means of creating space for maneuvering within the confines of national political systems" (1985:18). Part of the "means of maneuvering" that Dyck refers to is in fact the strategic use of multiple rule systems (here national and international law) by the involved actors. Actors aware of and in a position to make use of different systems attempt to selectively choose which rules are to their advantage to follow under which conditions.

As these examples demonstrate, strategic actors in a position to do so define roles for themselves of relevance to the debate. Having done so, they align themselves with others in choosing or creating arenas that correspond with their interests and/or where they have power to influence the debate (Fowler 1994; Svennson 1992). In other words, actors are often collective. They strengthen their claims through collective action. Recognizing uses legitimizes actors, empowering them to take part in the negotiations. Likewise it influences consideration of both where and how the ensuing struggles will be played out (Fowler 1994:225). Particular actors choose to strategically define problems and chose arenas in the manner most advantageous to their own interests. As Berge points out the arenas chosen to negotiate and settle disputes are important precisely because the arenas differ with respect to which rights are recognized and/or allowed (1998:10). Prior to the new law on reindeer management introduced in 1978, divergent interests of a Saami Committee and the Ministry of Agriculture were supported and debated in Saami arenas as well as within arenas supporting agriculture, forestry and landholder interests. Arenas provide a forum for making the interests of an identified group of actors visible and heard. They provide a context within which certain claims are recognized and justified as being legitimate. They provide a forum for differing actors to both seek support for and/or promote their own interests. All of these factors - recognition of potential stakeholders, and the subsequent discourses and arenas they choose - have the potential to change, even to transform, existing rules and rule systems.

Complex, multiple and overlapping rule systems

Given the strong and divergent interests of actors to both reindeer and associated resources in the far north, over time both complex and multiple rule systems concerning their management and use have been developed. There are rules, such as the Reverse Image Principle, introduced to recognize rights to access and use both reindeer and land areas. There are also rules stipulating obligations of those owning animals to both care for them and for owners to ensure that their animals are controlled such that they cannot harm others' property - including degrading state land. And, rules are introduced constraining both rights and

obligations. The 1978 Act introduced constraint to who could herd, who could own reindeer earmarks and who could participate in decision-making groups.

When agents seek out differing decision-making arenas in attempts to strengthen their claims and/or create or transform rules to support their own interests, rule systems may overlap creating the potential for conflicts. This is seen in recent debates among herders and other Saami where herders draw upon the more detailed Reindeer Act and other Saami the more recent Saami Act. In addition, both Saami and other groups seek increasing power and support from international conventions and agreements to which Norway has become a party. Whilst the differing aims of the 1978 Act are at least within the same document, and presided over by the same Ministry, the potentially diverging aims of such things as the ILO Convention, CBD and Norway's membership in NATO are actively pursued by differing Ministries and hence rarely - if ever - are coordinated in their intent.

The resultant complexity of rules and rule systems arises from the diverse values held by actors with respect to the good. The 1978 Act is also indicative here with its multiple aims to increase meat production, maintain Saami culture, promote improved welfare among herders and maintain a settled presence in the northern most areas of Norway. The list of aims captures differing interests to reindeer. In practice, the differing aims are seen to be based upon differing underlying ideals and beliefs. Some of the different ways of valuing can be said to be incommensurate. As explained by Burns and Carson, "[t]he properties of two distinct phenomena are present but focusing on one involves marking the other a secondary property - or obscures it altogether. This becomes particularly important when actors guided by alternative paradigms compete with one another or each tries to impose her respective paradigm in a given institutional domain" (2003:9). As a consequence when it comes to implementing the law claims of the differing actors may cross making it extremely difficult, if not impossible, to resolve. There seems, for example, to be no middle ground between conceiving of an area as a herding pasture on the one hand, and as an area for heavy artillery practice on the other.

The period of rationalization, including both the state policies and its consequences, illustrates the resulting complexity of the intersection of multiple rule systems based on actors' differing perspectives, values and interests. The introduced rationalization policies in the north in an attempt to increase the welfare of reindeer-herding Saami. The policy was based on an

assumption that reindeer were capital that if produced rationally could provide the means to improve Saami livelihoods. In order to create such a solution, the state needed first to define the problem in such way that they could define solutions to it²²³. That these re-definitions may have conflicted with some Saami ideas of reindeer and reindeer owning was not considered problematic in approaching what the state defined as a technical problem. But for the Saami, we have repeatedly seen that reindeer are more than an interchangeable commodity. Other rule systems including social and cultural values and beliefs came to also influence their actions. This partly explains unintended consequences of the imposed policies.

An example of overlapping rule system creating the potential for conflict is the case of Alta where Saami claims to areas based on ancient use directly collided with state rights to expropriate areas of interest for the common good - in this case the production of electricity. The Saami lost the case, but they also gained concessions both in the size of the area to be flooded and in recognition of their rights to compensation. Given Saami use from time immemorial in the entire northern area of Fennoscandia, the ruling from the Norwegian Supreme Court also affected rights of Swedish Saami herders - as some of them traditionally used these areas to pasture their reindeer. Similarly, the outfall of the Swedish Taxed Mountain Case (Skattefjell) recognizing the legitimacy of claims to land based on nomadic use, and the historical findings establishing the recognized - and taxed- presence to Saami in the far north by a Finnish scholar, Korpijaako-Labba, are recognized as introducing additional rule systems considered by some actors as relevant to Norwegian Saami as they refer to use pre-dating the establishment of national borders in this area (1994; 1998).

Politics of property

In the above examples, we can see that context is not only important in providing insight to the structure of daily life, but also in explaining radical changes, or transformation of rule systems. Exogenous events such as World War II and Chernobyl had nothing directly to do with reindeer property regimes - but led nonetheless to transformations in them. The context people acted within and upon also changed. As a consequence, people's ideas and beliefs changed. And, power among and between them changed, too. A number of the changes discussed in this section, such as recognition of reindeer herding as a primary industry and the

²²³ For general discussion, see Hajer 1995:2; Scott 1998:21.

introduction of the Reversed Image Principle introduce a transformation of rules, of changes of in kind, rather than changes of rules in degree (increasing specificity). New laws, rules and regulations are introduced or old laws revised or changed not only under conditions of increasing scarcity but also when new situations - new interests, new possibilities or constraints to use goods - arise, when new problems need to be solved and/or when new actors become involved.

Within the changing contexts discussed in the section, we also see changing alignments of actors and use by them of different arenas. They make complex claims to goods, revealing not only their economic interests in goods, but also cultural and ethical interests. They call upon different justification and legitimize their claims based on differing perspectives, values and interests. In other words, there is a politics of property. There is struggle and contestation between actors with different interests and different power among and between them to gain support for their claims. In addition to legitimation, politics includes evaluating justification of claims, including claims to participate in decision-making arenas. This was discussed previously with respect to Saami being excluded from decision-making arenas. In this chapter, substantial changes are seen to with respect to representation.

The 1978 Act introduced a majority of reindeer herders at the differing levels within the newly designed administrative structure. However, rather than ideas of co-management that build upon a recognition of different and distinct ways of utilizing and managing the resources of an area; the current state administration deemed the state system as the legitimate one and has accepted that the Saami can be a part of it (ibid.: 12-15; Dunfjeld 1979:54; Paine 1994:191²²⁴). The new system defined the lines and structure, allowing some Saami to help fill in the blanks. This is conceptually quite different than fostering a system which allows different ways of conceptualizing to emerge that explicitly recognize and legitimate the differing claims to be included in rights to manage and decide (Morrow & Hensel 1992, see also Jentoft 1998: Chapters 11-13). The distinction highlights the importance of agreeing to/determining at what point actors have the right to participate in decision-making - at the time when issues are defined, when they are interpreted and/or when they are implemented.

²²⁴ There is a wealth of material on the co-management concept. For general comments with respect to reindeer see, for example, Kalstad 1998. For a discussion of a comparable situation in Alaska, see Cruikshank 1998:47, 49, 53. With respect to Canada, see: Clancy 1990; Feit 1979; 1998; Kruse et al. 1998; Tresedar et al. 1999. With respect to co-management in Southern Africa, where the idea emerged, see Child & Bergstrom 2001; IIED Wildlife and Development Series 1995. Metcalfe 1993; Southern Africa Sustainable Use Specialist Group (SASUSG) 1996.

The concept of co-management also differs from a system that might statically embrace traditional systems²²⁵. Rather than defining and delineating what a property regime to goods is or will be, co-management is conceived of as establishing a forum where recognized stakeholders can pursue the process of negotiating rights and obligations and constraints to both. Rather than looking for certainty of an outcome in terms of a completely defined system, it instead focuses on the potential and promise inherent in being part of the process. It seeks to change the emphasis from result-oriented planning to process planning; to formalizing negotiating procedures rather than defining outcomes (Roling 1996:38-9). Nonetheless, given the introduced dominance of representation of (full-time) herders, it may be expected that over time their interests and ideas will gain increasing importance.

In the preceding chapter, the role of the state was seen to increase. Also here, the role of the state is recognized as central to the creation and re-creation of reindeer rule regimes. The 1978 Act and Law introduce an elaborate administrative structure. In addition, Norway has become an active international player in the newly defined area of human rights. This leads eventually to the signing of international conventions such as ILO and CBD. In the latter, indigenous rights to natural resources is coupled to the larger and better established human rights debate. Norway's involvement and follow-up in these issues eventually led to an addition to its national constitution recognizing the importance of both the Saami people and their culture. The state is also seen to pursue other objectives entirely, but where the consequences affect reindeer rule regimes nonetheless. The visible example is Alta, where state interests in hydropower led to flooding Saami reindeer pastures. Other pursuits towards development, including the building of infrastructure, have also led to the significant reduction and fracturing of Saami pastures - and consequently to struggles between Saami on how to distribute access to the remaining lands.

²²⁵ **The very concept of cultural preservation may itself be a hindrance to the adoption of systems that recognize Saami rights to self-determination. Many efforts tend to be to conserve traditional elements of the culture which rather than survival of the Saami as a living, vibrant culture, may lead to stagnation. They also conveniently circumscribe difficult legal questions about rights to manage (Thuen 1995:179-180).**

Summing Up: Towards a Theory of the Dynamics of Property Regime Formation and Change

Introduction- a social approach to property

The general property regime (GPR) approach differs from the common property regime (CPR) approach, namely, instead of beginning with the properties of resources, the GPR approach begins with actors and their relationships. With the latter approach properties of goods are recognized as being part of the context affecting property regimes, rather than as defining a regime. In the CPR framework presented by Oakerson, actors are absent altogether (1992). In the revised framework of Dolsak and Ostrom, "characteristics of resource users" have been recognized as a category (2003). The CPR approach emphasizes the importance of noting whether there are single or multiple actors; the distinction becomes important because multiple actors jointly claiming a resource must be coordinated in order to manage it. In this view, actors come together to pursue their common interest in a particular resource; the problem they jointly face is administrative.

In the GPR approach actors are multiple and recognized as diverse with pluralistic values. For instance, there are important differences among Forest, Mountain and Coastal Saami. There are also differences between Saami herders and Norwegian farmers, differences between the Ministries of Agriculture and Environment, and differences in the interests of the Norwegian and Swedish states. The roles and interests of these agents have changed over time. We find both new actors emerging (the establishment of the Norwegian Saami Reindeer Herders Association - NRL - and the Saami Parliament), and actors redefining themselves (the emergence of *Boaza Ealatius Scervi* - BES - and indigenous people), as well as actors aligning with others to create new groups (such as the alignment of Saami and environmentalists in the Alta conflict). The vision of the world in the GPR approach is not one of a single, homogenous community, but one consisting of a pluralism of interests and values in dynamic interplay and evolution. Whilst Dolsak and Ostrom contend that the view of community as a homogeneic entity is outdated, their framework nevertheless fails to explicitly develop the implications of this critique (2003: 17).

Oakerson's framework and many of those utilizing the CPR approach have tended to take a synchronic approach by identifying a particular empirical situation at a particular point in

time (1992). This is understandable since the CPR approach does not aim to understand the formation and reformation of property regimes. Nonetheless, the CPR approach aims to help establish robust rule regimes with respect to resources. This final chapter reviews the historical changes of reindeer property regimes in Norway in an effort to outline a theory of the dynamics of regime formation and change. My approach is historical. It recognizes that rules are formed contingently, in part, because of historical interactions and struggles among agents.

The point of departure has been actors and their relationships. Agents are acknowledged as having pluralistic values; communities are recognized as being made up of agents with multiple and diverse interests. Actors' power and capability affect their possibilities to, among other things, establish and reform reindeer rule regimes. Particular attention has been given here to the multiple and diverse roles of the state. Actors' alliances have been discussed in relation to where such alliances form, and how actors choose between arenas in accordance with their cognitive perspectives, values and interests.

I began this study by looking at reindeer property regimes over time. My research, however, has led me to something much broader. I was faced with a dilemma: a choice to follow a traditional, disciplinary approach to property would have, among other things, limited the scope of the research. This choice would have also meant missing much of the story and losing insight into many of the factors influencing the formation and reformation of property regimes and other relevant regimes. I have tried to present the story of the creation and re-creation of reindeer property regimes as I have found them to be: messy and complex - yet also providing order. At any particular point in time they have provided structure to the choices and interactions of strategic agents.

Agent and community characteristics

In the story of reindeer in Norway, the relevant actors have conceived, defined and claimed reindeer pluralistically. The ways that actors define reindeer, reindeer herding and the claims advanced by them, reveal differing cognitive perspectives, values and interests. Even when the Saami lived semi-autonomously, the claims made on reindeer were apparently pluralistic. The Saami, as people throughout Norway more generally, used and valued reindeer as one of a number of game resources. Reindeer provided a source of both meat and hides to all

²²⁶ **Dolsak and Ostrom introduce dynamism in their framework (2003).**

members of the community. In addition, hunting of reindeer became the basis for a select few Saami to achieve special status - conferring power within the group. Hunters who were recognized to have the right to add property marks to their arrows were conferred with a status whereby they could enjoy a special burial site and eternal recognition. The differing ways of valuing reindeer compliment and enhance one another; although interests among the Saami may vary, they share many common conceptions and ideals with respect to reindeer.

Over time, groups of Saami, landholders, Ministries and their governments came to conceive, define and claim reindeer and reindeer herding in a multitude of ways, some of which were contradictory. In the south of Norway differences arose between landholders with large tracts of land - and hence not only wealthy but powerful in relation to the state - and cottagers and freeholders with little or no land. The wealthy pursued their interests in defining the hunting of game as a sport, whilst the poor continued to define reindeer as a basic right and basis of their subsistence. The former group is characterized by particular interests, the latter, with an inclusive rather than exclusive claim, concerns basic needs of people in a society.

In the far north, there were also differences among Saami groups and between Saami groups and others with interests in the area. As a consequence of the Inter-Nordic wars, the Swedish government redefined live reindeer as the main source of taxes to be collected from the Saami. As trappers moved to the far north to benefit from an increasing world market in furs, they came to define and use reindeer hides as a commodity. Enhanced by an increased availability of firearms from wars, they collected hides as quickly as possible. This reinforced the interests of extensive herders. Extensive herders came to conceive of reindeer as living capital. Wild reindeer came to be defined by them as a problem - and hence as something to be actively eliminated - and when possible were marketed, for instance, to trappers. Over time we see different actors defining reindeer as "wild" or "tame" in order to promote their specific interests in claiming groups of animals in particular places.

Gradually, we find further differences emerging among Saami groups. Extensive herders came to claim their owned reindeer as sources of meat. Intensive herders, with fewer and often more manageable animals claimed reindeer as the basis of a living language and culture; that is, they were connected to their identity. The state changed its definition of reindeer herding from being the basis of a way of life (the Lapp Codicil in 1751), to being a transitory stage of socio-economic development (the Additional Lapp Law in 1897). In this new

Summing up: towards a theory of the dynamics of properly regime formation and change 249

perspective, reindeer were defined as a nuisance. The Saami people were redefined as underdeveloped and "foreign". Reindeer herding was then understood as a lower stage of development, to be tolerated at best, and the Saami were to be assisted in developing agriculture. Later, during the period of rationalization (the 1970's-80's), reindeer herding came to be defined by the state as a "primary industry". Even more recently, environmentalists and recreationalists claim wild reindeer and wilderness areas as part of a "global heritage". Extensive herders have tried to counter these claims. They claim the same areas as pasture for reindeer herding, to be combined with making use of modern means of management, including the use modern transport.

My research suggests that over time an increasing number of agents have claims on reindeer (see Tables 3 (Chapter four), 4 (Chapter five) and 5 (Chapter 6)). Along with this increase, we find that the diversity of claims is also increasing - and hence also the potential for the differing claims to contradict one another. This explains, in part, the reason why Saami groups continue to disagree in their own judgments about the effects of the introduction of the Reindeer Herding Law of 1933. Whilst some argue that recognition by a bureaucratic state was highly beneficial to Saami herders, others lament the losses of rights to herd in particular places (Chapter five: 167-169). In the current situation, a number of agents (groups of Saami, landholders, Ministries and their governments) are involved in on-going and highly contentious debates concerning reindeer and reindeer herding, the Saami culture and land. Full-time professional herders backed by NRL and supported by the Ministry of Agriculture and Food are interested in continuing to develop reindeer as a modern primary industry. Central to this is increasing meat production as a means of increasing the income of individual herders. Other groups of Saami pursue more social and cultural interests in reindeer. They want to promote reindeer and herding as the basis of a living culture. Rather than increasing production these groups, including BES and representatives within the Saami Parliament, seek to integrate diverse Saami groups, rather than exclude them: to promote, for instance, the interests of all Saami in owning reindeer. Rather than reducing the number of herders, these groups seek to increase the possibility to own reindeer - thus increasing the number of herders and setting constraints instead on the total number of animals that any one individual, family or *sii'da* can own. A number of recent studies on property recognize, describe and analyze the diversity among agents and, in particular, examine their multiple orientations and interests and their consequent struggles to define goods. Many of these ideas

are expressed within the emerging field of legal pluralism²²⁷ (Flitner 1998; Meinzen-Dick and Pradhan 2001; Mehta et al. 1999; Thompson 1998).

Human agency and social relationships

Actors' agency and relationships

Actors exercise agency both with respect to their pursuit and use of goods, and in their strategic choices and actions to form and reform rule systems which govern their interactions over the use of goods. This multi-level approach also recognizes the active pursuit of both individual and social interests - through political struggles, in policymaking, and in the concrete use of the resource (and associated resources). The GPR approach pays attention not only to actors' cooperation but also to their struggles and conflicts. It targets political struggle and negotiation of rules and policies as important areas of investigation.

This contrasts with the approach of CPR that is typically concerned with bundles of rights (access, withdrawal, managerial, exclusion and alienation) associated with an agent's position (owner, proprietor, claimant, authorized user, and authorized entrant) (Ostrom and Schlager 1996). As discussed in the first chapter (Chapter one: 10), these categories designate positions in accordance with the rights held by individuals. The categories of access and withdrawal attempt to capture user rights to a resource. Managerial rights include rights to make decisions about how a resource can (and cannot) be used. Exclusion refers to rights to determine who would (and would not) be involved in rule making and alienation to the right to transfer rights. In the CPR approach, the final three categories are collective. As with the discussion on resource attributes (see section below on Contextual Factors - goods as a part of context), the categories suggested provide insight into the types of rights that actors claim and struggle for. They recognize that rights to resources include not only rights to the use of the resource, but also to management and to participation in decision-making about it. In Ostrom and Schlager's categories there is an underlying assumption that a rule regime operates as a neat hierarchy and as a collective, harmonious whole. This assumption neglects or treats conflicts as simple and apolitical - as if they simply required a technical solution. Those conflicts that are addressed deal primarily with distribution and allocation of the resource. These are certainly important conflicts when related to a resource, but not the only, nor necessarily, the most important ones.

²²⁷ The approach of legal pluralism was originally introduced to study the introduction of two or more formal systems of law. This was the case with the introduction of the Lapp Codicil. More recently the approach has considered the strategic use by actors of overlapping laws and regulations. This was found in the decisions of the Ministries of Environment and Agriculture in the Trollheimen case.

Initially Ostrom indicated a number of limitations of the CPR theory: limitations concerning the types of resource (CPRs), the number of actors involved (50-15,000 persons), the territorial location (within one nation state), and the nature of conflicts with respect to them ("situations in which users can harm one another, but not situations in which participants can produce major external harm for others") (1990). Ostrom's intention in introducing these limitations was to simplify the task of theory development with respect to CPRs. Many studies, including my own, have benefited from this approach. The simplification in both her work and the Oakerson framework also facilitated a large number of studies on CPRs in a wide variety of contexts (1990; 1992). By limiting the complexity of property regimes, CPR researchers created deep insights into a special class of situation: the case of the formation of a single collective agent with a common interest in managing a resource.

By following the historical development of reindeer property regimes, my study has led me to explore questions beyond Ostrom's paradigm and to develop conceptualizations outside of the CPR limitations. I have come to recognize that the limitations introduced by the CPR framework and Ostrom's design principles not only simplify the research task: they also limit insight into the formation and reformation of property regimes. The number of actors making claims is not only of interest with respect to the cooperation needed for collective action, but also because of the potential it raises for conflict and struggle from agents' diverging interests. Multiple agents, especially diverse agents (including actors in different countries), tend to imply more and contradictory ways of evaluating and making judgments. Subsequent contention and struggle over resources means that outcomes are likely to be uncertain, delayed or blocked.

Actors' powers and capabilities - position, proximity

Different actors are positioned differently and have varying abilities to make use of opportunities to gain access, exploit, control and manage resources and to shape relevant rule regimes. Among the Saami, the number of animals owned and capability with animals have been recognized as contributing to social status and to power. At the time of the emergence of extensive herding, many of those with increasing numbers of reindeer gained increasing social power. Having gained more power, they were then in a position to accumulate further resources. Actor's opportunities and possibilities to change the parameters within which they act, differ with respect to power. The power of different agents to make decisions and act

purposefully is not distributed evenly. A major agent - in the formation and reformation of reindeer property regimes as well as in other rule regimes affecting the fate and life changes of Saami people - has been the Norwegian state (and its various agents). In the early 19th century, the Norwegian state, under the influence of large landowners, crafted programs and policies that promoted its particular interests. They declared that reindeer herding should not constrain agriculture. They justified their claims by appealing to state interest in development. Given the state power to define the political "reality", Saami and their reindeer came to be defined as both different and in need of regulation. Limits were introduced on where and how Saami could herd. In addition to the power associated with position, power also derives from proximity to resources. This was demonstrated through the acts of herders under the period of rationalization, and in herders' choice to allow their animals to roam rather than surrender them to German troops. In close proximity to their reindeer, in the practice of herding, Saami herders have direct control over how their animals are used and managed. This control gives them power.

The multiple roles of the state

My research has shown the state to be an agent heavily involved in the formation and reformation of reindeer property regimes and of other rule regimes affecting the fate and life chances of Saami people. Whilst the state has been involved in the creation of national laws concerning reindeer, its involvement has also been much broader. The state is a central actor in the area even when the policies it is pursuing are related to other concerns and interests. It has also been shown that the state is neither a single actor nor a neutral one. Diverse Ministries and a multiplicity of governmental agencies pursue differing agendas and policies. Rather than a coordinated whole, I have found that at times aims, procedures and policies contradict one another. This is most explicit in the Trollheimen case (1957-1981) where different Ministries defined the same reindeer as "wild" or "tame" in accordance with their respective criteria and policies. Later (1984), members of parliament chose to overturn the decisions of the Supreme Court, favoring instead positive discrimination on behalf of the Saami herders living in the Trollheimen area. In addition to this case, the differing agendas of local, regional and national politicians have been seen to contribute to the fractioning of pastoral areas. In this latter example, decisions at different governmental levels have been piecemeal and disjointed - at least with respect to their effects on reindeer herding.

Alignment among and between actors

Actors align with one another to strengthen their claims. For instance, Saami groups came together to jointly petition the government during negotiations concerning the Law of 1933. Following World War II, Saami from Norway, Sweden and Finland aligned and created the Nordic Saami Council. More recently indigenous people throughout the world have joined together, creating collective identities which have facilitated pressure group politics and cultural and economic defense. Landholders also join together. In the Trollheimen case, for example, they joined together to demand their right to hunt reindeer. Each of these alignments increases the total number of individual actors and consequently the amount of the resources they control enabling them to collectively be more visible, more likely to be heard and listened to and, arguably more powerful.

Very different agents may align when their interests are complimentary. This was demonstrated in the Alta case where national and international environmentalists and Saami aligned in protest against the state's objective to develop hydropower. Environmental groups, however, are currently more apt to align with the state in protest against Saami herders' use of modern transport (snowmobiles, all-terrain vehicles, helicopters) in their herding. Swedish Saami have been supported by the Swedish state in their attempts to secure their rights to Norwegian pastoral areas. To secure pastoral areas within Sweden, however, Swedish Saami herders are more apt to align with Saami from other Nordic countries in protests against the state. Similarly, whilst smallholders and large landholders were opposed to one another when Game Laws were first being established (late 1800's), they are now more apt to be aligned in their protests against increasing available areas for reindeer herding (outside of reindeer districts).

Arenas: critical formation and choices

In exploring how conflicts are played out, agents strategically choose among and between decision-making arenas; each arena has a particular rule system that structures and regulates the agents (Fowler 1994; Svensson 1997; Wiber 1993). This was highlighted in the Trollheimen case where landholders sought support for the rules created and interpreted by the Ministry of Agriculture, whilst Saami herders sought support for the rules and interpretations of the Ministry of Environment. Later, other agents sought additional decision-making arenas including county councils and the national parliament. Throughout the case, agents strategically sought support for their interests - be it to herd, to hunt or to

secure access to the natural resources (such as land and access to water) considered necessary to sustaining a living basis for indigenous people.

Agents also align to create new decision-making agents: providing contexts for arenas such as the creation of a particular Saami group led by Renberg and Mortensen prior to the Herding Law of 1933, the creation of NRL in response to specific interests of professional herders following World War II, the establishment of the Saami parliament, and the creation of the international organization for indigenous people (World Council for Indigenous People - WCIP). These new agents may take issues to different decision-making arenas than those used previously. In addition, new arenas may be established in response to new problems and purposes, or in recognition of new groups of actors. Within these different arenas, agents define their particular areas of interests setting their own priorities and establishing rules and procedures in pursuing their ideas, values and interests. In addition, they determine who will be recognized as legitimate participants.

The findings stress that in practice, actors do not simply implement rules and rule systems. Given multiple systems of rules, and pluralistic interests of actors, they strategically select systems, or parts of systems, in pursuing particular interests and aims. As a result, the implementing of rule systems in practice is partial and quite messy.

The politics of property and other regimes

A recognition of multiple and diverse interests, and multiple and diverse justifications, underlies a discussion of the contention, struggle and negotiation of reindeer rule regimes. Again, the state is recognized as a central agent - here with respect to interventions concerning crisis management, conflict resolution and, not the least, the pursuit of entirely other agendas which nonetheless have an impact on reindeer ownership.

Contention, struggle and negotiation

Property regimes made with respect to reindeer - or concerning associated goods but affecting reindeer property regimes nonetheless - are complex: they include not only rights, but also obligations and constraints. In addition, throughout the reindeer story, there is not a single institution or a neat hierarchy governing reindeer. Instead, there are multiple, overlapping and changing institutions where a reindeer property regime is but one of a number of rule regimes (and underlying interests). As a result of the multiple, diverse, strategic agents and complex

and multiple rule systems, conflicts and struggles take place. There is a "politics" - not only formal parliamentary politics, but the politics of legitimizing claims - of determining through one or more channels who gets what and how much, and in what ways resources are to be used. Different actors use different means to legitimize and justify their claims. Claims are made on both individual and social levels; claims are made to secure both exclusion and inclusion. The findings here suggest that conflict and struggle are inherent to property systems. They are not simple technical problems to be solved. Nevertheless, there is a recognized need for procedures which address and resolve conflicts and which promote negotiation among and between actors; decision-making arenas themselves may also require better coordination.

There is no doubt that the CPR approach is aware of the political aspects of property regimes (Ostrom 1990; Dolsak & Ostrom 2003). The choice to include management is an indication of this, which is an important insight. It remains a central element of the CPR approach. The recognition of common interests in managing resources led to the incorporation of concepts of governance in the CPR approach - to capture the ways that actors coordinate with one another. This is further strengthened in the Dolsak and Ostrom framework through the recognition of economic, political and legal environments (2003). In this later work, the authors, whilst recognizing other systems and agents, have chosen to define them as external to the resource property regimes.

Politics address the questions of who gets what, and why. According to Carson, it also "takes account of related issues of who should participate in policymaking, under what conditions, for what purposes and to what advantage" (2004: 8). If there was one use agreed upon for a good (such as the production of meat) and all agreed to the objective of production (such as the highest production at the lowest cost and to the distribution of products), property might not be a political issue. In this special case, where tastes and preferences of a society are given and constant and information is complete, the market could serve as a means to achieving an agreed upon desirable end of efficient production. However, with respect to reindeer we have found this is not the case and that there are diverse actors with differing interests in claiming goods and bads. Actors differ with respect to their beliefs, values and interests concerning:

- Access and control - When does something become property with the right to exclude and include others from access and control?

- Control and management - Who is responsible when something goes wrong? When? Where? Under what conditions? Including:
 - How should the resource be used? (Are reindeer wild or tame?)
 - How should goods be cared for?
 - What type of risks may animals, claimants and the community be subjected to?
- Distribution - Who should bear costs and receive benefits?

In addition to questions of why certain actors are entitled to their claims, political debates also focus on questions of equity. That is, they also concern questions of justice and legitimacy. Who determines what is problematic? Who is represented? Who is heard? Based on what criteria? We have seen that different arenas have different purposes, recognize different actors, and operate with different rules and procedures. Agents purposively seek out different arenas and rule systems to strengthen their claims. This study supports the findings of the central role of politics with respect to property regimes asserted and discussed by Carson (2004); Fowler (1994); Libecap (1989/1993); Svensson (1997); and Wiber (1993). The research shows that the Saami extended their use and participation in arenas from local, to national and finally to international arenas. They did not simply passively accept rules. Instead, Saami herders are seen to be strategic in their choice and development of arenas, in their interpretation of particular rules in practice, and in influencing the very formation of rules and rule systems.

As different actors may have different aims and seek out different arenas - and because decision-making arenas may overlap - the ensuing debates, deliberations and decisions are politically complex. This is the case not only with respect to the decisions about which rules and rule systems to apply, but also with regard to which arenas are to be recognized as legitimate. In the democratic state of Norway, a majority decision is supposed to be binding. Is it binding for the small, marginal and indigenous minority of Saami people? Should special rights be recognized for an indigenous people - as agreed to by the majority of nations signing ILO and CBD and introduced in paragraph 110A of the Norwegian constitution? Which takes precedence: the newest law concerning Saami rights or the more specific Act of 1978? Should a majority decision among Saami be binding for the group of Saami herders?

A case focusing on animals is unique because meanings with respect to animals can fundamentally differ, for instance, with respect to an individual actor's ethical stance: the

question of whether our considerations of animals is purely utilitarian (making the best use of them to maximize social welfare) or simply concerned with efficient production; whether or not we have an obligation to protect or conserve animals; and whether or not animals as sentient creatures have their own existence value irrespective of human interest in them. Negotiations and decisions concerning these types of issues are commonly of high concern to the media and are often played out in political arenas. There are no right or wrong answers to these questions, only different meanings and beliefs held by diverse individuals and groups. These differences are to some extent played out in different arenas. Over time, the meanings, values and beliefs of some agents gain more political support and rules formed in accordance with them are recognized as being justified and legitimate.

As a consequence of pluralistic interests and the multiple arenas in which they are played out, we find inherent differences and fundamental conflicts in existing rules systems: between users and managers with respect to understanding and defining what animals are, who has which types of rights and obligations to which of its uses, how the resource can or should be controlled and managed and who should be involved in making these decisions. This is not a neat hierarchy where local management and practice is supported by and reflects national policy. As a result, different sets of rules, and even different groups of laws concerning animals and associated resources, are considered legitimate and invoked by various agents. In such situations, conflicts and struggles among defined groups of actors result in the adjustment and reform of rules. Also, conflicts within groups and between groups may influence the result. Tensions and struggles arise as some actors try to maintain and apply particular rules, and others attempt to form new rules or to reform existing rules.

The consequent aim of the GPR research is to recognize in what ways claims conflict with one another. Such conflict may or may not be effectively addressed in institutional set-ups, in the resource rule regimes, in procedures for what a particular arena will deal with or in rules for the recognition of legitimate participants.

State interventions - crisis management, conflict resolution and the pursuit of other agendas

Central to most political processes, and to the formation and reformation of property and other regimes, is the role of the state. To bring more clarity to the diverse roles of the state in affecting and forming reindeer rule regimes, we can distinguish at least three types of

interventions: (1) crisis management, (2) conflict resolution and (3) the pursuit of other agendas: sovereignty, development and solidarity.

(1) To summarize, there have been at least four occasions when the Norwegian state has identified a crisis situation. The first was with reference to the increasing scarcity of wild game in the south of Norway. In this case, the state sought advice from specialists including the Norwegian Hunting and Fishing Union, which were dominated by wealthy landowners. Initially, this resulted in the creation of exclusive rights to game for large landholders. According to the Saami, the first nationally recognized crisis occurred as a result of Norway refusing Russia's application to extend its fishing rights. In retaliation, Russia closed the national border to the traditional migrating routes of herding Saami, creating chaos in Finnmark, the northern-most district of Norway. The Saami demanded Norwegian state intervention in this crisis. The state responded by rapidly creating a special law for the area - The Reindeer Law for Finnmark (1854). The law was introduced to specifically address a particular situation and territory. It did not address Saami reindeer herding more generally. The law addressed the crisis by introducing temporal and spatial constraints on when and where herding could take place within the district of Finnmark. In addition, the state began what were to become protracted negotiations with Sweden thus affecting Saami rights to migrate freely across the national border. The Saami recognized the actions and decisions of the state as supporting their interests.

In the 1970's, NRL and the state jointly defined the degradation of pastures in the far north as a crisis situation. Policies, projects and programs were introduced with the intention to limit the numbers of herders and animals, as well as to introduce additional constraints of where and when reindeer could be herded. The programs were experimental in nature, following *general international trends in addressing pastoralists. However, they failed to build upon Saami perspectives, values and interests. As a consequence, reindeer herders increased, rather than decreased, the size of their herds.* Despite its good intentions, the state at times fails in its attempt to address people and interests outside of its normally defined areas of interest.

The latest state defined crisis affecting reindeer herders was Chernobyl. In this case, the state, through the Directorate of Health and the Norwegian Geological Survey, sent out conflicting reports concerning the extent of the crisis. Rules were changed concerning the level of contamination that could be accepted in reindeer meat. Although the state attempted to

provide information, little was actually known about the potential affects of radioactive fallout to either reindeer or people and uncertainty prevailed. The market for reindeer meat shifted radically. The state again intervened, introducing programs to ensure that Saami herders did not suffer economically. This was certainly well intentioned from the state and appreciated by herders, but one of the unintended outcomes was a shift in power among and between herders and herding areas.

(2) The state is also recognized as an active agent in creating, amending and negotiating reindeer property regimes; it claims to resolve conflicts through governmental intervention. Repeatedly the state has introduced laws and regulations to address the conflicts between farmers and herders. Again, in actuality, the state is recognized as supporting farmer's interests. The main purpose of the Common Lapp Law was to resolve conflict between farmers and herders; this remains central in both the Additional Lapp Law and the Act of 1978. The state, particularly through the Ministry of Agriculture and Food, has actively controlled reindeer herding by limiting its extent through the historical creation and implementation of herding districts under the Common (1883) and the Additional Lapp laws (1897). Reindeer herding was administratively recognized in the Reindeer Herding Law of 1933 and an extensive administration was established through the Act of 1978. The central role of the Ministry of Agriculture and Food is also revealed where much of the current structure relating to reindeer herding has come to mirror that found in Norwegian agriculture. There are similar subsidies, regulations for slaughter and administrative routines. It is the state that has largely come to organize, structure and administer reindeer programs and policies.

(3) In addition to direct involvement in reindeer property regimes, the state has also repeatedly acted in ways that have indirectly affected property regimes. Among the most prominent examples are those where the state has pursued its sovereign interests. The Lapp Codicil agreement of 1751 between Norway and Sweden is central here - and remains so today. Both states found it advantageous to recognize Saami migrations with their reindeer; doing so strengthened the respective states' claims to territorial control. In acknowledging ancient use of these areas by Saami, the resultant agreement recognized the legitimacy of a claim that continues to be advanced: territorial control.

In the inter-Nordic wars, Sweden demanded taxes to be paid in live reindeer. This drove many Saami to destitution and changed the way these Saami conceived of their living reindeer: from producers of milk, transport and progeny to being a source of meat. Later, following the Napoleonic War, Norway fell under the rule of Sweden rather than Denmark and Norway's interests in independence led to active efforts to exclude Swedish Lapps from migrating with their animals into Norway. In its attempts to secure sovereignty over land areas of the far north, the state actively pursued a policy of norwegianization. This included proselytizing drives of Christianity and required use of the Norwegian language both in schools and in the purchase of land. The state created a system providing incentives to settlers in the north, who then came to overtake pastoral areas used by the Saami. In pursuing its broader agenda of development, the state supported the building of an extensive infrastructure in the far north which, whilst enhancing agricultural settlement, has created impediments for migrations and destroyed or fractured pastoral areas. Given this historical analysis, the state is clearly not a neutral actor.

Following World War II, in adopting new norms of solidarity the state has actively pursued an interest in supporting human rights and socio-economic development at the international level. At home this has led to efforts to promote solidarity and equity. The state introduced homogenization - there was a standardization of housing and schooling in an attempt to improve the material conditions and living standard of the Saami, particularly the reindeer herding Saami, and to generate greater equity both among Saami and between the Saami and other Norwegians. Recently, the state has pursued its interests in human rights, including indigenous rights, and has made an addition to the Norwegian constitution explicitly recognizing Saami rights. Because the traditional use of natural resources is closely associated with reindeer herding, this act directly affects reindeer property regimes.

The state has also pursued other agendas which impact on reindeer herding. For example, the state built hydropower project at Alta flooded vast areas of pasture. In its pursuit of development of the area, the state supported the building of numerous infrastructural projects. Over time, the cumulative and long-term effects of large projects, as well as many small (even seemingly insignificant) projects, have resulted in significant reductions in total pastoral areas and fragmentation of others. In addition to reducing the general basis for herding, these reductions in the quantity and quality of pasture areas have further reduced the flexibility of herder options.

As a final example, the Ministry of Defense's interests in maintaining its military preparedness and presence in the far north has also affected the Saami. From ancient times, leaders of Norway have valued the Saami for this reason. Whilst this was often compatible with Saami interests²²⁸, additional interests of the Ministry of Defense are clearly incompatible with Saami uses of land and resources. For example, the Ministry of Defense now makes use of vast state-owned tracts of land in the north as areas for artillery practice.

Each of these acts - intentionally or not - have affected reindeer property regimes. Ideas concerning development strongly influence national and international policy and have consequently affected the reindeer property regimes in Norway and the Saami herder's way of life. A central theme of development revolves around equity issues: how power is to be shared (state administration, district representation or one-person one vote? Saami representation or not?); how goods and bads are to be allocated (between herding and hunting, between use of land as pasture or planted field or wilderness); and how costs and benefits are to be distributed (between groups? Generations? Nations? Between those in proximity to a resource and others?). Most often, state interventions have affected the size and quality of pastoral areas. But they have also affected perspectives, values and interests both with respect to reindeer and to associated resources. They have affected herders' power and positions, and also affected the Saami position and power to act more generally.

Regimes as products (and by-products) of politics and as giving rise to politics

Rules affect actors differently; conflicting ideals, ideas and interests give rise to politics. Created from this are a series of complex, multiple and overlapping reindeer rule regimes. Over time, this has resulted in property regimes that are partial, messy, piecemeal and negotiated. This topic is covered in the following section.

Complex rule systems

In writings concerning property regimes, there is often an assumption that a single, relatively simple rule system applies to any one resource and that value can be measured in economic terms alone. In my study, social interests - in such things as history, culture, moral/ethics,

²²⁸ Questions may be raised as to whether this was truly compatible as the state became increasingly interested in a settled presence pursued through offering subsidized housing. This was inconsistent, but arguably even incommensurate, with the Saami's nomadic lifestyle.

development, and the avoidance of risk - are also appreciated as values motivating actors' interests in forming and reforming rules and rule systems applying to reindeer. As seen in the creation of the Outdoor Recreation Act (1987) which increases access for Norwegians to hunt at affordable prices (Chapter five: 146), social claims often concern the right to be included rather than excluded. Reindeer rule regimes include both private and social interests and are, as a result, complex spheres. Because some people value animals as sentient creatures and others have interests in avoiding risk or valuing stewardship of a natural resource, obligations and constraints also play a part.

The complexity of rule systems is made explicit by examining the four diverse aims in property regime formation in the 1978 Act: to increase meat production, to maintain the Saami culture, to help the herders have a good and stable economic situation, and to maintain a settled presence in the northern most areas of Norway. Clearly, on the one hand, the aims are directed towards increasing the economic benefits of herding to the particular individuals (professional herders) within the Saami community. On the other hand, there are social ideas concerning the maintenance of Saami culture. In addition to this, there are also national interests in protecting Norwegian citizens by ensuring that people continue to inhabit these areas. As a consequence, in addition to securing and attempting to increase the benefits accruing from meat production, rules have been created with respect to reindeer and reindeer herding that are intended to fulfill a multitude of societal interests. The consequent rule systems are highly complex. The interests of landholders and hunters in associated resources further complicate the rules, introducing obligations to control reindeer.

Obligations are introduced as "common responsibility" under the Common Lapp Law (Chapter five: 139-140), and are still in effect today. Common responsibility introduces - contrary to the common practice of Norwegian law - collective guilt among all registered herders in a district when a farmer's crops have been devastated. The principle was introduced based both upon the interests of farmers in requiring obligations of Saami to control their animals, and because of the properties of reindeer - to outsiders, reindeer often appear alike and it is difficult for non-Saami (and non-herders more generally) to distinguish between particular animals. There has also been discussion about such obligations among Saami groups. There are elaborate rules among herders concerning the management and control of animals whilst moving - of who has responsibility should herds become mixed (Chapter five: 170-171). Saami expect herders to shepherd their animals. If a herder fails to

do this, others may - in extreme cases - kill an animal as a means of leaving a clear message about the herder's responsibility (Chapter five: 136). Issues of responsibility were also recognized in advice given by the Fjeldfin Commission to allow locals to kill stray animals left behind after a herder has migrated for the winter season. The recommendation is based on the fact that there would be little chance for the single animal to survive, and that it would suffer unnecessarily. In the post-World War II situation, the Norwegian Supreme Court argued that ownership of reindeer required that the Saami both control the animals in question and that they show visible signs of ownership. Obligations can thus be seen to include ear-marking reindeer - something the government makes clear in its comments to the Law of 1933 that earmarks provide the government with a means of control (Chapter five: 164) and also designates the marked animal as "tame" as opposed to wild. In practice, obligations are a two-way street. For example, farmers also have an obligation to control their dogs as they can cause havoc within a herd of reindeer (Chapter five: 141).

Interests in obligations are also seen in environmentalists' claims to conserve both wild reindeer and wilderness areas. In this case, the obligations claimed are made largely with respect to future generations. The introduction of the precautionary principle - to not take actions unless it can be proved that they do not introduce undesirable effects is a further example. Though not discussed explicitly here, the principle is an example of the introduction of constraints on current use given recognition of the non-substitutability of species and the interests of future generations.

Also examples of the imposition of constraints with respect to both rights and obligations are illustrated in the evolution of reindeer property regimes. From ancient times, the Saami have recognized dire need as constraining rights to reindeer. This means that there is a general acceptance among the Saami herders that no one should starve. By tradition, if a reindeer is killed for survival, the individual should not be prosecuted. Constraints on rights are also seen in rights to participate in claims made on unmarked yearlings ("whole ears"). Only those households that are members of the *sii'da*, or individuals that have been together with the *sii'da* for over a year, are eligible to participate in attempting to lasso the animal - and hence to secure the right to earmark it. Outside of herding districts, the government has introduced constraints on when (season and time of day) and where hunting can take place (spatial and temporal constraints), on numbers of reindeer that can be killed, and on methods that can be used. With respect to herding districts, the state has introduced constraints with respect to

who can own reindeer, where reindeer herding can be practiced both within and outside of districts, how many animals can be owned, how reindeer can be trapped/captured and slain, and - following the event of Chernobyl - even how much reindeer meat can be eaten. Constraints on property rights and obligations are discussed by Sax with respect to cultural treasures (1999). In this work, Sax suggests that social interests may introduce constraints on private owners of cultural treasures. Specifically, Sax suggests that social interests in knowledge may justify instituting constraints on an owner's right to exclusivity such that at least limited access to these works is ensured and that destruction of them is restricted and/or prohibited.

Multiple rule systems

Rule systems are created within particular decision-making arenas to address particular issues and problems. The Ministry of Agriculture forms rules and systems of rules concerning meat production. The Ministry of Environment forms those concerning hunting. Because reindeer do not fit within the neat categories delineated by different decision-making arenas, and because new uses and interests emerge, multiple rule systems are typically created and applied to goods (and bads). Concurrent with pluralistic ways of valuing, the study shows that the introduction of multiple systems occurred quite early in the case of reindeer. The signing of the international Treaty, the Lapp Codicil in 1751, was a deliberate introduction of three legally recognized systems: Norwegian and Swedish law, and the Saami people's ancient use of the areas of the far north. In doing so, the agreement legitimized Saami customary use and customary practices of natural resources including, and associated with, the herding of reindeer. The agreement also made special provisions that allowed for the Saami to continue their seasonal migration over the newly established national border between Norway/Denmark and Sweden, in another example, when Russia chose to close the national border to reindeer migration, the northern-most district of Finnmark came into a crisis situation. It led to the introduction of the Reindeer Law for Finnmark. The introduction of the law created differences within Norway according to location and place. Later, distinctions were introduced by the creation of reindeer herding districts in the far north. Outside of these areas, many communities chose to prohibit herding. Over time, this resulted in the district boundaries coming to be synonymous with where herding could and could not be practiced - although this was not the original intent. Given the interests of the involved actors and the consequent constraints imposed on how reindeer could be used in different areas, reindeer rule systems in the north and south of Norway have come to differ markedly.

Summing up: towards a theory of the dynamics of property regime formation and change 265

Multiple rule systems were created and recreated in strategic attempts by actors to access, use, manage and control reindeer and reindeer herding in accordance with their interests. Whilst the differing definitions were initially compatible among Saami, in later instances this was not always the case. The potential for this kind of conflict arises when perspectives, values and interests diverge. This was illustrated in the Trollheimen example. Here, Saami herders, landholders, local and national politicians strategically lobbied different Ministries in an attempt to define reindeer as wild or tame in their efforts to claim both reindeer and the associated natural resource of land. This kind of conflict is also experienced between groups of Saami, as in recent differences between full-time herders represented by NRL (referring to the rules of the Reindeer Herding Act of 1978) and other groups of Saami, including both BES and the Saami Parliament (drawing upon the Saami Act (1987) (Chapter six: 224-225). Herders legitimize their choice by claiming that the Herding Act is more specific; members of BES counter that the Saami Act is newer. Within the Norwegian legal systems both claims are recognized as legitimate reasons that one rule system would take precedence over the other.

Overlapping rule systems: inconsistent, incompatible or incommensurate

Different rule systems are formed with different intents and purposes, often with the goal to apply to one or more areas of activity. When these apply to different types of uses in the same time and place, rule systems overlap. Whilst Saami may generally agree upon the need to reduce the total number of reindeer in the reindeer herding districts, groups disagree about whether this should entail limiting the number of herders or the number of animals that each individual can own. Inconsistency was also highlighted in regard to practices of earmarking after the Law of 1933. Herders generally agreed on the need for earmarks, but there was a high level of controversy concerning who should have rights to marks and how many marks a herder might use. As a form of reconciliation, the government decided to allow herding districts to define their own rules (Chapter five: 164).

Regimes regulating resource use may be incompatible in time and space, with one regime benefiting one group and another benefiting a different group or groups. Different actors may disagree about who should benefit or sacrifice what, and in what ways. Incompatible rule systems typically reflect, as well as produce, conflicts of interests between claimants. The Lapp Codicil recognized the ancient use by the Saami of extensive areas of the far north.

Later, the Norwegian state encouraged settlers to build and farm some of these same areas by handing out land titles at no cost, on the condition of permanent settlement. Whilst the Lapp Codicil ensured the Saami rights to reindeer grazing and migration, the government-sponsored program of Norwegian settlement of the far north was based on private land ownership and the growing of agricultural crops. These two ways of using land areas have repeatedly proven to be incompatible and conducive to serious conflict. Similarly, incompatible regimes underpinned the differing claims in Trollheimen where landholders claimed unmarked reindeer as wild and hence as game. Saami herders claimed the same animals as tame and hence the property of Saami people. Hunting and herding of reindeer within the same area are incompatible resource uses. As the reindeer are attracted to one another, the animals merge into a single herd. Hunting creates a danger for tame animals and tame animals create an impediment for hunters; identifying reindeer as tame requires that the hunters be very near to the animals - something that is quite difficult to do in the arctic terrain. Incompatible uses can be addressed with the introduction of temporal and/or spatial zoning. Hunting zones, reindeer districts and hunting seasons are all examples of this. A more extreme example of incompatibility is the Mountain Saami's elimination of wild reindeer in the far north where they claimed that wild reindeer created impediments to their interest to herd large numbers of reindeer. This was incompatible with Forest Saami interests to continue to use wild reindeer (in addition to tame reindeer) as one of a number of game resources.

Incompatibility is also apparent where recreationalists define land areas as cultural heritage sites. Included in the recreationalists' definition are underlying interests in securing and accessing wilderness areas, quiet, and traditionally herded reindeer. Modern reindeer herders define some of these same areas as pasture areas. Their interests in efficient management, including efficient transport, have led to their use of helicopters, all-terrain vehicles and snowmobiles. In this case, it is not simply a question of zoning different uses. There are underlying beliefs that differ with respect to how these areas ought to be used. Whilst the recreationalists conceptualize vast areas of land as undisturbed, the Saami claim that these areas are as they are precisely because of - rather than despite - the fact that they have practiced reindeer herding there. It is in the Saami's interest to maintain these areas as good pasture areas. Whilst traditional reindeer herding is seen as being compatible with the interests of recreationalists, new management methods are experienced as being incompatible - as ruining their expectations to experience traditional culture and nature.

Summing up: towards a theory of the dynamics of property regime formation and change 267

Rule systems are incommensurate with respect to the actors' underlying beliefs and values. The Ministry of Defense pursues its interest in national security by using land areas in the far north for artillery practice. Many Saami claim these same areas as their cultural landscape. Artillery practice threatens not only the presence, but also the continued existence, of living animals. But, there are also basic underlying issues with respect to how the land is valued by many Saami - the landscape being a living manifestation of their culture. Having the land intentionally bombed by the state in the name of 'protection' and 'peace' is difficult to reconcile. These ideas differ at the cognitive level. The ways of conceiving of the land differ profoundly. Differences at this level are apt to provide little or no basis for negotiation.

Property regimes as partial, messy, piecemeal and negotiated systems

Historical products: contradictory and based on compromise

My study demonstrates that history is important in revealing how property regimes have emerged. However, history does not determine how rule regimes will be formed and reformed - there is not, as Libecap suggests in his work on the emergence of property regimes, historical path dependency (1989:7). Given exogenous events and unintended consequences (see below) - and given the agency of actors to attempt to create their future in accordance with their perspectives, values and interests (and that this is not one thing because there are multiple actors with plural and diverse interests) - property regimes will continue to be formed and reformed, sometimes in profound ways. The GPR approach is thus a dynamic approach.

Over time, changes in rules and rule systems are found to come in part, as Libecap and others have suggested, in the story of increasing scarcity (1989). There is repeated evidence in the reindeer case that as land became increasingly scarce, there was interest from diverse actors to increasingly clarify rules making them progressively more specific. In addition, change comes from new perspectives, values and interests - including new interpretations and possibilities of what can be owned. Changing attitudes towards both the environment in general and to animals have led to changed rules and laws concerning when, where and how reindeer can be hunted and herded. There is also evidence in this case that change in rules and rule systems are fueled from differing views of the very purposes of property. In addition to individual interests, claims are made to secure interests held by the larger community -

values that are often incommensurate with economic aims, but central to the political processes influencing property regimes. Examples from my research include both securing the rights of the Saami people and actions to conserve the environment. Rather than focusing on questions of exclusion, social issues are often focused on inclusion - for example, ensuring basic rights and access for all.

Existing rule regimes may not handle new elements effectively because the latter are outside of the range of issues and interests around which the regime was originally designed and applied. This was confirmed most dramatically in the aftermath of Chernobyl and in the closing of the Russian border in 1852. An existing property regime may need to adapt to a new context if it fails to solve entrenched problems or fails to resolve new problems. This may also be true if the new situation creates outcomes which conflict with what is expected, or with what the regime might be expected to address - as occurred following the introduction of the calf subsidy. Adjustments to new situations come to be debated when interests in outcomes from exogenous events are not judged as acceptable or advantageous for key groups (Admassie & Burns 1996:41). As change affects different actors differently, some will not only embrace, but also actively seek out change; others will protest and act to maintain their current positions. We saw this in the dramatic emergence of extensive herding and in the subsequent protests by both Forest and Coastal Saami.

With each major change, come new possibilities for agents to contest, renegotiate and redefine old rights and obligations and to establish new ones. This is political - questions of power being asserted in particular arenas to ensure one's interests are protected. This may occur despite the new outcomes representing economically advantageous use of resources (see also Higgs 1996; Libecap 1989/1993). This occurred in the case where Saami were not allowed to expand their lucrative herding beyond the designated reindeer districts. Property regimes are not autonomous. They are not complete systems or a totality that can simply be applied or implemented. The regimes with respect to reindeer are messy, partial and negotiated systems. For all of these reasons, property regimes are characterized by complexity, diversity and contradiction.

My study also suggests that given multiple and overlapping configurations of actors claiming rights, obligations and constraints, the number of actors is a useful point of analysis, rather than being a category of property in and of itself (i.e. rather than the often used claimant

categories of open access - no one, private - an individual, common - a defined group, state, and public - all). Rather than defining a category of property, the numbers of actors are an indication of the potential for conflict and conflict resolution. With one individual making claims, the potential for conflict is low. With multiple individuals holding a convergence of interest (the CPR approach), the potential for conflicts remains low. As the number of agents increases, there is apt to be a divergence of interests - and hence an increasing potential for conflict. In many real situations in the contemporary world, there are multiple actors with diverse perspectives, values, and interests. Therefore, the recognition of these complex social situations, and the characterizations of them, provides a starting point for understanding the formation and reformation of property regimes.

Changes in degree and changes in kind

As a consequence of property regimes being partial, messy, piecemeal, negotiated and historical over time, my study unearths not only specifications and elaborations of rule systems but also agents with pluralistic values. It highlights differing claims and new uses of reindeer. Some people have interests in maintaining rules, others in further specifying them, and others in changing them completely. As my study suggests, we find changes in rules in both degree (increasing specificity) and changes in kind. Both types of change have been identified. Through time, for example, there has been an increasing specificity - a change in degree - with respect to how reindeer should be marked and who can own them. (II: 29) Changes in kind entail changes in ideas of what reindeer and property "are"; that is, cognitive categories. Such change was illustrated by the introduction of the Common Lapp Law and later in the Amendment of 1996. In the first, the idea that reindeer were a nuisance and Saami an underdeveloped community led to radical changes regarding where Saami were permitted to herd. With the 1996 Amendment, Saami are recognized as having special rights as a people and usufruct rights to secure and protect pastoral areas.

The study of property regimes cannot be neatly divided into segments - although some people attempt to do so. Agents refer to, use and create multiple relevant domains. When these things converge - or when two or more groups are trying to make claims on the same or associated resources - they, and thus we who choose to study these things, are confronted with a complex reality. Negotiations result in compromises and gaps. And, not the least, they are likely to affect some actors more negatively than others. Therefore, studies attempting to understand conflicting interests cannot be presented as a simple story.

Contextual factors affecting property regimes

Whilst the above framework provides important insight into how and why reindeer property regimes have been formed and reformed, the material also reveals that a singular focus on such property regimes is insufficient. My study has identified a number of additional contextual factors, which are outside of a general property approach - but nonetheless affecting reindeer property regimes. Properties of goods are identified as being a part of context. Reflecting my interest in the CPR approach and, in turn, its identification of characteristics of resources as a starting point for property regimes to them, this section begins with a rather lengthy elaboration of the properties of reindeer and their effects on property regimes. It will then turn to additional contextual factors also identified as affecting reindeer property regimes, namely, technology, exogenous events, and unintended consequences.

Goods as a part of context

My study supports a growing number of authors asserting that whilst properties of resources do not determine rule regimes, they do influence the property regimes created with respect to them²²⁹. Dolsak and Ostrom's also conclude that the nature of a resource influences the property regimes created with respect to that resource (2003). A clear distinction is drawn in all of these studies between the recognition of the influence of the resource and the property regime itself. Among the different actors and at different places within Norway, reindeer are claimed in different ways. In different instances they are owned privately, managed jointly or claimed by the state. This demonstrates that properties of resources do not determine which rules are chosen with respect to the access, use and management of reindeer. Agents' interests in diverse ways of accessing and using reindeer affect their interests in the types of rules made to access, use, manage and control them. Properties of the resource, together with the setting in which the animals are found, provide a context for a property regimes (Burns & Flam 1987: 12; Peluso 1996: 514; Rose 1994). Rules accommodate these contexts and factors; examining properties of reindeer may thus provide some insight to the variation of

²²⁹ These include: Brewers & Staves ("unusual" property including slaves) 1996a; Cole (mainly pollution but also refers to wildlife); 2002 Fowler (plant biodiversity) 1994; Goldstein (living trees and wood, natural resources generally) 1998; Hurley et al. (eco-system) 2002; Libecap (oil, minerals, fish, land) 1989/1993; Lueck (bison) 2001; Marchak 1987a; Naughton-Treves & Sanderson (wildlife) 1995; and Schlager et al. (fish, pastures) 1994.

reindeer rule regimes. It also provides some insight to why reindeer rule regimes differ from, for example, property regimes applying to other types of resources.

Properties of reindeer

Six characteristics of reindeer are central in affecting property regimes that concern their management and use:

1. Reindeer move;
2. They eat: they consume other resources;
3. They reproduce and die;
4. It is possible to domesticate them;
5. Reindeer and reindeer products vary; and
6. Reindeer are sentient creatures and a part of an ecological system.

Reindeer move

Oakerson and Ostrom suggest excludability as a central attribute of CPRs (1992; 1990). Excludability is defined as the ability or degree to which it is possible to control access to goods and services. Excludability becomes a relevant concept in regard to reindeer because of their ability to move. Movement affects reindeer's distribution in space (variation) making it difficult to exclude outsiders from accessing and using a particular reindeer. In the case of the reindeer story, we see that different agents have created different types of rules to accommodate the movement of reindeer. Extensive herders are interested in rules enhancing their potential to move together with their reindeer and that enhance their possibility to choose between pastures. Joint management allows for a sii'da to control both the animals and others access to them.

The studies of Buck (1989); Holling & Sanderson (1996); and Schlager et al. (1994) discuss variation and movement of resources and their subsequent affect on property regimes. Schlager et al. assert that the effects of the physical characteristic of movement on property regimes are due to "(1) the information users have about their common-pool resources and the problems they are experiencing, (2) the likelihood that users will be able to capture the benefits that issue from their efforts to solve problems, and (3) their assurance about the behavior of other users" (1994: 297). With respects to the affects listed by Schlager et al., joint management increases the information members of a sii'da have about where their animals are. It increases their potential to capture the benefits from these animals. And, given their mutual dependence on one another, it increases the assurance that all members will participate in the care and management of the animals. Rather than enhancing the possibility to move together with reindeer, large landholders pursued their interest in gaining

exclusive rights to reindeer by having the rights associated with their legal boundaries to extensive land areas increased to include large game. Nonetheless, in capturing the potential benefits of reindeer, many, if not most reindeer hunters, choose to hunt in groups to increase their chances to successfully find and slay these animals.

In a third example, Saami herders collectively argued that the state could not claim unmarked reindeer as unowned or lost property. Central to their reasoning was the point that it was the good itself, the reindeer, which moved - not the negligence of the owner that caused the good to be separated from the owner. Saami herders were thus able to collectively claim all unmarked reindeer in the reindeer herding districts as belonging to them. Elaborate rule systems have since evolved to distribute these unmarked animals between the potential claimants.

Finally, we have seen that movement of reindeer enabled the Saami to exclude the Germans from accessing their animals during World War II. Although the Germans claimed Saami reindeer, they had little control over them. Saami maintained control (at least at that particular point in time) because of their proximity, their abilities to herd and because of their relationship with the animals. As the Saami had retained most of the genetic and behavioral traits of reindeer, the reindeer were still capable of surviving in the wild following their release. However, despite earmarks indicating ownership of these animals, without anyone to control access to them (and with no one in close proximity to them), these Saami reindeer came to be used as an open access resource with high levels of poaching. In addition, through both migration and reproduction, some of these reindeer and their progeny came to inhabit new areas, including districts outside of reindeer herding districts. Here, given differing interests to reindeer between landholders and Saami herders in the area, conflicts arose with respect to which rights and obligations were to be recognized as legitimate. Similarly, as illustrated not the least by the Lapp Codicil, movement of reindeer over national boundaries raises questions with respect to the sovereignty of nation states to regulate migratory reindeer and nomadic Saami populations.

Whilst exclusion is an important concept with respect to understanding reindeer property regimes, it should again be pointed out that in the story of reindeer, Saami are also interested in securing individual rights to inclusion. Social claims, recognizing basic rights of

subsistence, health, avoidance of threats, history, environment and culture, are among the claims made to inclusion.

Reindeer eat: they consume other resources

During the winter months reindeer eat lichen; they are the only animal to do so. In recent years, it has been recognized that this ability means that reindeer are particularly well suited to utilizing the areas of the far north. During the summer, reindeer graze on grasses. It is during the summer months that reindeers' need to eat creates two potential problems. The first, which has just been discussed, concerns the reindeers' need to move to access different grazing areas. In their movement they can potentially mix with other herds and may come onto areas used for other purposes. Reindeer's need to graze can - and does - overlap with the interests of others to both reindeer and to associated resources. Overlaps of interest may occur between different groups of extensive herders, between different groups of Saami (Mountain, Forest, and Coastal) and between Saami herders and landholders (often farmers).

Claiming live animals thus entails recognizing both the rights associated with claiming reindeer, and also the responsibility for managing and caring for them over time. This was highlighted in the protests by Coastal and Forest Saami against Mountain Saami allowing their reindeer to eat others' pasture, and similarly when herders took action against other herders who are not shepherding their own animals. Overlaps of interest, caused in part by reindeer's need to eat, have been extensively discussed in the story of reindeer as one of the major causes for the creation and change of reindeer property regimes.

Reindeer reproduce and die

The fact that reindeer reproduce and die means that populations fluctuate (change over time). Historically, Saami *sii'da* and later Saami herders created flexible rule regimes that took account of the fluctuations of reindeer populations - including group hunts that crossed territorial lines and possibilities to pasture animals in a variety of locations. Similarly, nowadays, the Norwegian state, in setting annual hunting quotas to reindeer dependent on the number of animals in a particular year, takes fluctuation of populations into account in defining usufruct rights to them at a particular time. Therefore, fluctuations (as well as conceptions concerning its causes and effects) are important in examining the formations of property regimes created to manage reindeer.

The fact that reindeer reproduce has also resulted in special rules for claiming progeny. Calves are recognized as belonging to the owner of the mother. Should a calf become separated from its mother, ownership is associated with a particular place (as calves are less apt to move over long distances).

Many reindeer herders are able to identify their own reindeer. This is one of the results of the biological process of reproduction - reindeer vary from one another. Herders can identify reindeer by their hair color, antler formation and by other anomalies. Whilst this was possible with a limited numbers of animals, once the number of animals owned was substantially increased the practice of earmarks was introduced. Earmarks provide a visible sign of ownership.

Given many actors' interests in reindeer, they are often considered highly subtractable goods. Practices and rules are created in accordance with this conception. Oakerson and Ostrom suggest subtractability as a key concept within the CPR framework (1992; 1990). Subtractability is defined as the degree to which the use of the resource by one reduces the potential use on the part of others (Oakerson 1992:42-45). Subtractability is affected by reproduction, death and by the use of the good. The use of the term subtractability can be problematic in that it assumes that a good is an undifferentiated product. In my initial assessment of reindeer, I assumed that they were a highly subtractable good: that use by one reduced the possibility of others to use them. But, as the case illustrates, it depends which type of use that is being considered. It makes a difference whether or not the products require the slaying of reindeer. It makes a difference if we are talking about use of genetic material, an animal, a population or a species. Some types of uses - such as traditional herding and claims of Saami identity - are mutually enhancing. Others, as suggested by the concept of subtractability, are mutually exclusive.

Reindeer can be domesticated

Claiming reindeer is enhanced by a special characteristic of reindeer: they can be domesticated. Globally, there are very few animals that share this potential (Diamond 2002). Given breeding choices made by owners, domestication typically leads to increased control and manageability of these animals and their progeny. Hence, the special qualities of reindeer enable control and management of them. This, in turn, further enables access to, and use of, them. Domestication by the Saami eventually led to the creation of herding districts in the

north and an allowance for hunting in the south. Whilst the interests of the actors created the need for the division, the special characteristic of reindeer - as animals that can be domesticated - made it possible to access, use, manage and control them in particular ways.

Interestingly, although reindeer groups are legally separated and extensive herders eliminated wild reindeer in the far north, the potential to domesticate reindeer has not led to an isolation of them from their wild counterparts. On the contrary, they can interbreed. Tame animals can exist in the wild. Furthermore, wild and tame reindeer - given their potential to move - continue to be found in the same area. More recent breeding choices of extensive herders have resulted in less control over their animals. Over time, given the close contact between Saami and their reindeer, and their many uses of them, cultural and religious practices were established. This led to further differentiation of the rules and rule regimes concerning reindeer in the north and the south of Norway. The properties of reindeer have enhanced the possibility for them to be used in different ways - for different agents to pursue their differing ideals, ideas and interests with respect to them - to create different rules regulating the access, use, control and management of reindeer.

Reindeer and reindeer products vary

Reindeer vary from one another. They vary visibly with respect to their coloring and their antler formation. Among Saami herders, these types of differences between animals enabled identification of them. In addition, scarcer white reindeer came to be specially valued - often given as a special gift to celebrate the birth of a child. In addition to appearance, young reindeer vary from old and males vary from females. Castrated males are, for example, valued for their strength and used for transport. Mature, fertile females are valued for breeding purposes - and historically used and valued for their ability to attract wild males to them.

In addition, products of reindeer vary between seasons. October hides are the warmest. Their special attributes were (and for some continue to be) valued as unique and hence non-substitutable. In addition to fur quality, meat and milk quality also vary during the year with respect to fat content. Rules made to access and use reindeer products consequently varied with respect to them throughout the year.

The study illustrates that goods are not undifferentiated products. It has been shown that reindeer are accessed, used and managed in different ways. They are sources of milk, meat, hides, dropped antlers, progeny, cultural identity and recreation. Some, such as those interested in the associated resources of agricultural land, claim reindeer as a menace. This finding contrasts to Oakerson's claim that a resource produces an undifferentiated stream of product (1992). The numerous ways of valuing reindeer mean that many actors value reindeer pluralistically and that multiple actors may value reindeer diversely.

Reindeer are sentient creatures and part of an ecological system

Along with other mammals and perhaps with other animals more generally, reindeer are sentient creatures. Although not specifically discussed in this text, recognition of this can eventually constrain the claims that the public accepts as being justifiable.

Reindeer are also recognized as being part of an ecological system. Both environmentalists and the state are increasingly taking this into account. A consequence is the introduction of principles of stewardship into management of the environment - including management of reindeer. Stewardship specifically includes recognition of obligations to both manage environmental goods and to ensure their existence for future generations. Recognition of reindeer as part of Norway's natural heritage - and recognizing the rights of future Norwegians and others to benefit from this - is also included in the concept of stewardship.

Reindeer as a complex concept

The concept of reindeer, as that of property, is a cluster concept. Numerous qualities and attributes of reindeer are often included when people define them, but definitions also vary - both because animals as biological entities have the potential to change and because our knowledge and ability to use them also changes (Fowler 1994: 223-236). Looking at how actors define reindeer provides insight to both understanding what reindeer "are" and to actor's beliefs, values and interests in them.

Given the complexity of reindeer, we cannot simply categorize them as private, common or state goods. An individual animal may be best categorized as a private good, whilst a herd better characterized as a common pool resource. On the other hand, populations of wild reindeer and their genetic composition may be best characterized as state or public goods. The categories, however, provide limited insight. Rather than simplifying our understanding,

they can create misunderstandings; people in considering the categorization may assume that a particular type of good should be necessarily governed by a particular type of property regime (private goods/private property regimes, common pool resources/common property regimes). My study suggests that, as appealing as such categories are, the formation and reformation of reindeer rule regimes is neither simple nor straightforward.

Technology

As in the CPR approach, the GPR approach also recognizes that technology can affect property regimes (see also Burns et. al 1985; Fowler 1994). Historically, earth ovens provided Saami with the possibility to store meat - enabling an increased use of reindeer. This increased use also led to more frequent contact with reindeer. Given the special attributes of reindeer (as having the possibility to be domesticated), increased contact thus eventually led to increased domestication. It also became common for Saami to own and manage a limited number of animals. This demonstrates that new ways of utilizing goods can transform agents' cognitive ideas and interests in those goods. This was also seen in the case of the introduction of firearms. Firearms meant that Saami were no longer dependent upon a group effort to capture and slay reindeer. At about the same time, together with the interests of some Saami herders to increase the number of animals they owned and managed, techniques were tried that provided visible signs of ownership - both to enable an owner to claim an animal and for others to make claims on the control and management of them. After a period of trial and error, earmarks were discovered as a durable form of marking identity - of making visible reindeer ownership. The importance of this continued as rules, regulations and new ways of conceiving of the earmarks (as part of a herders' identity) come into being.

Most recently, the introduction of mass communication has enabled indigenous people around the world to network on a regular basis. Legal rulings and interpretations of international negotiated treaties and conventions are shared. Thus, we see that technology has the possibility to not only introduce new uses of a good, but also new actors and potentially new arenas - and together with them new beliefs, values and interests with respect to both the good (or bad) and to associated resources.

Unintended consequences

The reindeer story also shows that consideration of "unintended consequences" contributes to understanding how and why reindeer property regimes have been created - and re-created. In

practice, strategic agents interpret rules in other ways than those intended. This may be because it is to their advantage to do so, for instance, in dealing effectively with new problems or opportunities.

The clearest examples in this case arise during the period of rationalization (Chapter six: 208-221). State programs designed to reduce the numbers of herders and reindeer in the reindeer herding districts had the opposite effect. In addition, the snowmobile subsidy, introduced to flatten out economic differences between herders, served instead to further strengthen the position of already wealthy and powerful herders.

Other examples are also found in the study, for example, with respect to the development policies introduced by the state. Although the intention of the state was to improve the lot of the Saami and to improve living conditions, no recognition was given to other perspectives. Unintended consequences of both policies of norwegianization as well as the Act of 1978 included the alienation of Saami, increased Saami powerlessness, and the loss of their cultural identity. Effects on women Saami herders have also been mentioned at different points in the study. Policies providing standardized housing centralized Saami women and children. It placed them in the home - dependent on their men and displaced from herding. Increasingly restrictive policies with respect to earmarks have further marginalized women's involvement in reindeer herding. For example, as children no longer receive their own mark at birth, there is less and less chance that a woman will now come into a marriage with her own animals. On the other hand, women working outside of the home has - contrary to the intentions of current policy - enabled purchase of more animals (Chapter six: 198).

Exogenous events

Reindeer property regimes are also affected by exogenous events. Chernobyl is a clear example of this. The explosion at Chernobyl resulted in radioactive fall-out covering some Saami pastures. Given the chaos that ensued, it might be surmised that the involved governments had never seriously considered that a nuclear accident of this type and magnitude could actually happen. But it did, and they were not prepared. The rules and rule systems regulating access, use, management and control of reindeer did not include provisions concerning how to deal with the exposure of reindeer to radioactivity; they did not include rules delineating extensive destruction of the resource.

Chernobyl directly affected the actors involved and also influenced the reformation of reindeer property regimes. It introduced new actors: the Directorate of Health and the Norwegian Geological Survey. Both introduced new - and initially conflicting - perspectives, values and interests to reindeer rule regimes. The social issue of food safety became central - of how many Becquerel per kilogram of reindeer meat were to be considered acceptable. The acceptable level for reindeer was first doubled (300 to 600 bq./kg) and then increased by a factor of 10 (600 to 6000 bq./kg). According to the Directorate for Health, the higher level was introduced for cultural reasons - to help maintain the Saami culture. Almost 20 years after the explosion of Chernobyl, the regulations concerning acceptable levels of radiation continue to differ for what is defined as "basic foodstuffs" (600 bq./kg.) and for reindeer meat, game and wild freshwater fish (6,000 bq./kg.) - supplemental foods for many Norwegians, but certainly "basic" for many Saami. The introduced regulations affect which reindeer can be sold and how much reindeer meat an individual should consume.

The Chernobyl accident transformed perspectives about reindeer. Rather than being defined as a "good", the Directorate of Health as well as others came to define them as a "bad": from a high quality source of sustenance to a potential killer. Previously, reindeer meat, with its low fat content, was highly valued as a healthy food. Following Chernobyl, Norwegians became skeptical of the quality of all reindeer meat and of the risks involved in eating it. The market price consequently fell. Even more dramatic rules were introduced for destroying contaminated reindeer and for introducing practices to reduce contamination levels in the animals. Because different localities were unequally affected, some Saami herders were affected more than others. Some had to destroy most of their herds and were constrained in replacing them. The government introduced subsidies to ensure that no one was negatively affected, at least economically. The slaughter and the subsidies brought about changes in power among Saami herders. As a consequence of Chernobyl, changes were introduced to reindeer property regimes, which accommodated different conditions as well as new ways of valuing reindeer.

Extending the framework

At the end of my research, questions remain - questions perhaps best addressed not by further study of the reindeer property regimes in Norway, but instead by an attempt to expand the

framework to other goods, other animals, other types of resources, and other places. As discussed in the chapter on methodology, Becker suggests the use of negative cases for testing the limits and scope of a theory or explanation (1998). One such case might be that of the wolf, which I have investigated parallel to my reindeer research. The wolf is obviously different from reindeer in that it is a predator. Many view wolves as bads. Others see the wolf as a good or worthy animal - it is, for instance, internationally recognized as an endangered species. The case would offer a possibility to look again at how the properties of a good underlie the claims made on it²³⁰. More directly, and to a greater degree than the reindeer case, the wolf case introduces international interests, rules and laws.

One might ask if it is relevant to talk of a wild animal as property. It is not unusual to use the language of property once a wild animal has been in some way appropriated - for example by slaying, marking, enclosing or otherwise capturing it. But what is the status of a wolf to which the state has established not physical claims, but legal claims? Where is the line to be drawn between sovereignty and property²³¹? Or, who is it that attempts to draw this line and why? My interest in considering the case of the wolf as property has baffled some people. This reaction suggests a need for me to be clear about my definitions and aims (Bergstrom 2003).

²³⁰

Another animal that could be interesting to consider within Norway is the eider duck. As with reindeer, eider ducks are valued differently in the north and south of the country. This has something to do with the properties of the ducks. In the north, people eagerly await the annual return of the ducks. Many build small duck houses for them; others simply know where they will settle. Through the season, people collect valuable down from these sites, as well as eggs. Eider ducks in the north of Norway are hence valued as a living resource. In these areas, people are against hunting them - it is considered by some as perverse as the idea of going dog hunting. This is not the case in the areas in the south of the country where the ducks return in the fall. Here people would like to hunt them, but are currently prohibited by law from doing so. Rules originally introduced to protect a threatened species, remain on the books not because of scientific criteria - but because of the interests of some agents. The case would provide another possibility to look at the ways that actors define animals and the effects this has on the rules created to apply to them. It also provides further possibilities to consider the implications of the rights arising from the consideration of particular animals, and the rights to animals that move between locations - in this case within the same country.

²³¹ Consideration of the polar bear might offer an interesting contrast to the wolf. The polar bear is also an endangered predator - but one to which there is a remarkably common agreement with respect to how it is valued. This is probably because it is not considered a threat to any livelihood and because the number of people living where they are found is relatively low. Nonetheless, polar bear furs are highly valued and polar bears present a real risk to both property and people residing near them (e.g. Svalbard where I live presently). Study of property regimes to them may provide increased insight into the importance of considerations of risk. The case of the polar bear is also interesting with respect to the topic of animal property regimes because Svalbard has a very unusual arrangement with respect to sovereignty. Any country signing the Svalbard Tractate has access to the natural resources found there, as long as they follow the legal rules stipulated by Norway. Researching this special case may provide additional insight into the formation and reformation of property regimes given the perspectives, values and interests of different actors, including different nation states.

Wolves recently (1997) made a comeback to Norway after having been eliminated from the country for over 100 years. To do so, they crossed over the national border from Sweden. As in other areas where this has happened, the return of wolves to Norway has been met with both enthusiasm and disdain. The wolves' return introduced a new situation to Norway. Prior to this the Norwegian state found it relatively unproblematic to champion the need to protect endangered species. It fitted well with Norway's profile as an "environmentally-friendly" nation. Things became far more complex when faced with a wolf in the nation's 'own backyard'. Interests in rules dealing with wolves became a political issue. Major questions raised include: Who should participate in decisions being made? Where should wolves be allowed - and not allowed? Who, if anyone, has rights to hunt them? Who decides how many there may be - and based on what criteria? And not least importantly, who has responsibility when something goes wrong?

Wolves have been a politically "hot" topic since their return. A major part of the debate concerns the problem of the presence of wolves threatening the interests of farmers' livestock and the numbers of available game. Wolves can, and do, prey on both livestock and game. In addition to this, wolves have killed a number of hunting dogs. Wolves are also experienced as a threat, particularly but not exclusively, to children. The debates are further fueled by disagreements about the bases for knowledge and rights associated with position and place (not the least with respect to who is allowed to hunt wolves).

Multiple and diverse actors claim different roles (mothers, farmers, hunters, environmentalists, politicians) in their attempts to legitimate their right to make claims to how wolves should be dealt with, distributed, controlled and managed in Norway. Their claims range from defining wolves as extreme "bads" -that they should be eliminated again - to extreme goods - that they should be protected at all costs. The multiple actors also define wolves differently. Whilst environmental groups label the wolves as an endangered species, the group "Women for Hunting Wolves" argues that not only are they not endangered, but also that wolves pose an unwanted and unnecessary risk to their children, livelihood and quality of life. The two ways of valuing juxtapose one another, seemingly leaving little room for negotiation.

The debates about wolves have been highly political. Different actors have sought out different types of public arenas - the media (local and national newspapers, special interest journals, radio and television), meetings (social, special interest, political) and public meeting places (church, market place) to make their views heard. Local organizations have sought support by aligning with regional and national levels (the Norwegian Farmer's Association, *Norges bondelag*; Our Predators Society, *Foreningen Vare Rovdyr*, and political parties). New agents have been created - such as the group Women for Hunting Wolves (*Kvinner for felling av ulv*).

The different actors have also sought support in relevant decision-making arenas. As a consequence, we find that- as in the reindeer story - rule regimes regarding wolves are complex, multiple and overlapping. Norway's current policy is to restrict both wolf numbers (eight to ten family groups) and the area where breeding pairs and packs of wolves are permitted (in the designated wolf management area). Contrary to Norway's agreement with Sweden, the policy means that, at least within Norway, wolves will continue to be threatened and endangered. Norway, however, is allowing for the return of some wolves in some places. These particular wolves are to be valued as "extreme goods" - to be protected and conserved at almost any cost to society. Norwegians have an obligation not to hunt or otherwise eliminate these particular wolves. Outside of the management area, breeding pairs are targeted to be killed by state hunters, i.e. they are defined by the state as "extreme bads". Should numbers of wolves exceed the level agreed to in Norway, sport hunting of wolves outside the management zone may be allowed. In Norway's current policy we find rules concerning rights, obligations and constraints. There are rules concerning:

- Access (all people have a right to know that some wolves exist in a designated area within Norway); use (sport hunting may be permitted when numbers allow for it); management (particular area, particular individuals - e.g. no breeding pairs outside the management zone); and control (wolves posing a real threat to people or property will be killed; breeding pairs outside of the designated management area will also be killed).

The wolf case also demonstrates that in addition to rights of use, property regimes can also include rights and obligations to destroy a resource (Norway's decision to kill wolves outside of the management zone, historical

Summing up: towards a theory of the dynamics of property regime formation and change

use of bounties)²³². Obligations (to wolves - within the management zone wolves are to be conserved and protected; to livestock owners - losses of livestock caused by the wolf are economically compensated by the state; to protect livestock - farmer's are obligated to appropriately fence in their animals to protect them from the wolf and the state has, at least initially, economically compensated the additional costs).

- Constraints - Access to wolves is constrained to a particular area. Control is constrained to situations defined as "real threats".

There are also multiple and, at times, overlapping rule regimes concerning wolves. Norway has both signed and ratified the international "Berne Convention" (the Convention on the Conservation of European Wildlife and Natural Habitats - 1979), the "Bonn Convention" (the Convention on the Conservation of Migratory Species of Wild Animals - 1979) and the CBD (the Convention on Biological Diversity - UNEP 1992). In addition, there is an "Agreement between Norway and Sweden on Management of the Scandinavian Wolf Population" (7 Sept. 1998). Norway has drafted parliamentary²³³ White Papers on large predators in accordance with explicit requirements of the international agreements that contracting Parties ensure national legislation be in accordance with signed international treaties/agreements. In addition, people in the areas where wolves are found have raised alternative claims to property rights to associated resources - including historically gained rights to particular livelihoods; rights to utilize one's own landed property for personal benefit; rights to safety; rights of representation and rights to be heard nationally with respect to issues affecting one's local community.

The wolf story includes multiple actors with plural and diverse perspectives, values and interests. These actors strategically pursue their interests in different arenas, and different decision-making spheres. As a consequence, multiple and overlapping rule regimes have been used to strengthen actors' claims to the access, use, management and control of wolves and the associated resources perceived to be at stake - in this case livestock and game. In addition to this, some actors have made other types of social claims - particularly claims to

²³² This was similarly illustrated in the reindeer case, following Chernobyl. It has also been raised with respect to cultural treasures in the negative sense - i.e. in that an owner of a landmark, for example, may not have the right to destroy it.

²³³ "Concerning Management of Bear, wolverine, wolf and lynx" - *Om forvaltning av bjorn, jerv, ulv og gaupe 1991/92*) and "Concerning the Natural Resource Management of predators" - *Om rowiltforvaltning St. meld. Nr. 35 (1996-97) and Innst. S. nr. 301 1996-97*)

safety - in their interests to influence the current formation of wolf rule regimes in Norway. The current processes are highly political - both in terms of actors' claims to legitimacy and justification and in more formal actions to influence policy. In line with the GPR framework, the outcomes are revealed as messy, piecemeal and contested - but they do provide order.

As a further means of expanding the framework, it would also be interesting to take the case of a domesticated species - such as the dog. The case of dogs would contrast to wolves (they are genetic siblings); similarly, cattle or sheep would provide an interesting contrast to reindeer. Dogs are clearly valued pluralistically and by multiple and diverse actors. As with wolves, they are considered as an "extreme good" by some - even as "members of the family" - and as "extreme bads" by others. Dogs are recognized as property; there is also a market for them. Dogs can be trained - for hunting, protecting and searching - which adds to their value, including their market value. My experience as a dog owner leads me to claim that rules and rule systems concerning dogs as property are far more complex than their market price. Obligations commonly concern such things as disciplining one's dog (e.g. ensuring it does not keep the neighbors awake at night).

It would also be interesting to test the framework with other types of goods completely - in other places and at other times in history. It is expected that some goods, as suggested in the introductory chapter with respect to hybrid seed, would fall outside of the scope of the theory. Identifying such cases would contribute to further defining its scope.

Concluding remarks

Two aims of my study have been to identify the nexus of actors, relationships, and property with attention to sources and development of contradiction and conflict among actors and the consequences of this on the formation and reformation of property regimes. In addition, technology, exogenous events and unintended consequences have an impact on the formation and reformation of property regimes. The overall picture - piecemeal, messy and complex as it is - is analyzed to be quite disorderly. It may be asked, why is it that at any particular time we may experience or discover order?

Part of the answer lies in actors' interests in order. We create rule systems to promote or discourage particular ways of doing things. Although agents have considerable choice, they

are never completely free. For example, as previously discussed, Saami herders have maintained their way of life for hundreds of years. Although they adapted to change, much of the structure of their rule systems has remained through time. This provides continuity and order and allows for them (and for us as researchers) to predict another's actions. Whilst the rules do not determine action, they do influence it.

Throughout the story of reindeer, there have been periods of time - such as the 50 plus years following the signing of the Lapp Codicil - where few changes are noted with respect to reindeer property regimes. Whilst these periods have been given less attention in my study (which focuses primarily on change) they are important with respect to understanding property regimes and people's interests not only in changing them, but also in maintaining them. This interest in maintenance means that, ordinarily, things are not permitted to be too disorderly.

At the outset of the study, comparisons were drawn between the CPR and GPR frameworks. The CPR approach has as an objective to identify factors contributing to robust institutions. In many ways its focus is on an orderly, non-changing situation. It makes a number of assumptions: it limits the number of actors involved, assumes that they are largely homogenous and considers that nested hierarchies are created in the interest of creating more robust institutions. These assumptions contribute to the convergence of interests. When actors share common ideals, ideas and interests, there is less apt to be conflicts and political struggles. Convergence simplifies life; but in life there is often no convergence. It is argued here that the convergence of interests with respect to goods (and bads) is a special case. The CPR approach fails to consider the problems created under a divergence of interests, and neglects the frequent occurrence of diverse interests and multiple justifications.

In the story presented here of the reindeer of Norway, the assumptions of the CPR approach have been questioned. In this empirical situation the involved actors have a plurality of interests including both private and social interests. There are multiple and diverse actors struggling politically and strategically, creating and making use of multiple and diverse arenas and their differing rule systems. We find both complex and multiple rule regimes being used with respect to reindeer and to associated resources - particularly land. In addition, actors - not least of all the state - pursue other interests entirely, that whilst not directed to the reindeer property regimes affect them nonetheless. Finally, we see that external events,

including catastrophic accidents, and unintended affects can also affect reindeer property regimes. Given all of these factors and potentials for change, my study neither confirms the convergence of interests sought in the CPR approach nor does it demonstrate complete path dependency. Instead, it illustrates that actors' perceptions, even their re-creations of history and historical events, provide order. Order, in this case, does not come from assumptions of simplicity, but rather from the actors' common interests in order itself. Despite their differing interests, actors come together in their joint interests for order and to reach agreements to maintain order. At any given point in time, rule regimes can provide this. Nonetheless, we also find potential agents of change with interests in reforming or transforming property regimes. As a consequence, agents' interests in both order and change are important in understanding the subsequent dynamics of property regimes.

Table 6. A comparison of the Common Property Regime (CPR) approach to the General Property Regime (GPR) approach (II)

<p>CPR approach is characterized by: (Oakerson, Ostrom, Ostrom & Schlager, Dolsak & Ostrom)</p>	<p>General property regime (GPR) approach is characterized by:</p>
<p>Economic, political and legal environments as exogenous</p>	<p>Economic, political and legal environments as in part endogenous</p>
<p>Resource characteristics (given)</p> <ul style="list-style-type: none"> - Excludability - Subtractability - Divisibility 	<p>Properties of the particular good (such as possibility to domesticate and its ecological role in nature) are a contextual factor</p> <p>Movement, fluctuation, and variation: excludability/ includability</p> <ul style="list-style-type: none"> - Renewability: subtractability Overlap with other resources - Diversity
<p>Characteristics (number) of resource users (given, low)²³⁴</p> <ul style="list-style-type: none"> - Individual - Group (relatively small) Convergence of interests 	<p>Community and agent characteristics</p> <ul style="list-style-type: none"> - Multiple actors, possible very large communities Diverse communities - Pluralistic and diverging values and interests Change over time Numbers of actors Alignments Actors' ideals, ideas and interests
<p>Actors with given convergent values/interests and capabilities</p> <p>(continued on next page)</p>	<p>Actors' with changing values/interests and capabilities</p> <ul style="list-style-type: none"> - Actors with values and interests possibly changing over time Actors' powers and capabilities - Alignment among and between actors - Choice of arenas Political struggle

²³⁴ Dolsak & Ostrom recognize multiple actors by scale (2003).

<p>Singular (or multiple, but non-conflicting) institutional property arrangement</p> <ul style="list-style-type: none"> - Rules for sustainable resource use - Rules for robust institutions <p>Actors' rights defined by given institutional arrangements</p> <ul style="list-style-type: none"> - Access - Withdrawal Managerial Exclusion Alienation 	<p>Institutional property arrangements</p> <ul style="list-style-type: none"> - Complex (not only rights, also obligations and constraints) - Multiple and overlapping (possibly inconsistent, incompatible or incommensurate) <p>Changes over time (priorities and policies, alliances and decision-making arenas)</p>
<p>Communities characterized by harmony, equilibrium²³⁵</p> <ul style="list-style-type: none"> - Simple Apolitical 	<p>Communities characterized by conflict, political struggle</p> <ul style="list-style-type: none"> - Key role of the state in limiting (but also aggravating) conflicts - Equilibrium (possibly disequilibrium)
<p>Additional factors affecting property regimes</p> <ul style="list-style-type: none"> - Technology 	<p>Contextual factors affecting property regimes</p> <ul style="list-style-type: none"> Technology - Exogenous events including accidents - Unintended consequences

²³⁵ Dolsak and Ostrom recognize, however, that the allocation of rights to resources is indeed political (2003).

Reference List

- Aarseth, Bjørn. 1989. "Grenseoppgjørene Og Konsekvensene Av Disse for Den Nordsamiske Bosetting i Norge." Pp. 43-81 in *Grenser i Sameland*, vol. XIII, Samiske Samlinger, Editor Bjørn Aarseth. Oslo: Norsk Folkemuseum.
- . 1982. "Kystsamenes Bosetting i Rikspolitisk Sammenheng." *Ottar* 4(137):10-29.
- . 1978. "Sameorganisasjoner i Norge." *Ottar* 105:12-28.
- Aasmudtveit, Jan E. 1991. *Om Jordskifte Og Reindriftrøttigheter*. Aas: Agricultural University of Norway.
- Aasserud, Karen. 2002. *The Politics of Elephants "Who If Anyone Should Define What an Elephant Can Be, and How It Best Should Be Used and Managed?"*. Master's thesis. Aas, Norway: Noragric, Agricultural University of Norway.
- Aastrup, Peter. 2000. "Responses of West Greenland Caribou to the Approach of Humans on Foot." *Polar Research* 19(1):83-90.
- Abbott, Andrew. 1990. "Conceptions of Time and Events in Social Science Methods." *Historical Methods* 23(4):140-150.
- . 1992. "From Causes to Events: Notes on Narrative Positivism." *Sociological Methods and Research* 20(4):428-55.
- Adams, W. M. 2001. *Green Development: Environment and Sustainability in the Third World*. 2 ed. New York: Routledge.
- Admassie, Yeraswork. 2000. *Twenty Years to Nowhere: Property Rights, Land Management and Conservation in Ethiopia*. Lawrenceville, NJ: Red Sea Press.
- Admassie, Yeraswork and Tom R. Burns. 1996. "Property Rights Regimes: Land Tenure Systems, Land Management, and Common's Problems." unpublished: Report presented at the 8th International Conference on socio-economics, Geneva, Switzerland, July 12-14, 1996.
- Agrawal, Arun. 2002. "Common Resources and Institutional Stability ." *The Drama of the Commons*, Editors Elinor Ostrom, Thomas Dietz, Stern P. C. Dolsak, Susan Stonch, and Elke Weber. Washington DC: National Academy Press.
- . 1999. *Greener Pastures: Politics, Markets and Community Among a Migrant Pastoral People*. Durham and London: Duke University Press.
- Aikio, Pekka. 1989. "The Changing Role of Reindeer in the Life of the Sámi." Pp. 169-84 in *The Walking Larder*, Ed. Juliet Clutton-Brock. London: Unwin Hyman.
- Aikio, Pekka. 1987. "Reindeer Herding in Norden." Pp. 332-37 in *Norden: Man and Environment*, Editors Uno Varjo and Wolf Tietze. Berlin: Gebrüder Borntraeger.
- Alchian, Armen and Harold Demsetz. 1973. "The Property Rights Paradigm." *Journal of Economic History* 33(March):16-27.
- Andersen, Svein S. and Tom R. Burns. 1992. "Hydro-Power Administration in a Changing World." Pp. 79-124 in *Societal Decision-Making: Democratic Challenges to State Technocracy*, Aldershot:

Dartmouth.

- Anderson, Atholf. 1981. "Economic Change and the Prehistoric Fur Trade in Northern Sweden." *Norwegian Archaeological Review* 14(1):1-16.
- Anderson, Terry L. and P. J. Hill. 1975. "The Evolution of Property Rights: a Study of the American West." *Journal of Law and Economics* 18(1):163-79.
- Anonymous. 17 Oct 2000. "Bitter Samestrid i Retten." *T'rønder-Avisa* (Trøndelag).
- Anonymous. 1984. *Den Store Leksikon*. Oslo: Aschehoug and Gyldendals.
- . 2000. *Forest for Every One? Or Just for Timber?* Jokkmokk, Sweden: Taiga Rescue Network.
- . 2000. "Nå Mjølker Han Rudolf Også!" *Mataliansen!* *NLH Nytt and InforMAT* 4:44.
- Arnesen, Arne G. 1988. *Reindrifftsrett*. Oslo, Norway: Saami Educational Board.
- Aronsson, Kjell-Aake. 1991. "Forest and Reindeer Herding A.D. 1-1800. An Archeological and Palaeoecological Study in Northern Sweden." *Archaeology and Environment* Nr. 10, University of Umeå, Dept. of Archaeology, Umeå.
- Arrow, Kenneth. 1996. "Foreword." Pp. xiii-xv in *Rights to Nature*, Editors Susan S. Hanna, Carl Folke, and Karl-Göran Mäler. Washington, DC : Island Press.
- Aschehoug, T. H. 1875. *Norges Nuværende Statsforfatning*. Christiania, Norway.
- Aubert, Vilhelm. 1989. "Law and Social Change in Nineteenth-Century Norway." Pp. 55-80 in *History and Power in the Study of Law: New Directions in Legal Anthropology*, Editors June Starr and Jane F. Collier. Ithaca, New York: Cornell University Press.
- Austenå, Torgeir and Gudmund Sandvik. 1998. "The Legal Status of Rights to the Resources of Finnmark With Reference to Previous Regulations of the Use of Nonprivate Resources." Pp. 205-20 in *Law and the Governance of Renewable Resources: Studies From Northern Europe and Africa*, Editors Erling Berge and Nils C. Stenseth. California: Institute for Contemporary Studies.
- Barnard, Alan and James Woodburn. 1988/1997. "Property, Power and Ideology in Hunter-Gathering Societies: an Introduction." Pp. 4-31 in *Hunters and Gatherers: Property, Power and Ideology*, Editors Tim Ingold, David Riches, and James Woodburn. Oxford: Berg Publishers.
- Barnes, Trevor. 1992. "Reading the Texts of Theoretical Economic Geography. the Role of Physical and Biological Metaphors." Pp. 118-35 in *Writing Worlds: Discourse, Text and Metaphor in the Representation of Landscape*, Editors James S. Duncan. London: Routledge.
- Baumgartner, Thomas, Tom R. Burns, and Philippe DeVillie. 1986. *The Shaping of Socio-Economic Systems*. London: Gordon & Breach.
- Baumgartner, Tom, Tom R. Burns, and L. D. Meeker . 1985. "The Description and Analysis of System Stability and Change: Multi-Level Concepts and Methodology." Pp. 223-55 in *Man, Decisions, Society: the Theory of Actor-System Dynamics for Social Scientists*, Editors Tom R. Burns, Thomas Baumgartner, and Philippe DeVillie. New York: Gordon and Breach.
- Beach, Hugh. 1990. "Comparing the Systems of Reindeer Herding." Pp. 255-98 in *The World of Pastoralism: Herding Systems in Comparative Perspective*, Editors John G. Galaty and Douglas L. Johnson. London: The Guilford Press.

- . 1997. "Negotiating Nature in Swedish Lapland: Ecology and Economics of Saami Reindeer Management." Pp. 122-49 in *Contested Arctic: Indigenous Peoples, Industrial States, and the Circumpolar Environment*, Editors Eric A. Smith and Joan McCarter. Seattle: University of Washington Press.
- . 1982. "The Place of Women in the Modern Saameby; an Issue in Legal Anthropology." *Ymer* 102:127-42.
- . 1985. "The Reindeer-Caribou Conflict in the Nana Region of Alaska." *Nomadic Peoples* Feb. (17):1-22.
- . 1981. *Reindeer-Herd Management in Transition*. Uppsala: Almqvist & Wiksell.
- . 2000. "Reindeer-Pastoralism Politics in Sweden: Protecting the Environment and Designing the Herder." Pp. 179-212 in *Negotiating Nature: Culture, Power and Environmental Argument*, vol. 2, Lund Studies in Human Ecology, Editors Alf Hornborg and Gisli Pálsson. Lund, Sweden: Lund University Press.
- . 1993. "Straining at Gnats and Swallowing Reindeer: The Politics of Ethnicity and Environmentalism in Northern Sweden." Pp. 93-116 in *Green Arguments and Local Subsistence*, Editor G. Dahl. Stockholm: Stockholm Studies in Social Anthropology.
- . 1985. "A Struggle for Definition in Swedish Saamiland." *Nord Nytt* 26:17-38.
- . 1993. *A Year in Lapland: Guest of the Reindeer Herders*. Washington: Smithsonian.
- Beach, Hugh, Myrdene Anderson, and Pekka Aikio. 1992. "Dynamics of Saami Territoriality Within the Nation-States of Norway, Sweden and Finland." Pp. 55-90 in *Mobility and Territoriality: Social and Spatial Boundaries Among Foragers, Fishers, Pastoralists and Peripatetics*, Editors Michael J. Casimir and Aparna Rao. New York: Berg.
- Becker, Howard S. 1990. "Generalizing From Case Studies ." *Qualitative Inquiry in Education: the Continuing Debate*, Editors E. W. Eisner and A. Peshking. New York: Teacher's College Press, Columbia Univ.
- . 1998. *Tricks of the Trade: How to Think About Your Research While You're Doing It*. Chicago: Univ. of Chicago Press.
- Behnke, Roy. 1994. "Natural Resource Management in Pastoral Africa." *Development Policy Review* 12(1):5-27.
- Behnke, Roy and Ian Scoones. 1993. "Rethinking Range Ecology." *Range Ecology at Disequilibrium: New Models of Natural Variability and Pastoral Adaptation in African Savannas*, Editors Roy Behnke, Ian Scoones, and C. Kerven. London: Overseas Development Institute.
- Belyaev, D. K. 1969. "Domestication of Animals." *Science Journal*(January):47-52.
- Benda-Beckmann, Franz v. 1995. "Anthropological Approaches to Property Law and Economics." *European Journal of Law and Economics* 2:309-36.
- . 1989. "Comment on Merry." *Law and Society Review* 22(5):897-901.
- Benda-Beckmann, Franz v. 1993. "Scapegoat and Magic Charm: Law in Development Theory and Practice." Pp. 116-34 in *An Anthropological Critique of Development*, Editor Mark Hobart. London: Routledge.

- Berg, Bård A. 1994a. *Fra Veidekultur Til Reindrifftsavtale: Om Tamreindriftens Historie i Norge*. Bodø: Bodø Teaching College.
- . 1995. "Government Intervention into Saami Reindeer Management in Norway: Has It Prevented or Provoked 'Tragedies of the Commons'?" *Legalising the Commons, IASCP Conference in Bodø, Norway*.
- . 1990. *Myndighetenes Behandling Av Konflikten Mellom Reindriftssamer Og Bønder i Nordland, Trøndelag Og Det Søndenfjeldske På 1880- Og 1890-Tallet*. Tromsø: University of Tromsø.
- . 1998. "Reindriftens Rettigheter Og Plikter." *Diedut* 3:166-76.
- . 1994b. *Reindrifftsloven Av 1933: Om Den Først Reindrifftsloven Som Omfattet Hele Norge*. Guovdageaidnu: Nordic Saami Institute.
- . 2004. "25 år i skyttergravene? Fra Kampen om Alta/Kautokeino-vassdraget til Bondevik-regjeringens forslag til Finnmarkslov." Lecture given at Finnmark Fylkestings theme day "Urfolk", 15 June, http://www.galdu.org/govat/doc/25_aar_i_skyttergravene.pdf.
- Berge, Erling. 1998. "Culture, Property Rights Regimes, and Resource Utilization." Pp. 1-26 in *Law and the Governance of Renewable Resources: Studies From Northern Europe and Africa*, Editors Erling Berge and Nils C. Stenseth. Oakland, California: ICS Press.
- Bergland, Einar. 1998. "Reindrift, Motstilling Og Identitet." Dept. for pedagogic research, Faculty of Social Science Research, University of Oslo, Oslo.
- Bergsland, Knut. 1995. *Bidrag Til Sydsamenes Historie*. Tromsø, Norway: Center for Samisk Studies.
- Bergstrøm, Cassandra. 2003. *The Return of Wolves to Våler, Norway*. Aas, Norway: presented at workshop "Property Regimes: comparative and historical institutional analyses", Noragric, Agricultural University of Norway.
- Berland, Joseph C. and Matt T. Salo. 1986. "Peripatetic Communitites: an Introduction." *Nomadic Peoples* 21/22(December):1-6.
- Berry, Sara. 1995. *No Condition Is Permanent: the Social Dynamics of Agrarian Change in Sub-Saharan Africa*. Wisconsin: The University Press of Wisconsin.
- Bhaskar, Roy. 1997. *A Realist Theory of Science*. 2 ed. New York: Verso.
- Bjarnar, Ove. 1989. "Hvordan Lappekodisillen Ble Til." *Diedut* 1:62-79.
- Bjørklund, Ivar. 1991. "Samisk Reindrift Som Pastoral Tilpasningsform." Pp. 181-88 in *Forvaltning Av Våre Fellesressurser: Finnmarksvidda Og Barentshavet i Et Lokalt Og Globalt Perspektiv*, Editors Nils C. Stenseth, Nina Trandem, and Gørill Kristiansen. Oslo: Ad Notam.
- . 2000. *Sápmi - En Nasjon Blir Til*. 2000: Saami ethnography unit, Tromsø Museum, Norway.
- Bjørklund, Ivar and Terje Brantenberg. 1981. *Samiske Reindrift - Norske Inngrep: Om Altaelva, Reindrift Og Samisk Kultur*. Tromsø: University Publishers.
- Bjørklund, Ivar and Harald Eidheim. 1999. "Om Reindmerker - Kulturelle Sammenhenger Og Norsk Jus i Sápmi." Pp. 143-57 in *Norsk Ressurforvaltning Og Samiske Rettighetsforhold: Om Statlig Styring, Almennyttens Tragedie Og Lokale Sedvaner i Sápmi*, Ed. Ivar Bjørklund. Oslo: Ad Notam Gyldendal.

- Blehr, Otto. 1990. "Communal Hunting As a Prerequisite for Caribou (Wild Reindeer) As a Human Resource." Pp. 304-26 in *Hunters of the Recent Past*, Editors L. B. Davis and B. O. K. Reeves. London: Unwin Hyman.
- Boas, Franz. 1899. "Property Marks of Alaskan Eskimo." *American Anthropologist* 1(4):601-13.
- Brantenberg, Terje. 1995. "Indigenous Rights and Norwegian Law: the Problem of Sámi Customary Law and Pastoral Rights in Norway." *Legalising the Commons*. 15 International Association for the Study of Common Property.
- Braudel, G. 1958. "History and the Social Sciences: the Long-Term." *Social Science Information* 9(1):145-74.
- Brewer, John and Susan Staves, Editors. 1996. *Early Conceptions of Property*. London: Routledge.
- Broadbent, Noel D., Editor. 1989. *Readings in Saami History, Culture and Language*. Umeå, Sweden: Center for Arctic Cultural Research, Umeå University.
- Brom, Frans W. A. 1997. "Animal Welfare, Public Policy and Ethics." Pp. 208-22 in *Animal Consciousness and Animal Ethics: Perspectives From the Netherlands*, Editors M. Dol. and et. al. Assen: Van Gorcum.
- . 2000. "Food, Consumer Concerns, and Trust: Food Ethics for a Globalizing Market." *Journal of Agricultural and Environmental Ethics* 12:127-39.
- Bromley, Daniel W. 1992. "The Commons, Property, and Common-Property Regimes." Pp. 3-15 in *Making the Commons Work: Theory, Practice and Policy*, Editor Daniel W. Bromley. California: Institute for Contemporary Studies.
- . 1991. *Environment and Economy: Property Rights and Public Policy*. Oxford, UK: Blackwell.
- , Editor. 1992. *Making the Commons Work: Theory, Practice and Policy*. California: Institute for Contemporary Studies.
- Brox, Ottar. 1973. "'Conservation' and 'Destruction' of Traditional Culture." *Circumpolar Problems: Habitat, Economy, and Social Relations in the Arctic*, Editor Gösta Berg. Oxford: Pergamon Press.
- Brundage, Anthony. 1989. *Going to the Sources: a Guide to Historical Research and Writing*. Arlington Heights, IL: Davidson.
- Brush, Stephen B. and Doreen Stabinsky, Editors. 1996. *Valuing Local Knowledge: Indigenous People and Intellectual Property Rights*. Washington DC : Island Press.
- Buck, Susan J. 1999. "Contextual Factors in the Development of Wildlife Management Regimes in the United States." *Journal of Environmental Policy and Planning* 1(3):247-259.
- . 1989. "Multi-Jurisdictional Resources: Testing a Typology for Problem-Structuring." Pp. 127-47 in *Common Property Resources: Ecology and Community-Based Sustainable Development*, Editor Fikret Berkes.
- Bull, Kirsti S. 1997. *Studier i Reindriftsrett*. Oslo: Tano Aschehoug.
- Bull, Kirsti S., Nils Oskal, and Mikkel N. Sara. 2001. *Reindriften i Finnmark: Rettshistorie 1852-1960*. Oslo: Cappelen.

- Burch, Ernest S. Jr. 1972. "The Caribou/Wild Reindeer As a Human Resource." *American Antiquity* 37(3):339-68.
- . 1975. "Inter-Regional Transportation in Traditional Northwest Alaska." *Anthropological Papers of the University of Alaska* 17(2):1-12.
- . 1988. "Modes of Exchange in North-West Alaska ." Pp. 95-109 in *Hunters and Gatherers: Property, Power and Ideology*, Editors Tim Ingold, David Riches, and James Woodburn. Oxford: Berg.
- Burns, Tom R., Thomas Baumgartner, and Philippe DeVillie. 1985. *Man, Decisions, Society: the Theory of Actor-System Dynamics for Social Scientists*. New York: Gordon and Breach.
- Burns, Tom R., Thomas Baumgartner, and Nora Machado. 2000. "The Theory of Actor-System Dynamics: Agency, Rule Systems, Complexity, and Cultural Evolution." *Encyclopedia of Life Support Systems*.
- Burns, Tom R., Thomas Baumgartner, and William Buckley. 1985. *The Shaping of Society*. London: Wiley.
- Burns, Tom R. and Marcus Carson. 2005. "Social Order and Disorder: Institutions, Policy Paradigms and Discourses - an Interdisciplinary Approach." *Critical Discourse Analysis: Theory and Interdisciplinarity*, Eds. Paul Chilton and Ruth Wodak. Amsterdam: John Benjamins Publishing Company.
- Burns, Tom R. and Thomas Dietz. 1992. "Cultural Evolution: Social Rule Systems, Selection, and Human Agency." *International Sociology* 7:250-283.
- . 1992. "Technology, Socio-Technical Systems, Technological Development: an Evolutionary Perspective." *New Technology at the Outset: Social Forces in the Shaping of Technological Innovations*, Editors M. Dierkes and U. Hoffmann. Frankfurt: Campus/Westview.
- Burns, Tom R. and Helena Flam. 1987. *The Shaping of Social Organization: Social Rule System Theory and Its Applications*. London: Sage.
- Carson, Marcus. 2004. "From Common Market to Social Europe?: Paradigm Shifts and Institutional Change in European Union Policy on Food, Asbestos and Chemicals, and Gender Equality." Univ. of Stockholm, Stockholm studies in sociology, N.S.: 22, Stockholm, Sweden.
- Casimir, Michael. 1992. "The Determinants of Rights to Pasture: Territorial Organisation and Ecological Constraints." Pp. 153-203 in *Mobility and Territoriality: Social and Spatial Boundaries Among Foragers, Fishers, Pastoralists and Peripatetics*, Editors Michael J. Casimir and Aparna Rao. Oxford: Berg.
- Chalmers, A. F. 1994. *What Is This Thing Called Science? an Assessment of the Nature and Status of Science and Its Methods*. Buckingham: Open University Press.
- Chambliss, William J. and R. B. Seidman. 1971. "The Institutions of Law-Making: the Legislature." Pp. 56-74 in *Law, Order and Power*, William J. Chambliss and R. B. Seidman. Reading, Massachusetts: Addison-Wesley Publishing.
- Chanock, Martin. 1985. *Law, Custom, and Social Order: the Colonial Experience in Malawi and Zambia*. Cambridge: Cambridge University Press.
- Chaplin, Raymond E. 1969. "The Use of Non-Morphological Criteria in the Study of Animal Domestication

From Bones Found on Archaeological Sites." *The Domestication and Exploitation of Plants and Animals*, Editors Peter J. Ucko and G. W. Dimbleby. London: Duckworth.

- Checkland, P. and J Scholes. 1990. *Soft Systems Methodology in Action*. Chichester: John Wiley.
- Child, Brian and Cassandra Bergström. 2001. "Community Wildlife Management in Zambia: Testing Indicators of Sustainable Use in a Case Study of South Luangwa." *Lessons Learned: Case Studies in Sustainable Use*, Editors Javed Ahmed, Cassandra Bergström, Ian Bryceson, Brian Child, Julian Francis, Paind Khan, Bawa G. Ousmane, Thoomas L. Price, Sonali Senaratna, Naseer Tareen, and Chris v. Dam. Switzerland: IUCN.
- Clancy, Peter. 1990. "Political Devolution and Wildlife Management." Pp. 71-120 in *Devolution and Constitutional Development in the Canadian North*, Editor Gurston Dacks. Ottawa, Canada: Carleton University Press.
- Clutton-Brock, Juliet. 1981. *Domesticated Animals From Early Times*. London: British Museum.
- Cole, Daniel H. 2002. *Pollution and Property: Comparing Ownership Institutions for Environmental Protection*. Cambridge, UK: Cambridge University Press.
- Colson, Elizabeth. 1971. "The Impact of the Colonial Period on the Definition of Land Rights." Pp. 193-215 in *Colonialism in Africa: 1870-1960*, vol. Profiles of Change: African Society and Colonial Rule, Editors Peter Duignan and L. H. Gann. London: Cambridge University Press.
- Cooper, David E. and Joy A. Palmer. 1995. *Just Environments: Intergenerational, International and Interspecies Issues*. London: Routledge.
- Cousins, Ben and Thembele Kepe. 2004. "Decentralisation When Land and Resource Rights Are Deeply Contested: a Case Study of the Mkambati Eco-Tourism Project on the Wild Coast of South Africa." *The European Journal of Development Research* 16(1):41-54.
- Cronon, William. 1983. *Changes in the Land: Indians, Colonists, and the Ecology of New England*. New York: Hill and Wang.
- , editor. 1996. *Uncommon Ground: Rethinking the Human Place in Nature*. New York: W.W. Norton & Company.
- Cruikshank, Julie. 1998. *The Social Life of Stories: Narrative and Knowledge in the Yukon Territory*. Lincoln, NE and London: University of Nebraska.
- Danell, Öje. 2000. "Status, Directions and Priorities of Reindeer Husbandry Research in Sweden." *Polar Research* 19(1):111-15.
- Darwin, Charles. 1859. *On the Origin of Species by Means of Natural Selection: or the Preservation of Favoured Races in the Struggle for Life*. London: J. Murray.
- . 1868. *Variation of Animals and Plants Under Domestication*. London: John Murray.
- Davy, Benjamin. 1997. *Essential Injustice*. Wien, New York: Springer.
- Demsetz, Harold. 1967. "Towards a Theory of Property Rights." *The American Economic Review* 57(May):347-59.
- Dentan, R. K. 1978. "Notes on Childhood in a Non-Violent Context: the Saami Case." *Learning Non-Aggression: the Experience of Non-Literate Societies*, Editor A. Montagu. New York: Oxford

University Press.

- Devlin, Rose A. 2000. "Property Rights, Tenure Systems and Managing Natural Capital." Pp. 103-19 in *Property Rights, Economics and the Environment*, Editor Michael D. Kaplowitz. Stamford, CT: JAI Press.
- Diamond, Jared. 2002. "Evolution, consequences and future of plant and animal domestication" *Nature* 418(August):700-707.
- Dietz, Thomas, Paul C. Stern, and Rycroft. 1989. "Definitions of Conflict and the Legitimation of Resources: the Case of Environmental Risk." *Sociological Forum* 4(1):47-70.
- Dolšak, Nives and Elinor Ostrom. 2003. "The Challenges of the Commons." *The Commons in the New Millennium: Challenges and Adaptations*, Eds. Nives Dolšak and Elinor Ostrom. Cambridge, MA: MIT Press.
- , Eds. 2003. *The Commons in the New Millennium: Challenges and Adaptations*. Cambridge, MA: MIT Press.
- Dowling, John M. 1968. "Individual Ownership and the Sharing of Game in Hunting Societies." *American Anthropologist* 3:502-7.
- Driver, Jonathan C. 1990. "Meat in Due Season: the Timing of Communal Hunts." Pp. 11-33 in *Hunters of the Recent Past*, Editor L. B. Davis and B. O. K. Revves. London: Unwin Hyman.
- Dunfjeld, Ellen M. G. 1979. *Reindrift: Samisk Næring, Samisk Fremtid*. Bodø, Norway: Norwegian Saami Reindeer Herders Association (NRL).
- Dyck, Noel. 1985. "Aboriginal People and Nation-States: an Introduction to the Analytical Issues." Pp. 1-26 in *Indigenous Peoples and the Nation-State: "Fourth World" Politics in Canada, Australia and Norway*, vol. Social and Economic Papers, Editor Noel Dyck. St. John's, Newfoundland: Institute of Social and Economic Research, Memorial University of Newfoundland.
- . 1985. "Representations and the 'Fourth World': a Concluding Statement." Pp. 236-41 in *Indigenous Peoples and the Nation-State: "Fourth World" Politics in Canada, Australia and Norway*, vol. Social and Economic Papers, Editor Noel Dyck. St. John's, Newfoundland: Institute of Social and Economic Research.
- Edwards, Victoria M. and Nathalie A. Steins. 1998. "Developing an Analytical Framework for Multiple Use Commons." *Journal of Theoretical Politics* 10(3):347-83.
- . 1998. "The Role of Contextual Factors in Common Pool Resource Analysis." *7th IASCP Common Property Conference: Crossing Boundaries*, Vancouver, British Columbia, Canada.
- Eidheim, Harald. 1999. "Introduction." Pp. 7-14 in *Samer Og Nordmenn*, Editor Harald Eidheim. Oslo: Cappelen.
- , Editor. 1999. *Samer Og Nordmenn*. Oslo: Cappelen Akademisk Forlag.
- Ekman, Ann-Kristin. 1983. "Det Är För Jaktens Skull Vi Jagar Och Inte För Köttets." Pp. 75-101 in *Svenska Livsstila: Om Naturaen Som Resurs Och Symbol*, Stockholm: Liber.
- Elbo, J. G. 1952. "Lapp Reindeer Movements Across the Frontiers of Northern Scandinavia." *Polar Record* 6:348-58.

- Elgvin, Dag T. 1993. *Land Er Liv: Sørsamisk Reindrift i Skjebnetid*. Tromsø: Tromsø University.
- Ellickson, Robert C. 1991. *Order Without Law*. Cambridge, MA: Harvard University Press.
- Endicott, Kirk. 1997. "Property, Power and Conflict Among the Batek of Malaysia." Pp. 110-128 in *Hunters and Gatherers: Property, Power and Ideology*, Editors Tim Ingold, David Riches, and James Woodburn. Oxford: Berg Publishers.
- Endicott, Kirk and Karen L. Endicott. 1986. "The Question of Hunter-Gatherer Territoriality: the Case of the Batek of Malaysia." Pp. 137-62 in *The Past and Future of I!Kung Ethnography: Critical Reflections and Symbolic Perspectives*, vol. 4, Editor Megan Biesele. Hamburg: Helmut Buske Verlag.
- Enerstvedt, Lars. 1993. *Oppdal Renkompani 100 År: 1890-1990*. Oppdal.
- Engelstad, Ericka. 1984. "Diversity in Arctic Maritime Adaptations." *Acta Borealia* 2:3-24.
- Epstein, Richard A. 2001. *The Allocation of the Commons: Parking and Stopping on the Commons*. Chicago: University of Chicago.
- Eriksen, Knut E. and Einar Niemi. 1981. *Den Finske Fare*. Oslo: Universitetsforlaget.
- Falkenberg, Johs. 1985. "Fra Nomadisme Til Fast Bosetning Blandt Samene i Røros-Traktene (1890 Årene - 1940 Årene)." Pp. 7-28 in *Årjel-Saemieh: Samer i Sør*, vol. 2, Snåsa: Saemien Sitje.
- . 1988. "Innføringen Av Reinbeite - Distrikter i Sør-Norge." Pp. 19-37 in *Årjel-Saemieh: Samer i Sør*, vol. 3, Snåsa: Saemien sitje.
- . 1978. "Om Øremerking Av Rein Hos Røros-Samene." Pp. 37-76 in *Kultur På Karrig Jord: Festskrift Til Asbjørn Næsheim*, Oslo: Norsk folkemuseum.
- Feeney, David, Susan Hanna, and Arthur F. McEvoy . 1996. "Questioning the Assumptions of "The Tragedy of the Commons" Model of Fisheries." *Land Economics* 72(2):187-205.
- Feit, Harvey A. 1979. "Political Articulations of Hunters to the State: Means of Resisting Threats to Subsistence Production in the James Bay and Northern Quebec Agreement." *Inuit Studies* 3(2):37-52.
- . 1998. "Reflections on Local Knowledge and Wildlife Resource Management: Differences, Dominance and Decentralization." *Crossing Boundaries*, Vancouver, Canada.
- Finset, Viggo. 1998. *Tamreindrift Og Ekspropriasjon Til Beiterett i Trollheimen*. Ås, Norway: Agricultural University of Norway, Institute for Landscape Planning.
- Fjellheim, Marit. 1995. "Samer og Reindrift i Røros-Traktene: En Historisk Oversikt Fram Til Begynnelsen Av 1900-Tallet." Pp. 82-103 in *Fragment Av Samisk Historie*, Editor Sverre Fjellheim. Røros: Sør-Trøndelag og Hedmark Reinsamelag.
- Fjellheim, Sverre. 1995. "Det Samiske Kulturlandskapet." Pp. 58-81 in *Fragment Av Samisk Historie*, Editor Sverre Fjellheim. Røros, Norway: Sør-Trøndelag og Hedmark Reinsamelag.
- Flitner, Michael. 1998. "Biodiversity: Of Local Commons and Global Commodities." Pp. 144-66 in *Privatizing Nature: Political Struggles for the Global Commons*, Editor Michael Goldman. London: Pluto Press.

- Ford, J. A. 1959. "Eskimo Prehistory in the Vicinity of Point Barrow, Alaska." *Anthropological Papers of the American Museum of Natural History* 47.
- Forsberg, Lars. 1989. "Economic and Social Change in Northern Sweden 6000 BP - 1000 AD." Pp. 1-28 in *Readings in Saami History, Culture and Language*, vol. 7, Editor Noel D. Broadbent. Center for Arctic Cultural Research: Umeå University.
- Foucault, Michel. 1972. *The Archaeology of Knowledge and Discourse of Language*. New York: Pantheon Books.
- Fowler, Cary. 1994. *Unnatural Selection: Technology, Politics, and Plant Evolution*. Switzerland: Gordon and Breach.
- Fox, Joseph. 1998. "Finnmarksvidda: Reindeer Carrying Capacity and Exploitation in a Changing Pastoral Ecosystem - a Range Ecology Perspective on the Reindeer Ecosystem in Finnmark." Pp. 17-40 in *Commons in a Cold Climate*, vol. 22, Editor Svein Jentoft. Tromsø, Norway: University of Tromsø.
- Francione, Gary L. 1995. *Animals, Property and the Law*. Philadelphia: Temple Press.
- Freeman, Don. 1981. *Norman the Doorman*. New York: Puffin Books.
- Freeman, Milton M. R. and Urs P. Kreuter, Eds. 1994. *Elephants and Whales: Resources for Whom?* United Kingdom: Gordon and Breach.
- Freese, Curtis H. 1997. *Harvesting Wild Species: Implications for Biodiversity Conservation*. Baltimore, Maryland: John Hopkins Univ. Press.
- . 1998. *Wild Species As Commodities: Managing Markets and Ecosystems for Sustainability*. Washington, DC: Island Press.
- Gaup, Johanne. 1999. "Fra Fomorskningsspolitikk Til Samisk Selvbestemmelse." *KRDNYtt* 6:6-7.
- Ghimire, Krishna B. and Michel P. Pimbert, Editors. 1997. *Social Change and Conservation: Environmental Politics and Impacts of National Parks and Protected Areas*. London: Earthscan.
- Gibbons, Michael. 2002. "Innovation and the Developing System of Knowledge Production." University of Sussex.
- Giddens, Anthony. 1979. *Central Problems in Social Theory: Action, Structure and Contradiction in Social Analysis*. Berkeley: University of California Press.
- . 1984. *The Constitution of Society*. Berkeley: University of California Press.
- Glaser, B. G. and A. L. Straus. 1967. *The Discovery of Grounded Theory*. Chicago: Aldine.
- Gluckman, Max. 1969. "Concepts in the Comparative Study of Tribal Law." Pp. 349-73 in *Law in Culture and Society*, Editor Laura Nader. Chicago: Aldine.
- . 1969. "The Judicial Process Among the Barotse of Northern Rhodesia." Pp. 161-70 in *Sociology of Law*, Editor Vilhelm Aubert. England: Penguin Books.
- . 1965. *Politics, Law and Ritual in Tribal Society*. Oxford: Basil Blackwell.
- Goetz, J. P. and M. D. LeCompte. 1984. *Ethnography and Qualitative Analysis*. New York: Academic

Press.

- Goldstein, R. J. 1998. "Green Wood in the Bundle of Sticks: Fitting Environmental Ethics and Ecology into Real Property Law." *Environmental Affairs Law Review (Boston College)* 25(2):347-430.
- Golovnev, Andrei V. and Gail Osherenko. 1999. *Siberian Survival: the Nenets and Their Story*. Ithaca: Cornell University Press.
- Gotham, Kevin F. and William G. Staples. 1996. "Narrative Analysis and the New Historical Sociology." *The Sociological Quarterly* 37(3):481-501.
- Graburn, Nelson H. H. 1981. "1,2, 3, 4,... Anthropology and the Fourth World." *Culture* 1(1):66-70.
- Granberg, P. and Ree Viggo. 1989. "Tilbakeblikk Pa Forvaltningen Av Store Rovdyr." *Norsk Natur* 25(2): 14-16.
- Graneffell, Svein O. J. and Inge Harstad. 1997. *Reindrif i Skyggen Av Tsjernoby: Okonomisk Vurdehng Av Tiltak i Reindriftnaeringen Etter Tsjernobyulykken*. M.Sc. thesis. Aas, Norway: Dept. of Economics, Agricultural University of Norway.
- Griffin, Larry J. 1993. "Narrative, Event-Structure Analysis, and Causal Interpretation in Historical Sociology." *American Journal of Sociology* 98(5):1094-133.
- . 1992. "Temporality, Events, and Explanation in Historical Sociology." *Sociological Methods and Research* 20(4):403-27.
- Griffiths, John. 1985. "What Is Legal Pluralism?" *Journal of Legal Pluralism and Unofficial Law* 23:1-55.
- Groth, Osten J. 1996. "Democracy in Scandinavia." Pp. 115-24 in *North Scandinavian History*, Osten J. Groth, Kjell O. Lundholm, and Rolf Y. Petersson. Sweden.
- Grove, Richard H. 1995. *Green Imperialism: Colonial Expansion, Tropical Island Edens and the Origins of Environmentalism, 1600-1860*. Cambridge: Cambridge University Press.
- Grut, Mari. 1996. *Arealkonflikter Mellom Reindrifssamer Og Gardbrukere*. Trondheim: University of Trondheim.
- Gran, Ole, Inger M. Holm-Olsen, Hans Temmervik, and Oleg Kuznetsov. 1999. *Reindeer Hunters and Herders: Settlement and Environmental Impact*. Oslo: Norsk institutt for kulturminneforskning.
- Guba, E. G. and Y. S. Lincoln. 1994. *Competing Paradigms in Qualitative Research*. Thousand Oaks: Sage.
- Gothe, Gustaf. 1929. *Om Umal Lappar Svenska Kolonisation: Fran Mitten Av 1500-Talet Till Omkr. 1750*. Uppsala: Almqvist and Wiksells.
- Haarstad, Kjell. 1992. *Sorsamisk Historie: Ekspansjon Og Konflikter i Rorostraktene 1630-1900*. Trondheim: Tapir.
- Hafstrdm, Gerhard. 1982. "The Judgment in the Taxed Mountains Case." Pp. 117-30 in *The Sami National Minority in Sweden*, ed. Birgitta Jahreskog. Stockholm: Almqvist & Wiksell.
- Hagvar, Geir. 1989. "Nomadisme Og Eiendomsrett." *Diedut* 1:128-48.
- Hajer, Maarten A. 1995. *The Politics of Environmental Discourse: Ecological Modernization and the*

Policy Process. Oxford: Clarendon Press.

- Hambleton, Ellen and Peter Rowley-Conwy. 1997. "The Medieval Reindeer Economy at Gæccevaj'njar'ga 244 BC in the Varanger Fjord, North Norway." *Norwegian Archaeological Review* 30(1):55-70.
- Hanna, Susan and Svein Jentoft. 1996. "Human Use of the Natural Environment: an Overview of Social and Economic Dimensions." Pp. 35-55 in *Rights to Nature: Ecological, Economic, Cultural, and Political Principles of Institutions for the Environment*, 1st ed. Editors Susan S. Hanna, Carle Folke, and Karl-Göran Måler. Washington, D. C. Island press.
- Hanna, Susan S., Carl Folke, and Karl-Göran Måler, editors. 1996. *Rights to Nature: Ecological, Economic, Cultural, and Political Principles of Institutions for the Environment*. Washington, D. C. Island Press.
- Hansen, Kåre M. 7 Jan 2000. "Høyesterett Sendte Reintyv i Fengsel." *Aftenposten* (Oslo) (3-6), p. 42.
- Hansen, Lars I. 1985. "Handel Og Levekår i Det Samiske Jakt- Og Fangst-Samfunnet." *Heimen* 3:126-40.
- . 1989. "Hvilken Betydning Fikk De Danske-Norske Og Svenske Lokalundersøkelser for Utformingen Av Kodisillen?" *Diedut* 1:23-61.
- . 1985a. "Innledning." Pp. vii-xliv in *Major Peter Schnitlers Grenseeksaminasjonsprotokoller 1742-1745*, Editors Lars I. Hansen and Tom Schmidt. Oslo: Norsk Historisk Kjeldekrift-Institutt.
- . 1982. "Kystsamer Og Handel På Nordkalotten i Eldre Tid." *Ottar* 4(137):44-58.
- . 1985b. "Sami Title to Land in Southern Troms, Norway." *Acta Borealia* 1/2:9-28.
- . 1985c. "Sami Title to Land in Southern Troms, Norway: Approach, Method and Data in Reconstructing Sami Rights of the Past." *Acta Borealia* 1/2:9-28.
- . 1984. "Trade and Markets in Northern Fenno-Scandinavia Via A. D. 1550-1750." *Acta Borealia* 2:47-80.
- Haraldson, S. 1962. "Levnads - Och Dödlighetsförhållanden i De Nordligaste Svensk Lappbyarna." *Svenska Läkartidningen* 59(40):2829-944.
- Hardin, Garrett. 1968. "The Tragedy of the Commons." *Science* 162(13 Dec.):1243-48.
- Hatt, G. 1919. "Notes on Reindeer Nomadism." *Memoirs of the American Anthropological Association* 2:75-133.
- . 1918. "Rendyrnomadismens Elementer." *Geografisk Tidsskrift*. Copenhagen.
- Hauglind, Anders O. and Henry Minde. 1980. "Sesongboplass - Finnerydning - Gård: Samiske Bosetningshistorie i Balsfjord Kommune Under Jordbrukskoloniseringa." *Heimen* 4:475-500.
- Helander, Elina. 1994. "The Sami People; Demographics, Origin, Economy, Culture." Pp. 23-34 in *Majority-Minority Relations*, vol. 1, Diedut, World Commission on Culture and Development. Guovdageaidnu, Norway: Nordic Sami Institute.
- Helgasson, Agnar, Odinn G. Odinson, and Gisli Pálsson. 2000. "Property, Knowledge, and Agency: the Objectification of Icelandic Fishing." Pp. 153-78 in *Negotiating Nature: Culture, Power and Environmental Argument*, Editors Alf Hornborg and Gisli Pálsson. Lund, Sweden: Lund University Press.

- Helskog, Knut. 1988. *Helleristningene i Alta: Spor Etter Ritualer Og Daligliv*. Alta, Norway: K. Helskog.
- . 2001. *Helleristningene i Hjemmelufti Jiepmaluokta*. Alta, Norway: Alta Museum.
- Hiatt, R. Lee, and Pilling. 1968. "Territorial Boundaries." Pp. 156-57 in *Man the Hunter*, Editors Richard B. Lee and Irven DeVore. Chicago: Aldine Publishing Company.
- Higgs, Robert. 1996. "Legally Induced Technical Regress in the Washington Salmon Fishery." *Empirical Studies in Institutional Change*, Lee J. Alston, Thrainn Eggertsson, and Douglass C. North. Cambridge: Cambridge university press.
- Hoëm, Anton. 1980. "Skolen Og Forskningsprosessen." *Heimen* 4:508-16.
- Hohfeld, Wesley N. 1919/1946. *Fundamental Legal Conceptions: As Applied in Judicial Reasoning*. New Haven, CT: Yale University Press.
- Holling, C. S. and Steven Sanderson. 1996. "Dynamics of (Dis)Harmony in Ecological and Social Systems ." Pp. 57-85 in *Rights to Nature: Ecological, Economic, Cultural, and Political Principles of Institutions for the Environment*, Eds. Susan Hanna, Carle Folke, and Karl-Göran Mäler. Washington DC: Island Press.
- Honoré, A. M. 1961. " Ownership ." Pp. 112-28 in *Oxford Essays in Jurisprudence*, Ed. A. G. Guest. Oxford.
- Hornborg, Alf and Gísli Pálsson, Editors. 2000. *Negotiating Nature: Culture, Power and Environmental Argument*. Lund, Sweden: Lund University.
- Hultblad, Filip. 1968. *Övergång Från Nomadism Till Agrar Bosättning i Jokkmokks Socken*. Lund: Almqvist & Wiksell.
- Hultkrantz, Åke. 1994. "Religion and Environment Among the Saami: an Ecological Study." Pp. 347-74 in *Circumpolar Religion and Ecology: an Anthropology of the North*, Eds. Takshi Irimoto and Takako Yamada. Tokyo: University of Tokyo Press.
- Hurley, Janet M., Clare Ginger, and David E. Capen. 2002. "Property Concepts, Ecological Thought, and Ecosystem Management: A Case of Conservation Policymaking in Vermont." *Society and Natural Resources* 15:295-312.
- Ingold, Tim. 1986. *The Appropriation of Nature: Essays on Human Ecology and Social Relations*. Manchester: Manchester University Press.
- . 1980. *Hunters, Pastoralists and Ranchers: Reindeer Economies and Their Transformations*. Cambridge: Cambridge University Press.
- . 1976. *The Skolt Lapps Today*. Cambridge: Cambridge University Press.
- Inhaber, Herbert. 1998. *Slaying the NIMBY Dragon*. New Jersey: Transaction Publishers.
- International Institute for Environment and Development (IIED). 1995. *The Wildlife and Development Series*. London: IIED.
- International Labor Organization . 1957. "ILO Convention No. 107, Convention Concerning the Protection and Integration of Indigenous and Other Tribal and Semi-Tribal Populations in Independent Countries."

- International Labor Organization . 1989. "ILO Convention No. 169 Concerning Indigenous and Tribal Peoples in Independent Countries." .
- Isaac, Larry and Larry Griffin. 1989. "Ahistoricism in Time-Series Analyses of Historical Process: Critique, Redirection and Illustrations From U.S. Labor History." *American Sociological Review* 54:873-90.
- Isaksen, Oddgeir. 25 Apr 2000. "Kronprins i Farta." *Dagsavisen* (Oslo) (2-5), p. 4.
- Jebens, Otto. 1989. "Lappekodisillen Som Grunnlag for Rettigheter for Samer i Norge På Det Privatrettslige Plan." *Diedut* 1:166-77.
- . 1999. "Samenes Rett Til Land Og Vann i Indre Finnmark." Pp. 39-60 in *Samer Og Nordmenn*, Editor Harald Eidheim. Oslo: Cappelen Akademisk.
- Jentoft, Svein. 1998. *Allmenningens Komedi: Medforvaltning i Fiskeri Og Reindrift*. Oslo: Ad Notam Gyldendal.
- . 1998. *Commons in a Cold Climate: Coastal Fisheries and Reindeer Pastoralism in North Norway: the Co-Mangement Approach*. Paris: UNESCO.
- . 1998. "Introduction." Pp. 1-13 in *Commons in a Cold Climate: Coastal Fisheries and Reindeer Pastoralism in North Norway: the Co-Mangement Approach*, Svein Jentoft. Paris: UNESCO.
- Jernsletten, Johnny-Leo L. and Klokov Konstantin. *Sustainable Reindeer Husbandry, Arctic Council 2000-2002*. Tromsø, Norway: Univ. of Tromsø, Centre for Saami studies.
- Jokipii, Mauno. 1987. "The Historical Shaping of the Nordic Countries." Pp. 3-19 in *Norden: Man and Environment*, Eds. Uuno Varjo and Wolf Tietze. Berlin: Gebrüder Borntraeger.
- Justis- og politidepartementet. 1997. *Naturgrunnlaget for Samisk Kultur: En Orientering Om Samerettsutvalgets Utredning*. Oslo: Justis- og politidepartementet.
- Justisdepartementet. 1990. *Norges Lov 1685-1989*. Oslo: University of Oslo.
- Kaarhus, Randi. 1999. "Intervjuer i Samfunnsvitenskapene: Bidrag Til En Videre Metodologisk Diskurs." *Tidsskrift for Samfunnsforskning*:33-62.
- Kalstad, Johan K. H. 1996. "The Modern Challenge Facing Knowledge in Sami Subsistence." Pp. 21-30 in *Awakened Voice, Diedut*, Editor Eliina Helander. Guovdageaidnu, Norway: Nordic Sami Institute.
- . 1998. "Pastoralism and Management of Common Land in Saami Districts." Pp. Chapt. 14 in *Commons in a Cold Climate: Coastal Fisheries and Reindeer Pastoralism in North Norway: the Co-Management Approach*, vol. 22, Man and the Biosphere Series, Editor S. Jentoft. Paris: UNESCO.
- . 1997. *Reindriftspolitik Og Samisk Kultur - En Uløselig Konflikt?* Tromsø, Norway: University of Tromsø.
- Kanbur, Ravi. 2001. "Economic Policy, Distribution and Poverty: the Nature of Disagreements." *World Development* 6:1083-94.
- Kapstad, Connie R. 2000. "Negotiating Environmental Identity." Pp. 79-98 in *Negotiating Nature: Culture, Power and Environmental Argument*, Editors Alf Hornborg and Gísli Pálsson. Lund, Sweden: Lund University Press.

- Kellert, Stephen R. 1983. "American Attitudes Toward and Knowledge of Animals: an Update." *International Journal for the Study of Animal Problems* 1(2):87-119.
- . 1985a. "Attitudes Toward Animals Age-Related Development Among Children." *Journal of Environmental Education* 16:29-39.
- . 1994. "Public Attitudes Toward Bears and Their Conservation." *International Conference on Bear Research and Management* 9(1):1-8.
- . 1985b. "Social and Perceptual Factors in Endangered Species Management." *Journal of Wildlife Management* 49:528-36.
- . 1984. "Urban American Perceptions of Animals and the Natural Environment." *Urban Ecology* 8:209-28.
- . 1996. *The Value of Life: Biological Diversity and Human Society*. Washington D.C.: Island Press.
- Kellert, Stephen R., and J. K. Berry. 1987. "Attitudes, Knowledge and Behaviors Toward Wildlife As Affected by Gender." *Wildlife Society Bulletin* 15:363-71.
- Kleveland, Åse. 1994. "Opening Statement." Pp. 8-11 in *World Commission on Culture and Development*, vol. 1, Diedut, Guovdageaidnu, Norway: Nordic Saami Institute.
- Korhonen, Olavi. 1989. "A Boundary Between Northern and Southern Saami Culture and Language." Pp. 111-23 in *Readings in Saami History, Culture and Language*, vol. 7, Editor Noel D. Broadbent. Umeå University, Sweden: Center for Arctic Cultural Research.
- Korpijaakko-Labba, Kaisa. 1998. "The History of Rights to the Resources in Swedish and Finnish Lapland." Pp. 171-80 in *Law and the Governance of Renewable Resources: Studies From Northern Europe and Africa*, Editors Erling Berge and Nils C. Stenseth. Oakland, California: Institute for Contemporary Studies.
- Korpijaakko-Labba, Kaisa. 1994. *Om Samerna Rättsliga Ställning i Sverige-Finland*. Helsinki: Kakimiesliiton Kustannus, Jurist forbundet Förlag.
- Korsmo, Fae L. 1988. "Nordic Security and the Saami Minority: Territorial Rights in Northern Fennoscandia." *Human Rights Quarterly* 10(1):509-24.
- Kosmo, Ansgar J. 1985. *Driftsøkonomi Med Planlegging*. Oslo: Reindeer Herding Administration and the Saami Board of Education.
- Krader, Lawrence. 1959. "The Ecology of Nomadic Pastoralism." *International Social Science Journal* 4:499-510.
- Krupnik, Igor. 1993. *Arctic Adaptations: Native Whalers and Reindeer Herders of Northern Eurasia*. English ed. Hanover, New Hampshire: University Press of New England.
- Kruse, Jack, Dave Klein, Steve Braund, Lisa Moorehead, and Bill Simeone. 1998. "Co-Management of Natural Resources: A Comparison of Two Caribou Management Systems." *Human Organization* 57(4):447-58.
- Kuhn, T. 1962. *The Structure of Scientific Revolutions*. 1996 ed. Chicago: Univ. of Chicago Press.
- Kuoljok, Kerstin Eidlitz. 1985. *The Revolution of the North: Soviet Ethnography and Nationality Policy*. Uppsala, Sweden: Acta Universitatis Upsaliensis.

- Kvist, Robert. 1989. "Saami Taxation in Sweden 1695-1860." Pp. 43-86 in *Readings in Saami History, Culture and Language*, vol. 7, Editor Noel D. Broadbent. Umeå University, Sweden: Center for Arctic Cultural Research.
- Lancaster, William and Fidelity Lancaster. 1992. "Tribe, Community and the Concept of Access to Resources: Territorial Behaviour in South-East Ja'Alan." Pp. 343-63 in *Mobility and Territoriality: Social and Spatial Boundaries Among Foragers, Fishers, Pastoralists and Peripatetics*, Editors Michael J. Casimir and Aparna Rao. Oxford: Berg.
- Landbruksdepartementet. 1992. *En Bærekraftig Reindrift*. Oslo.
- . 1984. *Forskrifter Om Merking M. V. Av Tamrein*. Oslo: Landbruksdept.
- . 1966. *Instilling Fra Reindrifftslov Komiteen*.
- . 1978. *Om Hovedavtalen for Reindrifftsneringen Ot. Prop. Nr. 24 (1977-78)*. Oslo.
- . 1976. *Om Hovedavtalen for Reindrifftsneringen (Ot. Prop. Nr. 9 (1976-77))*. Oslo.
- . 1995. *Om Lov Om Endringer i Reindrifftsloven, Jordskifteloven Og Viltloven Ot. Prp. Nr. 28 (1994-95)*. Oslo.
- . 1976. *Om Lov Om Reindrift, Innst. O. Nr. 98 (1976-77)*. Oslo.
- . 1932. *Om Utferdigelse Av En Lov Om Reindrift (Ot. Prop. Nr. 28)*.
- . 1922. *Utkast Til Lov Om Reindrift*.
- Lauer, Berthold. 1974. *The Reindeer and Its Domestication*. New York: Kraus Reprint Co.
- Lauritzen, Per R., Editor. 1996. *Trollheimen*. Oslo: Den Norske Turistforening.
- Leacock, Eleanor. 1954. "The Montagnais 'Hunting Territory' and the Fur Trade." *American Anthropologist* 56(5, Part 2, Memoir No. 78):1-59.
- Leem, Knud. 1978. *An Account of the Laplanders of Finnmark*. London: University Microfilms International.
- Lerch, Achim. 1998. "Property Rights and Biodiversity." *European Journal of Law and Economics* 6(3):285-304.
- Letourneau, Ch. 1892. "The Past and the Future of Property." Pp. 364-83 in *Property: Its Origin and Development*, Ch. Letourneau. London: Walter Scott.
- Lewis, Dave. 1998. *Indigenous Rights Claims in Welfare Capitalist Society: Recognition and Implementation*. Rovaniemi: Arctic Centre, University of Lapland.
- Libecap, Gary. 1993. *Contracting for Property Rights*. Cambridge: Cambridge University Press.
- . 1989. "Distributional Issues in Contracting for Property Rights." *Journal of Institutional and Theoretical Economics* 145:6-24.
- . 1978. "Economic Variables and the Development of the Law: the Case of Western Mineral Rights." *Journal of Economic History* 2:338-62.

- . 1986. "Property Rights in Economic History: Implications for Research." *Explorations in Economic History* 23:227-52.
- Lie, Ivar and Stig Karlstad. 1999. *Forskning i Reindriften: Evaluering Av Forskning, Formidling Og Bruk Av Forskning*. Oslo: Norsk Institutt for by- og regionforskning.
- Lier-Hansen, Stein. 1995. "Ferdseletsretten Trues." *Jakt Og Fiske* 1-2:92-94.
- . 1994. *Villrein & Villreinjakt*. Oslo: Landbruksforlaget.
- Liland, Astrid. 2004. *Norway's on-Going, Long-Term Management of Chernobyl Affected Rural Areas*.
- Linkola, Martti. 1973. "The Snowmobile in Lapland - Its Economic and Social Effects." Pp. 127-34 in *Circumpolar Problems: Habitat, Economy, and Social Relations in the Arctic*, Editor Gösta Berg. Oxford: Pergamon Press.
- Lober, Douglas J. 1996. "Why Not Here?: The Importance of Context, Process, and Outcome on Public Attitudes Toward Siting of Waste Facilities." *Society and Natural Resources* 9:375-94.
- Locke, John. 1997. *Two Treatises of Government*. Cambridge: Cambridge University Press.
- Løøv, Anders. 1994. *En Samisk Sijte Går Under På Gauldalsvidda År 1811*. Trondheim: Trondheim University Library.
- Low, N. P. and B. J. Gleeson. 1997. "Justice in and to the Environment: Ethical Uncertainties and Political Practices." *Environment and Planning* 29:21-42.
- Lowenthal, David. 1985. *The Past Is a Foreign Country*. Cambridge: Cambridge University Press.
- Lueck, Dean. 2001. "The Extermination and Conservation of the American Bison." *Journal of Legal Studies* 31(2):609-52.
- Lund, Tor E. 1980. "Fornorskningsarbeidet i Skolene i Tana Siste Halvdel Av 1800-Tallet." *Heimen* 4:517-29.
- Lundholm, Kjell O. 1996. "The Sámi - One People in Four Nations." Pp. 104-14 in *North Scandinavian History*, Kjell O. Lundholm, Östen J. Groth, and Rolf Y. Petersson. Sweden.
- Lundmark, Lenart. 1989. "The Rise of Reindeer Pastoralism." Pp. 29-42 in *Readings in Saami History, Culture and Language*, vol. 7, Editor Noel D. Broadbent. Umeå University, Sweden: Center for Arctic Research.
- Lyster, Simon. 1985. *International Wildlife Law*. Cambridge: Grotius Publications.
- Maasen, S. E. 1995. "Who Is Afraid of Metaphors?" Pp. 11-35 in *Biology As Society, Society As Biology*, Eds. S. E. Maasen, Mendelsohn, and P. Weingart. Dordrecht: Kluwer Academic Publishers.
- Machado, Nora. 1997. *Using the Bodies of the Dead*. England: Dartmouth Publishers.
- Mackenzie, Fiona. 1995. "Un-Customary Laws: Issues for Research into Land Rights." Pp. 175-90 in *Gender and Environment in Africa: Perspectives on the Politics of Environmental Sustainability*, Editors Ingrid Yngström, Patricia Jeffery, Kenneth King, and Camilla Toulmin. University of Edinburgh: Centre of African Studies.
- Macpherson, C. B. 1978-1992. "The Meaning of Property." Pp. 1-13 in *Property: Mainstream and Critical*

- Positions*, C. B. Macpherson. Toronto: Toronto University Press.
- , editor. 1992. *Property: Mainstream and Critical Positions*. Toronto: University of Toronto Press.
- Magga, Ole H. 1994. "The Policy Towards the Sami People in Norway." *Majority-Minority Relations*, vol. 1, Diedut, World Commission on Culture and Development. Guovdageaidnu, Norway: Nordic Sami Institute.
- Maine, Henry. 1924. *Ancient Law*. 10 ed. London: John Murray.
- Marainen, Johannes. 1984. *Forflytningar i Sápmi: Gränsregleringar i Norden Och Deras Följdverkningar För Samer*. Umeå, Sweden: Swedish Saami National Society (SSR).
- . 1982. "The Swedish-Norwegian Convention on the Right of the Migratory Sami to Reindeer Grazing Lands." Pp. 62-76 in *The Sami National Minority in Sweden*, Editor Birgitta Jahreskog. Stockholm: Almqvist & Wiksell.
- Marchak, Patricia. 1987. "Uncommon Property." Pp. 3-31 in *Uncommon Property: the Fishing and Fish-Processing Industries in British Columbia*, Editors Patricia Marchak, Neil Guppy, and John McMullan. Toronto: Methuen.
- Marcussen, Henrik S. and Signe Arnfred. 1998. *Concepts and Metaphors: Ideologies, Narratives and Myths in Development Discourse*. Roskilde: Institute for Development Studies, Roskilde University.
- Marshall, L. 1961. "Sharing, Talking and Giving: Relief of Social Tensions Among !Kung Bushmen." *Africa* 31:231-49.
- Mbangwa, Obed. 2002. *The Local Communities and Nile Crocodile in Lake Rukwa, Southern Tanzania: Can They Co-Exist*. Master's thesis ed. Aas, Norway: Noragric, Agricultural University of Norway.
- McCay, Bonnie. 1996. "Commons and Private Concerns." Pp. 111-26 in *Rights to Nature: Ecological, Economic, Cultural, and Political Principles of Institutions for the Environment*, 1st ed. Susan S. e. al. Hanna. Washington, DC, Island Press.
- McCay, Bonnie J. and James M. Acheson. 1987. *The Question of The Commons: the Culture and Economy of Communal Resources*. Tuscon, Arizona: University of Arizona Press.
- McGinnis, Michael V. 1994. "Collective Bads: the Case of Low-Level Radioactive Waste Compacts." *Natural Resources Journal* 34:563-88.
- Mehta, Lyla. 2003. "Problems of Publicness and Access Rights: Perspectives From the Water Domain." Pp. 556-74 in *Providing Global Public Goods: Managing Globalization*, Editors Inge Kaul, Pedro Conceicao, Katell Le Goulen, and Ronald U. Mendoza. UK: Oxford University Press.
- . "Struggles and 'Publicness' and the Rights to Access: Perspectives From the Water Domain." *Global Public Goods: Making Globalizations Work for All*, Inge Kaul. New York: Oxford Univ. Press.
- Mehta, Lyla, Melissa Leach, Peter Newell, Ian Scoones, K. Sivaramakrishnan, and Sally-Anne Way. 1999. *Exploring Understandings of Institutions and Uncertainty: New Directions in Natural Resources Management*. Sussex, Brighton: Environment Group, Institute of Development Studies.
- Meinzen-Dick, Ruth S. and Bryan R. Bruns. 2000. "Negotiating Water Rights: Introduction." Pp. 23-55 in

- Negotiating Water Rights*, Eds. Bryan R. Bruns and Ruth S. Meinzen-Dick. London: ITDG Publishing.
- Meinzen-Dick, Ruth S. and Rajendra Pradhan. 2001. "Implications of Legal Pluralism for Natural Resource Management." *IDS Bulletin* 32(4):10-17.
- Meldgaard, Morten. 1986. "The Greenland Caribou - Zoogeography, Taxonomy, and Population Dynamics." *Bioscience: Meddelelser Om Grønland* 20:1-88.
- Melkevik, Bjarne. 2000. "Law and Aboriginal Reindeer Herding in Sami Norway." *Getic* April:1-7.
- Meriot, Christian. 1984. "The Saami Peoples From the Time of the Voyage of Ottar to Thomas Von Westen." *Arctic* 37(4, December):373-84.
- Merry, Sally E. 1988. "Legal Pluralism." *Law & Society Review* 22(5):869-96.
- Metcalfe, S. C. 1994. "The Zimbabwe Communal Areas Management Programme for Indigenous Resources (CAMPFIRE)." *Natural Connections*, Editors David Western, Wright Michael R., and Shirley Strum. Washington, D. C.: Island Press.
- Midgley, Mary. 1983. *Animals and Why They Matter: a Journey Around the Species Barrier*. Harmondsworth, England: Penguin Books.
- . 2001. "The Problem With Living With Wildness." Pp. 179-90 in *Wolves and Human Communities: Biology, Politics and Ethics*, Eds. Virginia A. Sharpe, Bryan Norton, and Strachan Donnelley. Washington D. C.: Island Press.
- Miles, Matthew B. and A. M. Huberman. 1994. "Making Good Sense: Drawing and Verifying Conclusions." *Qualitative Data Analysis*, London: Sage Publications.
- Minde, Henry. 2003. "The Challenge of Indigenism: the Struggle for Saami Land Rights and Self-Government in Norway 1960-1990." Pp. 75-104 in *Indigenous Peoples: Resource Management and Global Rights*, Editors Svein Jentoft, Henry Minde, and Ragnar Nilsen. the Netherlands: Eburon Academic Publishers.
- . 1989. "Innledningsforedrag." *Diedut* 1:1-9.
- . 1984. "The Saami Movement, the Norwegian Labour Party and Saami Rights." *L'Image De L'Autre*, Editor Helene Ahrweiler. Paris: Imprimerie de la Sorbonne.
- . 1986. "Samebevegelse Og Offentlig Politikk - Historisk Tilbakeblikk." Pp. 83-93 in *Identitet Og Livsutfoldelse*, Editors Reidar Erke and Asle Høgmo. Tromsø: Universitetsforlaget.
- Moore, Sally F. 1998. "Changing African Land Tenure: Reflections on the Incapacities of the State." *The European Journal of Development Research* 10(2):33-49.
- . 1994. "The Ethnography of the Present and the Analysis of the Process." Pp. 362-76 in *Assessing Cultural Anthropology*, R. Borofsky. McGraw-Hill .
- . 1987. "Explaining the Present: Theoretical Dilemmas in Processual Ethnography." *American Ethnologist* 14(4).
- . 1991. "From Giving and Lending to Selling: Property Transactions Reflecting Historical Changes on Kilimanjaro." *Law in Colonial Africa*, Editors Kristin Mann and Richard Roberts. Porstmouth, NH: Heinemann.

- . 1983. *Law As Process: an Anthropological Approach*. paperback ed. Great Britain: Routledge.
- . 1986. *Social Facts and Fabrications: Customary Law on Kilimanjaro, 1880-1980*. Cambridge: Cambridge University Press.
- Moran, D. and D. Pearce. 1994. *The Value of Biodiversity*. London: World conservation union, Biodiversity programme and Earthscan.
- Morey, Darcy F. 1994. "The Early Evolution of the Domestic Dog." *American Scientist* 82:336-47.
- Morgan, Lewis H. 1998. *Ancient Society: Researches in the Lines of Human Progress From Savagery Through Barbarism to Civilization*. London: Routledge/Thoemmes Press.
- Morris, Brian. 1998. *The Power of Animals*. Berg: Oxford.
- Morrow, Phyllis and Chase Hensel. 1992. "Hidden Dissension: Minority-Majority Relationships and the Use of Contested Terminology." *Arctic Anthropology* 29(1):38-53.
- Munsche, P. B. 1981. *Gentlemen and Poachers: the English Game Laws 1671-1831*. Cambridge: Cambridge University Press.
- Näkkäljärvi, Klemetti. 1996. "Reindeer Earmarks as a Sami Cultural System." Pp. 81-87 in *Awakened Voice: the Return of Sami Knowledge*, Editor Elina Helander. Guovdageaidnu, Norway: Nordic Saami Institute.
- Naughton-Treves, Lisa and Steven Sanderson. 1995. "Property, Politics and Wildlife Conservation." *World Development* 23(8):1265-75.
- Nellemann, C., I. Vistnes, Jordhøy P., O. Strand, and A. Newton. 2003. "Progressive Impact of Piecemeal Infrastructure Development on Wild Reindeer." *Biological Conservation* 113:307-17.
- Nellemann, Christian. Oct 2003. "New Bombing Ranges and Their Impact on Saami Traditions." *Polar Environmental Times* (Arendal, Norway), pp. 1-2.
- Neto, Fredrico and Håkan Tropp. 2000. "Water Supply and Sanitation Services for All: Global Progress During the 1990's ." *Natural Resources Forum* 24(3): 225-35.
- Netting, R. M. 1981. *Balancing on an Alp*. Cambridge: Cambridge Univ. Press.
- Netting, R. M. 1976. "What Alpine Peasants Have in Common: Observations on Communal Tenure in a Swiss Village." *Human Ecology* 4:135-46.
- Neumann, Roderick P. 1998. *Imposing Wilderness: Struggles Over Livelihood and Nature Preservation in Africa*. Berkeley: University of California Press.
- Nielssen, Alf R. 1986. "Economic Adaptation Among the Coast Sami Population in Finnmark C. 1700." *Acta Borealia* 1:21-41.
- Nilsson, Sven. 1868. *The Primitive Inhabitants of Scandinavia*. London: Longmans, Green and Co.
- Nissen, Kristian. 1914. "Lapper Og Ren i Norge." *Aarvog Bd.* 262-27:45-110.
- Noblit, Harlan and Dwight Hare. 1988. *Meta-Ethnography: Synthesizing Qualitative Studies*. London: Sage.

- Norges Offentlige Utredninger (NOU). 1994. *Bruk av Land og Vann i Finnmark i Historisk Perspektiv*. Oslo.
- . 1978. *Bruken Av Finnmarksvidda*. Oslo: Statens forvaltningstjeneste.
- . 1986. *Informasjonskriser, Nr. 19*. Oslo: Universitetsforlaget.
- Norges Offentlige Utredninger (NOU). 1997. *Naturgrunnlaget for Samisk Kultur*. Oslo: Statens Forvaltningstjeneste.
- . 1984. *Om Samenes Rettsstilling*. Oslo.
- . 1993. *Rett Til Og Forvaltning Av Land Og Vann i Finnmark*. Oslo: Statens Forvaltningstjeneste.
- . 1986. *Tiltak Mot Kjernekraftulykker, Nr. 24*. Oslo: Universitetsforlaget.
- . 1987. *Tsjernobylyllykken, Nr. 1*. Oslo: Universitetsforlaget.
- North, Douglas. 1987. "Institutions, Transaction Costs and Economic Growth." *Economic Inquiry* xxv (July):419-28.
- North, Douglass C. 1990. *Institutions, Institutional Change and Economic Performance*. Cambridge, UK: Cambridge University Press.
- Nøttestad, Øyvind. 1999. *Miljøvernforvaltningen i Tidsperspektiv: Utviklingen Fram Til Opprettelsen Av Miljøverndepartementet*. Oslo: Norwegian Ministry of the Environment.
- Nugent, Jeffrey B. and Nicolas Sanchez. 1993. "Tribes, Chiefs and Transhumance: a Comparative Institutional Analysis." *Economic Development and Cultural Changes*:87-113.
- Nuttall, Mark. 1998. *Protecting the Arctic*. the Netherlands: Harwood Academic .
- O'Rourke, Eileen. 2000. "The Reintroduction and Reinterpretation of the Wild." *Journal of Agricultural and Environmental Ethics* 13:145-65.
- Oakerson, Ronald J. 1992. "Analyzing the Commons: a Framework." Pp. 41-59 in *Making the Commons Work: Theory, Practice and Policy*, Ed. Daniel Bromley. San Francisco, CA: Institute for Contemporary Studies.
- Odner, Knut. 1992. "Ethnicity and Traditions in Northern Fenno-Scandinavia "Finns and Terfinns" Ten Years After." *Acta Borealia* 9(2):21-36.
- . 1985. "Saamis (Lapps), Finns and Scandinavians in History and Prehistory." *Norwegian Archaeological Review* 18(1-2):1-12.
- . 1992. *The Varanger Saami: Habitation and Economy AD 1200-1900*. Oslo, The Institute of Comparative Research in Human Culture: Scandinavian University Press.
- Ohthere. 892/1984. "Ohthere's Account." Pp. 18-21 in *Two Voyagers at the Court of King Alfred*, English ed. Editor Niels Lund. York, England: William Sessions.
- Olsen, Bjørnar. 1984. *Stabilitet Og Endring: Produksjon Og Samfunn i Varanger 800 F.Kr. - 1700 E.Kr.* Tromsø: University of Tromsø.
- . 1987. "Stability and Change in Saami Band Structure in the Varanger Area of Arctic Norway, AD

1300-1700." *Norwegian Archaeological Review* 20(2):65-80.

- Orton, Frank and Hugh Beach. 1998. "A New Era for the Saami People of Sweden." Pp. 91-107 in *The Human Rights of Indigenous Peoples*, Editor Cynthia P. Cohen. Ardsley, N.Y.: Transnational.
- Orum, Anthony M., Joe R. Feagin, and Gideon Sjøberg. 1991. "Introduction." Pp. 1-26 in *A Case for the Case Study*, Eds. Joe Feagin, Anthony M. Orum, and Gideon Sjøberg. Chapel Hill: Univ. of N. Carolina Press.
- Oskal, Nils and Mikkel N. Sara. "Reindriftssamiske Sedvaner Og Rettsoppfatninger Om Land." Pp. 280-334 in *Reindriften i Finnmark: Rettshistorie 1852-1960*, Kirsti S. Bull, Oskal Nils, and Mikkel N. Sara. Oslo: Cappelen.
- Ostrom, Elinor. 1990. *Governing the Commons: the Evolution of Institutions for Collective Action*. Cambridge University Press.
- Ostrom, Elinor and Edella Schlager. 1996. "The Formation of Property Rights." Pp. 127-56 in *Rights to Nature: Ecological, Economic, Cultural, and Political Principles of Institutions for the Environment*, Editors Susan S. Hanna, Carl Folke, and Karl-Göran Mäler. Washington, DC: Island Press.
- Overseas Development Institute. 1999. "What Can We Do With a Rights-Based Approach to Development?" *ODI* 3.
- Paine, Robert. 1987. "Accidents, Ideologies and Routines: 'Chernobyl' Over Norway." *Anthropology Today* 3(4):7-10.
- . 1991. "The Claim of Aboriginality: Saami in Norway." Pp. 388-406 in *The Ecology of Choice and Symbol*, Editors Reidar Grønhaug, Gunnar Haaland, and Georg Henriksen. Bergen, Norway: Alma Mater.
- . 1985. "The Claim of the Fourth World." Pp. 49-66 in *Native Power: the Quest for Autonomy and Nationhood of Indigenous Peoples*, Editors Jens Brøsted, Jens Dahl, Andrew Gray, Hans C. Gulløv, Georg Henriksen, Jørgen B. Jørgensen, and Inge Kleivan. Bergen: Universitetsforlaget.
- . 1957. *Coast Lapp Society: A Study of Neighbourhood in Revsbotn Fjord*. Tromsø: Tromsø Museum.
- . 1985. "Ethnodrama and the 'Fourth World': the Saami Action Group in Norway, 1979-81." Pp. 190-235 in *Indigenous Peoples and the Nation-State: "Fourth World" Politics in Canada, Australia and Norway*, vol. Social and Economic Papers, Editor Noel Dyck. St. John's, Newfoundland: Institute of Social and Economic Research, Memorial University of Newfoundland.
- . 1994. *Herd of the Tundra: A Portrait of Saami Reindeer Pastoralism*. Washington DC: Smithsonian Institution Press.
- . 1970. "Lappish Decisions, Partnerships, Information Management, and Sanctions - A Nomadic Pastoral Adaptation." *Ethnology* 9(1):52-67.
- . 1989. "Making the Invisible 'Visible': Coming to Terms With 'Chernobyl' and Its Experts, a Saami Illustration." *International Journal of Moral and Social Studies* 4(2 Summer):139-62.
- . 1992. "Social Construction of the 'Tragedy of the Commons' and Saami Reindeer Pastoralism." *Acta Borealia* 2(9):3-20.
- Pareli, Leif. 1988. "Det Første Samiske Landsmøte." Pp. 103-16 in *Årjel-Saemieh: Samer i Sør*, vol. 3,

Snåsa: Saemien sijte.

- Pedersen, Steinar. 1989. "Kodisillen - En Generell Sikring Av Rettighetene Til Den 'Lappiske Nation'?" *Diadut* 1:192-216.
- . 1999. "Statenseiendomsrett Til Grunnen i Finnmark - En Del Av Den Interne "Kolonihistorie"." Pp. 13-39 in *Samer Og Nordmenn*, Editor Harald Eidheim. Oslo: Cappelen.
- Pejovich, Svetozar. 2001. "The Economics of Property Rights: Legal and Moral Foundations." Pp. xiii-xxii in *The Economics of Property Rights*, vol. I: Cultural, Legal and Philosophical Issues, Editor Svetozar Pejovich. Cheltenham, UK: Edward Elgar .
- Pelto, Pertti J. 1973. *Technology and Social Change in the Arctic*. California: Cummings Publishing.
- Peluso, Nancy L. 1996. "Fruit Trees and Family Trees in an Anthropogenic Forest: Ethics of Access, Property Zones, and Environmental Change in Indonesia." *Comparative Studies in Society and History* 38:510-548.
- Penner, J. E. 1995. "The Bundle of Rights Picture of Property." *UCLA Law Review* 43(1):711-820.
- Pituf'ko, Vladimir V. 1999. "Ancient Humans in Eurasian Arctic Ecosystems: Environmental Dynamics and Changing Subsistence." *World Archaeology* 30(3):421-36.
- Pospisil, Leopold. 1974. *Anthropology of Law: a Comparative Theory*. New Haven: HRAF Press.
- Powell, Neil S. 1997. *Co-Management of Natural Resources: Method Development Incorporating the Needs and Aspirations of Nomadic Land Users in Natural Resource Management - A Case From Namibia*. Oslo: Centre for Development and the Environment.
- Pradhan, Rajendra and Pradhan Ujjwal. 1996. "Staking a Claim: Law, Politics and Water Rights in Farmer Managed Irrigation Systems in Nepal." Pp. 61-76 in *The Role of Law in Natural Resource Management*, Editors Joep Spiertz and Melanie G. Wiber. BK 's-Gravenhage, Netherlands: VUGA.
- Putnam, H. 1987. *The Many Faces of Realism: the Paul Carcus Lectures*. LaSalle, Illinois: Open Court publishing company.
- Ragin, Charles C. 1994. *Constructing Social Research: the Unity and Diversity of Method*. Pine Forge//Thousand Oaks: Northwestern University.
- Ragin, Charles C. and Howard S. Becker, Editors. 1992. *What Is a Case? Exploring the Foundations of Social Inquiry*. Cambridge: Cambridge University Press.
- Ranger, Terence. 1983. "The Invention of Tradition in Colonial Africa." Pp. 211-62 in *The Invention of Tradition*, Editors Eric Hobsbawm and Terence Ranger. Cambridge: Cambridge University Press.
- Rapp, Ole M. 12 Dec 2000. "Elektronisk Reingjeting." *Aftenposten* (Oslo, Norway), News (3-6), p. 56.
- . 18 Dec 2000. "Lite Samsvar Mellom Erstatningskrav Og Rovdyrtall." *Aftenposten* (Oslo, Norway), News (4-6), p. 18.
- . 7 Nov 2000. "Ørn Og Jerv Tar Reindriften." *Aftenposten* (Oslo, Norway), News (3-7), p. 64.
- Regan, T. 1984. *The Case for Animal Rights*. London: Routledge.

- Reimers, Eigil. 1972. "Growth in Domestic and Wild Reindeer in Norway." *Journal of Wildlife Management* 36(2):612-19.
- . 2001. *Halkavarre Skytefelt. Våpenflygning Og Militære Øvelser*. Oslo: Norwegian Veterinary College, Univ. of Oslo.
- . 1989. *Villreinens Verden*. Oslo: Aschehoug.
- Reindrifftsforvaltningen. 1998. *Ressursregnskap for Reindriftnæring*. Alta.
- Renouf, M. A. P. 1989. *Prehistoric Hunter-Fishers of Varangerfjord, Northeastern Norway: Reconstruction of Settlement and Subsistence During the Younger Stone Age*. Oxford: Oxford University Press.
- Rindos, David. 1984. *The Origins of Agriculture*. London: Academic Press.
- Riseth, Jan Å. 2000. "Sámi Reindeer Management Under Technological Change 1960-1990: Implications on Common-Pool Resource Use Under Various Natural and Institutional Conditions." Agricultural University of Norway, Aas, Norway.
- Ritvo, Harriet. 1996. "Possessing Mother Nature: Genetic Capital in Eighteenth-Century Britain." Pp. 413-65 in *Early Conceptions of Property*, Editors John Brewer and Susan Staves. London: Routledge.
- Rodgers, Edward S. 1963. *The Hunting Group - Hunting Territory Complex Among the Mistassini Indians*. Ottawa: Department of Northern Affairs and National Resources.
- Röling, N. 1996. "Towards an Interactive Agricultural Science." *European Journal of Agricultural Education and Extension* 2(4):35-48.
- Rolston III, H. 2001. "Biodiversity." Pp. 402-15 in *A Companion to Environmental Philosophy*, Editor Dale Jamieson. Massachusetts: Blackwell.
- . 1991. "Environmental Ethics: Values in and Duties to the Natural World." Pp. 73-96 in *Ecology, Economics, Ethics: the Broken Circle*, Editors F. H. Bormann and Stephen R. Kellert. New Haven: Yale University Press.
- . 1981. "Values in Nature." *Environmental Ethics* 3:113-28.
- Rose, Carol M. 1994. *Property and Persuasion: Essays on the History, Theory, and Rhetoric of Ownership*. Boulder, Colorado: Westview Press.
- Rosendal, G. K. 1999. "Implementing International Environmental Agreements in Developing Countries: the Creation and Impact of the Convention on Biological Diversity." Dept. of Political Science, Faculty of Social Science, Univ. of Oslo, Nr. 10, Oslo.
- Rozell, Ned. 5 Apr 2001. "Caribou Threaten Reindeer Herders' Way of Life." *Alaska Science Forum* (Fairbanks, Alaska), Article nr. 1536, p. 2.
- Ruggie, John G. 1993. "Territoriality and Beyond: Problematizing Modernity in International Relations." *International Organization* 47(1):139-74.
- Runge, Carlisle F. 1981. "Common Property Externalities: Isolation, Assurance, and Resource Depletion in a Traditional Grazing Context." *American Agricultural Economics* 4:595-606.
- Runge, Ford C. 1992. *A Policy Perspective on the Sustainability of Production Environments: Toward a*

- Land Theory of Value*. Working Paper WP 92-2/1992. Univ. of Minnesota: The Center for international food and agricultural policy.
- Sæther, Bernt-Erik, Knut Solbraa, Dag P. Sødal, and Olav Hjeljord. 1992. *Sluttrapport Elg-Skog-Samfunn*. Trondheim, Norway: Norsk Intitut for Naturforskning.
- Salazar, Debra J. and Alex K. Lenard. 1994. "Conservation and the Nature of Goods." *Society and Natural Resources* 7:331-48.
- Salzman, Philip C. 1975. "Movement and Resource Extraction Among Pastoral Nomads: the Case of the Shah Nawazi Baluch." Pp. 19-25 in *Cultural and Social Anthropology: Introductory Readings in Ethnology*, Editor Peter Hammond. New York: Macmillan Publishing .
- Sandberg, Audun. 1994. *Entrenchment of State Property Rights to Northern Forests, Berries and Pastures*. Tromsø: Nordlands Forskning.
- Sandøe, Peter. 1999. "Quality of Life - Three Competing Views." *Ethical Theory and Moral Practice* 2:11-23.
- Sandøe, Peter, Roger Crisp, and Nils Holtug. 1997. "Ethics." Pp. 3-17 in *Animal Welfare*, Eds. Mike Appleby and Barry Hughes. Wallingford: CAB International.
- Sandvik, Gudmund. 1998. "Grensetraktaten Og Lappekodisillen Av 1751: Jurisdiksjon Eller Statlig Eiendomsrett." *Diedut* 3:13-27.
- . 1989. "Lappekodisillen Og Grenser i Norden." *Diedut* 1:10-21.
- Sara, Mikkel N. 1993. "Reindriftsnæringens Tilpasning Og Reindriftspolitik." *Diedut* 2:1-188.
- Sawyer, P. H. 1984. "Othere and Viking Age Trade." Pp. 43-55 in *Two Voyagers at the Court of King Alfred*, English ed. Editor Niels Lund. York, England: William Sessions.
- Sax, Joseph L. 1990. "Heritage Preservation As a Public Duty: the Abbé Grégoire and the Origins of an Idea." *Michigan Law Review* 88:1142-69.
- . 1999. *Playing Darts With a Rembrandt: Public and Private Rights in Cultural Treasures*. Ann Arbor, Michigan: the University of Michigan Press.
- . 1993. "Property Rights and the Economy of Nature: Understanding *Lucas V. South Carolina Coastal Council*." *Stanford Law Review* 45:1433-55.
- Schlager, Edella, Willima Blomqvist, and Shui Y. Tang. 1994. "Mobile Flows, Storage and Self-Organized Institutions for Governing Common-Pool Resources." *Land Economics* 70 (3):294-317.
- Schlager, Edella and Elinor Ostrom. 1992. "Property-Rights Regimes and Natural Resources: a Conceptual Analysis." *Land Economics* 68(3):249-62.
- Schofield, Janet W. 1993. "Increasing the Generalizability of Qualitative Research." Pp. 200-225 in *Social Research: Philosophy, Politics and Practice*, Editor Martyn Hammersley. London: Sage Publications.
- Schreurs, Miranda A. and Elizabeth Economy, Editors. 1997. *The Internationalization of Environmental Protection*. Cambridge, UK: Cambridge University Press.
- Scoones, Ian, editor. 1995. *Living With Uncertainty: New Directions in Pastoral Development in Africa*.

London: Intermediate Technology Publications.

- . 1995. "New Directions in Pastoral Development in Africa." Pp. 1-36 in *Living With Uncertainty: New Directions in Pastoral Development in Africa*, Editor Ian Scoones. London: Intermediate Technology Publications.
- . 1999. "New Ecology and the Social Sciences: What Prospects for a Fruitful Engagement?" *Annual Review of Anthropology* 28:479-507.
- Scott, James C. 1998. *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*. New Haven, CT: Yale University Press.
- Scott, W. R. 1995. *Institutions and Organizations*. Thousand Oaks, California, USA: Sage Publications, Inc.
- Sen, Amartya. 2002. "How Does Culture Matter?" *Culture and Public Action*, Editors V. Rao and M. Walton.
- Sengupta, Arjun. 2001. "Right to Development As a Human Right." *Economic and Political Weekly* July 7:2527-36.
- Seur, H. 1993. "The Engagement of Researcher and Local Actors in the Construction of Case Studies and Research Themes: Exploring Methods of Restudy." Pp. 115-43 in *Battlefields of Knowledge: the Interlocking of Theory and Practice in Social Research and Development*, Editors N. Long and A. Long. London: Routledge.
- Sevatdal, Hans. 1998. "Common Property in Norway's Rural Areas." Pp. 141-61 in *Law and the Governance of Renewable Resources: Studies From Northern Europe and Africa*, Editors Erling Berge and Nils C. Stenseth. California: Institute for Contemporary Studies.
- Severinsen, Anne. 1980. "Konflikt Og Maktbalanse: En Sosiologisk Analyse Av Konflikten Mellom Reineire Og Grunneire i Trollheimen, Med Vekt På Lovgivningens Funksjon." .
- . 1979. "Opprettelse Av Reinbeitedistrikt i Sør-Norge - Overgrep Eller Tilrettelegging." *Ottar* 116-117:38-54.
- Sillanpää, Lennard. 1994. *Political and Administrative Responses to Sami Self-Determination*. Helsinki: Societas scientiarum Fennica.
- Silliman, G. S. 1981-1982. "Dispute Processing by the Philippine Agrarian Court." *Law & Society Review* 16(1):89-113.
- Simonsen, Povl. 1972. "The Transition From Food-Gathering to Pastoralism in North Scandinavia and Its Impact on Settlement Patterns." Pp. 187-92 in *Man, Settlement and Urbanism*, Editors Peter J. Ucko, R. Tringham, and G. W. Dimbleby. England: Duckworth.
- Sjoberg, Gideon, Norma Williams, Ted R. Vaughana , and Sjoberg Andrée F. 1991. "The Case Study Approach in Social Research: Basic Methodological Issues." Pp. 27-78 in *A Case for the Case Study*, Editors Joe Feagin, Anthony M. Orum, and Gideon Sjoberg. Chapel Hill: Univ. of N. Carolina Press.
- Skjelde, Atle. 2001. "Ligg Unna Forvaltninga!" *Jakt & Fiske* 9:16-17.
- Skjenneberg, Sven. 1989. "Reindeer Husbandry in Fennoscandia." Pp. 207-22 in *Wildlife Production Systems*, Editors Robert J. Hudson, K. R. Drew, and L. M. Baskin. Cambridge: Cambridge

University Press.

- Skočpol, Theda, Editor. 1984. *Visions and Method in Historical Sociology*. Cambridge: Cambridge University Press.
- Skogland, Terje and Øystein Mølmen. 1979. "Prehistoric and Present Habitat Distribution of Wild Mountain Reindeer at Dovrefjell." Pp. 130-141 in *International Reindeer/Caribou Symposium* (Røros, Norway. Trondheim: Directorate for Wildlife and Freshwater Fish .
- Smith, Carsten. 1984. "Lappekodisillen Og Samerettsutvalget." Pp. 131-37 in *Skrifter Tillägnada Gustaf Petré*n, Stockholm: Stiftelsen Rättsfonden, Institutet för offentlig och internationell rätt.
- Smith, Eivind. 1990. "Constitutional Protection of Minorities: the Rights and Protection of the Sami Population in Norway." *Scandinavian Studies in Law* 34:235-59.
- Smith, P. L. 1938. *Kautokeino Og Kautokeino-Lappene: an Historisk Og Ergologisk Regionalstudie*. Oslo: H. Aschenhoug.
- Smith, Robert J. 1996. "Resolving the Tragedy of the Commons by Creating Private Property Rights in Wildlife." *The Cato Journal* 1(2).
- Søilen, Espen. 1995. "Sportsmenn i Veideland - Om Embetsmannsstatens Kamp Mot Allemannsretten Til Jakt." *Naturvern Og Friluftsliv Arkivmagasinet* 2-3:14-17.
- Solem, Erik. 1933. *Lappiske Rettsstudier*. Oslo: Aschehoug.
- Southern Africa Sustainable Use Specialist Group (SASUSG). 1996. *Sustainable Use Issues and Principles*. IUCN Species Survival Commission.
- Spencer, R. 1959. *The North Alaskan Eskimo: a Study in Ecology and Society*. Washington, DC: Smithsonian International Press.
- Spiertz, Joep and Melanie G. Wiber. 1996. "The Bull in the China Shop: Regulation, Property Rights and Natural Resource Management." Pp. 1-15 in *The Role of Law in Natural Resource Management*, Eds. Joep Spiertz and Melanie G. Wiber. Netherlands: VUGA.
- Standford, Dennis J. 1976. *The Walakpa Site, Alaska: Its Place in the Birnirk and Thule Cultures*. Washington, DC: Smithsonian International Press.
- Statistics Sweden. 1999. *Svensk Rennäring*. Stockholm: Lantbruksuniversitet, Statistiska centralbyrån.
- Steins, Nathalie A. 2001. "New Directions in Natural Resource Management." *IDS Bulletin* 32(4):18-25.
- Stevenson, William B. and Danna N. Greenberg. 1998. "The Formal Analysis of Narratives of Organizational Change." *Journal of Management* 24(6):741-62.
- Stordahl, Vigdis. 1994. "Identity and Saminess Expressing World View and Nation." Pp. 57-62 in *Majority-Minority Relations*, vol. 1, Diedut, World Commission on Culture and Development. Guovdageaidnu, Norway: The Nordic Sami Institute.
- Storti, Inger and Ole K. Sara. 1997. *Reindrift: Før Og Nå*. Oslo: Landbruksforlaget.
- Stortinget. 1883. *Lov Angaaende Lapperne i De Forenede Kongeriger Norge og Sverige*.

- . 1992. *Lov Av 9. Juni 1978 Nr. 49 Om Reindrift Med Endringer, Sist Ved Lov Av 21 Desember 1984 Nr. 101*. Oslo: Grøndahl Dreyer, Lovdata.
- . 1897. *Lov Indeholdende Tillægsbestemmelser Angaaende Lapperne Og Rensdyrdriften Inden De Søndenfor Finnmarkens Amt Liggende Landsdele*.
- . 1992. *Om Bærekraftig Reindrift*. Oslo.
- . 1987. *Om Friluftsliv, St. Meld. Nr. 40 (1986-87)*. Oslo.
- . 1996. *Om Lov Om Endringer i Reindriftslova, Jordskiftelova Og Viltlova*. Oslo.
- . 1995. *Om Lov Om Endringer i Reindriftsloven Ot. Prop. 28 (1994-95)*. Oslo.
- . 1997. *Om Rovviltforvaltning St. Meld. Nr. 35 (1996-1997)*. Oslo: Miljøverndepartementet.
- . 1933. *Reindriftslov Av 1933*. Oslo: Landbruksdepartement.
- . 1978. *Reindriftsloven 9 Juni 1978, Nr 49*.
- . 1987. *Sameloven: Om Sametinget Og Andre Samiske Rettsforhold*. Oslo.
- . 1981. *Viltloven 14 Desember 1981*. Oslo.
- Straus, Ansen. L. and Juliet Corbin. 1998. *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*. Thousand Oaks: Sage.
- Svensson, Birgitta. 2000. "The Power of Cultural Heritage Tourism: Relations Between Culture and Nature in Historical Landscapes." Pp. 37-60 in *Negotiating Nature: Culture, Power and Environmental Argument*, Editors Alf Hornborg and Gisli Páisson. Lund, Sweden: Lund University Press.
- Svensson, Tom G. 1988. "The Land Claims Issue and the Sámi - Reflections on Contemporary Legal Struggle." *Geographica Helvetica* 4:184-93.
- . 1973. "Reindeer Lapps: Ecology and Political Development." Pp. 177-84 in *Circumpolar Problems: Habitat, Economy, and Social Relations in the Arctic*, Editor Gösta Berg. Oxford: Pergamon Press.
- . 1992. "Right to Self-Determination: a Basic Human Right Concerning Cultural Survival." Pp. 363-84 in *Human Rights in Cross-Cultural Perspectives: a Quest for Consensus*, Eds. An-Na'im and Abdullahi Ahmed. Philadelphia: Univ. of Penn. Press.
- . 1997. *The Sámi and Their Land: the Sámi vs. the Swedish Crown: a Study of the Legal Struggle for Improved Land Rights: the Taxed Mountain Case*. Oslo: Novus.
- Swanson, Timothy. 1992. "Economics of a Biodiversity Convention." *Ambio* 21(3):250-257.
- . 1996. "The Economics of Environmental Degradation: an Institutional Approach." *The Economics of Environmental Degradation: Tragedy for the Commons?*, Editor Timothy Swanson. Cheltham, UK: UNEP & Edward Elgar.
- . 1996. "Global Values of Biological Diversity: the Public Interest in the Conservation of Plant Genetic Resources for Agriculture." *Plant Genetic Resources Newsletter* 105:1-7.

- . 1996. "The Reliance of Northern Economies on Southern Biodiversity: Biodiversity As Information." *Ecological Economics* 17:1-8.
- Syroechkovskii, E. E. 1995. *Wild Reindeer*. English ed. Washington, D. C.: Smithsonian Institution Libraries.
- Tanner, Adrian. 1979. "Mistassini Land Tenure." Pp. 182-202 in *Bringing Home Animals: Religious Ideology and Mode of Production of the Mistassini Cree Hunters*, Editor Adrian Tanner. London: C. Hurst & Company.
- Testart, Alain. 1987. "Game Sharing Systems and Kinship Systems Among Hunter-Gatherers." *Man: the Journal of the Royal Anthropological Institute* 2:287-304.
- Thomas, F. M. 1959. *The Harmless People*. New York: Alfred Knopf.
- Thompson, Michael. 1998. "Style and Scale: Two Sources of Institutional Inappropriateness." Pp. 198-228 in *Privatizing Nature: Political Struggles for the Global Commons*, Editor Michael Goldman. London: Pluto Press.
- Thuen, Trond. 1995. *Quest for Equity: Norway and the Saami Challenge*. St. John's, Newfoundland, Canada: Memorial University of Newfoundland.
- Tønnesen, Sverre. 1972. "Retten Til Jorden i Finnmark." University of Bergen, Bergen, Norway.
- Toogood, Mark. 1995. "Representing Ecology and Highland Tradition." *Area* 27(2):102-9.
- Tornaeus, Hohannes P. 1772. *Lappmarkerna Och Deras Tillstånd*.
- Tresader, Leslie, Jamie Honda-McNeil, Mina Berkes, Fikret Berkes, Joe Dragon, Claudia Notzke, Tanja Schramm, and Robert J. Hudson. 1999. *Northern Eden: Community-Based Wildlife Management in Canada*. London: International Institute for Environment and Development (IIED).
- Trut, Lyudmila N. 1999. "Early Canid Domestication: the Farm-Fox Experiment." *American Scientist* 87(March-April):160-169.
- Tully, James. 1994. "Aboriginal Property and Western Theory: Recovering a Middle Ground." *Social Philosophy and Policy* 11(2):152-80.
- United Nations. 1966. *Convention on Civil and Political Rights*. New York: United Nations.
- United Nations Committee on Environment and Development (UNCED). 1992. *Agenda 21: Programme of Action for Sustainable Development*. New York: United Nations.
- United Nations Environment Programme. 5 June 1992. *Convention on Biological Diversity*. New York: United Nations.
- United Nations (UN). 1978. *The International Bill of Human Rights; Universal Declaration of Human Rights; International Covenant on Economic, Social and Cultural Rights*. New York: United Nations.
- Utenniksdepartementet. 23 Nov 2000. "Norwegian Daily No. 226/00" [Web Page]. Accessed 23 Nov 2000. Available at <http://www.odin.dep.no/odin/engelsk/nytt/nyheter/032001-990385/index>.
- Utsi, Mikkel. 1948. "The Reindeer-Breeding Methods of the Northern Lapps." *Man* 114,115:97-101.

- Vågå Tamreinlag. 1992. *Vågå Tamreinlag: 50 År*. Otta.
- Vandergeest, Peter. 1997. "Rethinking Property." *Common Property Resource Digest*(41):4-6.
- Vansina, Jan. 1975. "Studying Cultures Through Time." Pp. 434-48 in *Cultural and Social Anthropology: Introductory Readings in Ethnology*, Editor Peter Hammond. New York: Macmillan Publishing Co.
- Vatn, Arild. 2002. *Virkemidler Rettet Mot Biodiversitet i Skog - En Teoretisk Vurdering*. Diskusjonsnotat nr. D-08/2002. Aas, Norway: Department of Economics and Social Science.
- Verdery, Katherine. 1999. "Fuzzy Property: Rights, Power, and Identity in Transylvania's Decollectivization." Pp. 53-82 in *Uncertain Transition: Ethnographies of Change in the Postsocialist World*, Editors Michael Burawoy and Katherine Verdery. Oxford: Rowman & Littlefield.
- Vistnes, Inguu, Christian Nøllemann, and Kirsti S. Bull. 2004. *Inngrep i Reinbeiteland: Biologi, Jus Og Strategier i Utbyggingssaker*. Trondheim, Norway: NINA.
- Vorren, Ørmluv. 1968. "Den Samiske Bosetning." *Ottar* 58(4):3-15.
- . 1944. "Dyregraver Og Reingjerder i Varanger." Pp. 1-99 in *Bidrag Til Finnernes Bygdehistorie Og Etnografi*, Ethnografisk Museum. Oslo: Brøgers Boktrykkeri.
- . 1989. "Innledning: Om Grenser - Land - Samer." Pp. 9-11 in *Grenser i Sameland*, vol. XIII, Samiske Samlinger, Editor Bjørn Aarseth. Oslo: Norsk Folkemuseum.
- . 1974-1975. "Man and Reindeer in Northern Fennoscandia: Economic and Social Aspects." *Folk* 16-17:243-52.
- . 1980. "Samisk Bosetning På Nordkalotten, Arealdisponering Og Ressursutnyttning i Historisk-Økologisk Belysning." Pp. 235-61 in *Nord-Skaninaviens Historia i Tvärvetenskaplig Belysning*, Evert Baudou and Karl-Hampus Dahlstedt. Umeå: Acta Universitatis Umensis.
- . 1973. "Some Trends of the Transition From Hunting to Nomadic Economy in Finnmark." Pp. 185-94 in *Circumpolar Problems: Habitat, Economy, and Social Relations in the Arctic*, Editor Gösta Berg. Oxford: Pergamon Press.
- . 1989. "Veidekulturens Arealfordeling, Siidagrenser Og Ressursutnyttning i Samelands Nordøstlige Strøk." Pp. 12-42 in *Grenser i Sameland*, vol. XIII, Samiske Samlinger, Editor Bjørn Aarseth. Oslo: Norsk Folkemuseum.
- Vorren, Ørmluv and Ernst Manker. 1957. *Same Kulturen*. Tromsø, Norway: Tromsø Museum.
- Waldron, Jeremy. 1999. *The Dignity of Legislation*. Cambridge: Cambridge University Press.
- . 1999. *Law and Disagreement*. Oxford: Clarendon Press.
- Wayne, Robert K. 1993. "Molecular Evolution of the Dog Family." *Trends in Genetics* 9(6):218-24.
- Webb, Walter P. 1959. *The Great Plains*. Beograd.
- Wells, Michael and K. Brandon. 1992. *Linking Protected Area Management With Local Communities*. Washington DC: World Bank, WWF and USAID.
- Wheelerburg, Robert P. 1991. "Uma Saami Native Harvest Data Derived From Royal Swedish Taxation

- Records 1557-1614." *Arctic* 44(4, December):337-45.
- Wiber, Melanie G. 1991. "Levels of Property Rights, Levels of Law: a Case Study From the Northern Philippines." *Man* 26:469-92.
- . 1993. *Politics, Property and Law in the Philippine Uplands*. Ontario: Wilfred Laurier University Press.
- Wiklund, K. B. 1908. *De Svenska Nomadlapparnas Flyttningar Till Norge i Äldre Och Nyare Tid*. Uppsala: Almqvist & Wiksells.
- . 1923. "The Lapps in Sweden." *The Geographical Review* 13(2):223-43.
- Wilkinson, P. F. 1972. "Current Experimental Domestication and Its Relevance to Prehistory." *Papers in Economic Prehistory*:107-19.
- Wilson, James A., Ralph Townsend, Peter Kelban, Susan McKay, and John French. 1990. "Managing Unpredictable Resources: Traditional Policies Applied to Chaotic Populations." *Ocean & Shoreline Management* 13:179-97.
- Wolfe, Scott A., Brad Griffith, and Carrie A. G. Wolfe. 2000. "Response of Reindeer and Caribou to Human Activities." *Polar Research* 19(1):63-73.
- Woodburn, James. 1988. "African Hunter-Gatherers and Other People - a Re-Examination." Pp. 31-64 in *Hunters and Gatherers: History, Evolution and Social Change*, vol. 1, Editors Tim Ingold, David Riches, and James Woodburn. Oxford: Berg.
- . 1982. "Egalitarian Societies." *Man* 17(3):431-51.
- . 1998. "'Sharing Is Not a Form of Exchange': an Analysis of Property-Sharing in Immediate Return Hunter-Gatherer Societies." Pp. 48-63 in *Property Relations: Renewing the Anthropological Tradition*, Editor C. M. Hann. United Kingdom: Cambridge University Press.
- Wynne, Brian. 1992. "Misunderstood Misunderstanding: Social Identities and Public Uptake of Science." *Public Understanding of Science* 1(3):282-304.
- Yin, R. K. 2003. *Applications of Case Study Research*. 3 ed. Thousand Oaks, CA: Sage.
- . 1994. *Case Study Research: Design and Methods*. 2 ed. Thousand Oaks, CA: Sage.
- Young, Oran R. 1992. *Arctic Politics: Conflict and Cooperation in the Circumpolar North*. Hanover: Dartmouth, University Press of New England.
- Zeuner, Frederick. 1963. *A History of Domesticated Animals*. London: Hutchinson.
- Zinn, Harry C. and Cynthia Pierce. 2002. "Values, Gender and Concern About Potentially Dangerous Wildlife." *Environment and Behavior* 34(2):239-56.

Errata: Appendices I and II (pp. 290-293) are inserted separately in the back of the thesis.

Appendix I: List of Laws, Treaties and Conventions

Ancient: Gulatingsloven

- 1751 21 Sept./2 Oct. 1751. First Codicil and Supplement to the Frontier Treaty between the Kingdoms of Norway and Sweden concerning the Lapps [Saami] (the Lapp Codicil)
Lappekodisillen til grensetraktat mellom de begge rikene Sverige og Danmark-Norge
- 1852 Law of 10 July 1852. Delineation of border between Russia/Finland and Norway
- 1854 Law of 7 September 1854 concerning Reindeer Herding in Finnmark
Lov, indeholdende Bestemmelser med Hensyn til Benyttelsen af visse Stækninger i Finmarken til Reenbete og til Bevogtning av Reenhjorde
- 1883 Law of 2 June 1883 concerning the Lapps in Norway and Sweden (Common Lapp Law)
Lov angaaende Laperne i de forenede Kongeriger Norge og Sverige (Fælleslappeloven)
- 1886 Fjeldfin Committee report – response to resolution of 8 May 1875
- 1888 Law of 23 June 1888 concerning different conditions faced by the Mountain Saami in the District of Finnmark
Lov om forskjellige Forhold vedkommende Fjeldfinerne i Finnmarkens Amt
- 1898 Law of 11 June 1898 containing additional decisions concerning Lapps [Saami] and Reindeer herding within the districts south of Finnmark (Additional Lapp Law)
Lov angående Tillæg til Lov, indeholdende Bestemmelse med Hensyn til Benyttelse af visse Strækninger i Finmarken til Renbeite og til Bevogtning af Renhjort
- 1899 The Hunting Law
- 1905 Karlstad Commission. Norwegian independence. Stipulation of herding Saami's right to pasture. 26 Oct. 1905.
- 1919 Reindeer Pasture Convention of 5 Feb. 1919
Konvensjonen mellom Norge og Sverige angående flyttlappenes adgang til reinbeitning av 5. februar 1919
- 1922 Reindeer husbandry convention (between Norway and Finland) of 3 March 1922 (following Finland's independence)
- 1922 Draft national law produced by Attorney General Kjershow
- 1933 Reindeer Herding Law of 12 May 1933
Reindrifisloven av 1933
- 1935 Reindeer husbandry convention (between Norway and Finland). (Agreement to set up a 390 km fence along the national border - not carried out.)

- 1948, 1952 Reindeer husbandry convention (between Norway and Finland). A new agreement on erecting a fence was reached: it was implemented in 1957.
- 1951 Revised Hunting Law of 14 Dec. 1951
- 1966 UN Convention on Civil and Political Rights
- 1968 Supreme Court – Judgment in Alta case 20 April 1968, Oslo
- 1972 Reindeer Pasture Convention (Norway and Sweden) 1 May 1972 to last 30 years
- 1978 Law on Reindeer Husbandry of 9 June 1978
Lov av 9 juni 1978 nr. 49 Om reindrift
- 1978 UN Declaration of Human Rights
- 1981 The Wildlife Act of 14 Dec. 1981
Viltloven
- 1981 Reindeer husbandry convention (Norway and Finland). The agreement simplified the process for the return of reindeer that crossed over the border.
- 1984 Om Samenes rettsstilling (NOU 1984: 18)
- 1984 Law concerning reindeer herding in Trollheimen
- 1984 Law on the marking of tame reindeer 12 June 1984
- 1987 Outdoor Recreation Act
Om friluftsliv
- 1987 Creation of Saami parliament
- 1988 ILO Convention of 1989 “Concerning Indigenous and Tribal People in Independent Countries”.
- 1988 Addition to Norwegian constitution, §110A “Det paaligger Statens myndigheter at lægge forholdene til Rette for at den samiske Folkegruppe kan sikre og utvikle sit Sprog, sin Kulture og sit Samfundsliv.” 21 April 1988
- 1992 Agenda 21 (UNCED)
- 1992 Convention on Biological Diversity (UNEP)
- 1996 Amendment of 1996
- 1999 Addition to the Reindeer husbandry law of 1978. 7 Oct. 1999. Forskrift om Melding om reindrift.

Appendix II: List of Committees

- 1843 Swedish-Norwegian Commission – created to present suggestions for changes in and to the Lapp Codicil
art age under Overveielse og afgive Forslag om Forandringer I og Tillæg til Grændsetractaten af 7-18 October 1751- forsaavidt angaaer Forholdene med Hensyn til Lapperne i de forende Riger – som maatte befindes nødvendige og henigtsmæssige
- 29 July 1852 Reindeer grazing commission
They delivered: O. No. 42 (1853) Angaaende naadigste Proposition til Norges Riges Storthing betræffende Udfærdigelse af 2de Love om Reenbete og om Betalingen for Reenskyds I Finnmarken.
- 1866 Swedish-Norwegian Commission created to look at the relationship between Norwegian and Swedish herding Saami
Forholdet mellem de norske Fjeldfinner og de svenske Lapper i de forenede Riger
- 8 May 1875 Fjeldfin Commission – created to look in to the internal conditions in reindeer husbandry reindriften. This was the first time that Saami herders were included in a legal committee.
- 1897 Lapp Commission
Attorney general Kjerschow was a member of this commission.
- 1909 Finnmark Commission - created to revise reindeer herding law and law concerning reindeer herding in Finnmark
Innstilling av 1910 fra den ved kongelig resolusjon av 11 mai 1909 nedsatte kommisjon til revisjon av lovgivningen om fjellfinnenene og renbeitningen I Finnmark
- 1919 Norwegian-Swedish reindeer husbandry committee
- 1949 Norwegian/Swedish reindeer husbandry committee, 14 Dec 1949.
- 1960 Reindeer husbandry legal commission (Innstilling 1966 Innstilling avgitt av Reindriftlovkomiteen av 1960)
- 1967 Norwegian-Swedish Reindeer Pasture Commission (Reinbeitekommissjonen)
- 1980 Commission created to consider Saami rights to water and land and other judicial questions, 10 Oct. 1980.
- 1997 Norwegian-Swedish Commission with Finnish head – work on a new convention to replace 1972 pasture convention. Earlier convention was extended until 1 May 2005.

1998 Committee appointed to revise the 1978 law with the aim of promoting sustainability in reindeer husbandry (Landbruksdept. delegasjonsvedtak of 10 Oct. 1997)