

Robert Paine

DAM A RIVER, DAMN A PEOPLE?

Saami (Lapp) Livelihood and the Alta/Kautokeino
Hydro-electric Project and the Norwegian Parliament



IWGIA NEWSLETTER

ISSN 0105 - 4503

IWGIA - International Work Group for Indigenous Affairs - is an independent, international organisation which deals with the oppression of indigenous peoples.

IWGIA publishes the IWGIA Documentation Series in English with summaries in Spanish. The IWGIA Newsletter will be published four times a year: in March, June, October and December. The Documentation and Research Department welcomes suggestions and contributions to the Newsletter. The Newsletter is published in English and from 1979, a version in Spanish has also been produced for distribution among Indian organisations in South America. This Spanish version is not included in the ordinary subscription rates, but can be purchased separately.

IWGIA Documents and Newsletters can be obtained through subscription or purchased separately. The subscription fee for 1982 is the following: for individuals, US\$ 16.00 (120 D kr) and for institutions, US\$ 30.00 (210 D kr). Please make your cheque payable to the International Secretariat of IWGIA. Address: Fiolstræde 10,
DK- 1171 Copenhagen K,
Denmark

Telephone: Copenhagen 1 - 12 47 24

Members of the Board: Mark Münzel (President 1981-82), René Fuerst, Georg Henriksen, Helge Kleivan, Henning Siverts, Espen Wæhle and Bent Østergaard.

Documentation and Research Group: Teresa Aparicio, Jørgen Brøchner Jørgensen, Elisabeth Nonell Bierlich, and Fiona Wilson.

Administration: Karsten Soltau, Jeppe Toft and Mads Ole Jensen.

Cover: Lassoing reindeer bulls prior to the spring trek (Photo: Terje Brantenberg).

DAM A RIVER, DAMN A PEOPLE?

Saami (Lapp) Livelihood and the Alta/Kautokeino
Hydro-Electric Project and the Norwegian Parliament

Robert Paine

Copenhagen June 1982



The shores around Vird'nejav'ri: an example of how certain components of the landscape are of particular importance for herding. In the spring the herds on both sides of the lake move down towards the shore-line where the grazing is especially rich. For the 4,000 to 5,000 females and new-born calves of Baskades, Lemmon and Fire-Mahte sii'da, access to this grazing during 2 or 3 weeks in the spring is critical to the maintenance of the annual cycle.
(Photo and text: Terje Brantenberg).

CONTENTS

Preface vi

Maps viii

1. Introduction (p. 1)

I. NUORTABEALLI REINDEER PASTORALISM

2. Character of the Tundra Reindeer Pastoralism

The Saami and reindeer (p. 10); Basic prerequisites (p. 11); Pastoral circuits (p. 12); Herding: autumn and spring (p. 15); Technical aids (p. 18); Collision zone (p. 19); Resting places (p. 20); Conclusion (p. 23).

3. Reindeer Reactions to Disturbances

Variables (p. 25); Learned behaviour and adaptive capacity (p. 27); Cases (p. 29).

4. The Affected Area and Consequences for Reindeer Pastoralism

The affected area--an historical note (p. 33); Virđ'nejav'ri in the spring (p. 34); On both sides of Tverrelv and the west side of Joat'kajav'ri (p. 36); Attempts to anticipate the difficulties (p. 42); Conclusions (p. 43).

5. Parliament, the Court, and Reindeer Pastoralism

Parliament and the investigation of 1974 (p. 47); The Court of Appraisal, 1980 (p. 51); Conclusions (p. 54).

II. NUORTABEALLI/MASI

Introduction (p. 58)

6. One Population

Occupational recruitment (p. 61); The culture of work p. 67); Conclusion: reindeer pastoralism and Saami culture (p. 71).

7. Politics of the Tundra

Access roads on the tundra (p. 74); Politics (p. 77); Conclusion (p. 79).

8. Other Consequences of the Hydro Project

Diverse cultural consequences (p. 81); Evidence from rural Norway (p. 84); Nomadization, Sedentarization, and Out-Migration (p. 86)

*

9. Summary and Conclusions

Reindeer pastoralism (p. 90); Nuortabealli/Masi (p. 92); The management of culture (p. 95); Powerlessness (p. 96).

Notes (p. 98)

References (p. 100).

FIGURES

	Page
A The Alta/Kautokeino Hydro Project in 1970 and 1978, as seen by <u>Verdens Gang</u> , 13 January 1981	5
B The Three Pastoral Circuits of Kautokeino	14
C River Courses and Spring Pasture	18
D Collision Zone between Pastoralism and Power Stations	21
E Nuortabealli in August	38
F Nuortabealli in Autumn	39
G Nuortabealli/Masi: A Saami World	60
H Kautokeino County and Saami Identity	62
I Occupational Recruitment of Parents of Masi School Children Born between 1956 and 1960.	63
J Occupational Recruitment of Children Born between 1956-60	64
K Nomadization, Sedentarization, and Out-Migration	88

MAPS

I Finnmark	viii
II The Critical Area, Spring and Autumn	ix
III Hoal'gir Reindeer Range and the Access Road	x
IV The Affected Summer Reindeer Districts of Nuortabealli	xi

PHOTOGRAPHS

Cover	Lassoing bulls		
Frontispiece	View of Vird'nejav'ri		
I	The tent or lavvo	facing page	10
II	The reindeer herd	facing page	11
III	Herders' mobility	facing page	12
IV	Before the spring trek	facing page	15
V	During the trek	facing page	16
VI	Separating the bulls	facing page	17
VII	Castrating a bull	facing page	18
VIII	Lasso-throwing	facing page	19
IX	Breaking camp	facing page	22
X	Calving begins on trek	facing page	23
XI	Marking an animal	page	24
XII	Threat of herd mixing	facing page	28
XIII	View of Ladnajav'ri	facing page	35
XIV	"We came first"	page	73

NOTE

- Saami is adopted for both singular and plural, individual and society, culture and language, and noun and adjective.
- jav'ri (Saami suffix) = lake.
- elv (Norwegian suffix) = river.
- sii'da (plural sii'dat) the basic Saami social unit, is left in the singular form throughout.

PREFACE

This document is an edited English version of a brief written for the Supreme Court of Norway in the summer of 1981. I have cut back on some of the detail of the original (particularly concerning place-names and individuals); on the other hand, there is now a general Introduction for readers not familiar with either the Saami and the North Norwegian scene, or with the Alta/Kautokeino case. I alone am responsible for the translation, done in snatched moments through the autumn. My thanks to Jeanette Gleeson of the ISER Publications office at Memorial University for so efficiently transcribing it all from tapes.

*

Concern over the likely consequences of the Alta/Kautokeino hydro-electric project for different groups of Saami (Lapps) is self-evident in these pages; but far from being alone in this concern, I see myself as a runner/writer in a relay team. First, there are the reports from Lloyd Villmo and his Saami associates (reindeer pasture experts); then Ivar Björklund and Terje Brantenberg, in a brief (now published) researched and written for an earlier court hearing of the Alta case, ran a very important mile with the baton; and now, in this present report, I take over from them for a while I hope I have pointed to things that others, in turn, will find worth taking

further. For if necessary, the **matter** need not stop at the instance of the Supreme Court?

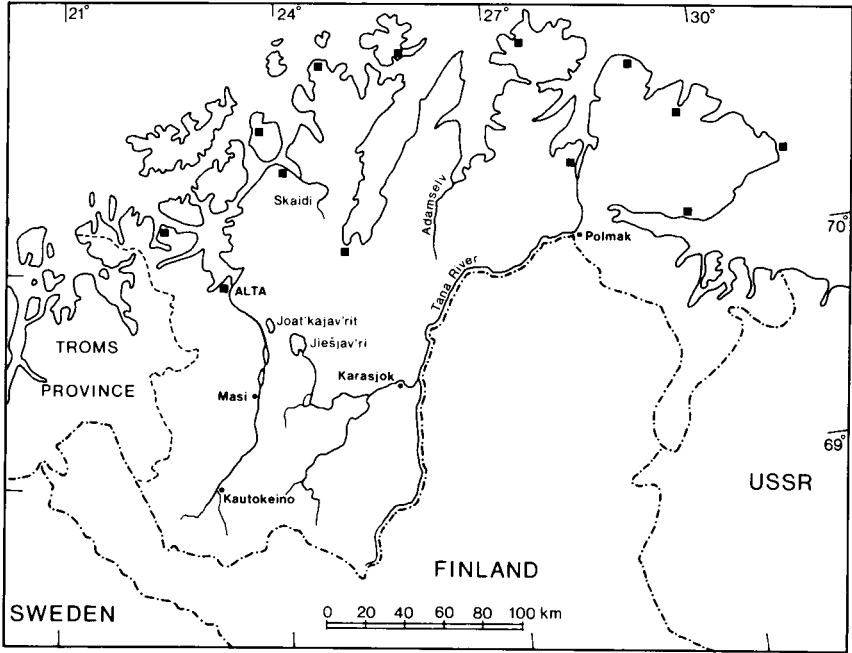
Ivar and Terje tell me that they found my earlier ethnographic field work (from the 1960s) of help to them, and I can tell them that their support this summer--particularly the 'strategy' sessions in the Sagatun café around the corner--kept me going and up to the mark.

St. John's
13 December 1981

R. P.

The photographs together with their captions printed in this Document (with the exception of XIV) have been generously provided by Terje Brantenberg, to whom the author and IWGIA are most grateful.

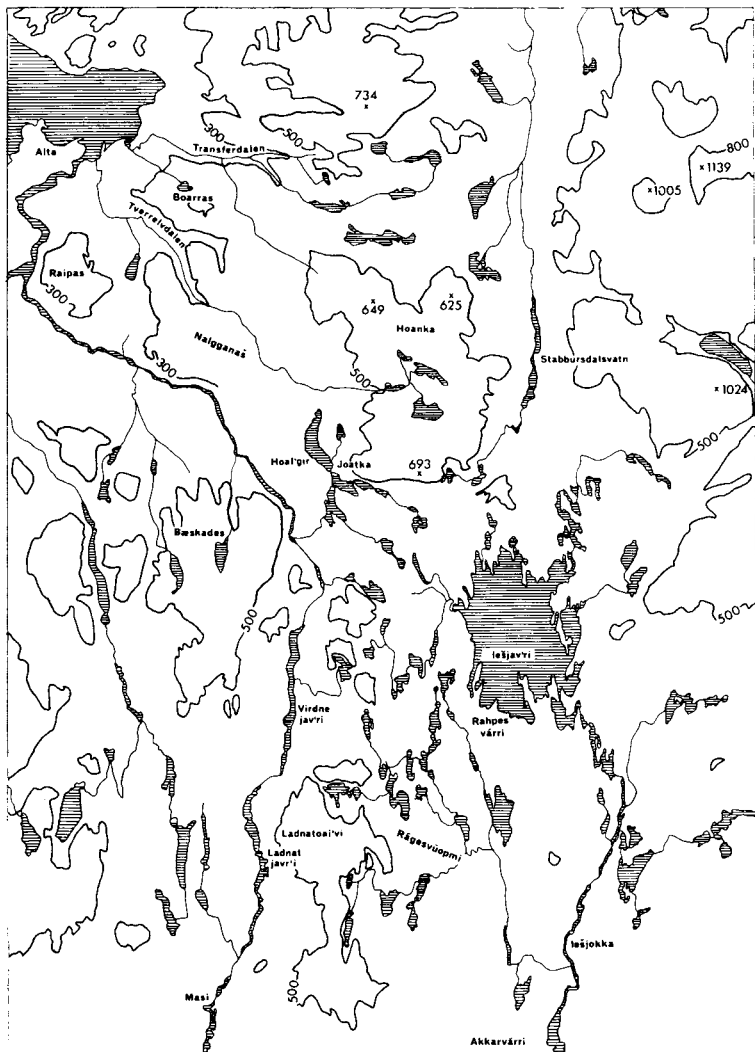
Map I Finnmark (some key place-names)



Legend

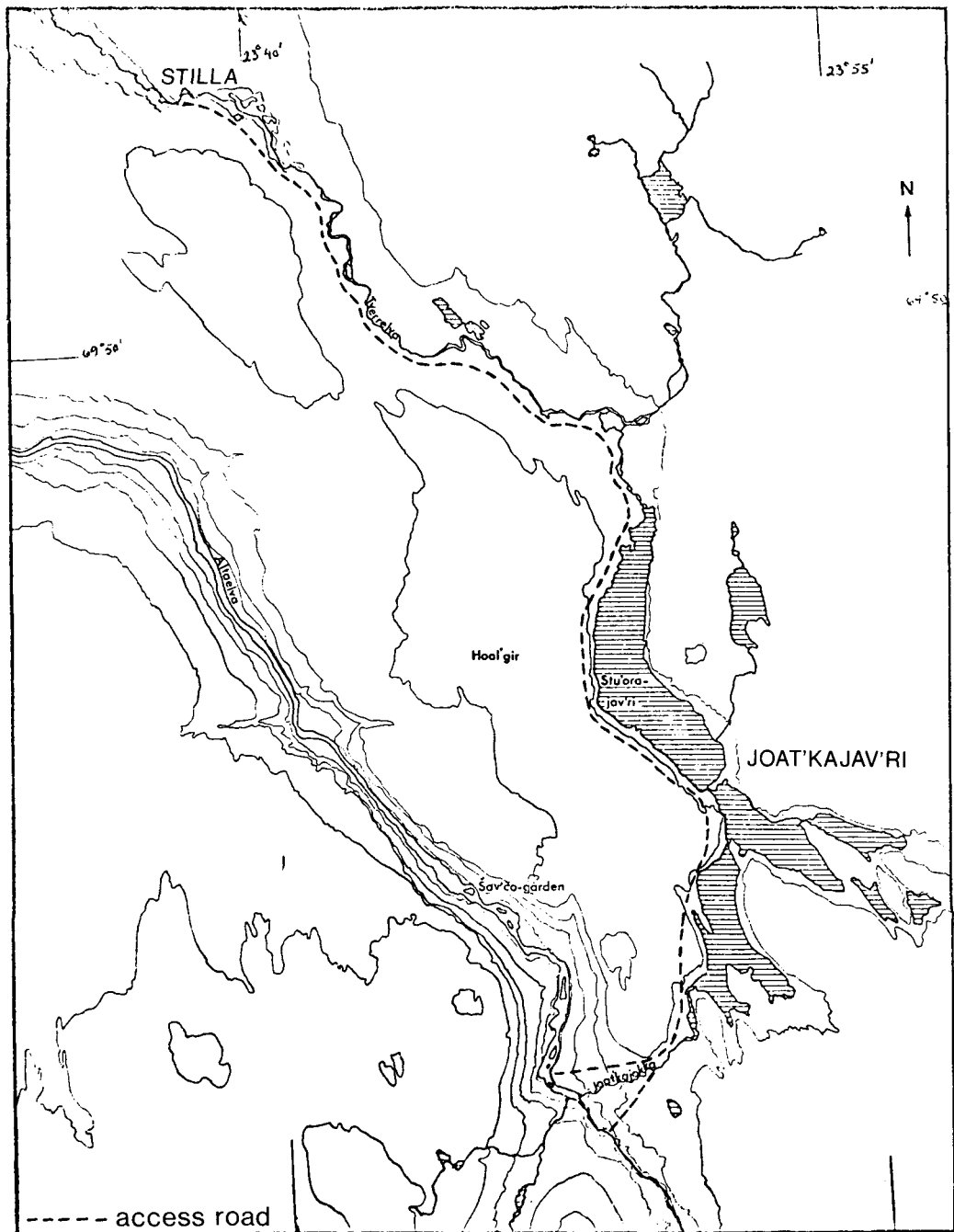
- principal Norwegian urban centres
- - - - international boundary
- - - - provincial boundary

Map II The Critical Area, Spring
and Autumn

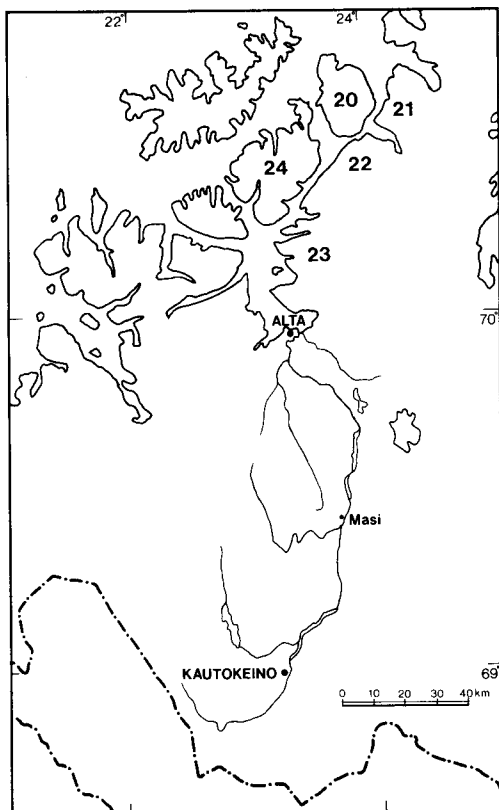


Source: Björklund and Brantenberg,
fig. 6.

Map III Hoal'gir Reindeer Range & the Access Road



Map IV The Affected Summer Reindeer
Districts of Nuortabealli



Legend

- 20 = Kvaloy (Fala)
- 21 = Gerritnjar'ga
- 22 = Fieddar
- 23 = Seinos-Navgastak
- 24 = Seiland (Siewjo)

CHAPTER 1
INTRODUCTION

Over the last one hundred years, the Saami population in Norway has suffered serious attrition from various programmes and constraints of a 'Norwegianization' ideology (Paine, 1981:passim). Today there are probably less than thirty thousand persons in Norway who recognize themselves as Saami.¹ Half of them live in Finnmark (Map I), the northernmost province, where they account for something under a quarter of the population; however, there is a marked difference between the coastal and interior regions of the province in respect to the distribution of Saami and the expression of their culture. At one time the majority of Saami were along the coast, but the inroads of 'Norwegianization' have been most serious there so that today, Saami-speakers constitute less than ten percent of the coastal population. This ratio is reversed in the interior where there are fewer than ten percent non-Saami-speakers.

The three contiguous counties of Polmak, Karasjok, and Kautokeino make up the interior of Finnmark. Here we find a sedentary Saami population as well as a transhumant pastoral (reindeer) one; the latter are in the coastal region in the summer but have their principal dwellings near their winter pastures in the interior where they also pay their taxes. In the county of Kautokeino there are over 300 transhumant pastoralist households. The striking ecologic feature that unifies the region is the tundra which has abiding associations with Saami

culture. Of course, the Norwegians are making inroads into the niche these days--through administration, sports fishing and hunting, tourism, mining, and hydro-electric schemes; but these incursions assume immediate symbolic significance in Saami ethnopolitics (Paine, 1982).

The Kautokeino/Alta river is one of two major water-courses running through the interior (the other is the Tana). At some 140 kilometres from the sea, it passes through the village and county seat of Kautokeino (here it is known as the Kautokeino river): over eighty percent of the 2,000 villagers in the area have Saami as their mother tongue; they are reindeer-breeders, farmers (combined with hunting and fishing), and employed in diverse administrative and service jobs; included in the percentage of monolingual Norwegian-speakers in Kautokeino are NATO personnel. Downstream and little less than halfway to Alta--but still inside the county of Kautokeino--the river runs through Masi, a small village (400 pop.) that is virtually one hundred percent Saami-speaking.

It is downstream of Masi that the watercourse takes on its name as the Alta river, and there are marked topographic, ecologic, and cultural changes besides. The open tundra--with its vast bed of lichen providing winter pasture for the sixty thousand reindeer in Kautokeino county--is replaced first by wooded escarpments through which the river winds and rushes, and then by meadow land and pine forest along both banks. Here the Saami nowadays are in a very small minority to the immigrants who began arriving in numbers two centuries ago. The primary

occupations are farming--on a conspicuously more profitable basis than upstream--slate-quarrying and salmon fishing in various combinations (but there is a markedly differential access to the salmon fishing).

Finally, the river reaches the sea at the town of Alta (pop. 3,000): a modern, urban environment, a regional centre, a focus of growth. In earlier times, even the area around the lower reach of the river was exclusively Saami-transhumant reindeer pastoralists, and hunters before them, camped and moved in the terrain.

*

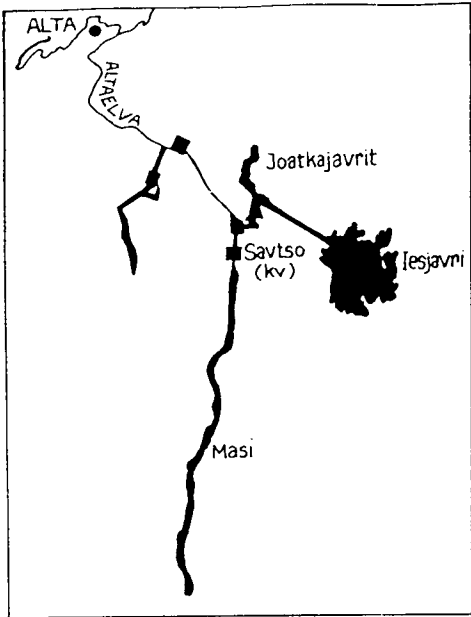
It was in 1970 that Norwegian Hydro announced a hydro-electric project that included Iešjav'ri and Joat'kajav'ri: two lakes crucial to the tundra ecology of the area. The plan went further still: Masi would be flooded. In 1973 parliament declares Masi an heritage area; but otherwise the plans of Norwegian Hydro are forwarded to the next procedural stage. In 1974 an official report commissioned by Norwegian Hydro warns of "catastrophic" consequences for reindeer pastoralism. At about this time Iešjav'ri is dropped from the plan.² Then in 1978 Joat'kajav'ri is excluded from the catchment area, and in November of that year parliament legislates into being this considerably reduced project.

A senior engineer of Norwegian Hydro provides the following information regarding the project: The construction

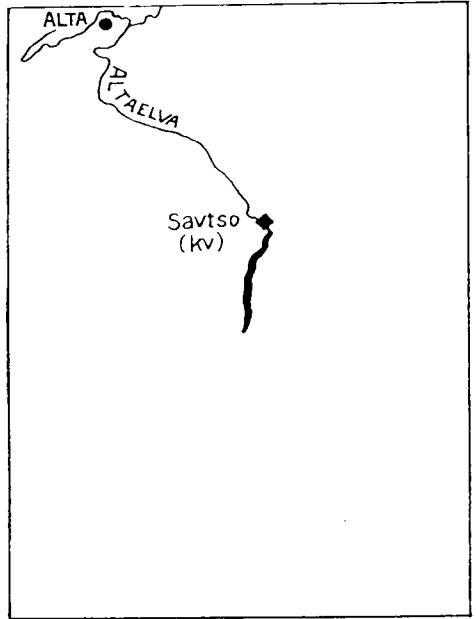
site will be approached along 36 kilometres of access road, beginning at Stilla and continuing along the westside of Tverrelv and Stuorajav'ri (Map III). The dam itself will be a wall of reinforced concrete, one hundred metres high and across a canyon. It is expected that it will take five years to build (a tunnel has to be blasted through a mountainside as well), using a labour force of 150 to 200 men. A construction camp with a number of amenities will be erected at the site. It is likely that a prefabricated cement factory will also be assembled there. In accordance with the ordinary economic dictates of such an undertaking, the legion of machines involved will be kept, wherever possible, in continual motion throughout the period. (Overingeniör Skogvang v/NVE hovedkontor, 13 August 1981; Mr Skogvang stressed that he was speaking only in terms of "probabilities".)

Assuming parliament wished to handle Saami interests conscientiously in this matter, they were prevented from doing so by informational failures. For instance, Norwegian Hydro (and the research it sponsored) consistently assessed the possible damage to Saami interests (i) in terms of reindeer pastoralism only, and then (ii) took account of direct damage only which (iii) they recognized as flooded pastures only. This approach lent itself to the kind of graphic illustration shown in Figure A (taken from a national daily) where not even the 36 kilometres of access road through terrain valuable to a tundra ecology is shown: nor was any weight attached to it (and other matters besides) in the parliamentary debate.

Fig. A The Alta/Kautokeino Hydro Project in 1970 and 1978, as seen by Verdens Gang (13 Jan. 1981).



1970/ 75 sq. kms.



1978/ 2.8 sq. kms.

1979 saw lawsuits begun against the government, and considerable civil disobedience by various groups (Norwegian and Saami). In June of that year parliament reaffirms its earlier decision, and does so again (these are extraordinary steps) in September 1980. In December 1980 judgement is given in the case brought against the government (Norwegian Hydro) by several plaintiffs, including the Saami of summer reindeer districts nos. 20-24 (Map IV).³ Crucial evidence had been submitted to show how misleading is the procedure followed by Norwegian Hydro to assess the damages that reindeer pastoralism will suffer (above): the access road will mean terrain lost to reindeer pastoralism--an incomparably larger area than that of the loss from flooding--on account of the animals avoiding it. For technical reasons (presented to the court and which will be explicated in later chapters) it is a loss that carries grave consequences. The Court of Appraisal (sitting in Alta) rejected (but only by a majority of 3 to 2) the plaintiffs' plea. The plea was that project construction work should stop on account of its illegality; it was argued that this is to be found in the fact that parliament, when legislating, had been in ignorance of essential information. The plaintiffs immediately appealed the judgement and the Supreme Court agreed to hear it. The appeal was argued in court during the late autumn of 1981, and of this writing judgement is imminent.⁴

*

The chapters that follow are written within the bounds of the mandate given me by the Supreme Court (4 June, 1981). The mandate was encouraging. I was not to venture into questions of Norwegian constitutional law or international law;⁵ it was the wish of the court that I consider consequences of the hydro-electric project for Saami culture and livelihood (Nwg. samisk kultur og naeringsliv). There was also an invitation to consider the material on the basis of which parliament and, later, the Court of Appraisal took their decisions regarding the Alta/Kautokeino project in its relation to Saami interests.

The two aforementioned Norwegian institutions never, in fact, considered the consequences that the hydro project will have for Saami culture; only reindeer management (about which, as already suggested, they were poorly informed) was considered. Accordingly, the chapters in Part One focus upon Saami reindeer pastoralism with particular reference to the pastoral circuit in Kautokeino county that will be the most affected--Nuortabealli or East Side.

But the settled Saami population along the Kautokeino river and in tundra settlements will also be affected, and seriously so: this is the thrust of Part Two. The many-stranded linkages between settled and pastoral Saami in this area make it important to show, too, how the hydro project places in jeopardy the future of a composite Saami population--that of Nuortabealli/Masi.

I spoke with many Saami who sense a symbolic dimension to the whole struggle over this hydro project (Paine, 1982); but

I suppose that the purpose of this brief can best be served by putting the Saami case more straightforwardly in terms of prerequisites of ecology, demography, and social organization. And, after all, it is these that make a culture.

PART I

NUORTABEALLI REINDEER PASTORALISM

CHAPTER 2

CHARACTER OF THE TUNDRA REINDEER PASTORALISM

Logistically, Saami reindeer management in Finnmark is an impressive operation; at first sight it is even bewildering: some 200 families tend 100,000+ animals in an area the size of Denmark, and each spring herds and herdsmen move to the coast (peninsulas and islands) and then back again in the autumn, deep into the tundra. Migration routes are up to over 200 kms. The principal purpose of these few pages of background is to suggest how this is achieved.

The Saami and Reindeer

While Saami reindeer management is historically recent (300 to 400 years), the link between Saami culture and reindeer is ancient. The reindeer was one of the first animals to habitate the land after the retreat of the ice 10 or 9,000 years ago, and when the Saami came in to FennoScandia they exploited the reindeer. This animal was, from the first, an important source of food and clothing; the reindeer was also important in the cosmology of the Saami.

Viewed diachronically: at the time of the earliest records (a thousand years ago) all Saami groups hunted wild reindeer and probably kept some 'tamed' reindeer as decoy and transport animals; by the time of the early Middle Ages most Saami groups combined hunting with some degree of reindeer pastoralism; and over the last 300 years reindeer pastoralism



I - The tent, lavvo. While herders also own modern houses, the lavvo is used for herding all year round and is highly valued both for its practicality and the comfort it provides. The necessary daily activities can be carried out in them: preparing food, eating, sleeping, conversation, visiting and decision-making. Not only is the lavvo a highly functional part of the herders way of life, it is also used by Saami as a symbol of Saami unity and resistance to outside intrusion. This was demonstrated when a lavvo was put up in front of the Parliament building in Oslo in 1979 by Saami protesting against the Alta Kautokeino project.



has become the specialized occupation of selected Saami groups --though with a wide register of reciprocal relations between the nomadic (more strictly speaking, transhumant) pastoralists and settled Saami groups on the tundra or along the coast.

Basic Prerequisites

This transhumance (movement between pastures) is influenced both by biological/physiological factors pertaining to the animals and by ecologic factors pertaining to the pastoralists' strategy. For example, the annual spring migration reflects (inter alia) the animals' need for protein (grasses) and the pastoralists' wish to save the rich lichen beds on the tundra for the winter. This kind of intermeshing of the needs of herd and herder is the first prerequisite of reindeer pastoralism.

The herder learns the behaviour patterns (especially the behavioural imperatives) of his animals: but that is only half the story for the behaviour of a herd is itself influenced by decisions taken by the herder. This is particularly the case regarding dispositions of time and space in the annual cycle. Thus it would not be true to say either that the herder follows his herd or that a herd will follow its herder wherever (and whenever) he may wish. Both parties follow a common schedule or routine; while it is true that this has been worked out by the herder (remembering that the only feasible schedules are those taking account of the animals' needs), the important point to grasp is that as the herd learns the schedule, and adapts to it, it becomes very difficult to make changes in it. To that

II - The herd. While animals are privately owned, herding is shared by herders. The composition of the herding unit (several separate households) as well as the herd itself varies through the annual cycle according to varying demands for labour and the household's supply of personnel available for herding. Herds are kept small in winter and spring but are combined into larger herding units during summer and autumn.



extent, the herder is held by his herd to the schedule he devised. Of course changes are made in migration routes, calving places, rutting places and so on--but they always entail an element of risk and uncertainty which no extra herding effort (itself an inevitable consequence of all changes in a schedule) will eliminate.

The second prerequisite of the pastoral enterprise is the establishment and maintenance of property, work and territorial arrangements among the pastoralists' families. Reindeer are individually owned and inherited--by women and children⁶ as well as men--but they are herded collectively with perhaps several families combining to make one work unit. This herding unit (whatever its size) is known as a sii'da and individual families are likely to group and re-group in different sii'da formations in the course of the pastoral year. The smallest sii'da are likely to be in the spring--perhaps two or three closely-related families or even one family alone--and the largest in the summer. If we look at all the Kautokeino sii'da, noting the seasonal re-groupings in the course of a year, a picture of considerable complexity presents itself; however, analysis reveals definite patterns which I will quickly sketch.

Pastoral Circuits

Saami reindeer management in Kautokeino county constitutes three pastoral circuits. I emphasize "Saami" because this is not an arrangement the Norwegian administration has made, it is not even officially recognized, and yet for each reindeer Saami



III - Mobility is basic to herding. Herders use skis, skidoos, motorbicycles, and other modern technology to obtain greater control of their own herd and away from the herds of other herding units. However, herding would be virtually impossible were it not for the dogs which are well-trained and always eager to assist in herding.



family their particular pastoral circuit constitutes the primary territorial and social unit in which they live and work.

Now, the pastoralists who will be directly affected by the Alta/Kautokeino hydro construction belong to the Nuortabealli (or East Side) circuit; and the damage will be of a systemic (not random) and pervasive (not isolated) character because Nuortabealli itself constitutes a reindeer management system. It is therefore important to know how such a system maintains itself, socially and ecologically; to this end I refer to data collected by myself in the 1960s from Guovdajohtin, the circuit immediately west of Nuortabealli (fig. B). First, there is this kind of demographic data:

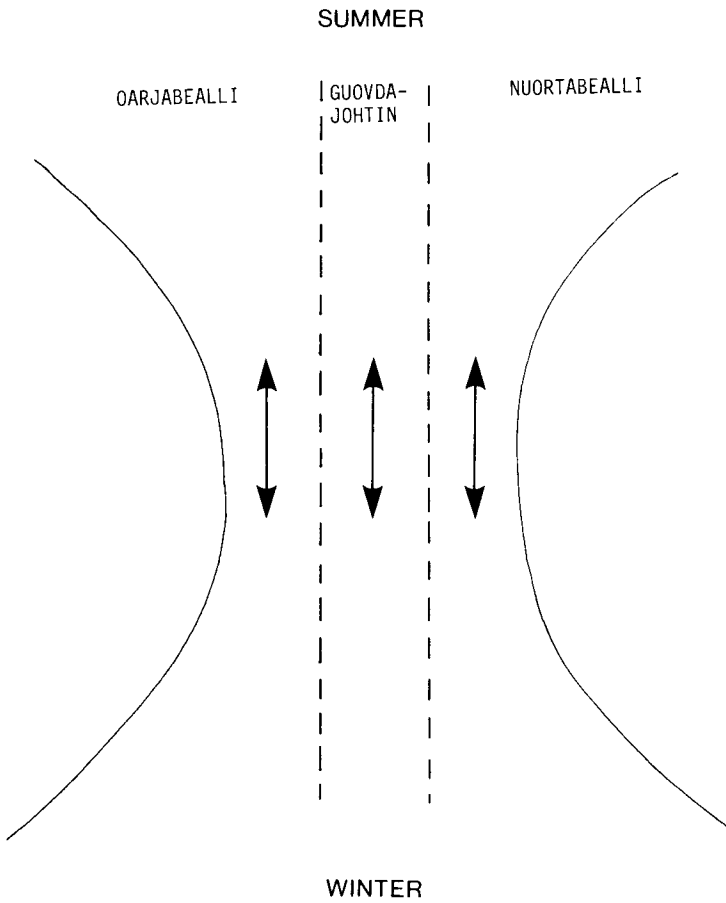
84% of men born in this pastoral circuit remained there after marriage, and 65% of the women; in 59% of the marriages, both spouses were born in this pastoral circuit (Paine, 1970:11).

Narrowing the focus, I also collected similar data regarding the summer districts within the circuit:

70% of married men were working in their natal summer districts; this figure had to mean that the majority of women moved out of their natal summer district in order to marry--in fact only 28.5% of married women were in their natal summer district (ibid.)

These figures speak not only of a strong pattern of territoriality but also one of partnerships based on kinship and affinity: a herder not only has most or even all of his brothers and male cousins in his pastoral circuit and even in his summer district, but also a large number of brothers-in-law (differences between the percentage figures as they apply to men and women, respectively, reflect the greater engagement of men

Fig. B. The Three Pastoral Circuits of Kautokeino*



*Cf. "treks" in Paine, 1979; "flyttesystem" in Björklund & Brantenberg, 1981: 51.

in herding). The two most general factors responsible for these figures are:

(i) ecologic: the relation between a herd and its herders has to have referents in time and place so that (1a) cows return to their calving places of previous years, yearlings return to the locality of their birth, and bulls make for their 'home range' during the rut; and (1b) the herders have intimate knowledge of the pastoral terrain over which they work;

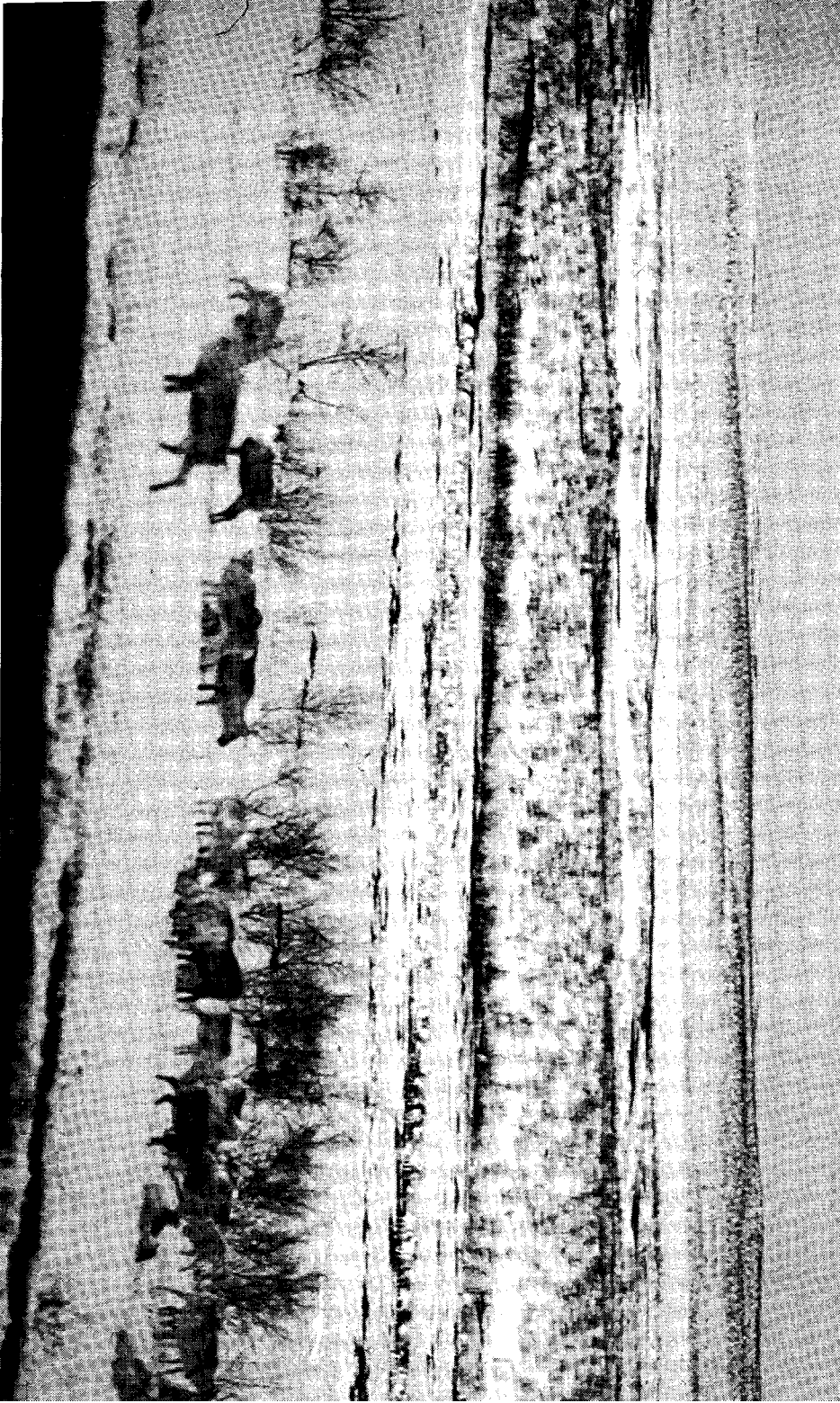
(ii) social: the relation between herders has to be one of interdependence where mutual help, loyalty, and knowledge of herd and terrain are all so important.

Factors (i) and (ii) are functionally interdependent and our figures demonstrate that reindeer Saami are able to re-group (in different sii'da) in response to the ecology of each season and still have close working partnerships at all times.

Herding: Autumn and Spring

Reindeer herding is most exacting work, not only physically but also in respect of the demands it makes on a herder's insights to nature and to herd behaviour, and on his knowledge of the other sii'da in his circuit: from time to time he will be expected to locate a herd that is lost from sight, even to predict its movements and to bring it under control. Yet there are too many factors over which little or no control can be exercised for herding to be an exact task. Carefully laid plans are brought to nought by bad weather, by the intrusion of another herd--or by any one of a number of disturbances in the terrain that are increasingly common these days (people, dogs,

IV - During spring time, the herd becomes increasingly restless and animals start to move towards the calving grounds nearer the coast of their own accord. Single stray animals can easily set the whole herd in motion as shown in this picture. Constant and close watch is necessary to keep the herd together and to avoid mixing with other herds passing along the same route to their individual calving areas.



vehicles, machines). The speed with which reindeer can traverse most terrain and the large numbers in which they aggregate at certain times of the year, means that a situation which is seemingly under control can deteriorate in minutes or less.

Thus an imperative of reindeer Saami work organization is that whoever is on the scene must act on behalf of the group. In other words, it is a work organization in which authority is distributed pragmatically and much dependence is placed on the exercise of discretion: nor is there probably a better way of coping with the difficulties that face reindeer herders.

The problems that we have just mentioned are exacerbated by (i) the grazing habits of reindeer and (ii) the typical areal distribution of pasture in a sub-arctic ecology.

The reindeer seems to be more extensive in its grazing than other animals . . . especially when the terrain is snow-free, reindeer customarily traverse large distances. Compared with other ungulates the reindeer is quite particular in its choice both of food plants and of its general habitat. . . . [Furthermore] it is common for the most productive pasture to be concentrated in small 'pockets' spread over a large area. This factor reinforces the tendency of reindeer to wander over large areas . . . (Villmo, 1976:36).

These things are particularly problematic for herders in the autumn when the herds range south to their rutting grounds. For the reindeer, it is the mushroom season and the animals forage over great distances for this delicacy; for the herders it is a season of shortening daylight hours (with night herding), storms and poor visibility. Moreover, for as long as the ground is snow-free the reindeer enjoy significantly greater mobility over the herders. Autumn, then, is the most strenuous season for the reindeer herders. In many cases it is necessary to herd the animals around the clock.



V - Members of Fire-Mahte sii'da resting on the spring trek. Success in herding depends to a great extent on having friendly and stable relations with other herders. Outside infringement on grazing areas can not only cause economic losses to herders, it may also entail social costs. Loss of grazing land can lead to over-exploitation of scarce pastures and increasing problems in herding organisation and thus to increasing competition and conflict among herders.

But animals of different sii'da are still likely to become mixed. Where this means a delay in autumn slaughtering, it costs the herders losses in weight and condition of the animals. When the rut begins in mid-October the herds must have peace, and this means that corral work must wait. The herders' task is to see that the animals are not disturbed, at the same time as they attempt to keep the rut of their different herds localized to particular areas of terrain. Disruptions to the rut, and poor pasture at that time, are likely to reduce the number of pregnancies and also introduce irregularities in the timing of spring calving.

Timing is of the essence in spring herding. First, there is the timing prior to calving: a calving ground should be snow-free and dry, but when (in April/May) a hillside or plateau favoured as a calving ground will become snow-free and dry can vary from year to year. Therefore herders must have alternative places available. Secondly, there is an equally pressing matter of timing after calving for those herds which still have to move some distance north to their summer pastures; one has to wait until the calves are strong enough to move but one can wait too long so that cows with their calves get trapped by the thaw: partially- or newly-opened lakes and rivers become unpassable barriers (Paine, 1978).

It is also in the spring the reindeer has its greatest need for protein. This is especially true of the pregnant and nursing cows. It is along the river courses and in their associated marshes that the snow melts first and the first green

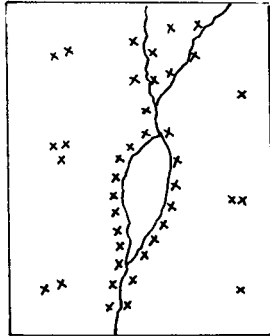


VI - In the spring the herd starts heading north towards the calving areas. The bulls lead the way and in order to give the cows as much peace as possible in this critical period, herders separate the bulls into a herd by themselves. This is usually done by driving the herd into a corral and catching the bulls with a lasso. Earlier when herds were more tame, the bulls were separated without using a corral (as in above picture). The herder walks quietly into the herd and drives the bulls out one by one using a stick. This saves the animals from the strains they experience when being lassoed inside a fence.



plants of the year appear: so it is here that each year the reindeer first search for the protein-rich plants (Villmo, 1975:38; cf. Investigation, 1974:18). This spring grazing pattern means that the loss of even a small area in the neighbourhood of a river bed can have catastrophic implications for reindeer management (see Figure C).

Fig. C. River Courses and Spring Pasture



Legend: Crosses indicate probable intensity of pasture (from Villmo, 1976:39).

Technical Aids

Reindeer Saami are known for their ingenuity, not least in respect of their ability to adapt technical aids to their enterprise. However, there are voluntary restrictions on the use of



VII - Castrating a bull. Most males are slaughtered so that the cows are always over-represented in a herd. In this way, owners can regulate the composition of their individual stock of animals in order to obtain maximum yield and growth of their productive capital. A large herd is also a security for unexpected losses through epidemics or a hard winter. Thus the potential for capital growth in the herding economy results in a tendency towards the over-exploitation of the grazing areas, which at the same time threatens the possibility for future herd growth.

such aids at certain times of the year: restrictions that are imposed out of consideration to the animals. Early in the autumn lassoes and dogs may be used, but not during the rut. In the spring, the bulls and cows are usually separated and, again, one does not use lassoes or dogs when attending the cows and their calves. All through the autumn when night herding is a necessity, a herder's most valuable aid is likely to be his knowledge of the different reindeer bells that are attached to particular animals in the herd. Reindeer management today is becoming increasingly dependent on the use of fences whereby herders increase their control at the expense of the animals' mobility, and whether this situation is for the betterment of range management depends very much on how it is handled by the herders. We note, too, that in the case of the same fence the benefit (increased herd control) may fall to one sii'da while the disadvantage (reduced mobility) falls to another. In general, though, one has to accept the use of fences as part of contemporary range management. They are a particularly important part of herd management in the autumn--before, during and after the rut (but in the spring most fences are likely to be deep in snow and thus inoperative.) Skidoos and walkie-talkies are in general use.

Collision Zone

I singled out autumn and spring for special attention not simply because of the crucial importance of the rut and of calving, but also because it is in the terrain used at those seasons that the



VIII - Skill with a lasso is vital for a successful herder; it is also considered a source of esteem. As animals are individually owned and marked by each owner's separate ear-cut, roping also involves the ability to read the markings of the animals.

collision between the interests of reindeer pastoralism and hydro-electric schemes occurs (see Figure D: as a rough guide, the area borders on E6, the trunk road through Finnmark). Relative to the wide summer and winter ranges, the autumn/spring range is narrow and thus becomes easily congested. But it is this range that 'connects' the summer and winter ranges--it is used as a migration route; hence the alarm of a reindeer owner over another proposed hydro-electric project at Skaidi in Finnmark: "In my opinion," he said (Investigation, 1977:77), "it's no help having good summer and winter pastures if it is not possible to move between them." As there may be good reason for a similar apprehension in respect of the Alta/Kautokeino hydro construction, it is important to understand that a migration route should not be compared with a road with its fixed path across the terrain (cf. Investigation, 1974:36).

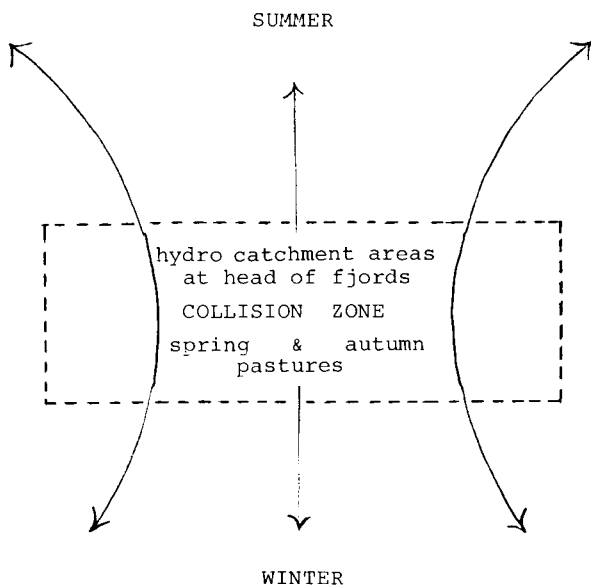
Pasture, weather, and the location of other herds all vary from time to time along a migration route; this means that the demands of space and time placed on it are a good deal more diffuse than the term "migration route" itself is likely to suggest. One might well have to make changes in the route or even to wait, while on migration, perhaps on account of bad weather or perhaps because of a danger of mixing with a herd in front of one; and so there must always be suitable reserves of pasture near a migration route (cf. Investigation, 1977:46).

Resting Places

Throughout the year, reindeer need to be able to rest several times in the 24-hour cycle; then at different times of the year

Fig. D Collision Zone Between Pastoralism & Power Stations

(Oarjabealli) (Guovdajohitin) (Nuortabealli)



the herd may need 'to rest' in a particular terrain for some days or even weeks--for example, during calving and the rut, for the duration of a particularly cold spell of winter weather, and sometimes while on migration. For this purpose, pastoralists choose terrain in which they think their animals will be at ease and most of their needs satisfied; they also have in mind a place suitable for themselves (they will camp there). Such places are often talked about and the area through which the access road is to run is one.

Though their needs are different, the same terrain, carefully chosen, can satisfy both herd and herdsman. In the spring, for example, what is desirable is the combination of a hillside (S. varri): dry underfoot for the cows and their calves, provides a good outlook over the countryside for the herdsman (who will be thinking about likely predators and the movements of other herds); and a gentle river valley with shrub, bushes, and early green vegetation (S. vuobmi): protein and shelter (from the worst of a storm) for the animals, fuel and shelter for the herdsman; and a lake (S. jav'ri): more green vegetation (protein) for the animals, fish and fresh water for the camp (Paine, 1978).

Through being 'at peace' together in the terrain for a while, different bonds are strengthened: within the herd, between herd and herders, and among the herders themselves.⁷ It is also on these occasions--spaced through the year--that the pastoralist is able to catch up with some of the things that he



IX - Breaking camp at 4 am on the way to the calving grounds. It is important to move the herd before the sun makes the snow too soft and the going too difficult for both animals and snowmobiles. As the herd has to be watched during the night herders may have to work for several days with little or no sleep.

has to attend to, and not least of these is the exchange of information with his fellows of the same reindeer circuit.

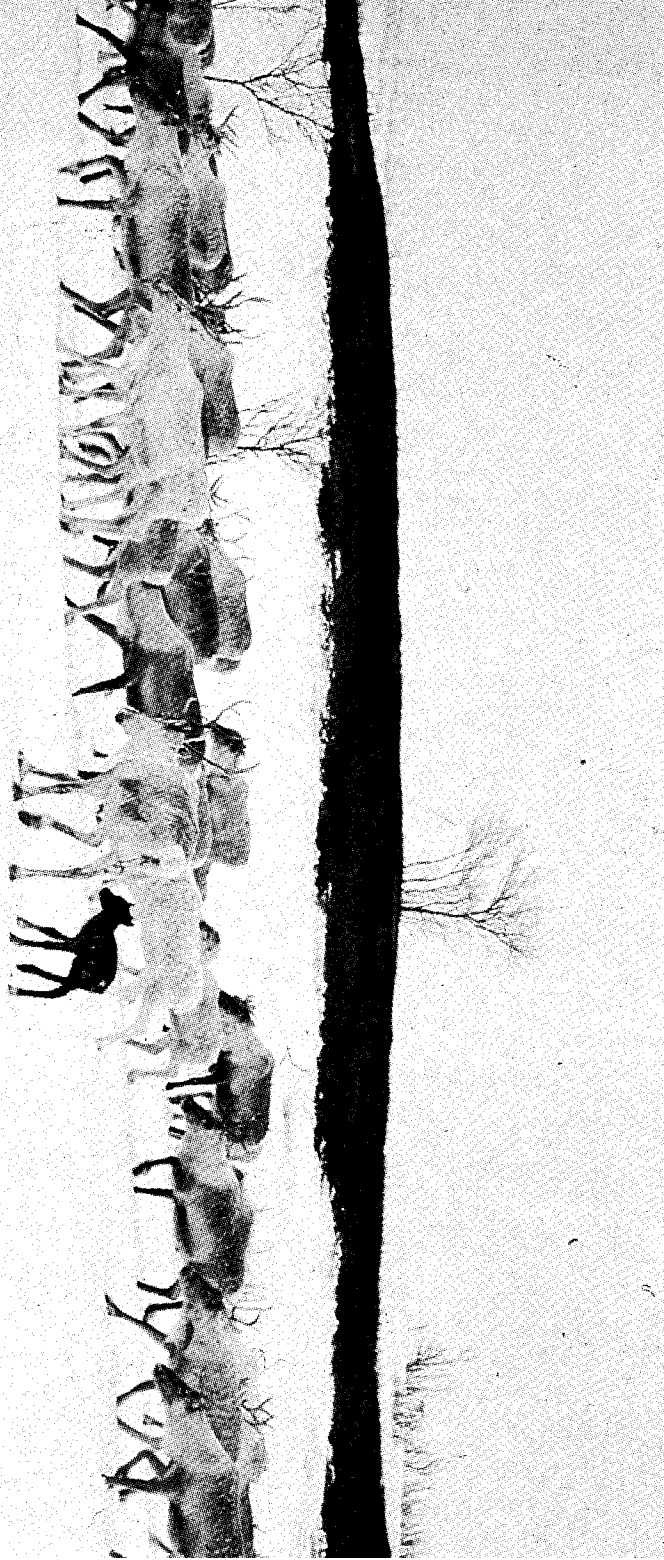
Conclusion

Reindeer pastoralism in Nuortabealli is a system of multiple interrelations. Those between herd and herder, and between herders, are quite obvious and there is no need to say more about them here. What warrants emphasis are the interrelations between herds in terms of space and time within Nuortabealli.

Any Nuortabealli herd occupies both space and time in relation to all the other herds. Were the pastoralism of Nuortabealli stationery, the space-time relations between herds would be unproblematic (like a landscape of enclosed fields of livestock); but because all Nuortabealli herds follow a sequence of space-time relations, relations between the herds constitute a system of considerable complexity. Moreover because the herds follow the same sequence (spring, summer, autumn, winter locations) their space-time allocations are subjected to considerable pressures. Suitable spring/autumn locations, for example, become not only a scarce resource but also a minimum factor: all herds require such locations (at much the same time) if the Nuortabealli system is going to work.

The system functions on account of a fine degree of synchronization between herds, and yet the system is--by its nature--always running into trouble: herds get mixed. Then herders 'repair' the system: herds are separated. Herding in reindeer pastoralism is a continual process of retrieving or reestablishing control. A particular problem that the herders

X - The female herd on the spring trek. As this picture shows, the calving can sometimes begin before the animals reach the calving areas proper. This particular herd has its calving ground further towards the east (by Vird'nejav'ri lake) than most herding units in Nuorta-bealli. In order to avoid mixing with the herds that move to areas nearer the coast, the unit postpones its spring trek till most of the other herds have passed them.



face is that of chain-effects whereby a problem at one location (and season), even though 'repaired,' hands on a problem to another location (and season); as an example we mentioned how disturbances during the rut will adversely affect calving.

Yet despite the difficulties, Nuortabealli remains a viable reindeer management system. The explanation for that lies in its ecologic and social organization (the interdependencies between herd and herder, and between herdsman). The question that now faces Nuortabealli is, can it survive the chain-effects that are likely to be set in motion by the Alta/-Kautokeino construction?



XI - Marking an animal by cutting the owner's initials into the fur.

CHAPTER 3

REINDEER REACTIONS TO DISTURBANCES⁸

The consequences for caribou and reindeer of northern developments can be local overgrazing and trampling of winter range; range abandonment and disrupted migratory patterns; loss of access to calving grounds, insect relief areas or other range components; fracturing of large herds; discontinuities of interherd movements; increased energetic costs to the animals and associated physiological consequences; and overall reduction in herd productivity, population levels or potential herd productivity (Klein, 1980:519).

The question is, which of these consequences can be expected in the circumstances of the Alta/Kautokeino construction? I believe the prospective situation to be serious. I reach this conclusion on the basis of present knowledge of the precise variables that account for reindeer responses to disturbances of the kind that may be expected in this case, and also on the basis of knowledge of what we are now learning about the effects of other hydro construction in Finnmark.

Variables

Unless the degree of tameness is very high (which is not generally the case today), the alarm reactions to unexpected obstacles and disturbances are likely to be greater among animals that are herded than among those that roam free (Villmo, 1975: 10): the degree of alarm probably correlating with the degree of coercion (e.g. from herders) the animals experience. Similarly, reindeer "more readily adapt or habituate to obstructions and associated disturbances if they are resident in the area rather than being present only seasonally or during migration"

(Klein, 1980:524). The alarm reaction is likely to be prompter and more pronounced in larger herds (such as those in Finnmark in the autumn), and the reason relates to the herd leadership structure (ibid.). Alarm reaction also varies with the sex and age of the animals, thus cows (especially young ones), alarm much more easily and persistently than adult males (ibid.). Body energy is consumed in alarm reactions, or browsing time is lost. Even where this is only a matter of animals, grazing near a road, lifting their head each time a vehicle passes by, it means that "they either get too little feed or they need longer grazing periods" (Villmo, 1975:5); but when the alarm is greater, it can mean "the fright and flight of the animal causes a loss of energy that it can ill afford, especially should it occur at one of the harder climatic periods of the year" (Mellqvist, 1975:17). And such a situation can introduce the animals into a regressive cycle because poor physical condition in animals is itself likely to raise their alarm responses (Espmark, 1970:199; Klein, 1971:394). Furthermore, it is likely to be precisely in these circumstances that herders' nerve and resourcefulness fails. And this is likely to add to the pressure and stress that the animals already experience. It helps explain why even a relatively simple obstacle such as an overhead powerline can (for example, during a thunderstorm) give herders who wish to move their animals between the pylons, a lot of trouble.

It is also important to note that "reindeer usually show much greater alarm and avoidance to traffic and other human

activities than to the constructed features themselves. Generally, the larger the vehicle, the greater disturbance, and blowing dust or snow increases the disturbance effect" (Klein, 1980:523-24).

Without exception, all sources emphasize the particularly grave consequences of disturbances to cows at calving time. A cow may abort or it may desert its new-born calf. Alternatively, the cow may desert the calving ground or the post-calving range, perhaps never to return--even though her normal behaviour is to return to the vicinity where she gave birth the previous year (this may well mean returning to the place where she herself was born). And if the cow does not return, nor does her female offspring (that followed its mother) when its turn comes to calf (cf. Paine, 1978).

In order to grasp the seriousness for reindeer management of the consequences of disturbances that are likely to accompany construction work--consequences that outlast the duration of the construction--it is essential to understand this break in the cow's ordinary behaviour.

Learned Behaviour and Adaptive Capacity

Popularly, one hears much about the adaptive capacity of reindeer: it is as though--in its tolerance to what goes on about it and its adaptability to changes--it is indiscriminating concerning its environment and undemanding in its simple needs. There is an element of truth in this in respect of adult males, but it is totally misleading regarding females. The two basic facts are (i) 'adaptation' is itself based on learned behaviour

and this includes a good deal more than tolerant and passive adaptations: avoidance, for example, is learned behaviour. And (ii) the cow (to concentrate on her) is extremely discriminating regarding her environment and shows marked avoidance behaviour.

Taking this a little further, we note (iii) that reindeer behaviour is based on experiences that can be registered as either positive or negative (food inside a corral, for instance, is a positive experience regarding corrals and fences, whereas lasso-throwing is a negative one). And (iv), the animal "remembers" and "recognizes" these positive or negative experiences. She will react accordingly. In other words, in responding to experiences, the animal may learn new behaviour.

The principal point about this process is (v) that this new behaviour can become normative, persisting independent of the disturbances that triggered it. This means that avoidance behaviour on account of construction work may very well continue after the work is completed and the workmen and their machines have left the area. Here we touch upon the limits of reindeer ability to learn and to discriminate. It is limited because it is a 'reactive' ability. Herders can extend the limits a little--by taking a herd through a series of situations (i.e. 'experiences')--but this assumes a high degree of tameness which is neither feasible nor always advantageous in today's large-scale reindeer pastoralism. Instead, a learned response is passed on by the elder animals to the younger who may themselves never have actually experienced the situation that provoked it. Thus we can speak of 'inheritance' by experience among reindeer

in these matters (not genetic inheritance) and note should be taken of how 'traditional' it is--or how constrained it is by the social structure of the herd.

Of course, it is on the basis of this reactive learning process that reindeer enter the relations with herders that make reindeer management possible. The herd, we said (Ch. 2), learns a schedule that has been worked out by the herders. But when a disturbance provokes animals to avoidance behaviour, then the schedule may be broken. In which case the herders must either teach the herd a revised schedule or try to teach the herd (after the disturbance has subsided or been removed) to return to the earlier schedule. The second alternative may be the most desirable from the herders' point of view, but it means getting the herd to 'unlearn' or 'forget' its earlier response of avoidance. This is by no means always possible to achieve. In fact, neither alternative may materialize. Instead, the herd--finding its needs (e.g. 'friendly' terrain at calving) are not being taken care of--no longer heeds its herdsman but finds its own solution to its needs. (It strays.) Eventually the herdsman have to accept the situation, and revise their schedule accordingly.

Cases

No longitudinal case-study has apparently been made (or at least has not been made available) of reindeer reaction to a particular construction: all that we have are pieces of information or episodes, from separate constructions. Each of these is incomplete in itself, yet all confirm our understanding of reindeer

XII - The animals undergo considerable strain during a division of the herd. Herders fear mixing with other herds especially during the spring as this may necessitate an additional division and delay the migration as well as damage the calving. Losing cows to other herds also means a loss of control over the calving as cows prefer the calving areas where they were born. Consequently, mixing of herds can demand increased herding work as well as constitute a threat to the maintenance and growth of each owner's stock of animals.



behaviour as just outlined; they also indicate how there is always the likelihood of severe costs (of a kind difficult to compensate) to reindeer pastoralism from even the simplest incursion. Here are some examples:

Ritsem's hydro-electric dam and the sii'da of Sorkaitum and Mellanbyn in Sweden:

One was most worried about the road between Ritsem and Sitasjaure. It runs through the spring pastures. It is there that the cows find the plants they must have so that they can give their calves milk. But the cows are so easily frightened at calving time, and on account of the traffic along the road the animals take off into the hills where it is colder and the pastures poorer. The calves freeze to death up there even as they are born (Jansson, 1979:123).

Tana, Finnmark:

In Finnmark we have experience from an electric power line in the Tana Valley. There the power line passes through a forest area which also includes the migration routes for several reindeer herds. The reindeer have to be moved through this area in the spring and again in the autumn. Although it has been 10 years since the power line was built, the herders have difficulty in moving the reindeer beneath the power line. The animals, on approaching the power line, stop and start to mill. In this case the herders cannot determine whether it is the power line itself or the right-of-way cleared of trees which alarms the reindeer (Villmo, 1975:8).

Stifjell/Varfjell construction and Fieddar sii'da, Finnmark:

. . . calf mortality reached such proportions that the calving places had to be abandoned and others found. The reason for this was the amount of traffic in the area. It was said [by the reindeer owners] that it may take several generations of reindeer before the animals fully accept the new calving grounds: perhaps they will never be accepted (Mellqvist, 1975:18; cf. Supreme Court Judgement no. 45/1979).

Kvaenangen Power Station and Aborašša sii'da, Troms
(North Norway):

The hydro-electric scheme used only 4 sq. kms of pasture land . . . but from the point of view of reindeer pastoralism in the area the loss of these few square kilometres had serious repercussions. They were part of the spring pasture and this was the weakest 'link' in the pastoral ecology of the area. The situation became critical when the animals began to desert the remainder of the traditional calving grounds on account of the activity at the power plant, especially the traffic along the road to the plant. Instead, the animals wandered into the area of the neighbouring sii'da and mixed with the herds there (Björklund and Brantenberg, p. 41).

It has been possible to learn a little about the Aborašša case and the conditions there today--ten years after construction was completed (in conversation with Johan Mathisen Sara, in Tromsø, 21 August 1981). The best calving grounds (north of the road) were lost because the cows refused to cross the road to the power station, or those that did cross it were unable to find peace. So what had been an ideal calving land is empty to this day despite herders' efforts to get the cows to return to the area. For some years the herders had kept close watch over the animals--living in tents out in the terrain--but all in vain and they eventually gave up. Today the sii'da uses spring and summer pastures a good deal to the south. The costs to Aborašša sii'da have been manifold, quite apart from the loss of pasture. The animals now wander south to the autumn-winter pastures too early, and they have lost weight; relations with other sii'da have been put under strain on account of loss of herd control, and a great deal of extra work (with its chain effects) has befallen Aborašša.

The fences that Aborašša constructed in their efforts to get their cows to use again the traditional calving area, probably worsened the situation. The animals were not going to be stopped, and they would spread out laterally along the line the fence followed through the terrain. There is a general point here. Fences should 'follow' the logic of the terrain in terms of reindeer behaviour and ecology. Of course Saami have this knowledge but they are unlikely to be able to put it to much practical use when tackling the problems presented by the arbitrary (seen from reindeer management's point of view) placing of roads.

It is sometimes suggested (e.g. Aarseth, 1981:14-15) that the problems hydro-electric schemes present to reindeer pastoralists while on their seasonal migrations can be overcome by moving the herds in "longer bounds" (ibid.). Some Swedish Saami sought a way out of their problems in exactly this way--but with disastrous results. The animals became overtired, many yearlings died and cows aborted (Åhman, personal communication, 13 August 1981). What this 'solution' overlooks is the imperative of regular period of rest for the herds and, of course, ecologically attractive places in which this can happen (cf. pp. 20-22, above). This factor is equally important in spring and autumn.

Now we are ready to look, in detail, at the Alta/Kautokeino construction from the point of view of reindeer pastoralism.

CHAPTER 4

THE AFFECTED AREA AND CONSEQUENCES FOR REINDEER PASTORALISM

The Affected Area--an Historical Note

In an ethnographic report of August 1981 from Tromsø Museum to Norwegian Hydro regarding the area to be affected by the project, it is stated:

Historically, the area was used in the earlier hunting economy by sii'da which were located along the Alta Fjord in the winter and along the river courses during the autumn. . . . in the seventeenth century reindeer pastoralists entered the area . . . and from that time until the present the pastoralists have had spring and autumn camps in the area. . . . today, the number of animals in the area has increased considerably and the whole of Hoal'gir and Raipas is a calving area (Vorren, 1981:1-5).

And an historian says of the Alta area (including the fjord), "up to the seventeenth century it was settled by Saami--during Viking times and for most of the Middle Ages probably only by Saami" (Minde, 1976:10; emphasis in original).

From an important official source from the middle of the eighteenth century we learn that in the area between Alta and Masi "there are [in the winter] only mountain [reindeer] Saami"; they had their summer pastures to the east of Alta Fjord and north towards Kvalsund (Schnitler, Dok. I, p. 379: cited in Steen, 1956:77). Two hundred years later (1950s) the situation was little changed, the area providing calving grounds for a Seinos sii'da and autumn pasture for three Seiland and one Kvaløy sii'da--all of them Nuortabealli (Vorren, 1962, Map 18).

The explanation of the importance of this area for Saami from even before the evolution of their reindeer pastoralism

lies with its landscape (Map III). Stretched along the axis of the seasonal annual migrations of reindeer (wild or 'tame'), the topography of the area combines with its pastures to draw the herds into a large natural 'funnel' bounded on the west by Alta River and in the east by Tverrelv-Stuorajav'ri, and gradually narrowing so that, at Hoal'gir, the animals are in a natural enclosure. Such a landscape (together with a few crossing-places for animals that can be closed at the will of the hunter or pastoralist) is an ideal one for working with reindeer. The unbroken tradition of use of the area by Saami is, then, no accident.

Today, the significance of the area for the continuance of reindeer pastoralism has actually increased on account of (i) the loss of some traditional calving and rutting grounds elsewhere, and (ii) the need for a 'waiting area' in connection with the southernbound autumnal migration.

I begin now this account of the consequences of the planned hydro construction by looking at Vird'nejav'ri, situated to the immediate south of the landscape we have been describing. The lake, or its surrounding pasture, makes a direct contribution to Nuortabealli reindeer management and will be affected by the construction.

Vird'nejav'ri in the Spring

On account of communication and mining installations, three sii'da lost their traditional calving grounds and had to find others in the traditional autumn pastures: in one case

alongside Vird'nejav'ri (and adjacent to calving grounds already taken into use by another sii'da) and in the other two cases directly to the south of Vird'nejav'ri. (Cf. Supreme Court Judgement no. 45/1979; Case book for the Alta Court of Appraisal, 17-6-81, pp. 15-16; Investigation, 1974, pp. 10-11; Björklund and Brantenberg, p. 74 and Map on p. 76.) This means that the area around Vird'nejav'ri is now used at full capacity in the spring (on the west side of the lake are the calving grounds of another sii'da). It also means that any disturbance to the natural conditions there, during calving, will have serious implications.

The testimony of Lloyd Villmo, pasture expert and one-time government consultant, is of particular importance in this respect as he explicitly affirms--in evidence given in court in Alta on 17 June 1981--the correctness of the following description of the area given earlier when the Alta Court of Appraisal handed down judgement on the 5 December 1980 (p. 29):

The direct consequence of regulating the water level in Vird'nejav'ri will be the destruction of reindeer pasture. The area that will be affected is not large but is all-important as it is part of the precious, because scarce, spring pasture. It is unlikely that the loss can be made good--for there is no other spring pasture to be found.

Otherwise the 1974 Investigation (Baer, Haetta and Villmo, p. 30) warned that "one can expect the spring growth season to be delayed as the ice-blocks [in the artificially enlarged lake] melt": once again, the seriousness of this relates to the scarcity of spring pasture even under the best of circumstances.

XIII - Calving areas of Lad'nejav'ri near Vird'nejav'ri. This area is especially good for calving as the snow melts earlier in the year than elsewhere. Not only does this give early and good grazing, the stream flow is less than in places where snow melt occurs later at the time that new born calves follow the females across the water courses in the spring thaw. There is therefore less risk of drowning.



Note should also be taken here of the evidence of reindeer owners regarding the dangers and difficulties in connection with cracks in the ice on lakes that have been dammed (Investigation, 1977:69, 71, 73).

The ecologic significance of the Vird'nejav'ri-Lad'najav'ri area for reindeer management is stressed in field notes made by Mr. Terje Brantenberg in the spring of 1980 (cited here with his permission):

One of the reasons that the area has always been known as one of the best for calving is because the snow thaws earlier here than in other places. This means that the cows (pregnant or with calves) are able to get earlier, and with less trouble than in other areas, the green and protein rich pasture they need; and secondly, the early thaw means the mountain streams are in spate early so that by the time the calves begin to follow their mothers the hazard of their drowning is reduced. . . . [Furthermore] the waterfalls at Vird'neguoika are an effective obstacle to river traffic that otherwise, elsewhere along the river, disturbs the cows and their calves.

On Both Sides of Tverrelv and the West Side of Joat'kajav'ri

"This is a key area for reindeer management and one into which the animals naturally wander" (Investigation, 1974:21); this assessment of the Joat'kajav'ri-Hoal'gir area is also true today of Boarras and Nalgganaš (Map II). Nor is the importance of the area confined to one season: it includes traditional calving grounds and some summer pasture; but the overriding importance of Boarras-Nalgganaš-Hoal'gir today is as a 'waiting area' in the autumn.

The autumnal migration is the most complex operation in the annual cycle of reindeer pastoralism. Among the particular

difficulties facing the herdsmen of Nuortabealli is the narrowness of the 'passage' (between Vird'nejav'ri and Jiešjav'ri) leading to the winter pastures. There is also the strong likelihood of some Nuortabealli herds becoming mixed with those of Karasjok from Districts 16 and 17 (for their migration route is less than 5 kms broad in some places). Movement out of the summer pastures is staggered over August-October (Seinos-Navgastak leaving first, and herds from the islands of Kvalöy and Seiland taking up the rear); even so it is not possible to avoid the mixing of herds (especially around Hoanka). However, use of the area on either side of Tverrelv and south to Joat'kajav'ri reduces this hazard. The value of the area is greatest when the autumnal situation is at its worst.

Figure E shows the likely situation in August-September. The largest of the Seinos-Navgastak herds (Jalgon-eallo sii'da) has begun the autumnal movement south. There are probably around 7,000 animals in the herd at this time of year (this and subsequent figures refer to post-calving and pre-autumn slaughter herd sizes). All the other Nuortabealli herds, totalling approximately 25,000, remain behind their summer fences (or on the islands of Kvalöy and Seiland), likewise with the herds of the two Karasjok districts. For 2-3 weeks in late August, Jalgon-eallo herd is in the area of Hoal'gir while calf-marking is undertaken at the north end of Joat'kajav'ri.

Figure F depicts the situation that is likely to develop a month later. Jalgon-eallo sii'da has moved out of Hoal'gir around the north end of Joat'kajav'ri and while most of the herd

Fig. E. Nuortabealli in August (schematic)

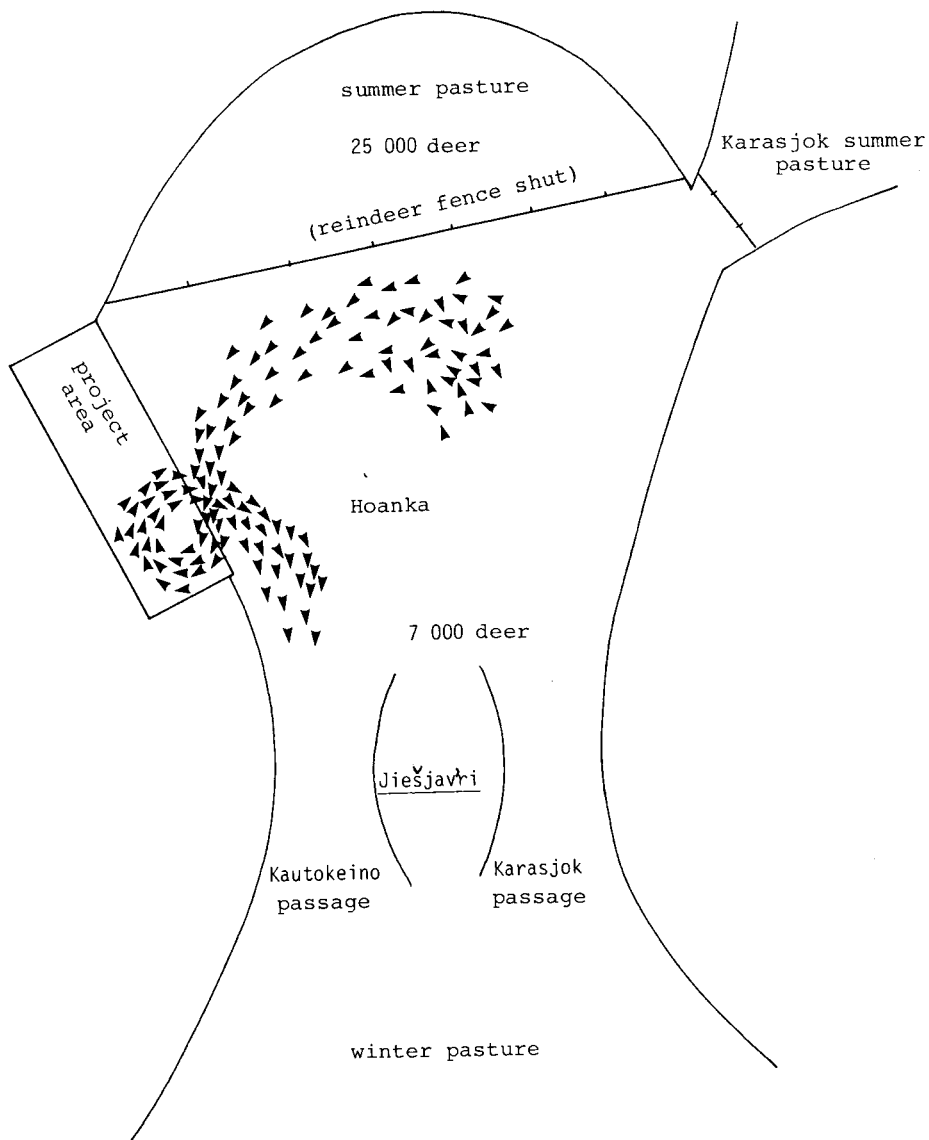
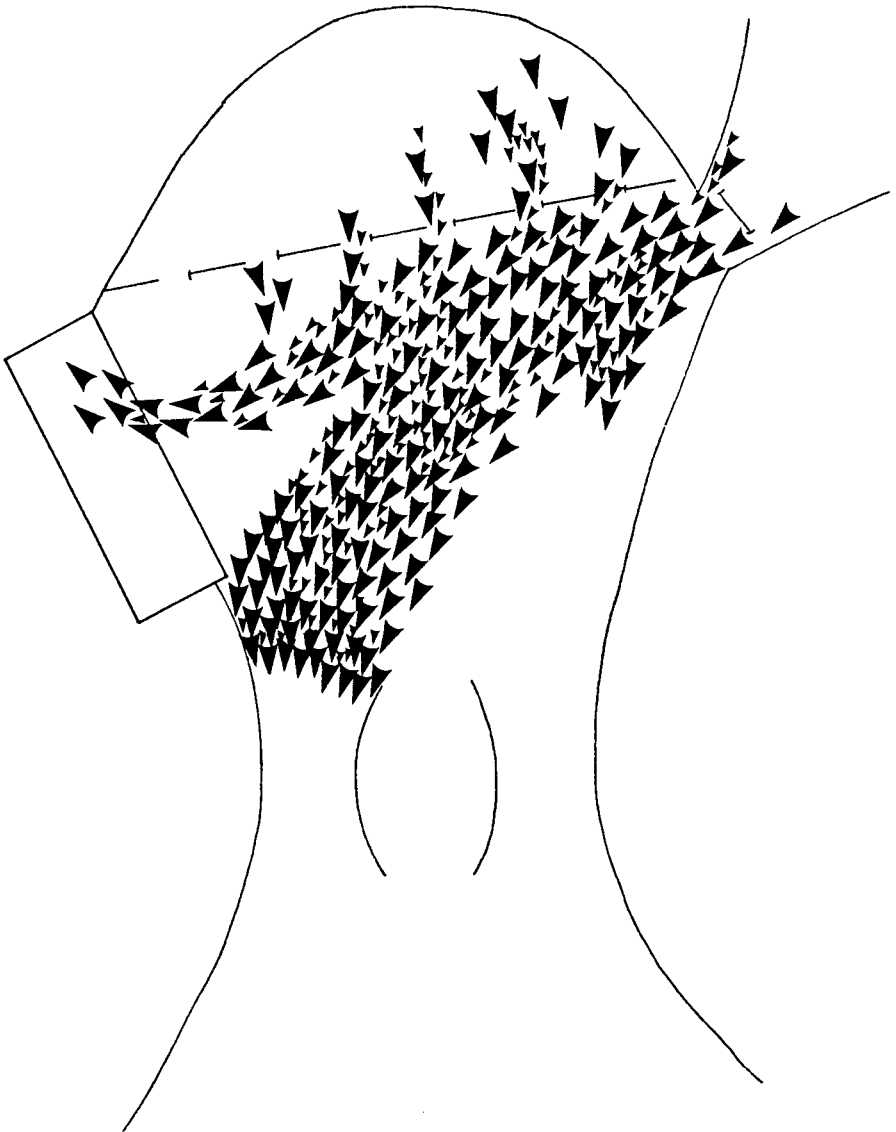


Fig. F Nuortabealli in the Autumn*
(fences open)



*Cf. Björklund & Brantenberg, 1981:80-81

will be in the passage leading to the winter pastures, an indefinite number of its animals will be spread further north and northeast. Meanwhile the remaining herds of Nuortabealli and those of the two Karasjok districts have started their autumn migration. They cannot be held back (behind fences) any longer. It is at this stage that many factors--beyond human control--conspire to a mixing of herds: see description of autumn, page 15 above. Hoanka is a notoriously difficult area for the herders. Yet it is so situated in relation to the general direction of movement in the autumn that most herds are in its vicinity at one time or another. Boarras, Nalggannaš and Hoal'gir provide an 'escape' from the congestion and turmoil around Hoanka: up to 3,000 animals can pasture there for several weeks while waiting for their 'turn' through the passage to the Nuortabealli winter pastures. The peaceful conditions in this 'waiting area' are optimal for the rut. In the autumn of 1979, two herds were taken into the area, remaining there throughout the rut. (See Björklund and Brantenberg, pp. 65-70, for a description of the situation on Nuortabealli in the autumn of 1979.)

Even sii'da as far east as the Karasjok border realize how dependent they are on such use being made of this 'waiting area' far over to the west. Here is a synopsis of a statement from a member of the Gerritnjar'ga sii'da (from field notes of Terje Brantenberg):

We are waiting until Jalgon-eallu is on its way before letting our herd through the fence. Herds from Kvalöy, Fieddar and Seiland have also begun to move and it is important that we can slip by without becoming mixed with them, but this means that some herds must be able to find areas into which they can 'withdraw' as others move on south and west.

It is in this waiting area that the hydro dam will be built together with its 36 kms of road. Let me, then, sum up the material presented thus far:

From before the war to the present day, there has been one or another sii'da calving in this area in most years, and in the autumn, sii'da from all districts on Nuortabealli have used the area at one time or another: particularly noteworthy is its use by Seinos-Navgastak herds to avoid mixing with those from Fieddar and the off-shore islands, or by these last-named herds themselves, in order to avoid mixing with Karasjok herds. Informants stress how difficulties in connection with the use of this area will--by a kind of "domino" process--have implications for reindeer management as far afield as the Karasjok pastoral area. For if one tries to stop the southward movement of animals instead of offering an alternative to it, animals will fan out, east and west, compounding the herders' difficulties; in this way Nuortabealli animals may end up with Karasjok herds and move with them along the east side of Jiešjav'ri (and sometimes it happens the other way around). On the other hand, if one lets the herds find their own way, at their own pace, in the autumn, many animals will proceed to move south beyond the autumn pastures, stopping only when they reach the Norwegian-Finnish border fence where they trample valuable and delicate lichen winter pasture before it has protective snow cover (as happened in autumn 1980 with complaints to the police as a consequence). It is as security against such situations developing that one can best appreciate the importance of a 'waiting area';

its value is not exclusive to any particular sii'da but, on the contrary, to the Nuortabealli system.

Attempts to Anticipate the Difficulties

Saami reindeer owners in Finnmark are pragmatists. Not only does the nomadic pastoral enterprise itself generate adaptive skills but awareness that success also depends on good relations with the settled population makes adaptation and compromise *faute de mieux*. The reindeer owners also believe (with justification) that they have negligible political influence in comparison to the political lobbies of Norwegian farmers and fishermen (cf. Aarseth, 1979). The opposition of Saami reindeer owners to the damming of a river is therefore unlikely to be on the same premiss as conservationists' opposition. The reindeer owners will oppose it because they are using the area and because they depend upon being able to continue to do so.

By the mid-seventies, reindeer owners of Kautokeino and Karsasjok felt that they were being forced by the government to choose a hydro construction. The choice was between Kvaenangen, Skaidi, and Alta/Kautokeino (Map I). Subsequently, they felt that to oppose Alta/Kautokeino could well lead to a withdrawal of the government's undertaking to 'protect' Kvaenangen and Skaidi. So for a time the national organization of the Saami reindeer owners and also the Kautokeino branch of the organization acquiesced in the plans for Alta/Kautokeino (interview with the national president, July 1981, and with the Kautokeino president, January 1981). There was resentment and mistrust towards the government and, inevitably, the reindeer owners

saw themselves entering a situation "engendering differences of interests between the reindeer owners of the various districts" (Investigation, 1977:70).

Nevertheless, some of the reindeer owners most directly affected by the plans for Alta/Kautokeino showed a willingness to see if the gravity of their prospective situation could be reduced by making changes in their herding cycles. In the spring of 1979, one sii'da did not go to its traditional calving grounds in the Raipas-Boarras area, joining instead another sii'da on its calving grounds southwest of Jiešjav'ri (Björklund and Brantenberg, p. 75); and in the autumns of 1979 and 1980, a sii'da left its traditional rutting ground to get away from "the disturbance around Stilla" (Case book of Alta Court, 19-6-81, pp. 18-19). But in both cases the adaptation failed. The shared calving grounds proved too small so that in 1980 the sii'da had to return to its spring pastures in the construction area (Björklund and Brantenberg, ibid.). As for the other attempt, one of the reindeer owners explains to the Alta court: "The last two years . . . during the rut have led to our animals being in poor physical condition--and so eventually to a loss of animals. . . . We are therefore forced to try again our customary autumn pastures around Hoal'gir." The same witness told the court: "The Alta/Kautokeino hydro-electric scheme will mean that we will lose Hoal'gir as an autumn pasture and rutting area" (ibid.).

Conclusions

I now list pointwise what I believe the consequences of the

Alta/Kautokeino hydro-electric project will be for Saami reindeer pastoralism:-

1. The present scheme has been preceded by a series of other incursions into the Nuortabealli area (see Björklund and Brantenberg, p. 73); their combined affect is such as to raise serious misgivings about the future viability of reindeer pastoralism in the area.

2. Even in respect of Vird'nejav'ri, "it is likely to be a much more important matter for reindeer management, in the spring, than what is suggested by speaking simply of direct loss of so many acres of pasture--the loss of any spring pasture will have repercussions for the whole ecologic year of reindeer management in the area" (Investigation, 1974:32).

3. But Vird'nejav'ri is the lesser part of the matter when compared with the damage that will be inflicted upon reindeer pastoralism in the area of the 36 kms of road to the dam. Here conditions both in spring and autumn are affected. The reindeer owners' national president confirmed for me the validity of two key statements in the Björklund and Brantenberg book, namely,

(i) viable reindeer management in Nuortabealli depends on a 'waiting area' being available in the autumn,

and (ii) Boarras-Nalgganaš-Hoal'gir-Joat'kajav'ri is the last of such areas today.

4. Efforts made in good faith by reindeer owners to find viable spring and autumn alternatives outside the construction

area have demonstrated that none exist. The damage and inconveniences that construction will bring to these and other reindeer owners are likely to put Nuortabealli reindeer pastoralism in a spiral of entropy (i.e. reduction in control) and of decreasing husbandry returns (Paine, 1972).

5. I agree with the conclusion from earlier investigations (1974:50; 1977:56) that increased work-input and/or increased investment in technological aids will not solve this kind of problem. Already the work input is maximal in autumn and as for technological aids, there are definite limits to their use not least in the autumn season (p. 18, above). The problem is one of loss of land and, as already stressed, land as a factor of production in nomadic pastoralism means pasture + space + time (p. 23, above).

And 6. The serious disruption that the construction is likely to bring to Nuortabealli reindeer management is probably unsurmountable. It might seem that a logical solution is the retirement of some Nuortabealli reindeer owners: but which of them? "Will it be those whose herds used the 'waiting area' last autumn? Or those who have used it the most often over the last 20 years? Or should it be those . . . who have the smallest herds? No one can point to who they should be and no one points to himself" (Meløe, 1981a:8): And Meløe is almost certainly correct in this. What is likely to happen is that no one will give up voluntarily, and there will be a good deal of hardship among the herdsmen of Nuortabealli--and damage done to the functioning of the reindeer management system--before

circumstances force some reindeer owners to give up. Even then, the fundamental problem will still remain which is that the indispensable 'waiting area' is lost.

CHAPTER 5

PARLIAMENT, THE COURT JUDGEMENT, AND REINDEER PASTORALISM

This chapter attends to the request in the mandate for an assessment of the information on the basis of which authorization of the project was given--insofar as reindeer pastoralism is concerned. Our discussion falls naturally under the following two principal rubrics:

- first, parliament (and the Investigation of 1974), 1978-79;
- second, the court judgement of 1980.

Parliament and the Investigation of 1974

The 1974 Investigation is flawed in two most serious respects: (1) it is not based upon the actual hydro enterprise that was finally accepted and (2) its mandate did not ask for an investigation of the indirect damages and inconveniences which reindeer pastoralism would suffer.

Re- (1). Parliament finally accepted a hydro plan appreciably smaller than the one investigated in the 1974 report (fig. A); and it was assumed that the damage to reindeer pastoralism in the reduced plan would be negligible. Not enough that parliament proceeded on an assumption in this matter, but the premiss of the assumption--that damage is reduced in proportion to the reduction in the size of the hydro plan--is itself at fault. It is uninformed by any understanding of the decisive role of the "minimum factor" for the viability of reindeer management in the face of incursions--however large or small, in

this case the calving pastures around Vird'nejav'ri. As we know p. 35 above), this is something that one of the 1974 investigators stressed in court in December, 1980, but in the actual report the point was muted. The importance of Vird'nejav'ri was overshadowed by that of Jiešjav'ri, and Parliament accepted Norwegian Hydro's dismissive conclusion that "the damages to reindeer pastoralism arising from the regulation of the water level of Vird'nejav'ri will be small and will have to be accepted (St prp. 107: 123).

Re- 2. The mandate for the investigation was given by Norwegian Hydro. It consisted of (a) mapping and registration of all migration routes and calving places in the affected areas around Vird'nejav'ri, Joat'ka and Jiešjav'ri; (b) mapping and registration of the pasture that would be flooded or rendered unusable (Investigation, 1974:1-2). Compensation was to be given to reindeer owners for direct (or concrete) damages, such as loss of pasture, and it was the task of the investigating team to calculate these losses in units of pasture. In a recent commentary on the mandate, the scientific member of the investigating team himself says: "It lacked, for example, instruction concerning the registration of the uses made of the area. It also lacked instructions concerning the important question of consequences for reindeer management of the proposed scheme . . . for example, the indirect loss arising out of the fact that reindeer withdraw from the affected area; as this cannot be concretely estimated, we did not attempt to estimate such damage" (Case Book of Alta Court, 17 June 1981, attachment no. 5, pp. 4-5).

Parliament, however, saw none of these shortcomings in the 1974 Investigation. Even reservations about the methodology imposed by the mandate that appeared in the report itself failed to catch the attention of Parliament. The same reservations were repeated in the Skaidi Investigation which was completed in August 1977--well before Parliament debated the Alta/Kautokeino report (St Prp. 107)--and here even the use of "lost pasture" as the only criterion for damage is questioned (Investigation, 1977:59, para. 3).

In fact, little attention was given to reindeer pastoralism in the parliamentary debates; the government claims to have handled Alta/Kautokeino case three times in Parliament (p. 6, above)--but that is a sad travesty of the truth so far as reindeer interests are concerned. Norwegian Hydro has summed up the consequences of the project for reindeer management as though they did not reach beyond Vird'nejav'ri (and they were even underestimated there). Thus in the debate of 30 November 1978 it was said:

So far as reindeer pastoralism is concerned, the only loss would be the flooding of some pastures. Their value approximates to food for 21 reindeer for 115 days (Hansard, p. 1293).

A monetary compensation was calculated accordingly. A statement to the same effect was repeated on the 6 June 1979 by the Minister of Energy; he concluded: "And that is all."

Yet on p. 45 (paras. 1 and 2) of the 1974 Investigation we actually find the following:

We therefore regard the area between Tverrelv and Altaelv, west of Joat'kajav'rit and south to

Stuorajav'ri as lost to reindeer pastoralism during the eight years of construction. This area contains valuable calving grounds, and the loss is very serious.

[Further] since all reindeer pastures in Finnmark are so heavily used, every additional loss of pasture is likely to have catastrophic [sic] consequences, even when a loss is only for a limited period of time.

In the reduced plan (which parliament was considering) this area is still affected: it reaches from Nalgganaš in the north to past Joat'kajokka in the south. In other words it is the 'waiting area'. In my opinion, the 1974 investigating team were correct in what they said, but they believed themselves prohibited by their mandate from explaining how this area would be affected or even why it was an area of such cardinal importance to Nuortabealli. They spoke of the need to take into account chain-effects, only to add that to do so was a virtually impossible task (p. 18, para. 4; p. 51, para. 2).

In sum, parliament (re- 1, above) underrated such consequences as it recognized; more serious still (re- 2), it simply failed to take into account the greater part of the damaging consequences for reindeer management. Further to this last point: parliament was inattentive to warnings given by the 1974 Investigation, especially in respect of the area bordering on the road that was to be built (e.g. Nalgganaš, Hoal'gir, etc.); on the other hand, parliament was not instructed about the wider implications of damage to reindeer management--implications which the members of the investigating team could posit from their own experience.

The Court of Appraisal, 1980

The handling of the case by the Court of Appraisal in Alta is marked by discrepancies--at times apparently amounting to contradictions (cf. 1980:57-58, 60-61)--between the premisses and/or data that the court accepts, on the one hand, and the conclusions it (or its majority) reaches on the other hand. This process is to the serious detriment of the case on behalf of Saami reindeer management.

For example, early on in its remarks (p. 29) the court forcefully summarizes the gravity of both direct and indirect damages to reindeer management:

Vird'nejav'ri: "the spoiling of this reindeer pasture . . . probably cannot be compensated with other spring pasture since none is to be found."

The access road: "reindeer will keep away from the area . . . so that the terrain to the west towards the Alta valley is unlikely to be usable as calving grounds, autumn pastures or as a 'waiting area.'"

Indirect and chain-effects: "these . . . will be particularly grave as all possibilities are already utilized and further alternatives are not existent."

But in the end the court attaches no weight to these points.

It is especially in the way that the majority of the court escapes taking into account the indirect consequences, that one sees the reindeer owners' case depreciated. Whereas the minority opinion of the court (p. 58) says:

The basis of decision [by parliament in 1978] is inadequate inasmuch as the impact study (including chain-effects) that was suggested by the 1974 Investigation was not done;

the majority of the court (pp. 57-58) excuses and accepts the omission:

Such information is necessary in order to understand the damage that reindeer pastoralism is likely to sustain. However, the court would point out that this is the first time that any consideration in advance has been given to consequences for reindeer pastoralism of a hydro project. The investigation that has been undertaken is satisfactory in respect of those damages that have been considered.⁹ Accordingly, the majority does not find it a cause for serious concern that other possible consequences for reindeer pastoralism have not been investigated.

One notes how, in praising the Investigation, the majority opinion of the court denies the seriousness of the objections made in the Investigation: objections concerning the omission of any impact analysis. We may well ask, "how is it possible to ignore the fact that the government lacks that which it cannot really be without if it is going to understand the damages [to reindeer pastoralism]?" (Melöe, 1981a:13).

Whereas parliament lacks an impact study but had received a warning that such a study is necessary, such a study was presented (by Björklund and Brantenberg) to the court at Alta in 1980. And what happened? It was handled in the same way that we have just sketched in connection with the 1974 study. First, the court calls attention to the Björklund and Brantenberg data concerning indirect consequences--the court even uses some of the Björklund and Brantenberg key phraseology. Then the court concludes (pp. 60-61) that:

[Björklund and Brantenberg's investigation] demonstrates how difficult it is to gauge the effect that the incursions of the hydro scheme into Saami livelihood will have on Saami culture. Accordingly, the court is of the opinion that the basis upon which government approved the hydro scheme was legitimate, even though no impact study was made.

Thus Björklund and Brantenberg's study was put to one side by the court. The president of the reindeer pastoralists' national association, on the other hand, is of the opinion that their report is "unique . . . the first time that non-Saami have written about reindeer management on the basis of Saami premisses . . . and of reindeer management as a system" (personal communication, July 1981). Here I think we should pause to consider, in context, another question put by Melöe:

If reindeer Saami recognize a threat [to their livelihood] that parliament or the government cannot see, should the latter exclude the possibility that it is they who are blind? It is just this possibility that it seems they have excluded. But what are they thinking? That reindeer Saami do not understand reindeer management? (Melöe, 1981b:7).

The Attorney-General was most frugal in his remarks in court about reindeer management. Instead, the state maintained that "the consequences for reindeer management have been taken into account to the extent that it is possible" (p. 25): yet not only do we know that this is not the case, we also know that the 1974 investigators (certainly the scientist, and his two reindeer Saami colleagues, I am sure, agree with him) know it not to be so. No attention is paid to the Björklund and Brantenberg report.

It sometimes seems as though the government is not interested either in assessing new material or correcting possible misevaluations of earlier data. Thus as late as January 1980, no less a personage than a deputy minister--in a new version of the misevaluation of the 1974 study--said "there is no connection between Saami interests and the Alta/Kautokeino hydro

project. . . . the whole project affects, as far as I can remember, no more than the equivalent of the pasture as needed by eight or ten animals over one year, and that is not much in view of the 140,000 reindeer in Finnmark" (on the radio, 14 January 1980).

Conclusions: Parliament 1978-79; Court of Appraisal 1980

I will summarize briefly under two headings:

- (a) information that should have been available but was not;
- (b) available information that was not used or was misconstrued.

Category (b) is as quite as significant as category (a).

Re- (a). It should have been insisted that a new investigation be done of the final and reduced plan--instead (as happened) of imposing deductions from the rejected plan. Further, it should have been insisted that this new investigation takes account of indirect consequences, and of chain-effects in the total context of reindeer management in the two northernmost provinces of Finnmark and Troms.

Particular note should be taken here of the overdependence in the study of 1974 on units of pasture as the crucial factor in reindeer management. In Björklund and Brantenberg's metaphor (p. 26), to use the loss of units of pastures as the index of damage to reindeer pastoralism is similar to removing a stave from a wine barrel, just one stave, and then assessing the damage to the barrel as a percentage of 'lost wood.' Let me take this point a little further by returning to the importance

of a 'waiting area' to the Nuortabealli system, and to a commentary by Meløe.

The reindeer terrain that will be lost on the east side of the Alta valley can certainly be measured in units of pasture. But the figure would be a hundred-fold of what was given for Vird'nejav'ri. Nevertheless, this would give a false picture of what has been lost. It is the unit of measurement that is at fault. If lost pasture could be compensated by so many bales of fodder, perhaps then one could measure the loss in units of pasture. Such calculations are appropriate for cows standing in their stalls, for example. They are fed. But reindeer do not stand in stalls. They wander, through all the seasons, and they need pastures: and in this context pasture cannot be separated from land. It is for this reason that pasture (land) cannot be measured in units of fodder (Meløe, 1981a:9).

Actually we can say that land in the nomadic pastoral context equals pasture plus space plus time (p. 23, above). Attention should be directed to reindeer behaviour, for it is only then that it is possible to put pasture-space-time into a realistic relationship with each other; it is particularly important to have some understanding of reindeer reactions to disturbances (Chs. 2 and 3 above). But neither parliament nor the court at Alta were informed of these things.

Re- (b). Even the little information concerning reindeer management that did appear in the 1974 Investigation (pp. 36-37) and in the 1977 Investigation from Skaidi (pp. 44-47, 69-82), is not accorded its proper due in the evaluation by parliament and later by the Court of Appraisal. Most serious of all was the inattention, by the court, to the analysis by Björklund and Brantenberg of Nuortabealli as a reindeer management system. For it is by this kind of approach to the problem that one can

begin to make impact studies that are appropriate to reindeer pastoralism.

In sum, the consequences of the Alta/Kautokeino hydro scheme for reindeer pastoralism were handled--by parliament and by the court--as though information about reindeer and pastoralism is either too incidental or too technical to be taken into serious account.

PART II

NUORTABEALLI/MASI

Introduction to Part II

At one place in its judgement, the Court of Appraisal left no room for doubt that the hydro-electric project would have significantly deleterious consequences for the ecology and economy of the Saami in the area (not limiting this to the reindeer Saami):

When both the direct and indirect, certain and uncertain consequences of the hydro project are added up and the effects of previous projects taken into account as well, there can be no doubt that it all amounts to a serious incursion into the Saami pattern of resource exploitation in that area of Kautokeino called Nuortabealli (p. 30).

And yet there is the characteristic reluctance on the part of the court to draw any conclusion from this situation:

Another question is whether this amounts to a threat to Saami culture and Saami cultural expression (ibid.).

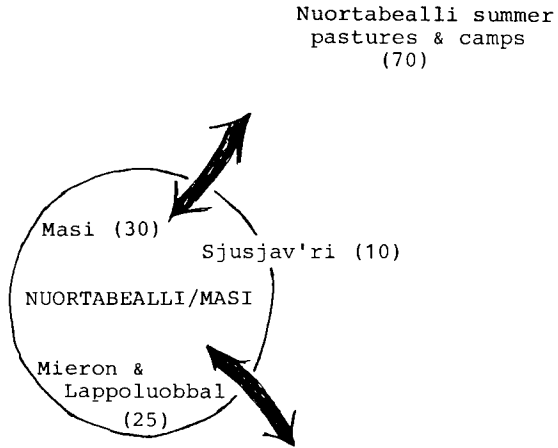
The court baulks. Their answer is:

Even agreeing that there is a decisive connection between reindeer pastoralism and Saami culture, as has been argued here on behalf of the Saami, it seems doubtful that the incursions we have mentioned are of such proportion and of such significance as to be of any important consequence to Saami culture (ibid.).¹⁰

My own conclusion based on earlier fieldwork and also on short investigative trips to the Nuortabealli area in January and July 1981, is that (i) the chain-effects that the hydro project will have on reindeer management will also flow over to other sectors of Saami ecology in the area; and (ii) the chain-effects thus set in motion in all sectors of Saami ecology will have serious repercussions on the social and cultural life.

I will attempt to describe these matters in Chapters 7 and 8; but before doing so it is important to understand the manner in which the Saami of Nuortabealli/Masi--transhumant pastoralists and sedentaries in a variety of occupations--are integrated into one society and one culture; the village of Masi is at the centre of it. The purpose of the next chapter (ch. 6) is to demonstrate this. The interested reader will find recent essays by Anderson on the Kautokeino area particularly helpful (Anderson, 1978 and 1981).

Fig. G Nuortabealli/Masi, A Saami World



Legend

Numerals indicate pastoral households (5 of Nuortabealli pastoralists have dwelling in Kautokeino).

CHAPTER 6
ONE POPULATION

Occupational Recruitment

The reindeer pastoralists of Nuortabealli are socially centred upon an area encompassing Masi (413 persons), Mieronjav'ri (465 persons), Lappoluobbal (249 persons), and Sjušjav'ri (64 persons). Thus of the 70 heads of households on Nuortabealli, no less than 30 have their permanent dwelling in Masi and another 25 in Mieronjav'ri¹¹ which is a few kilometres further up the Kautokeino River (fig. G). It is in these places that the Nuortabealli reindeer owners have the bulk of their kith and kin and their exchange partners (Saami verdi) and the majority of their children go to school in either Masi or (since 1973) Lappoluobbal. Here sedentary and pastoralists meet each other, even on a daily basis at some times of the year, as neighbours, work mates, economic partners, relatives--and as Saami. It is notable as a wholly Saami area even with Kautokeino county, and especially when compared with Kautokeino village (fig. H).

Independent of distances (or of roads) there has always been a great deal of movement (river boat, reindeer sled, snow scooter) between these villages and their outlying settlements and homesteads. Stretching out across the tundra far to the southeast and east are the winter reindeer pastures--and the work area of the Nuortabealli herders. Most sii'da will have people out there the whole of the winter, but family life is centred--more than ever before--upon such villages as Masi.

Fig. H: Kautokeino County and Saami Identity

	<u>Saami as First Language</u>	<u>Regards Oneself as Saami</u>
Lappoluobbal (249 persons)	100%	100%
Mieronjav'ri (465 persons)	97.5%	90.3%
Masi (413 persons)	92%	90.1%
Kautokeino (1100 persons)	53.6%	51.5%
Kautokeino county (2546 persons)	77.1%	74.5%

(Response percentage was 93; included in the negative answers are a small number of "don't know," "uncertain," "don't want to answer.") Source: Aubert, 1978:134.

Recruitment to Nuortabealli reindeer pastoralism takes place especially in the context of these inter-Saami relations. This means that at the same time as local Saami are recruited to reindeer work others are being recruited to sedentary jobs. It is necessary to look a little closer at the functioning of this dual system. Most marriages, for example, are between partners from within the same occupational grouping; but what of marriages across this occupational division? There are also married couples who (at a later date) together move out of an occupational grouping.

We can get an idea of what actually happens by analysing the enrollment records for the Masi school. I have looked at the period 1963-72, i.e. the decade covering students whose

year of birth fell between 1956 and 1965.¹² For the moment we are interested in the parents (fig. I).

Fig. I. Occupational Recruitment of Parents of Masi School Children Born Between 1956-65

(1) Parents (husband & wife)	<u>Occupational Grouping</u>		
	(2) at marriage	(3) immediately after	(4) later
sedentary	21	26	30
sedentary and pastoralist	11	0	0
pastoralist	38	44	40
Totals	70	70	70

What do these figures show? First of all, they are valid for Nuortabealli as a whole and not just for Masi: fifteen of the reindeer pastoralist couples and three of the sedentary lived outside Masi, but in Nuortabealli settlements, and their children were boarders at the Masi school. Secondly, the frequency of marriages across occupational lines (1 in 7: column 2) indicates a flexibility among the population which is only possible on account of the basic cultural homogeneity as Saami. Thirdly, there is the 'recruitment' of newly-married couples to one or the other mode of livelihood (column 3): in this example, sedentaries gain 5 couples and pastoralists 6. But it is

the women (rather than the men) who change their occupational grouping at marriage: five brides entered reindeer pastoralism and four became sedentary but only one bridegroom entered pastoralism and another became a sedentary. Finally, six couples made occupational changes at a later date in their married life together (column 4). Here the trend was at the expense of pastoralism as only one couple moved into reindeer management while five became sedentary--i.e. retired from reindeer work. Significantly, the five who retired from reindeer work were all couples in which one of the partners had been sedentary before marriage.

But we should be particularly concerned with the decisions of the young unmarried people as they enter the labour market on leaving school, and for this purpose we can confine ourselves to the first five years (1956-60) of this material from the school (fig. J): here we are dealing with an age group who are today between 21 and 25 years old. This will give us a glimpse of a generation who will have to take account of the Alta/Kautokeino project early in their working lives.

Fig. J. Occupational Recruitment of Children Born Between 1956-60.

<u>parents</u> <u>(husband and wife) are</u>		<u>their children became</u>	
		<u>sedentary</u>	<u>pastoralist</u>
sedentary	19	27	0
pastoralist	29	11	35
<hr/>			
Totals	48	38	35

We can extrapolate from this Figure how the overall Saami population growth in this part of Finnmark is distributed between the two occupational groupings: while the number in reindeer pastoralism increases, this happens at a rate slower than is the case in the sedentary sector of the economy. Specifically, interest in this Figure centres upon the eleven school-leavers of pastoralist families who took sedentary work.

The eleven highlight a process of sedentarization and the data are of particular interest because a consequence of the hydro development can be accelerated sedentarization--that is something we discuss in Chapter 8. What we find in the present data is that nine of the eleven are women--confirming what was said earlier--and that, at the same time, eight of them are children of a parent who 'married into' reindeer pastoralism.

In preparation for the discussion in Chapter 8, account should also be taken of the out-migration from the Saami world of Nuortabealli and Masi. Among the pupils of the 1956-60 age bracket, nine have left the parish and taken jobs (some have married) in a Norwegian neighbourhood. Looking at who the nine are, we find that same pattern of distribution recurring: five of them are women and six of them are children whose families (or one parent) have crossed the occupational division. It is of course the proportionate value of the numbers that matter here, and they are high. In the younger age bracket of 1969-65, twelve school-leavers continue at secondary school (including business school) and again there is the familiar pattern: all of seven of them are women and only three of the twelve have full sedentary parentage.

In sum, then, changes in the occupational identity (and rights) of one's family promotes flexibility about ties in and to the community. It is women (rather than men) who change their occupational affiliations (and in reindeer pastoralism there are changes taking place that leave women with less and less involvement in the work.)

But how can the ecology and economy of Masi contain this swelling of the ranks of its sedentary population, we may well ask? The answer directs attention to the high degree to which these Saami communities of the tundra practise a culturally distinctive occupational pluralism.

It is particularly striking how primary resource occupations are combined with the service sector in a manner that gives maximal returns in the ecologic-economic situation of a village such as Masi. I have two sets of data to illustrate the point. The first relates to Kautokeino county as a whole and is from the official Resource Report for the tundra area of Finnmark. In the three counties with predominantly Saami population, dependence upon primary resource occupations (in many combinations) runs from 37.5% and up to (in Kautokeino) 49.3% of the working population (NOU, 1978, p. 254; 302-03).

The records from the Masi school are the other data source. We find that over a ten-year period no less than 23 school-leavers found jobs in the service sector, without leaving the county and usually in combination with some degree of continued exploitation of naturalia (berries, meat, fish, game birds, etc.).

But Kautokeino county also heads another statistical table--it is the county with the youngest population in Finnmark. All of the counties that have a majority of Saami show the same trend, but it is the most extreme in the case of Kautokeino: all of 63.6% of its population are under 30 years of age (national average is 47.1%) and only 15.6% are over 50 years (national average is 30%) (NOU, p. 301).

Perhaps there is a serious warning here for Masi's future? Certainly Masi's demographic-ecologic-economic adaptation is fine-tuned. However, what should be stressed about it is how the people themselves tackle their situation; and I direct the remainder of the chapter to this matter.

The Culture of Work

Employer-employee relations. These may be characterized as gemeinschaft--and not gesellschaft. The young people taking local jobs in the service sector, for example, do not become urbanites nor do they become Norwegians--they are still Saami at work and socially. There is a local system of social control which employers respect as much as employees. It is obvious to the observer that people attach great importance to these matters, and that they have to do with people's sense of self.

Maximization of the family economy and of work culture. The occupational pluralism of the typical household--together with a retention of elements of subsistence economy--minimizes expenses and maximizes income. This is especially true in respect to the larger families. Of greater importance still, this arrangement generates its own work culture distinguished by

(i) the variety of contributions of individual family members (hence a marked interdependence between them) and (ii) household autonomy in the matter of work timetables: when and where one will do what. Self-employment, then, remains a value and is still actualized even while a person otherwise holds a job as an employee either in the service or administrative sectors.

Persistence of the primary resource occupations and the value of self-sufficiency. The number of employed persons in Finnmark as a whole was reduced by 20% between 1970 and 1976, except in Karasjok and Kautokeino where--with their high percentage of persons employed in the primary sector--there has been no drop in the number of employed (NOU, p. 302). To explain this we have to look beyond economic factors. Primary resource occupations (particularly those related to the tundra) are strongly associated with self-sufficiency: so much depends on one's own knowledge, ability, and devotion. The point concerning knowledge is particularly crucial as it generates self-reliance and self-respect. Furthermore, such knowledge is recognized locally as springing out of the culture: it belongs to the group as much as it does to any specific individual. For example, Saami values often find their clearest expression through the ways in which a person tackles the challenges of the primary sector. While reindeer pastoralism is the most obvious example of this, it is not the only one.

Tundra. "Who exploits the tundra these days?" "Who doesn't?"--was the reply I received in Masi, July 1981. People refuted the argument that less use was being made of the tundra.

What temporary falling-off that has occurred relates, they said, to apprehension over the plans of officialdom for flooding the land around Masi and--only a decade ago--flooding even the village itself. The same point was made concerning farming by a witness in court in June 1981 (recording for the Supreme Court, 12th June 1981)--and I return to this in Chapter 7.

People in Masi explained to me how the character of resource exploitation on the tundra has changed. The picking of cloudberries is an example: earlier one had to sell the berries as it was impractical (or plainly impossible) to preserve them in large quantities; but today most households have freezers and they are full of berries and other naturalia. Another comment was that perhaps berry-picking today is not recognized officially as "economic" as it is no longer done for money; but they insisted that "it is an essential part of our household economy." Again, much the same is true of changes in the character in fresh-water fishing.

People in Masi also told me of plans at the county level for the marketing of the naturalia of the tundra (cf. Court Book from Alta, 17 June 1981, p. 12). And regarding another point mentioned above, a housewife insisted that "we in Masi have gone through a period of over-consumption of purchased goods--not least on account of the unsettling situation that the hydro plans have induced--but we are back on track again." In answer to my questioning, people in Masi declared that their farming, fishing and use of other niches on the tundra could be significantly expanded without colliding with the interests of

reindeer pastoralism. One problem they named, however, related to the activities of the (non-Saami) sportsman on the tundra, and I return to this in the next chapter.

Reindeer management and employment. Reindeer management serves as a 'shock-absorber' for the Nuortabealli/Masi population against bad times: when there is no work elsewhere, one may be able to get by with a job in reindeer management, and should better times come, a person can turn his hand to something else while leaving his animals (bearing his reindeer mark) on the tundra with near relatives. The Resource Report commissioned by the government makes the same point: "reindeer pastoralism is able to absorb labour at periods of low employment and to supply labour at times of high employment" (NOU, p. 302). It is important to realize that in practice this process is limited to the Saami population and then really only applies to the individuals with an uncertain economy (i.e., those with little capital wealth in animals). Nonetheless, this general characteristic of reindeer pastoralism and its function in the regional economy should be borne in mind when evaluating statements from government circles to the effect that there are "too many people" or "too many animals" in reindeer pastoralism today. That employment figures from Karasjok and Kautokeino (with their high percentages of self-employment) are proving resistant to the depressing trend in the province as a whole (see above) is in large part due to the place of reindeer pastoralism in the Saami domestic economy. This means, then, that rather than seeing reindeer pastoralism as a social problem and an economic

burden for the state (as many would have it to be), one should recognize how it helps the Saami population to avoid the diverse problems of unemployment.

Reindeer pastoralism and demography. The points just raised clearly have implications for the maintenance of Nuortabealli/Masi as a demographic system. Reindeer management constitutes both a labour 'reserve' and an 'excess' labour pool for Masi. Indeed, to assess fully the contribution of reindeer pastoralism to the Nuortabealli/Masi system one should take into account the number of people who have been in and out of pastoralism at different times of their lives or who have it as a part-time occupation, but I have not been able to supply such data. In sum, even while Nuortabealli/Masi is an expanding system demographically, it is, by and large, in balance and responsive to local economic, cultural, and social variables; in particular much depends on the existence of the opportunity to move in and out of reindeer management.

Conclusion: Reindeer pastoralism and Saami culture

To inquire about the importance of reindeer pastoralism for Saami culture is like asking about the importance of a right arm to its left--a question one really only asks after the left has been amputated. The Nuortabealli/Masi system is both 'right- and left-handed,' as I hope I have shown. And without a sedentary population in Nuortabealli/Masi, it is doubtful whether reindeer pastoralism would survive as a Saami enterprise: the tundra has become a 'heartland' for Saami culture, and the sedentary Saami whose settlements are along its river courses

are, in so many ways, the 'custodians' of this Saami heartland. At the same time, it should be noted that the pastoralists too, despite the degree of specialization about their occupation, place great value upon the combination of several modes of primary resource exploitation (something that was particularly stressed in the 1974 report). This is a Saami value.

Certainly reindeer pastoralism--because it is Saami--makes contributions to the culture as a whole. Sociolinguistically, for example, reindeer workers constitute a speech community that richly reflects ideas of space, time and movement that we maintain are basic to Saami culture. Inevitably the pastoralists are standard-bearers for many other (self-identifying) Saami: Norwegians have the larger farms and the larger fishing boats and, so the fable runs, are the 'better' farmers and fishermen; but only Saami know the reindeer business. Furthermore, the pastoralists are at home in an ecologic niche "beyond"--symbolically as well as physically--Norwegian capabilities (cf. Anderson, 1981; Paine, 1981). But their distinctive (non-Norwegian) way of life aside, the pastoralists' savoir-faire--born of the variety of situations they handle in the course of a pastoral year (I especially have in mind cultural situations beyond the ordinary routine of sedentary life on the tundra)--also gives self-confidence to other Saami. There are other contributions that could be itemized--but to do so is, after all, like saying what the right arm does for the left. More to the point is to demonstrate the articulation between the 'left' and 'right' arms of Saami culture. I have tried to do

this without appeal to the exotic in Saami (and especially reindeer Saami) culture but rather by stressing how Nuortabealli/Masi is, in basic ways, one population--one culture--whose survival depends upon a complementarity of livelihoods and skills among its members. The population is too small for the culture to survive the amputation suggested in our metaphor.



XIV - "We came first"; "We don't move": placards in the Saami demonstration in protest against the plans to flood Masi. (Photo: Toralf Sandåker, Miljømagasinet, No 4/5, 1978).

CHAPTER 7
POLITICS OF THE TUNDRA

The previous chapter described some of the various adaptive processes--demographic, ecologic/economic, and cultural--by which Nuortabealli/Masi maintains itself as a social system. In this chapter and the next one I will try to explain, in as exact terms as possible, how the hydro construction will threaten, and possibly dismantle, these adaptive processes. First, the ecologic/economic: and we can start with the access road that is to be built through valuable reindeer terrain.

Should the access road be closed after the building of the dam, the reindeer are (for reasons given in ch. 3) still likely to shy the area; and if the road is open to public use, then the chances that reindeer pastoralism in the area will ever return to normal are further reduced. The public use of the road will also have other serious consequences for the tundra economy seen from the perspective of Nuortabealli/Masi. Yet in today's Finnmark it is politically difficult to deny the public the use of a road that exists; nor--as a policing matter--is it easy to prevent a road that is officially closed from being used.

Access Roads in the Tundra

It is necessary to register the physical dimension of the urban invasion of the tundra, and a traffic census conducted on the road leading to the Adamselv power station, in the Karasjok area, is revealing in this regard. The hydro construction at

Adamselv was completed in 1974, the access road is 30 kms long and the traffic census was conducted during the summer of 1977.

Between 20 July and 25 September 4,940 persons used the road. They came in 1645 cars and, at an average, stayed just over 48 hours in the area. Together this gives a total of 260,832 hours of visiting. At an average 160 persons visited the area each 24-hours. The road was used primarily as a point of departure for fishing trips (Fiskerikonsulenten i Finnmark, 1977:1, 16).

Another index of this 'invasion' is the number of holiday cabins built. The official estimate of the number within the area of the Alta/Kautokeino hydro scheme is 300 (one hundred of which are situated between Tverrelv and Altaelv (Finnmark Jord-salgskontor, letter 4 August 1981)). These figures exclude cabins erected on private property as well as an indefinite number that have been erected on crown land without authorization.

In a recent report discussing the consequences of another (tentatively proposed) hydro scheme in the north, we find the following:

It has been said that roads built across rough terrain to a hydro site are to the advantage of reindeer management. Certainly, reindeer owners will use these roads once they are built; but they have never favoured their construction. It is quite clear that the disadvantages for reindeer pastoralism of such roads far outweigh the advantages--even when these roads are closed to the general public . . . [For] people still use the road regardless of the prohibition. One of the costs to reindeer pastoralism is an increase in the illegal slaughtering of reindeer and theft of their carcasses in areas adjoining such roads (Investigation, 1980:35, 41).

The projected access road in the case of the present project is routed through an area that is particularly attractive to the week-end skier, hunter, or sportsfisherman from nearby

Alta. Around Joat'kajav'ri alone, 23 cabins, all erected without a permit, have been removed recently (Jordsalgskontor, ibid.); and Tromsø Museum's team that surveyed the area in the summer of 1981 found innumerable open hearths used by sports fishermen (Aarseth, 1981:4). There is much to suggest that the hydro construction will increase this traffic of hunters, sports fishermen, and the like. Indeed, the seriousness of the anticipated situation is such that some of the reindeer pastoralists in that area wonder whether it would not be better for them were the road left open for public use (with the right to close it temporarily while work with reindeer is in progress): for then the traffic would be concentrated along that one road whereas if it were closed there would be illegal (and uncontrolled) entry into the area through several points (Aarseth, personal communication, 31 July 1981).

Aside from reindeer, such naturalia of the tundra as its various species of berries, fish and (predominant among game birds) ptarmigan are valuable resources to the household economies of Nuortabealli/Masi families (ch. 6); and sedentary Saami in Masi and Kautokeino have expressed their indignation at the exploitation (most of them say it is "over-exploitation") of these basic food resources by the "tundra tourists" ("utmarks-turister"). Everyone expects the situation to deteriorate further after the road is completed. Such comments could be heard in Masi and Kautokeino in 1970 (Mikkelsen, 1971:91-96)--but they were not heeded; and I heard them in the winter and summer of 1981. As one might expect on the basis of Chapter 6,

the committee concerned with the natural resources of the tundra found that "of those interviewed . . . 50% in Kautokeino County gave 'culture' ("kulturtilhörlighet") as a most important reason for their use of the tundra" (NOU: 1978:263).

But this point of view is not easily reconcilable with that of the governor of the province: "In this day and age the tundra areas of our province are, first and foremost, important as recreation areas"--and he had the 'week-end tourist' especially in mind (Fylkesmannen i Finnmark, 1981:13). This takes us to the politics of the matter.

Politics

One also finds the premiss for the use of the tundra, as usually expressed by provincial officials, in what the Resource Committee wrote:

A constantly increasing part of our standard-of-living economy is realized in holidays and recreational time. People take to the countryside to fish, hunt and collect berries, or for simple relaxation. It is important that matters be arranged so that people can get the most out of these recreational pursuits, at the same time as the local communities [situated on the tundra] can continue to draw economic benefits (NOU, 1978:46).

The controversial nature of this premiss is well illustrated in a couple of minority proposals emerging from the report of the committee. One of these proposals was that, "all water courses [in Finnmark] that look as though they could be harnessed to the generation of hydro power, should be investigated with that purpose in mind" (p. 55). And,

The road to Adamselv power station and roads to any other power stations that might be built should be open to the general public (p. 57).

The other minority proposal was that,

It is in the national interest that the economy of Saami communities, and the local resources of their economy, be assured a future and that administrative arrangements [including appointments to key committees] should always have this in mind (p. 65).

But what is actually happening in respect to Finnmark's tundra areas?

The Kvaenangen power station. "Reindeer owners in the area requested that the road to the plant be closed to the public, but this was rejected in view of 'the general public's recreational needs'" (Björklund and Brantenberg, p. 42).

Adamsdal power station. "In accordance with the clauses of the original contract, the road was opened to the public on 1 October 1974. April 12 1976 the Department of Industry announced that the road would be closed to the general public; the decision was taken, in part, out of respect to reindeer management, but also in part on account of disagreements concerning the maintenance of the road. Following representations from the county, the road was re-opened 10 August 1976. . . . on 20 June 1977 the Department of Industry decided that the road would be open to all from 20 July until 31 October--by which time it would be closed anyway by snow in the natural course of events. The Department of Industry was not able to reserve the use of the road to any particular group of the population [for example, reindeer pastoralists]" (Fiskerikonsulenten i Finnmark, 1977:1).

It is against such a background of decisions that there is a rooted scepticism in Masi and Kautokeino towards provincial policy regarding rights to the use of the tundra. On behalf of reindeer pastoralism it has been stated:

To this date the [non-pastoral, non-Saami] incursions into the spring and autumn pastures have not been too marked, but it now seems as though a number of different interests and pressure groups are competing for the granting of rights in these areas . . . (Investigation, 1977:46).

Behind the scepticism there is now a loss of confidence in the cultural policy of the province, especially in respect to the uses of land and water.

Conclusion

Strictly speaking, I offer this as a premiss, as a starting-point, rather than as a conclusion concerning the conflict over the disposition of rights to the tundra in Finnmark. But I believe it is a premiss that needs to be taken seriously into account if one hopes to understand Saami cultural perception of the tundra, and hence their perception of rights to it.

Behind the politics of the tundra in Finnmark¹³ today there are two lifestyles: those of the densely populated areas versus the countryside, or the urbanized versus the Saami. Both (and not, as is often said, only the Saami lifestyle) are area-extensive, but in different ways. In the Saami case it is the tundra occupational pursuits that are area-extensive--and have always been so; in the case of the urban population (centred in coastal locations) there has grown up since the last war a recreational pattern that is markedly area-extensive.

The important matter here is that the relationship between occupation and recreation is organized in contrasting ways in the two cultures. In the Saami villages the two things--occupation and recreation--are interwoven in time and space and--most importantly--in terms of cognition. In the urban culture, the work one has can, of course, be a source of satisfaction and fulfilment beyond the material and professional; but it is more usual for the enjoyment of recreational values to be

associated with "after working hours" and outside the work place. As noted earlier, the urbanized population in Finnmark today "go out into the countryside" for their recreation in greater numbers than ever. Considered from the premisses of urban living in the north, this area-extensive form of recreation may well be a necessity, but it also has serious consequences for the population of Nuortabealli/Masi: consequences that deserve thoughtful attention.

The provincial administration's policy is that it is only by "assuring the use of the tundra for all sectors of the population of the province" that one arrives at a "balanced use" of the natural resources; and it is this balance that is the only permissible goal (Fylkesordfören, 1979:4). But this (highly rhetorical) simplification of the problem is undeniably in favour of the urbanized population and its demands for the usufruct of increasing large areas of the tundra; there is a real threat in this for the Saami household economy, based, as it is, on the tundra ecosystem upon which serious damage can be so easily inflicted (Kalstad and Aarseth, 1976:66). Should the access road to the dam be opened to the public (as is likely), then urban values (regarding recreation) will have taken precedence over what many perceive to be the ecologic prerequisites of the Nuortabealli/Masi population.

CHAPTER 8
OTHER CONSEQUENCES OF THE HYDRO PROJECT

We now look briefly at likely demographic and cultural consequences--both in the short- and long-term. References are made to the situation of Swedish Saami near the Ritsem power station, and then some general findings concerning the impact of hydro-electric projects on Norwegian small communities are evaluated for the applicability to the present case.

Diverse Cultural Consequences

"It is not just this construction [the building of the power station] that worries us. It is the consequences too . . ." said a Ritsem Saami; and in Masi in the summer of 1981, I was told: "we in Masi have for a long time now been speaking about consequences and, especially, chain-effects." What then can be said in advance of the event about the social and cultural consequences that the people of Nuortabealli/Masi are likely to experience?

About two hundred workers will be billeted out in the terrain during the several years it takes to build the dam. It was a similar situation at Ritsem. The construction workers at Ritsem remarked of the local Saami that "they knew that their culture is beyond saving now." A researcher at Ritsem concluded:

Around the construction site, Saami attempted to hide their ethnic identity . . . in their village, on the other hand, they gave free expression to it. Some of the Swedish construction workers thought the Saami hypocritical and deceitful . . .

Ritsem, then--in its consequences--was not just another hydro project: nor will Alta/Kautokeino be. It is worth noting what a younger Ritsem Saami had to say about the situation:

I know many guys [Saami] who took jobs here thinking that after a while they would have saved enough money with which they could buy some reindeer. But they spent their money on other things, got other habits and needs--and they are still here as wage-earners, instead of going back into Saami reindeer management.

(The citations from Ritsem are from Jansson, 1979:120-24).

The people of Masi have already had some unwelcome experiences from the hydro project, and these have led them to a loss of confidence in what the authorities (often billed as "experts") say about the future of their village. Mentioned particularly often to me was "the psychic assault" to which the villagers have been exposed since 1970, when Masi was officially 'targeted' in the plans of Norwegian hydro. Some years later the villagers thought that Masi had been declared a heritage area, not least on account of it being a Saami village; and they assumed that the protection this brought was ecologically realistic. But these apparent 'facts' were to be thrown in doubt. The court in Alta, in 1980, had this to say on the matter.

The conservancy proposal was made on the floor of parliament and not in parliamentary committee; and for this reason it is not legally binding but should be considered simply as an instruction [to Norwegian Hydro]. The question of the extent of the protection has been raised . . . it is the understanding of this court that it does not extend to the regulation of the river below Masi, even though this could lead to temperature changes, increased ice-fog [and other climatic changes] which, in their turn, can affect the subsistence basis of economy in Masi (p. 58).¹⁴

The falling-off in the farming effort around Masi (see testimony recorded for the Supreme Court on 12 June 1981) and the fact that some Masi people took their dead to Kautokeino for burial--these are clear signs of apprehension traceable to the earlier plans of Norwegian Hydro. Even today uncertainty and disbelief are still deeply rooted: "What can we believe"?--they ask without expecting an answer that they can trust. They return again and again to the psychic violence that has been perpetrated; they speak of "the men in black uniforms" (the police) and one of their worries is over the fact that their children watching television see Saami being carried away by the police (passive resisters at Stilla and Oslo: Paine, 1982). There is also bitterness in Masi over the fact that when some of them demonstrated in public against what they considered to be a serious and treacherous threat to their future, they felt themselves to be negatively sanctioned by other Saami, even in Kautokeino, and in comments in the Finnmark media. It seems to be quite clear that the threat which they knew they were facing generated among them unconventional responses, and it is this aspect of the matter that provokes the sanctions.

When people in Masi began to talk with me about the chain-effects they could expect during the years of actual construction of the dam, their comments focussed upon the question: "What kind of transactions can be expected between our young people and those 200 men?" They fear transactions in sex, alcohol and reindeer meat; being by and large illicit transactions they are expected to undermine the local (and in part culturally specific) structure of social control.

This relates both to sedentary Saami and the pastoralists, to social control in the village and on the tundra. I have learned from Norwegian Hydro that it is customary for the nucleus of the work force to be hired by the entrepreneurial firms engaged in the construction, and that there are ordinarily few changes in the work force (certain cement work being necessary exceptions). "The workers" are male. Local labour is used "if possible." Women, locally recruited, are usually employed in kitchen and domestic jobs (personal communication, Senior Engineer Skovang of Norwegian Hydro).

After a while, the conversations in Masi turned to the likely long-term demographic effects of the dam. Before looking at these it is worth asking what can be learnt from available knowledge of hydro-electric schemes in the culturally homogeneous rural south of Norway.

Evidence from Rural Norway

A recent sociological study of the consequences of hydro electric schemes in southern rural Norway concludes that rural communities "have been sacrificed to what one can call the per-capita-ideology" (Selvik and Hernes, 1977:95; my translations):

The logic behind government acceptance of hydro-electric schemes has been that when the sum of the advantages to a large population in one area (usually urban) exceeds the sum of the disadvantages brought to a population in another area (usually rural), then the scheme is socially defensible (ibid.)

It is noted that:

The assumption is that one can resolve any conflict between local and material interests through economic measures . . . (ibid.)

And

The political decision of whether to withhold or grant a license for a hydro development has not weighed local disadvantages against local advantages . . . but local disadvantages against national advantages (ibid.)

Let me say straight away that I do not quote Selvik and Hernes to register my disapproval (or approval) of per-capita-ideology, but in order to ask whether this is an appropriate policy in respect to Nuortabealli/Masi. I consider that it is not.

In the rural Norwegian setting, consequences include "the breaking up of the local labour market" (p. 23) which leads to "a raising of social aspirations" concerning choice of work and social milieu (p. 65) and this, in its turn, contributes to "an accelerated out-migration" (ibid.). Women can expect low-paid jobs on the site as cooks and cleaners, and there may be some few on-site jobs in retail stores and medical units. The most significant change that can be expected will be the improved marriage prospects for women (p. 67).

How do these observations 'translate' to a Saami milieu?

In general, the same consequences can be expected but they will have a different significance. They are likely to turn a Saami village into a part of rural Norway. Ecologically, this most likely means neglect or abandonment of occupational pluralism; economically, it could well mean 'runaway' consumer purchases and investments during the actual years of the hydro construction--and problems later; and culturally, it can be expected to have manifold consequences of the kind

suggested by the phrase "bi-semilingualism" (Hansegård, 1968). More will be said about these matters in the concluding chapter.

Nomadization, Sedentarization, and Out-Migration

This deserves special attention. There is every reason to suppose (following Selvik and Hernes, p. 65) that the intrusion of a hydro scheme will strengthen social (and other) processes that are already present locally. In this respect, we saw in Chapter 6 how in Nuortabealli/Masi it is especially women and people of 'mixed' occupational backgrounds who are the more mobile part of the population. But again, the process of population movement is itself more complex, with greater implications, in the case of Nuortabealli/Masi than it ever is in the rural Norwegian culture. This is because of two variables: (i) pastoralist or sedentary Saami? (ii) Saami or Norwegian?

Accordingly, there is a two-tiered structure to population movement in Nuortabealli/Masi:

tier 1: sedentarization or nomadization (i.e. movement either into or out of reindeer pastoralism);

tier 2: culture change (i.e. sedentary or pastoral Saami definitively leave the area): Saami becomes "Norwegian."

The process is illustrated diagrammatically in Figure K. Because sedentarization today does not entail crossing over the Saami-Norwegian rubicon it (i) makes possible an adaptive flow in and out of reindeer management, and (ii) it helps to provide Saami society with the necessary diversity of occupations. We were at pains to demonstrate these things in Chapter 6, but the

consequences of the hydro scheme can seriously disrupt this adaptive system in either or both of two ways (a and b):

Re- (a): increased sedentarization leads to a critical situation in the sedentary sector of the population because (a.1) there is no return flow to reindeer management and (a.2) the Masi population responds to the hydro project--and the influx of non-Saami speakers--by turning inwards and away from Norwegian society.¹⁵

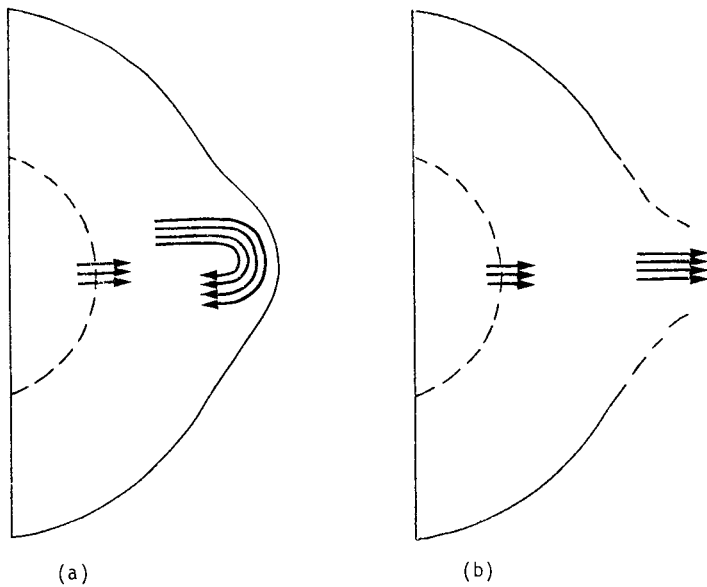
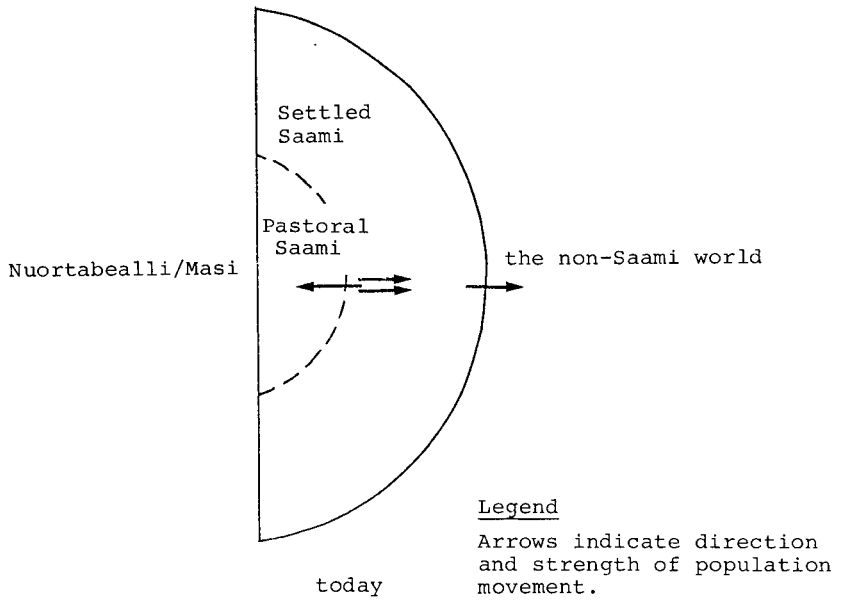
Re- (b): the boundary between the worlds of sedentary Saami and Norwegians collapses as (b.1) Saami from Nuortabealli-/Masi seek jobs with Norwegian employers and as a consequence (b.2) Saami culture and society becomes exclusively that of the pastoralists who are (b.2.i) left with reduced chances of cultural survival--the "amputation" suggested at the end of Chapter 6 will have happened.

These two scenarios are there in Fig. K. As sociological propositions, both are reasonable and can be supported by comparative data from elsewhere in the world. Yet one should not pretend to be able to predict in any detail what will happen in such a culturally complex and traumatic situation as Nuortabealli/Masi when faced by the Alta/Kautokeino hydro scheme. If (b) seems to be the more likely of the two, I believe that we may expect individual reactions of type (a), as well as (b), and in aggregate these will include most of the population.

As hypotheses, I offer the following:

1. stronger 'out-migration' (from both tiers) of women than men (much support in sociological literature);

Fig. K Nomadization, Sedentarization, and Out-Migration.



after the construction

2. (as a consequence of 1) problems for men to find marriage partners--particularly for men in pastoralism (supportive data from Swedish Saami districts collected by present writer);

3. anxiety by pastoralist men on account of their perceived inabilities to compete on the 'open' Norwegian labour market (see the several explicit statements to this effect by pastoralists interviewed in the 1977 Skaidi Investigation).

Further,

4. greater the adoption of alternative (a) greater the likelihood of local ecology and economy becoming over-taxed, leading to local problems of unemployment;

5. nor will the problem of local unemployment be necessarily avoided in alternative (b) but only if the "cultural emigrants" succeed in actually leaving the area (with or without a job).

So,

6. the seemingly contrary scenarios of (a) and (b) can both lead to social problems (including unemployment) and to what a Saami commentator on Saami affairs has called the notion of self based on assertions of "contra-identity"--that is, "I am not Norwegian" or "I am not Saami" (personal communication, Odd Mattis Haetta, 12 July 1981): phenomena that one had hoped were disappearing from Saami-Norwegian relations.

CHAPTER 9
SUMMARY AND CONCLUSIONS

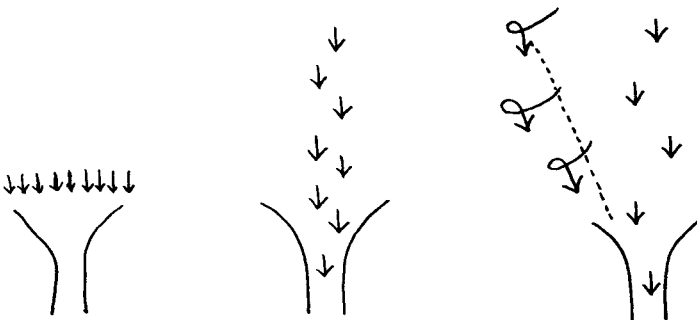
The proposed Alta/Kautokeino hydro scheme brings the Saami world in Norway very close indeed to its 'to be or not to be.' The likely consequences are so encompassing. They affect sedentary as well as pastoralist Saami: their ecology, economy, demography and hence their sense of self as Saami. The issue has long since become something more important than the building of a power station. What follows is no more than an aide-memoire to the arguments of the foregoing chapters.

Reindeer Pastoralism

Chapter 2. Reindeer pastoralism in Nuortabealli is a system of multiple connections between herds in respect of both time and space. The system works on account of the high degree of synchronization and coordination--for which the herdsmen are responsible--between the herds. The great danger of the hydro project is that the disturbances that will follow in its train are not accountable to the ecologic and sociologic constraints of the pastoral system (as outlined)--therefore they will be difficult, in the extreme, to combat.

Chapter 3. Avoidance behaviour by reindeer on account of a hydro construction may very well continue after the work is completed; a number of calving and rutting grounds have been deserted on this account, despite efforts to get the animals to return.

Chapter 4. A particularly problematic consequence of the project is the degree to which it means a loss of usufruct by the pastoralist. Land as a factor of production in nomadic pastoralism means pasture + space + time and we find that the viability of reindeer pastoralism in Nuortabealli hinges upon the use of a 'waiting area' in the autumn (during the rut and the migration south), and the only such area left is that of Boarras-Nalgganaš-Hoal'gir-Joat'kajav'ri. But it is precisely through this area that the access road will pass. Meløe (1981a:6) has illustrated the matter thus:



not viable

not viable

viable (without access road)

This area is indispensable not to particular sii'da, but to all of Nuortabealli as a reindeer management system of interdependent parts. Why else would sii'da with summer pastures out on the offshore islands and so far east as the boundary with Karasjok, be bothered to take out a law suit against Norwegian Hydro?

The hydro scheme, then, can lead to a loss of control within the Nuortabealli system, and this means inevitable losses in the production value of the herds. Nor does the damage stop there; loss of control over the herds can very easily lead to aggravations in relations with the sedentaries particularly out on the coast. Inter-sii'da relations will also be adversely affected. These are all matters that the individual pastoralist is very concerned about. But all parties--pastoralist, farmer or the Norwegian state--stand to lose from such developments.

Chapter 5. In the authorization of the project too much attention was given to units of pasture as the decisive variable and (at the Court of Appraisal in 1980) too little attention was paid to the impact analysis of Björklund and Brantenberg. All in all, the question of what the project will (or may) mean to reindeer pastoralism was seriously neglected. Parliament's treatment of it was notable for the failure to grasp the essential dynamics of reindeer pastoralism; and the Court of Appraisal's handling of the matter is notable for the contradictions between its premisses and conclusions.

Nuortabealli/Masi

Chapter 6. Chain-effects for the project will not be limited to reindeer management but will affect the complex structure of Saami culture and economy centred upon Masi village. Here we find pastoralist and sedentary side by side. We find, in fact, a Saami world. The objection one often hears, that "only 10%" of Saami are reindeer pastoralists, has no foundation in fact in Masi, and the kind of understanding of Saami

society that it suggests is quite misleading. In each generation people adopt--in response to a variety of informal factors --either the pastoral life or a sedentary occupation. Particularly noteworthy is how reindeer pastoralism may either 'absorb' labour or 'free' it for other jobs--all according to the actual employment situation in the Nuortabealli/Masi system at the time. It is by such mechanisms as this that the predominantly Saami counties have insulated themselves from the rising unemployment rate that affects the rest of the province.

Chapter 7. Their use of the renewable resources of the tundra, Saami say, is of cultural significance to them--but such cultural ecologic adaptation can be seriously threatened by access roads. The access road in connection with this particular project promises an invasion of week-end tourists. Nor does "invasion" seem to be an exaggeration: the average number of persons using another access road in Finnmark was, over a recorded two-month period, 160 in each 24-hour period. There are two interrelated issues of particular importance here. The first is that among the Saami of Nuortabealli/Masi 'occupation' and 'recreation' constitute parts of a single cognitive system (which is not the case in the urbanized culture of Finnmark). The other is that Saami characteristically measure time and space through reference to the units of work that have to be done--and their ecologic and economic adaptations are markedly 'extensive' ones. The urbanized population of the province, on the other hand, has recently adopted an area-extensive form of recreation but it is separated from their work patterns (which

are characteristically 'intensive'). This 'extensive' form of recreation constitutes a cultural threat--as well as an ecological/economic one (itself a serious enough matter)--to many Saami of Nuortabealli/Masi.

Chapter 8. Shall Masi, one of a very few totally Saami villages left in the world (the county towns of Kautokeino and Karasjok, for example, no longer are) join rural Norway? That can well be an ultimate consequence of the hydro-electric project. But Masi today is at the centre of the Saami world, yet it is, in numbers, a very small world. Capable of subtle adaptations in its own cultural terms, how can it be expected to withstand the influence of not only tundra tourists--in even greater numbers--but the presence of 200 construction workers billeted in the neighbourhood over a five year period?

When a power station comes to rural Norway, the local population is ineluctably drawn further into national life--they become "more Norwegian." But before this progress can be set in motion in the case of Masi, its inhabitants would have to become "less Saami." The difference is of such an order of magnitude that it should have been taken into account by parliament; and on account of this same factor, arguments that legitimated hydro enterprises in South Norway should not have been received as necessarily legitimate when applied to the Alta/Kautokeino case.

Leading directly out of these arguments are two matters that, in conclusion, should be addressed.

The Management of Culture

If completed, the Alta/Kautokeino hydro electric project will not be just another Norwegian dam: it will have been raised on far too many issues to be just that--or rather, raised despite the issues. The major issue of principle concerns the Saami, and here, surely, the State has a responsibility to a culture? Indeed, the Norwegian parliament, government, and bureaucracy have all, at different times, recognized such a responsibility. Two instances suffice here. The one is set forth in a government White Paper from 1973-74 (St. meld. nr. 33) which the majority opinion of the Court of Appraisal (1980) recognized as meaning "any contemplated incursion into Saami ecology and economy must be scrupulously weighed so that it is made quite clear what the costs can be to Saami culture and way of life" (p. 60). The other instance is the preamble to the 1978 Reindeer Law; it says:

The intention with this law is to ensure the conditions that . . . give economic and social security, and legal rights, to those working in reindeer pastoralism; and to safeguard management as an important factor in Saami culture . . .

This surely has to mean that "if the protection of reindeer pastoralism has the security of Saami culture as its objective, then it is no longer simply economic considerations that are to be taken into account" (Wold, 1963:150). But no such notion has been allowed to prevail in the handling of the Alta/Kautokeino project. Indeed, this viewpoint has not been seriously considered although (as is apparently the view of the minority opinion in the Court of Appraisal, p. 68) there has been cause to.

Powerlessness

The more one looks at a culture, the better one discerns an entwining of the ecologic and economic with the symbolic: this is very clear in the case of Saami culture. For many Saami it is also the fundamental point about the hydro project. These persons are not necessarily intellectuals; and they certainly include quite practical people. They are interested in the symbolic for its own value--certainly, but also because they have a sense that in the symbolic there is a defence of the ecologic and economic. "If the dam is built," these people ask, "what is left of our way of life?"

The danger for Saami culture here is that the Alta hydro project can become a symbol of defeat and thereby added to the history of Saami powerlessness. One does not have to venture far to get a sense of this among Saami working men and women. As an appropriate example, here are some statements made to the team investigating a proposed power station at Skaidi (Map I). The statements were made by Karasjok pastoralists in 1977.

We appeal to the political authorities to hear our small voice raised for the protection and maintenance of the Saami way of life . . .
(Samuel Per Samuelsen Anti)

It is not just the jobs that must be saved but Saami culture--its very existence in the future. That is so important. We do not want that kind of use [hydro-electric] made of our natural resources--we want them to be there for our descendants.
(Inga Ravna Haetta Eira)

The authorities are destroying our [Saami] occupation so that other and better people can have work and be paid good wages. I wouldn't call that democracy--it is the politics of annihilation.
(Ellen Johnsen Turi)

The responsible authorities should also listen to our point of view and consider it if they think it's worth thinking about.

(Per John Samuelson Utsi)

(Investigation, 1977:71-79.)

It is doubtful how much parliament has understood (or even heard) of this in its handling of the Alta/Kautokeino issue.

My mandate from the Supreme Court included an evaluation of the information that was available to parliament, and I would like to conclude by citing two recent statements by Members of Parliament: one from each of the two largest political parties. I submit that they are powerful evidence of the serious misunderstandings under which parliament labours in the Alta case insofar as it concerns Saami:

It's quite clear that the Saami are a minority and that the Saami population has special problems which we, as a society, must resolve; but to call it 'a minority problem'--that I can't.

It is just not true to say [as had another Member of Parliament] that this hydro project affects Masi The power station will be one Norwegian mile [10 kms] from Masi, and thus far no one has been able to demonstrate that there will be any adverse affect --of course there won't be.

(Politisk Kvarter, 14 February 1981.)

APPENDIX

THE FINDING OF THE SUPREME COURT OF NORWAY

Press Release*

In an unanimous decision, the Supreme Court upheld the position of the State on all counts. The court handed down its decision on February 26, 1982....

The case was first and foremost a dispute on the validity of the Royal Resolution of June 15, 1979, on the regulation of the Alta river by the state. This Resolution had been passed after parliament had consented to the regulation on November 30, 1978, and had subsequently twice stood firm on its decision. The court took account of more than seven thousand pages of written submission, and the full text of the decision of the court is over two hundred pages...

Respecting Saami interests, the court made these principal points:

The Law on the Regulation of Rivers of 1917 does not limit the power of parliament to permit a regulation of a watercourse; nor can the court overrule an assessment by parliament of the costs and benefits of such a project. However, the court can hear a case brought before it on, for example, the question of whether International Common Law should be invoked to protect the Saami people against an encroachment of their interests stemming from the regulation of the Alta river. Thus, this case was concerned with whether the previous proceedings had been right and proper and whether the Resolution of June 15, 1979, had been made on the basis of sufficient information and a correct interpretation of the actual conditions...

The Supreme Court decided that there had been no fault in the way that Saami interests had been handled. It was not necessary to appeal to International Common Law. The Court did not consider the Saami living in the area affected by the project to be an indigenous people under the terms of International Common Law, for it was clear that the regulation area in Alta was under Norwegian jurisdiction. It was also

thought that the impact of the project on reindeer management was not sufficiently serious to bring Parliament's decision into conflict with International Common Law.

Concerning assertions of possible climatic changes in Masi, the Supreme Court was satisfied with the information provided by the Meteorological Office. New information on a possible change in climate, did not give sufficient grounds for claiming that the earlier decision was based on an incorrect evaluation of actual conditions...

The first application from Norwegian Hydro of April, 1974, did not fulfil the necessary legal requirements on all points; this was particularly unfortunate given the intensity of later disputes arising in the case. However, fuller information was subsequently appended to the application. Likewise, certain ecological considerations should have been examined in greater detail prior to parliament making its decision, but essentially the court found that the proceedings had been conducted in a satisfactory manner and that all groups and interests had been allowed sufficient time and opportunity to discuss the issues and voice their opinions on them before the Resolution was passed.

The Supreme Court rejected plaintiffs' arguments that the Resolution was invalidated either by errors of procedure or by inadequate or misleading presentations of evidence.

The Supreme Court confirmed the rulings made by the District Court of Appraisal with respect to the compensation to be given to the Saami reindeer herders.

Comment from IWGIA Norway

The Supreme Court, in their consideration of Saami rights and interests in this case, came to two decisions of principle which IWGIA Norway find extremely disturbing:

First, the court found it unnecessary to consider the application of International Common Law concerning indigenous peoples. The opinion of the court was that the status of all parties to the dispute was wholly encompassed by Norwegian jurisdiction.

Second, the court declared itself satisfied that Saami interests, pastoral or otherwise, were not threatened to any serious degree. In reaching this decision, the court stayed close to the findings of the 1974 Villmo (et al.) report concerning unimpressive losses of actual units of pasture in the area of the dam, and dismissed out of hand the analysis of Björklund & Brantenberg, concerning systemic consequences to reindeer pastoralism, and the submission of Paine which confirmed Björklund & Brantenberg and looked at social and cultural chain effects as well. The position of the court seemed to be that when pasture experts say that they cannot estimate systemic ecologic, social and cultural consequences, then the presumption of social anthropologists to do so is unwarranted and need not be taken into serious account.

Further, IWGIA Norway finds the statements of the Supreme Court only meaningful in strict juridical terms. The handling of Saami interests throughout this case has triggered the strongest reactions among Saami organizations and individuals -two hunger-strikes and innumerable other protests, including the withdrawal by the main Saami organizations from negotiations with government. The Supreme Court's decision cannot help solve the situation of conflict. Indeed, the premises and reasoning of the court serve to re-emphasize the gulf that now exists between the two sides over the question of Saami rights. A political solution is required, and the responsibility for this rests with the government who must acknowledge Saami (through their organizations) as an equal negotiating partner.

IWGIA Norway emphasizes that the government must not use the verdict in the Alta case as a political excuse to let matters rest, thereby running away from its responsibilities. The Alta case can leave no one in doubt about the intensity of the conflicts to come, unless the Norwegian government is willing to take serious steps to bridge the gulf between itself and the Saami organizations.

**Original source: edited and shortened in translation by IWGIA, Copenhagen, in IWGIA Newsletter, No 30, April, 1982.*

NOTES

1. Thirty thousand is an official estimate; however, all such figures are no more than rough indicators--see Aubert, 1978.
2. One important reason for this was an objection by Finland: the Tana river, flowing along the Fenno-Norwegian border in East Finnmark and a salmon river of capital importance, has part of its headwaters in the catchment area of Iešjav'ri.
3. Together with another reindeer district on the west bank of the Alta river; consideration of their position is not possible in this report.
4. For a more detailed account of these developments, particularly their political aspect, see Paine, 1982.
5. A Supreme Court brief on the Saami case in the light of international law was written by Douglas Sanders of the law faculty at the University of British Columbia.
6. Though the new reindeer law of 1978 would restrict this practice (Paine, 1981:38-39).
7. Indeed, the Saami sii'da is a notion referring to herders and their herd together in one place.
8. Until quite recently this has been a neglected field of study; still today there is little work on it in Norway and one has to turn chiefly to Alaskan research on caribou herds and Swedish research on reindeer pastoralism. Thus Norwegian Hydro's own report (Mellqvist, 1975) is now out-dated by the recent field data of Rennaeringsavdeling ved

Sveriges Landbruksuniversitetet in Uppsala (Sweden) and the overview by David Klein of the University of Alaska. In preparing the account that follows I consulted especially with Gustav Åhman in Uppsala (personal communication, 13 August 1981).

9. But really nothing other than the loss of pasture around Vird'nejav'ri was assessed.
10. On the other hand, a minority opinion of the court was that "those consequences that the project could have for Saami culture should have been investigated, and not totally ignored. One especially has in mind here the chain-effects for reindeer pastoralism and also possible consequences for livelihood and comfort in Masi" (p. 68).
11. Source: The reindeer management's administrative office in Kautokeino.
12. By kind permission of the headmaster, Mikkel Gaup, and the help of teachers Trygve Guttormsen and Mikkel Eira.
13. Ninety-six percent of Finnmark is crown land. For a discussion of how the state came to "own" it, see Paine 1981:19f.
14. For the minority opinion of the court on this matter, see the Judgement (pp. 67-68: points nos. 15-17).
15. A well-known phenomenon (called "nativistic movement") in the comparative literature of anthropology.

REFERENCES

AARSETH, BJÖRN

- 1981 "Rapport om befaringer av veitrasé langs Joatkajav'-rit (Stuorajav'ri-Gaskajav'ri-Aivusjav'ri) - Joatkajåkka og i anleggsområder Čavčo-Damstedet." Tromsø Museum (stencil).
- 1979 "Uttalelse til Norges Høyesterett i sak L nr. 20 C /1978, nr. 237/1977: Staten v/Forsvarsdepartementet mot reindriftsgruppe i beitedistrikt nr. 23 i Finnmark v/Mathis M. Gaup d.e. m.fl." (stencil).

ANDERSON, MYRDENE

- 1981 "Vectors of diversification and specialization in Saami society." Purdue University (stencil).
- 1978 "Mobility and Bilingualism in North Norway." Ethnos, 1978:3-4.

AUBERT, VILHELM

- 1978 Den samiske befolkningen i Nord-Norge. Statistisk Sentralbyrå nr. 107.

BJÖRKLUND, IVAR and TERJE BRANTENBERG

- 1981 Samisk reindrift - norske inngrep. Universitetsforlaget. CASE BOOK (RETTSBOK)
- 1981 Rettsbok for Alta Herredsrett: Bevisopptak til bruk for Høyesterett (17-18.6.1981).

COURT OF APPRAISAL (SKJÖNNSRETTEN)

- 1980 Altaskjonnet 5.12.1980.

ESPMARK, YNGVE

- 1970 "Abnormal Migratory Behavior in Swedish Reindeer."
Arctic, 23(3).

FINNMARK FYLKESORDFOREN

- 1979 "Innlegg på regjeringens kontaktmöte i Vadsö
20.11.79." Vadsö (stencil).

FISKERIKONSULENTEN I FINNMARK

- 1977 "Anleggsveien ved Adamselv kraftverk. Undersøkelse
av trafikk og fiske sommersesongen 1977."

FYLKESMANNEN I FINNMARK

- 1981 "Samenes stilling og samiske spørsmål. ILO Konvens-
jonen om vern av urbefolkningen." (Brev til det
Kongelige Sosialdep. av 11.5.81).

HANSEGÅRD, NILS ERIK

- 1968 Tvåspråklighet eller halvspråklighet. Stockholm.

INVESTIGATION (UTREDNINGEN)

- 1980 "Skader og ulemper for reindriftsnaeringen ved
regulering og utbygging av Skibotnvasdraget."
v/Villmo, L. (typescript).
- 1977 "Skader og ulemper for reindriften ved en eventuell
regulering og utbygging av Skaidivassdraget med over-
føring til Dåggevavrit." v/Pedersen, Bals, A., Eira,
A.N. og Villmo, L. (stencil).
- 1974 "Skader og ulemper for reindriften ved en eventuell
regulering og utbygging av Altaelva, Joat'kajavr'it
med overføring av Tverrelva, samt Jiešjav'ri."
v/Baer, A., Haetta, O. K. og Villmo, L." (stencil).

JANSSON, LENA

- 1979 Ritsem. En etnologisk studie av ett kraftanlegg.
Stockholm, Nordiska Museet (Prosjektanleggarna;
nr.1).

KALSTAD, JOHAN ALBERT and BJORN AARSETH

- 1976 "Vassdragsregulering i Samiske bosettingsområder."
Ottar nr. 92-93 (Tromsø Museum).

KLEIN, DAVID

- 1980 "Reaction of caribou and reindeer to obstructions and
disturbances - a reassessment." Second Int. Reindeer
- Caribou Symposium: Røros. Direkt. for Vilt og
Ferskvannsfiske i Trondheim.
- 1971 "Reaction of reindeer to obstruction and distur-
bances." Science, vol. 173.

MELLQVIST, PAL

- 1975 "Reindyr/kraftlinjer. VN-rapport." NVE-Vassdrags-
direktoratet.

MELÖE, JAKOB

- 1981a "Alta herredsrett om skadene pa reindriften."
Tromsø University (stencil).
- 1981b "Pro aut contra i Altaskjonnet." Tromsø University
(stencil).

MIKKELSEN, MAGNAR

- 1971 Masi, Norge. Oslo.

MINDE, HENRY

- 1976 "Trek av samenes historie i Alta." Tromsø Univer-
sity (stencil).

NOU

- 1978 Finnmarksvidda. Natur og kultur. NOU 1978: 18A/B.
Oslo, Universitetsforlaget.

PAINE, ROBERT

- 1982 "The making of a fourth world: notes from Norway."
(To appear in N. Dyck, ed., The Politics of representation in the fourth world: minority indigenous peoples in Canada, Australia and Europe.) St. John's, ISER (stencil).
- 1981 "Norwegian and Saami: nation-state and fourth world." (To appear in G. Gold, ed., Ethnicity and the Mother Country). St. John's, ISER (stencil).
- 1978 "Spring herd - Kautokeino. 1961." Ethnos, No. 3/4.
- 1972 "The Herd Management of Lapp Reindeer Pastoralists." Journal of Asian and African Studies, VII:1-2.
- 1970 "Boundary maintenance among Lappish reindeer nomads." Paper read at AAA 68th Annual Meeting, San Diego.
- 1964 "Cultural demography and nomad/sedentary relations of Reindeer Lapp groups in Norway and Sweden." Paper read at the VIIth International Congress of Anthropological and Ethnological Sciences, Moscow.

REINDEER LAW (LOV OM REINDRIFT)

- 1978 Lov av 9. juni 1978. Nr. 49 om reindrift.

SELVIK, ARNE and GUDMUND HERNES

- 1977 Dynamikk i borehullene. Oslo, Universitetsforlaget.

STEEN, ADOLF

- 1956 Masi. Oslo, Samiske samlinger.

STORTINGSFORHANDLINGEN

1978/79 del VII c, s.4015-4031. (Document of the Norwegian Parliament.)

STORTINGSPROPOSISJON (St. prp. nr. 107)

1977 Om statsregulering av Altavassdraget i Finnmark Fylke. (Document of the Norwegian Parliament.)

STORTINGSMELDING nr. 33

1973-74 Om et utbyggingsprogram for Nord-Norge. (Document of the Norwegian Parliament.)

VILLMO, LLOYD

1976 "Vassdragsreguleringer og reindriften." Ottar nr. 92-93 (Tromsø Museum).

1975 "Potential impact of accelerated northern development on caribou and reindeer populations and ecology. The Scandinavian viewpoint." Proc. First. Int. Reindeer-Caribou Symp., Fairbanks.

VORREN, ÖRNULV

1981 "Rapport om befaring av veitrasé-området Tverrelvdalen-Joat'kajar'vi vedrorende Samiske kulturminner." Tromsø Museum (stencil).

1962 Finnmark-samenes nomadisme. Bd. I og II. Tromsø Museum Skrifter IX(1-2).

WOLD, TERJE

1963 "Minoritetene og samfunnet." Sameliv/Sami/Aelin (Samisk Selskaps Årbok).

Reports printed in the Documentation Series are:

- No. 1 Declaration of Barbados
- No. 2 Karl E. Knutsson: Report from Eritrea (out of print)
- No. 3 A. Barrie Pittock: Aboriginal Land Rights (out of print)
- No. 4 Rupert R. Moser: The Situation of the Adivasis of Chotanagpur and Santal Parganas, Bihar, India (out of print)
- No. 5 John H. Bodley: Tribal Survival in the Amazon: The Campa Case
- No. 6 René Fuerst: Bibliography of the Indigenous Problem and Policy of the Brazilian Amazon Region
- No. 7 Bernard Arcand: The Urgent Situation of the Cuiva Indians of Columbia
- No. 8 Stefano Varese: The Forest Indians in the Present Political Situation of Peru
- No. 9 Walter Coppins: The Anatomy of a Land Invasion Scheme in Yekuana Territory, Venezuela (out of print)
- No. 10 Henning Siverts: Tribal Survival in the Alto Marañon: The Aguaruna Case (out of print)
- No. 11 Mark Münzel: The Aché Indians: Genocide in Paraguay
- No. 12 Nelly Arvelo Jiménez: The Dynamics of the Ye'cuana (»Maquiritare«) Political System: Stability and Crisis (out of print)
- No. 13 Carmen Junqueira: The Brazilian Indigenous Problem and Policy: The Example of the Xingu National Park
- No. 14 Douglas E. Sanders: Native People in Areas of Internal National Expansion: Indians and Inuit in Canada.
- No. 15 Alicia Barabas and Miguel Bartolomé: Hydraulic Development and Ethnocide: The Mazatec and Chinantec People of Oaxaca, Mexico
- No. 16 Richard Chase Smith: The Amuesha People of Central Peru: Their Struggle to Survive
- No. 17 Mark Münzel: The Aché: Genocide Continues in Paraguay
- No. 18 Jürgen Riestler: Indians of Eastern Bolivia: Aspects of Their Present Situation
- No. 19 Jean Chiappino: The Brazilian Indigenous Problem and Policy: The Example of the Aripuana Indigenous Park
- No. 20 Bernardo Berdichewsky: The Araucanian Indian in Chile
- No. 21 Nemesio J. Rodriguez: Oppression in Argentina: The Matabo Case
- No. 22 Jacques Lizot: The Yanomami in the Face of Ethnocide
- No. 23 Norman E. Whitten, Jr.: Ecuadorian Ethnocide and Indigenous Ethnogenesis: Amazonian Resurgence Amidst Andean Colonialism
- No. 24 Torben Monberg: The Reactions of People of Bellona Island Towards a Mining Project
- No. 25 Felix Razon and Richard Hensman: The Oppression of the Indigenous Peoples of the Philippines
- No. 26 Peter A. Cumming: Canada: Native Land Rights and Northern Development
- No. 27 Peter Kloos: The Akuriyo of Surinam: A Case of Emergence from Isolation
- No. 28 Ernesto Salazar: An Indian Federation in Lowland Ecuador
- No. 29 Douglas E. Sanders: The Formation of the World Council of Indigenous Peoples

- No. 30 Julio Tumiri Apaza (ed.): The Indian Liberation and Social Rights Movement in Kollasuyu (Bolivia)
- No. 31 Norman Lewis: Eastern Bolivia: The White Promised Land
- No. 32 Ernest G. Migliazza: The Integration of the Indigenous People of the Territory of Roraima, Brazil
- No. 33 Guatemala 1978: The Massacre at Panzós
- No. 34 Norman E. Whitten, Jr.: Amazonian Ecuador: An Ethnic Interface in Ecological, Social and Ideological Perspectives
- No. 35 Richard Chase Smith: The Multinational Squeeze on the Amuesha People of Central Peru
- No. 36 Gerald D. Berreman: Himachal: Science, People and »Progress«
- No. 37 The Yanoama in Brazil 1979
- No. 38 Chile 1979: The Mapuche Tragedy
- No. 39 A. Barrie Pittock: Australian Aborigines: The Common Struggle for Humanity
- No. 40 Torben Retbøll (ed.): East Timor, Indonesia and the Western Democracies
- No. 41 Susana B. C. Devalle: Multi-ethnicity in India: The Adivasi Peasants of Chota Nagpur and Santal Parganas
- No. 42 Brigitte Simón, Barbara Schuchard, Barbara Riester and Jürgen Riester: I Sold Myself; I Was Bought – A Socioeconomic Analysis Based on Interviews with Sugar-cane Harvesters in Santa Cruz de la Sierra, Bolivia.
- No. 43 Sören Hvalkof and Peter Aaby (eds.): Is God an American? an anthropological perspective on the missionary work of the Summer Institute of Linguistics, joint publication with Survival International, London.
- No. 44 Paul L. Aspelin and Silvio Coelho dos Santos: Indian Areas Threatened by Hydroelectric Projects in Brazil.

The reproduction and distribution of information contained in the IWGIA NEWSLETTERS and the IWGIA DOCUMENTS is welcome as long as the source is cited. However, reproduction of whole DOCUMENTS should not occur without the consent of IWGIA, according to our copyrights.

© Copyright 1982
by International Work Group for Indigenous Affairs
All rights reserved