

The Need to Conduct Studies of Swedish Saami Reindeer-Herder Subsistence Behaviours: A Case of Indigenous Resource-Use Rights

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Abstract: Although much is known about Swedish Saami reindeer herding, one area that has received little attention is traditional subsistence activities that support modern herding families and provide a means of cultural survival. This article examines the current political situation in Sweden related to efforts to comply with the European Community's International Labour Organization Convention No. 169 Concerning Indigenous and Tribal Peoples in Independent Countries. The need for studying traditional subsistence practised by the Swedish Saami herders is summarized, and the importance of subsistence research among Inuit groups in Alaska provides a comparative framework for the types of information that can be obtained from such research. Subsistence studies are examined in light of current research priorities of the Circumpolar North scientific community.

Introduction

According to Western scholarship and Indigenous knowledge, Aboriginal Arctic cultures may survive only if their peoples continue to utilize natural resources through traditional subsistence activities. Aspects of Arctic cultures associated with traditional subsistence activities include values and attitudes, material culture, and language (Jernsletten 1997). Yet, it is often difficult to continue traditional subsistence activities as northern regions come under increasing development pressures and Indigenous peoples lose access to natural resources. For Swedish Saami herding families, natural resources important for subsistence include reindeer pasturage; wild foods acquired through hunting, fishing, and collecting; and raw materials for handicrafts and clothing. Rights to those natural resources are considered essential to

most Saami herding families as a means to protect their ethnicity, which is under greater pressures to assimilate into the majority society (Svensson 1991). In this article, "Saami" is used as the English term for the ethnic group formerly known as "Lapps," while the spelling "Sami" is retained in Scandinavian language titles and quotations or their translations, if used in the originals. There is much disagreement over the appropriate term even among Saami groups (e.g., Translator's Note, Linna Weber Müller-Wille, Lehtola 2002).

Swedish legislation protects Saami reindeer-herder natural resource use, and recognizes the collective rights of Saami herding villages to pasturage and migration routes, hunting, fishing, and collecting associated with reindeer management (Prop. 1976/77: 80, Bet. 1976/77: FrU43, Rskr. 1976/77: 289). The legislation states the Saami rights thusly:

The Sami's historical use of the land has given rise to a particular right to make use of property: the reindeer management right ... which means that a person who is Sami is entitled to make use of land and water in a particular fashion for the maintenance of himself and his reindeer. The reindeer management right ... from time immemorial ... [grants] rights to reindeer pasture, hunting and fishing. ... [T]he Sami enjoy constitutional protection by virtue of being an ethnic minority ... that enjoys a particular status by virtue of being the aboriginal population of their own country. (SOU 2001: 57)

However, one must make a distinction between individual and joint resource use that relate to Indigenous rights. Only members of a Saami Village (an administrative, territorial, and economic unit) have the collective use right to pasturage and other natural resources, and it is virtually impossible for an outsider to join a Saami Village.

Despite that legislative assurance, in practice it has not been possible to provide the protection under the current level of economic competition in northern Sweden. If we accept the Swedish government's expressed desire to protect Saami culture, then understanding *how* Saami reindeer herding families utilize natural resources is important since that data can be used in the political process to create such protection. Although much is known about Saami reindeer-herding culture in general (Müller-Wille 2002), this article illustrates that little is known about their traditional subsistence activities.

The absence of research studies on Saami traditional subsistence activities prevents an accurate understanding of its significance to their cultural

survival. This article documents the current political situation related to competition between traditional Saami subsistence activities and modern Scandinavian industries in Sweden. It also describes subsistence research among the Inuit in Alaska, indicating its importance for making empirically based policy decisions on natural resource use. Finally, the article calls for similar studies in Sweden according to current research priorities by the Circumpolar North scientific community.

“Culture Wars”

The importance of subsistence research is perhaps best illustrated in natural resource conflicts between Saami and Swedish groups in Sápmi (i.e., traditional Saami territory) during the past few decades. Late twentieth century conflicts over hunting and fishing rights began after publication of the government’s 1982 report on wildlife conservation recommending unrestricted public hunting and fishing on Saami Village territory (SOU 1983: 21). A 1992 Parliamentary decision subsequently allowed the general public to hunt small game in the mountain regions, the use of which had been heavily influenced by Saami Villages. Such hunts have increased, despite protests by the Saami Parliament and especially by Saami Villages, which suffered income loss from hunting and fishing permits, for which they previously received a fee (Arnesson-Westerdahl 1994: 5, 19; Prop 1992/93:32; SOU 1983: 21). Perhaps more importantly than decreased income, the loss of Saami Villages’ control over where and when hunting can take place within their territories—particularly small game hunting with dogs—can substantially increase conflicts with reindeer herding operations (Jernsletten and Klokov 2002: 103).

As the dominant society increasingly exploits more resources utilized by the Saami, majority and minority societies come into greater levels of conflict, which is interesting because the conflict is generated by similar cultural values. Like those of the Saami population, Swedish cultural values include a love for nature and a desire to continue their own traditional subsistence activities. Many Swedes believe that their unrestricted right of access to natural resources like game, fish, berries, and mushrooms is also necessary to maintain their traditional culture (Löfgren 1987; Daun 1996). Saami herding families feel the same about natural resource use and traditional culture preservation as do many non-herding Saami families, who see activities like handicraft manufacture as the only connection to their roots (Nordin 1995).

Defining Saami traditional lands and waters on a local level is not an easy task. Reindeer herding is an area-demanding industry, utilizing a third of Sweden’s surface area. In Sweden, only ethnic Saami who are members of

Saami Villages can herd reindeer (Prop 92/93:32), although some Scandinavian families (e.g., the Swedish Royal Family and traditional farming families along the Finnish border) can own reindeer. Both Saami and non-Saami may engage in reindeer herding activities, but the concessions are always held by a Saami who is a member of an official Saami Village (Jernsletten and Beach 2006). Saami Villages are limited by Swedish law in the number of reindeer they can support on their herding territories. Although Sweden defines Saami reindeer herding as an Indigenous enterprise, ethnic Saami and Scandinavian industries, such as tourism and forestry respectively, occur in herding areas, often competing for the land (Sikku 1995).

Swedish Saami reindeer herding is regulated primarily through two historical borders—the Saami Territory Border and the Cultivation Limit. The Swedish Crown created the Saami Territory Border (*lappmarkgräns*) in the 1750s for policy decisions about Saami industries in the forest region, and to limit conflicts with Scandinavians who initially inhabited the coastal area. The Cultivation Limit (*odlingsgräns*) was established by the Crown a century later, again to limit the impact on reindeer herding of immigrant Scandinavian settlers who had moved into the mountain areas, ignoring the Saami Territory Border (Lundmark 1998). Most of the conflict between herding and other interests takes place during the winter in the forests to the east of the Cultivation Limit (the Winter Pasturage Area), although competition is increasing west of the boundary as well.

The legal situation is complex partly because Swedish legislation recognizes three different types of reindeer herding: forest, concession, and mountain. Forest reindeer herds remain west of the Saami Territory Border the entire year, but during winter they may graze east of it. Forest reindeer herding does not involve the long-distance spring and fall migrations between summer pasturage in the mountains and winter pasturage in the forests that characterize mountain reindeer herding. Mountain reindeer herding may be conducted west of the Cultivation Limit during the entire year; however, herds graze in the forests east of the Cultivation Limit (the Winter Pasturage Area) only during the officially designated winter season from October to April. Finally, Concession Area herding along the Finnish border represents a traditional, but not Indigenous, nineteenth century form of reindeer management, in which both Saami and Scandinavian farmers own reindeer.

In the decade since the small game law was passed by Parliament, Swedish interests have increased their access to land and natural resources at the cost of Saami rights, according to the Saami Parliament. Its statement criticized the Swedish government for not understanding how increased majority use

influences minority access to hunting and fishing in the reindeer herding area (Sarri 2003). That failure to study the situation may be ending, however. The Swedish government appointed a special investigator to determine whether the country was in compliance with the European Community's International Labour Organization (ILO) Convention No. 169 Concerning Indigenous and Tribal Peoples in Independent Countries. The Convention requires governments to "safeguard" the traditional land and natural resource use rights of Indigenous peoples within their borders, especially on territories that have been used for many generations. The ILO considers such protection key to allowing Indigenous minority cultures to thrive, and Sweden has identified Saami reindeer herding and its associated traditional subsistence practices as subject to the ILO provisions, as have other countries in which Saami live, such as Finland (Finnish Sami Parliament 1997). In his 1999 report, the investigator stated that Sweden is not in compliance with the ILO because:

the Convention requires states to recognize the "rights of ownership and possession" of the peoples concerned over the land which they "traditionally occupy" [which] denotes land that indigenous people have traditionally had access to for their subsistence and traditional activities ... must primarily apply to the parts of the [Winter Pasturage Area] that the [Swedish] state has owned in modern times. However, the boundaries of these areas are unclear and must be established ... the Convention does assume that the land rights reach a certain minimum level [that] corresponds to right of use and possession of land with strong protection under the law. The Sami land use rights that apply today do not reach this minimum level since the Sami are forced to tolerate considerable encroachments on their reindeer breeding rights. (SOU 1999: 25-26)

The investigator's conclusion was that to comply with the Convention, Sweden would have to better define those boundaries, recognize Saami rights within them, and facilitate Saami self-determination on the defined traditional lands.

In order to more fully define Saami traditional lands for which they would receive Indigenous use rights protection under the auspices of the European Community, Sweden created a border delineation commission (*Gränsdragningskommission*) responsible to the State Agricultural Ministry, which regulates reindeer herding. In its deliberations, the commission determined that the Saami reindeer herding area contains two boundaries.

The “outer boundary” consists of those lands and waters Saami herders use during the period from October to April, known collectively as the Winter Pasturage Area (a legal concept that specifies geographic and chronological boundaries within which Saami have protected access) (SOU 2006). It is in the outer boundary – during the winter when Saami herders operate in the forest areas and along the Bothnic Coast – that they are most in conflict with Scandinavian land owners, whether private or corporate. As the commission indicated, the outer boundary consists of those lands where Saami have had historical “access for their *subsistence* and traditional activities [i.e. reindeer herding]” (SOU 2006: 33).

Within the Commission’s second boundary, the “inner boundary,” exist those territories to which Saami herders are entitled to Indigenous use rights under the European Community’s ILO convention. The inner boundary establishes the demarcation between those lands that Saami herders have traditionally *occupied*, and those lands to which they have had historical *access* for their subsistence and traditional activities (the outer boundary) (SOU 2006: 33). In other words, those lands and waters in the outer boundary to which Saami herders have had access, but not occupied, are not subject to Indigenous use rights as these lands and waters have been shared with Scandinavian economic interests for centuries. To establish the inner boundary the commission used historical documents, especially legislative and court records. Relevant documents included those Royal decrees that created the Saami Territory Border and the Cultivation Limit, along with Parliamentary legislation especially the Reindeer Husbandry Acts of 1928, 1971, and 1989. Essentially, the commission’s finding to conform to the European Community ILO Convention was that, within the inner boundary – primarily public lands in the mountains where the herds are located in the summer – Saami herders have unrestricted, Indigenous access to lands and waters by Swedish law.

The commission produced a map depicting their recommendations dividing the Swedish reindeer herding area into four categories of territories utilized by Saami Villages. The first category consists of those lands and waters to which there are “proven reindeer grazing right[s],” comprising all territories within the Cultivation Limit, the Saami Territory Border, and the vast majority of the mountains within the reindeer grazing area. While not specified by the report, essentially the first category includes all of the lands and waters within the inner boundary and subject to Indigenous use rights. The commission’s second category of territory contains those lands and waters used by Saami herders that do not have proven reindeer grazing rights, but where there is a “high probability that they exist.” The second category is

not uniform throughout the region, and in the north it consists of most of the lands between the Saami Territory Border and the Bothnic Coast, while the southern section contains only a limited amount of the second category, mostly on its western portion. Category three territories are those lands and waters claimed by Saami herders, but where a grazing right has not been proven and with a “low probability” that such a right exists. Third category territories exist on the eastern portion of the northern and southern sections, although there are much larger territories in the latter. The fourth category is those territories where no reindeer grazing right exists, which includes a small area in the north and most of the southern section. A fifth category, described by the commission as out of their jurisdiction constitutionally, is those territories currently involved in litigation (SOU 2006: 33–46).

Although the commission maintained that these categories were recommendations that did not carry the power of law, their creation by an official government body provides very strong evidence for future legal decisions on Saami use rights. Such commission findings have been used in the past in Saami legal proceedings perhaps typified best by Major Peter Schnitler’s *Grenseeksaminasjonsprotokoller* [Border investigation logbooks] from the mid-eighteenth century. The resulting official records have been used to establish the Norwegian–Swedish border that limited Saami cross-border migrations (although that right was established later). The records have also formed the basis for legal decisions about Saami land ownership and reindeer grazing rights for centuries (Kvist 1989).

Lacking knowledge about the resources used by Saami herding families in subsistence hinders an understanding about the importance of such resources and prevents reaching solutions between the minority and majority populations in northern Sweden. A recent study (MacNeil 2006) illustrated that the more information obtained by parties on both sides of the resource conflict, the easier it is to reach a mutually satisfactory resolution. In interviews with both reindeer herders and small foresters, both sides believed that more information about pastoralism, resource use, and traditional Saami culture would lead to a reduction of conflicts and allow mediation efforts to achieve out-of-court agreements for cooperative use of lands and waters within the outer boundary. As the border commission stated, it is in the outer boundary that the majority of conflicts occur because it is in precisely that region where Saami do not have Indigenous protections, and centuries of occupation and use by Scandinavians competes for legitimacy with reindeer herding.

Conflict History

Swedish and Saami competition for land and water use rights can be explained by conflict theory, which models the social relationships between dominant and minority groups as a struggle over scarce resources (Dahrendorf 1959, 1990). Such conflicts are often unbalanced because the dominant group has the legitimacy, authority, and coercive power to control access to natural resources. Typically, the loss of access by the minority results in their dissatisfaction with the disposition of resources, and an ultimate questioning of the dominant group's legitimacy to restrict minority access to those resources.

The relationships between specific dominant and minority groups in the Arctic have often been shaped by the historical particulars of their initial contact (Healey 1998). Clearly, historical and modern Swedish and Saami relations were characteristic of a core-periphery model (Wolf 1982). From the mid-1500s until the mid-1800s, Saami groups formed an extractive industry for the dominant society by harvesting natural resources in harsh environments that Swedes could not exploit, paying tribute with those natural resources (such as fur) to the Crown through taxation and trade (Lundmark 1982; Wheelersburg 1991b; Wheelersburg and Kvist 1996). Goods provided by Saami reindeer hunters/herders, who at the time were the only ones capable of sustained and profitable economic pursuits in northern Sweden, provided the raw materials necessary for the emerging Swedish Crown to participate in trading systems such as the Hanseatic League (Hansen 1984). That relationship between the dominant and minority societies lasted for centuries, possibly resulting in the transition of the Saami economy from reindeer hunting to reindeer herding in the seventeenth century (Lundmark 1982).

During the past century and a half, conflicts between the various ethnic groups using land and natural resources in northern Sweden increased as the Scandinavian population there grew. Scandinavian colonization of the region initially consisted of merchants, civil servants, and missionaries who functioned both as economic middlemen and government agents. Eventually, Scandinavians brought other industries to the region such as mining, farming, tar manufacture, and seal hunting, building large settlements primarily along the coast, which was an extension of the core. Coastal cities like Umeå and Luleå became their own centres, from which the immigrant Scandinavians began to exploit resources in the periphery themselves (Friedmann 1973). The core-periphery relationship gradually broke down with progressive regional development and population expansion into the interior, along river valleys into the forests and mountains along the Norwegian border.

In the twentieth century, expanding markets, new technologies, innovative resource use (e.g., hydroelectric power), transportation improvements, and modern regional development policies increased colonization in the periphery (Wheelersburg 1994). Although there was competition previously, conflicts intensified from several sources following World War II. Mechanized forestry cleared large timber tracts, destroying important winter pasturage for reindeer. Increased vehicular traffic created a massive road network that paved over huge amounts of pasturage and disrupted migration routes. The growth in hydroelectric power generation along northern rivers flooded grazing land and changed migration routes (Johansson and Lundgren 1998: 27–30).

A 1992 study of land use in two northern Swedish Saami Villages showed that the conflicts between reindeer herding and modern industries varied between regions (Bäck et al., 1992: 84–85), although the overall level of conflict had increased throughout the grazing area. In Sirkas Saami Village, forestry was the major source of conflict, with hydroelectric power a close second. Housing and road construction, along with mining, were the primary sources of conflict in Gahbna Saami Village. The greatest conflicts occurred near built-up areas like Kiruna, where reindeer migrate between winter and summer pasturage through routes now constricted by residential, industry, and transportation infrastructures. Conflicts also took place in the southeastern portion of most Saami Villages (the Winter Pasturage Area), where forestry, vehicular traffic, and hydroelectric power generation was the most land and water intensive.

The poor profitability of reindeer herding when compared to other industries in northern Sweden represents an underlying theme of Swedish economic studies in the late twentieth century. Swedish universities and government agencies periodically assert that reindeer herding prevents full development of those “more productive” industries, like forestry. Critics point to subsidies that Saami Villages and individual herders receive from the government for the reindeer meat industry. Herders also receive compensation for road, rail, or predator-killed reindeer. A 1998 study indicated that the average herder received 6.5 Swedish Crowns (2008 value = \$1 Canadian or American) for every Crown of income produced, making herding extremely unprofitable compared to other industries that could utilize the same territories. That conclusion implied that Indigenous industries are even more unprofitable since they prevent the economic growth of profitable industries. The bottom line for Swedish economists is that reindeer herding is viable only for minority cultural protection (Johansson and Lundgren 1998).

Need for Subsistence Studies

Despite the polarized views on both sides of the conflict, the lack of relevant data on Saami subsistence does not allow for informed political decisions about natural resource use. Although many Swedish provincial governments contain “reindeer units,” these and other similar entities have not conducted comprehensive studies of subsistence. For example, in Västerbotten Province, studies of land and water use during the 1990s provided a broad-brush overview, but the resulting maps and data were not focused on subsistence activities (Sikku 1995). These studies were similar to those conducted in other parts of Sápmi (e.g., Robinson and Kassam 1998), which also presented large-scale data on economic and cultural activities and their relation to land use. None of these studies, however, developed data on subsistence behaviour and its relationship to specific tracts of land. The types of subsistence studies needed, and their importance in natural resource management, are illustrated by the State of Alaska.

In Alaska, conflicts over natural resource use rights between Indigenous and other Arctic resource users are resolved largely through the political process, based upon an elaborate subsistence research database. Before 1980, limited information on Alaskan Native subsistence consisted of historical documents, isolated social and natural science studies, and incomplete government records (Usher and Wenzel 1987). These fragmentary sources did not provide reliable, comprehensive information on Native subsistence required for resource management, environmental impact assessment, and private claims. Since 1980, the Alaskan Division of Subsistence has studied hundreds of Native communities with a staff of social scientists, biologists, statisticians, computer scientists, social workers, planners, and Native informants. After only a decade, the Division’s products provided the background needed to create and reform legislation protecting Native natural resource use, while giving other Alaskan residents fair access (Fall 1990:68–69).

Subsistence studies in Alaska revealed an important hidden economy for many rural communities in the 1980s in which fishing, hunting, and collecting were central activities. Native Alaskans consumed about 300–400 pounds of subsistence products per capita per year, or about one pound per person per day. In these mixed subsistence-market economies, households were supported by the wage labour of some family members, which enabled others to hunt or fish full time. The combination of subsistence and wage labour formed the economic basis to preserve Native cultural activities, invigorated social institutions, and maintained traditional values among Native communities. Producing and sharing subsistence foods integrated

families, communities, and regions, illustrated in oral traditions about hunting, sharing, and respect for nature (Wolfe and Walker 1987; Fall 1990: 68, 80–81; Brown and Burch 1992). Many of these natural resources, especially food, were shared along extended family lines, which integrated families and communities on economic, social, and ideological grounds (Ellana et al. 1986; Kruse 1986; Smith and Wright 1989; Condon et al. 1995).

Socio-economic characteristics such as age, education, and gender, along with cultural values, influenced who participated in traditional subsistence activities. For example, generational differences among Indigenous northern communities created perception differences about subsistence activities, which determined how much time and resources individuals spent on them. For example, Inuit males over forty years of age believed subsistence pursuits were economically important as a source of food and raw materials. Consequently, older hunters spent more time and resources on subsistence pursuits, possessed more equipment, and were more successful than younger hunters who did not perceive subsistence to be as important. As a result, older hunters produced most of the natural resources consumed by Native Alaskan communities.

Younger Inuit were not as active in subsistence activities due to several factors, including a Western-style education that prepared young people for wage labour, instead of gaining Indigenous knowledge on natural resource exploitation. Thus, many younger hunters lacked the knowledge to be successful in the more difficult subsistence tasks like whaling. Younger Inuit were also exposed to modern behaviours at an early age including organized sports, which competed with traditional activities, and processed foods, which decreased preference for wild foods. Also, younger males were less motivated to engage in traditional behaviours like subsistence, because they felt their society no longer valued them. Thus, survival of traditional cultures, especially values like sharing, were threatened by the lack of subsistence activity by young Inuit (Kruse 1986; Smith and Wright 1989; Condon 1995).

Studies suggested a dependency relationship between subsistence and wage labour. Among some Inupiat communities, households with larger incomes ate more wild foods because they could purchase more expensive equipment, which improved the efficiency of individual hunters. For example, aircraft reduced the amount of travel time to resource areas allowing more time for resource acquisition. Although traditional subsistence activities required cash, investing capital on equipment ultimately lowered the labour costs of hunting and fishing. Paradoxically, while the wage earner was not participating substantially in subsistence activities, households with higher

incomes had greater natural resource production (Wolfe 1986; Pelto 1987; Krupnik 1993).

The gender makeup of households also influenced the amount of subsistence activities Native families pursued. Inuit households required at least one wage earner, which most often was a female. To achieve high-paying professional occupations, women often needed more education and training than men, who worked seasonal jobs like construction requiring little formal education. Consequently, female wage earners often supplied the cash to purchase expensive modern hunting and fishing equipment, especially transport means like snowmobiles, and the fuel to run them. Yet, in Native Alaskan households with subsistence economies, women retained important roles. For example, Alaskan Inuit salmon-fishing camps were formed by female-based extended families, with senior women supervising the processing and distribution of the catch (Fall 1990:78). Despite more regular wage labour, Inupiat women often conducted subsistence activities at home during the evening and on weekends. Inupiat females sometimes worked two jobs, one for wage labour and the other for traditional activities. The reason for their participation in traditional pursuits may have been that Native women had conservative attitudes toward subsistence, viewing it as a way to maintain community ties through home-based activities such as handicraft and wild food preparation (Wolfe 1986; Nordin 1995).

Sweden and Subsistence Studies

In contrast to Alaska, the lack of systematic research in Sweden prevents both dominant and minority organizations from understanding the importance of traditional subsistence activities among Saami reindeer herders. In Norway, subsistence research and local knowledge are helping shape natural resource management (Eythórsson 2001), as catch interviews help establish commercial fish prices and limits (Maurstad 2001). An earlier Norwegian study included an opinion survey of fifty-eight Saami herders and family members about the *perceived* importance of Saami hunting and fishing. More than half the respondents believed that hunting and fishing were important to herding families. Yet, they were divided as to why it was important. A quarter said they received income from hunting or fishing. A fifth responded that hunting and fishing protected Saami culture, while a third contended that they were important recreational activities (Lasko 1994: 47–52, 61–66). Although the Norwegian study revealed attitudes about Saami subsistence, the opinion survey did not provide reliable data on the *actual* importance of subsistence as a source of income, cultural protection, or recreation.

Because there is no comprehensive, scientific study of natural resource use among Saami herding families, the economic, social, and ideological importance of traditional subsistence activities in Sweden remains hidden. Recent changes in Saami-herding-family gender roles illustrate the importance of such research. During the second half of the twentieth century, modern herding techniques disconnected Saami women from the reindeer industry. As reindeer herding became more mechanized and oriented toward commercial meat production, males began to dominate the industry. Predominately female activities like milking, migrating, taming reindeer, and manufacturing clothing were subsequently lost or taken over by males (Ingold 1980: 182–184; Campbell 1982: 33; Lundmark 1982: 103–105; Beach 1982: 127; Wheelersburg 1991a: 130–131). As a result, female participation in pastoralism decreased significantly, leading to the loss of economic power and status for females in the herding society (Amft 2000).

The combination of female role and status loss in reindeer herding, along with the need for women to obtain formal education to secure wage labour, created gender-based demographic differences among Saami herders. For example, the age group between twenty and sixty in herding villages normally has significantly more males than females, with a greater proportion of unmarried males than females (or Saami males married to non-Saami females) (Gustavsson 1985:19; 1989). Those numbers indicate out-migration of women seeking greater economic and social opportunities than they have in areas where male dominated industries like reindeer herding (and for Scandinavians, forestry) predominate.

The mechanization of modern reindeer management, including the elimination of the nomadic movements, has essentially removed females from actual herding work. Although women have a secondary role in reindeer herding, how that role relates to associated pastoralism, especially Saami traditional subsistence activities, is unknown. As with Alaskan Native females, traditional subsistence activities may allow Saami women to maintain social ties and to retain influence within the community. Preliminary studies show that traditional subsistence activities represent an important way for women to participate in, and conserve Saami culture by teaching it to their children. Saami mothers and Saami female relatives in households with non-Saami mothers may be the primary source of traditional education, especially for handicraft production (Nordin 1995), food preparation, and language maintenance (Svonni 1996). Additionally, income support for herding families often comes from traditional domestic activities such as baking amber cakes (*glödkakor*) for family consumption and for commercial sale (Beach 1982: 134)

Research Priorities

Recent priorities for organizations charged with shaping Circumpolar North research reflect the importance of subsistence studies. Over a decade ago, the United States Arctic Research Plan called for studies on natural resource use, especially wildlife and fish harvesting. It was thought that such research could help create sustainable harvest levels to fulfill the requirements of both Indigenous Arctic residents who depend upon them for their livelihood, and members of the larger society who also use the natural resources for sport and/or commercial purposes (IARPC 1987: 153). Ultimately, conflicts for those resources would decrease due to the increase in subsistence information.

In 1995, the International Arctic Science Congress also established as one of its research priorities the theme “Rapid Cultural Changes in the Circumpolar North,” in which “traditional knowledge, cultural continuity, community viability, and self determination” were cited as critical study areas (Wright and Sheehan 1996:12). The assumption was that rapid development of northern regions since World War II created conflicts between Indigenous peoples and majority societies over access to land and natural resources. In order for Indigenous communities and governmental organizations to plan future strategies for preserving traditional subsistence activities, the International Arctic Science Committee (IASC) called for further studies to understand their significance to Arctic peoples (Wright and Sheehan 1996: 116–117).

The resource use and economic development theme was also articulated as a research priority in the current United States National Science Foundation’s (NSF) plan entitled “Arctic Social Sciences: Opportunities in Arctic Research,” (ARCUS 1999: 15–17, 24) which called for

better understanding ... of the characteristics of resource extraction industries and their markets and of the extent to which they affect local economies and cultures ... [because change] affects not only economic activities but settlement patterns, community social structure, regional political organization, and cultural change.

NSF’s priority for understanding northern knowledge systems is important, since

studying knowledge systems also is important for resolving conflicts over the use of natural resources. Indigenous Arctic cultures have developed systems of ecological knowledge that are effective for hunting and gathering success. Conflicts over

resources may stem in part from different knowledge systems, and the resolution of such conflicts may depend upon an ability to bridge those differences.

Finally, a recent study by the Centre for Saami Research at Umeå University in Sweden (Sköld and Axelsson 2006: 21) concluded that

Saami traditional knowledge and values can contribute to increased understanding for how conflicts arise within land use. In order to reach durable, unified solutions about land use it becomes important to broaden knowledge on both reindeer herding, as well as forestry and agriculture.

Considering the current political importance of resolving conflicts over natural resources, along with the priorities established by the international scientific community charged with shaping Arctic research, further study of Saami subsistence in Sweden is both timely and relevant. The resulting database could be used to help bring Sweden fully into compliance with the ILO convention. The results could also benefit northern residents by illustrating the importance of land and natural resource exploitation by the various ethnic groups living in the North, perhaps ultimately leading to increased cooperation between those groups.

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