# Heated and frozen forest conflicts: Cultural sustainability and forest management in arctic Finland

*Mikko Jokinen*

**Abstract:** Cultural and social aspects are crucial for sustainable forest management that targets the well-being and tranquillity of society. Environmental conflicts rooted in these cultural and social aspects not only can be harmful but also mean success or failure in forest management. This paper introduces two forest disputes from arctic[1] Finland. The cases show that institutional tools for sustainable forest management are still weak in recognising local cultural needs and customs and in dealing with environmental conflicts. Indigenous and remote communities that have recently gone through rapid cultural change simultaneously derive needs for forest use from old traditions and future prospects. Stakeholders, actors, and decision-makers the in natural resource scene are multi-ethnic, traditional and postmodern, and local and global, creating special challenges for administrators of sustainable forest management as they must recognise cultural needs of certain area and communities.

Keywords: Cultural sustainability, Finland, Saami, Lapland, conflict management

## 24.1 Introduction

During recent years cultural and social dimensions have been the focus when thinking about sustainable development. Moreover, there has been increasing political and administrative concern about cultural issues when planning and implementing environmental projects and programmes. Messages from different land-use management projects around the globe emphasise that local cultural conditions or cultural boundaries between different stakeholders must seriously be taken into consideration. Multinational companies dealing with natural resources such as minerals are today increasingly seeking a social license to operate, which means that their businesses must be approved by society and local communities. Without a social license, companies could provoke conflicts and risk their businesses with respect to both markets and investors.

However, the problem is that cultural and social concepts seem to be more unclear than economic and ecological concepts when it comes to defining sustainability. Cultural and social entities are often seen as abstract and more complex to measure and interpret than, for example, economical outcomes and trade-offs. That is, no doubt, one reason why cultural issues and viewpoints are quite often dismissed and ignored in political agendas, management practices, and land-use decisions.

There are several reasons why environmental conflicts occur. Ecological conditions have traditionally been the focus: lack and quality of natural resources, population growth, resilience of ecosystems, etc. Economic and political conditions can launch or resolve environmental conflicts, but social and political aspects of environmental conflicts are also widely studied (Diehl and Gleditsch 2000). A conflict typically takes place on many levels and venues and has multiple parties. Environmental conflicts are complex situations that deal with cultural differences based on different values, languages, and ways to communicate. To manage or seek resolutions for environmental conflicts, mediation, communication, and collaborative learning about the issues are essential. Conflict is not necessarily a negative social

[1] According to strict definitions based on natural science, there are only sub-arctic areas in Finland. However, the term arctic is also a political term and commonly used. Finland is one of the eight member countries of the Arctic Council (http://www.arctic-council.org/index.php/en/).

situation. Conflicts and disputes bring important issues up for public discussions that otherwise would never have been recognised or debated (Daniels and Walker 2001).

Forestry is a common area for environmental conflicts. What's more, the lack of conflict may even be a sign of an unsustainable situation in the forestry sector. Forestry conflicts are deeply connected to social and cultural conditions of societies and, according to Eeva Hellström, every society has its cultural ways of managing and producing forestry conflicts (Hellström 2001).

This paper focuses on cultural aspects of sustainable forest management in two forest disputes from the arctic region of Finland. If we do not understand and recognise local and national cultural traits, values, customs, and habits, we cannot understand why forest disputes take place and how to manage them. We must speak the same language in order to implement culturally sustainable practices. Since conflicts are social situations that allow us to recognise cultural collisions and learn about them, there is special reason to study them.

### *24.1.1 Cultural sustainability*

Conventionally, sustainability encompasses three dimensions: ecological, economic, and social or socio-cultural. Sometimes cultural is considered to be a separate, fourth pillar of sustainability. Social sustainability was originally introduced in Gro Harlem Brundtland's report as an element of the sustainable development concept (WCED 1987). Cultural sustainability was first mentioned in 1995, when the World Commission on Culture and Development defined cultural sustainability as inter- and intra-generational access to cultural resources (WCCD 1995, Axelsson et al. 2013).

Efforts to add culture as the fourth pillar of sustainability has continued within processes of the United Nations, especially the UNESCO Universal Declaration on Cultural Diversity (UNESCO 2001) and the Rio+20 process (Culture 21 2011, UN 2012). Within forest science there has also been a push to establish cultural sustainability as an essential element of sustainable development (Saastamoinen 2005). The concepts of social and cultural systems focus not only on the material cultural heritage and classic social needs but also on the immaterial aspects (Axelsson et al. 2013).

The concept of culture has hundreds of definitions (Kroeber and Kluckhohn 1952). One generally agreed-upon definition states that culture is based on the shared meanings and knowledge of some social group. Systems of shared knowledge and meaning generate human action with beliefs, customs, habits, and techniques, as well as human artefacts. Meaning systems are called cultural models (D'Andrade 1995, Shore 1996, Strauss and Quinn 1997, Harris and Johnson 2002)

The components of economic sustainability are perhaps most well-known and studied due to the long history of economics. Criteria for ecological sustainability are also relatively well-known when compared to social and cultural sustainability (Berkes and Folke 1998). The difference between social and cultural sustainability is rather blurry. Social sustainability often refers to such global ideas and values as welfare, justice, and employment (Saastamoinen 2005). Cultural sustainability, on the other hand, tends to relate to more local, national, or ethnical issues. This paper suggests that one distinction between social and cultural is that *social* is a compilation of human relationships and *cultural* is the meaning that those compilations and relationships are loaded with. Still, the distinction is not sharp and there is considerable overlap between these concepts.

In looking at the cultural sustainability of some operation, we must first discover the relevant cultural traits and, then determine whose culture and cultural sustainability we are concerned about. When reaching cultural and social sustainability, the key issue is to identify and decide on the essential cultural features and values that should be taken into consideration. Usually the values and practices that are widely shared and well-established are in the cultural core. For example, in Finland "Everyman's Right," free access (hiking, camping, berry and mushroom picking) to public and private forests, is a widely shared and accepted cultural feature. Any restrictions on this right would likely be considered as weakening the cultural sustainability of forest use. Everyman's right is an essential part of the national heritage that an overwhelming majority of Finns support (Silvennoinen and Sievänen 2011). The question of exclusive rights has been raised recently in Finland because of activities of foreign berry pickers hired by the food industry.

Measuring cultural sustainability is not a simple task. The established or formal calculations that exist for economic approaches are not available. Ecological studies benefit from systematic methods for evaluating, for example, viability of species and populations. Social and cultural sciences, whose task is to deal with cultural sustainability, can, of course, use statistical data and systematic approaches, but these but are predominantly based on description and interpretation. What is common for all of these approaches is that the key element in measuring sustainability is argumentation. Under what terms can certain conditions or changes fairly be seen as sustainable or unsustainable?

Berkes and Folke suggest (1998) that social-ecological systems that have survived over extended


**Figure II 24.1 Case municipalities and Saami home district in Finland.**

periods can be called sustainable. Measuring cultural or social sustainability of some specific operation is a process that combines scientific, expert, and lay knowledge, and the final evaluation is based on arguments. What is socially or culturally sustainable or acceptable is not in the end only a matter of science: it is an agreement. Measuring cultural sustainability involves defining valid arguments for decision-making. Evaluation is based on knowledge and values. What we can know about presumable causes of certain operations and discussions and are these changes acceptable? In the end, it is about selection: what viewpoints and values do matter.

### *24.1.2 Saami culture and indigenous rights in northern Finland*

Cultural forest issues in Lapland usually focus on the indigenous Saami people. Similar to other indigenous peoples, the Saami economy and way of life was historically based on nature-dependent livelihoods – fishing, hunting, gathering, and reindeer herding. Most Saamis never practiced large-scale reindeer herding. With modernisation, Saami culture has changed and only a small minority of Saamis earn a major apart of their living from reindeer herding. According to a survey conducted in 2006, only 20% of Saamis living in northern Lapland get more than 50% of their income from reindeer herding, and 70% do not get any income from reindeer husbandry (Hallikainen et al. 2006).

Reindeer ownership, however, is quite common among Saamis. Around every third Saami living in the Saami home district (Figure II 24.1) owns reindeer – in 1999 the average number owned was 56 reindeer. According to herders' estimations for professional reindeer herding, one must own about 300 reindeer (Kemppainen and Nieminen 2001, Saami Parliament 2013).

Thus reindeer and herding are common and important elements of Saami culture – reindeer herding is a means to distinguish oneself from the majority of people in Lapland of Finland. Being a member of the reindeer society offers a place in the social network and provides social and cultural capital for personal or collective identity. Professional and traditional words, habits, and the Saami language draw from herding practices (Pennanen and Näkkäläjärvi 2003).

**Table II 24.1 Saami and non-Saami populations in Saami home district in 2011*.**

| Municipality | Saami | | Non-Saami | | Total |
|---|---|---|---|---|---|
| | n | % | n | % | n |
| Inari | 2137 | 31.6 | 4617 | 68.4 | 6754 |
| Utsjoki | 768 | 59.4 | 526 | 40.6 | 1294 |
| Enontekiö | 275 | 14.5 | 1618 | 85.5 | 1893 |
| Lapin paliskunta/ Sodankylä | 163 | N/A | N/A | N/A | |
| Total | 3343 | | | | |

*Non-Saamis are almost totally Finns. Ethnic Saamis are citizens of Finland and in that sense also Finns.
Source: Saami Parliament, Population Register Centre and Statistics, Finland

The rights of Saami people as an ethnic minority are guaranteed by the United Nation's International Covenant on Civil and Political Rights (1976) and by the Constitution of Finland (1999), Section 17: "The Sami, as an indigenous people, as well as the Roma and other groups, have the right to maintain and develop their own language and culture."

During recent decades, questions about the Saamis' right to maintain their own culture have arisen in relation to forestry issues. Logging of old-growth forests by others evidently diminishes ground and arboreal lichens, so that the reindeers' access to food resources becomes difficult (Helle and Jaakkola 2006, Jaakkola et al. 2007). Since the late 1990s, the main argument against logging in several forest conflicts in Lapland has stemmed from the Saamis' indigenous rights, while earlier conflicts were conservation-based (Veijola 1998a). During several forestry and mining conflicts, the Saami people have appealed to the UN covenant and the constitution, claiming that large-scale exploitation of natural resources harm their right to practice their own culture (Raitio 2008).

## 24.2 Two forest conflicts in Finland's arctic region

### *24.2.1 Natural resource base, policies, and social aspects of the case areas*

The two forest dispute cases analysed in this chapter are located in the municipalities of Muonio and Inari, both in polar Finland (Figure II 24.1), where great majority of the land and forest resources are owned by the state and governed by Metsähallitus (former Forest and Park Service). Metsähallitus is a state-owned enterprise charged with managing state protected areas and supplying wood to Finland's forest industry and conducting forest real estate and soil business. Muonio covers 2038 km$^2$ and had 2394 inhabitants at the end of 2012, Inari covers 17 334 km$^2$ and has 6732 people (Statistics Finland 2013).

The polar region of Finland is covered by boreal taiga and mountain birch forests along with fells and open peat land. The northern timberline of Norway spruce (*Picea abies*) and Scots pine (*Pinus sylvestris*) goes between latitudes 68° and 70° (Esseen et al. 1997, Veijola 1998a, Veijola 1998b).

The most important nature-based livelihoods are tied to reindeer herding, tourism, and subsistence use of nature through fishing, hunting, and gathering. Nature conservation as an administrative field can also be seen to support livelihoods through sustaining jobs in conservation and promoting nature-based tourism (Hallikainen et al. 2008).

Though the natural resource base in northern Finland is strongly focused on renewable natural resources, the mining and mineral sector is growing. There are no mines yet in northern Lapland, but several reservations, concessions, and claims have been put in place.

There has been no major change in public-land tenure rights since Finland became independent in 1917, but there have been discussions about whether Finland should ratify United Nations ILO Convention169, which deals with the rights of tribal and indigenous peoples. In the Saami region, the question is about the Saamis' rights to lands and waters now owned by state. In the countries encompassing the Saami region, only Norway so far has ratified the convention; in Finland there has been no real progress. Though considered politically intractable, the issue is still on the national agenda. Locally, con-

tradictory opinions about it exist among Saami and non-Saami populations.

Saami people are a minority in their home district, which consists of the municipalities of Inari, Utsjoki, and Enontekiö, and the reindeer-herding cooperative (*paliskunta*) Lappi, located north in the municipality of Sodankylä (Table II 24.1).

Traditionally subsistence use of forests (reindeer herding, hunting, gathering) in the case study areas has been important. Beginning in the early 20th century, forestry grew rapidly in economic importance; however, in the 21st century, nature-based tourism has become the economically most important business. Multiple-use of forests and free or easy access to natural resources are key issues culturally.

In Inari, nature-based livelihoods are economically important and part of the local culture. Tourism is clearly the most profitable business in terms of incomes and jobs (Vatanen et al. 2006). In Inari 41.5 % of incomes come from tourism and in Muonio rate is 32.5 % (Satokangas 2013). Subsistence use of nature, such as berry picking, fishing, and hunting, still has a significant role in the economy of households (Hallikainen et al. 2006). In this polar area, industrial forestry has diminished in recent years. Local sawmills do not employ people as before, and most of the commercial forest products are from heavily manipulated natural forests.

Everyman's rights guarantee access to berries, mushrooms, and hunting with certain regulations. In another instance, reindeer herders and Skolt Saamis have extended rights to collect free firewood. Selling licenses to tourists for hunting and fishing raises the question of whether there should there be positive discrimination for Saamis or other local people.

Natural forests in national parks and other protected areas are important both for reindeer herding and for the tourism industry. Metsähallitus monitors the state of endangered species, nature protection, and tourism flows in natural parks. Several research projects by the Finnish Forest Research Institute (Metla) and mainly Finnish universities study the issues of sustainable forest management but there is no ongoing research or monitoring project. The Finnish National Forest Inventory, started in 1921, covers the whole country and provides the public with information about forest resources, health, land use, biodiversity, and carbon balance.

Metsähallitus uses a landscape and ecosystem management approach in its planning system (Metsähallitus 2012b). A participatory planning process is in use, but the public does not have a major influence in that process – it can only express opinions on natural resource planning. In 2011 Metsähallitus adopted Akwé: Kon guidelines as a part of its management system. Akwé: Kon guidelines, from the implementation of the Convention on Biological Diversity, defines voluntary guidelines for the conduct of cultural, environmental, and social impact assessment regarding development in areas occupied or used by indigenous and local communities (Secretariat of… 2004). In Finland these guidelines concern use of natural resources in the Saami home district (Figure II 24.1) and the cultural needs and heritage of Saami people (Akwé: Kon ohjeet 2011).

During first decade of 2000s two forest disputes took place in the municipalities of Inari and Muonio, which were selected for this study because they reveal the contradictory interpretations of sustainable natural resource management at local and non-local levels. These forest disputes concerned state-owned forests where, by law, different objectives should be accounted for and natural resources should be managed in a sustainable manner (Act on Metsähallitus 2004). These objectives relate to the profitability of forestry, guarantees that the Saami people can continue their cultural practice of reindeer herding, biodiversity protection, recreational use of nature, and employment, among others. Natural resource planning as an avenue to sustainable forest management is one key tool for reaching these objectives (Metsähallitus 2012a). Though the Finnish forest sector has branded itself as a leader in sustainability issues, as cases and conflicts from Finnish Lapland show us, there are still several institutional problems for implementation of sustainable forest management – even in public forests.

Both dispute areas represent, globally, the northernmost timber-harvesting districts. In Inari the dispute focused on an area close to Nellim village in the eastern part of municipality, while in Muonio the dispute was over Mustavaara forests in northwest sector of the municipality. Both forests are old-growth forests where clear-cutting has never taken place, although selective cuttings were conducted in the early 1900s. Both areas are considered valuable for reindeer herding and the Mustavaara area also includes nature-based tourism and local recreation. Inari is part of the home district of the indigenous Saami people. Muonio and Inari are located in an area specifically intended for reindeer herding that, according to the Finnish Reindeer Husbandry Act (Reindeer Husbandry Act 1990) "may not be used in a manner that may significantly hinder reindeer herding." Reindeer herding is organised within reindeer-herding cooperatives (paliskunta) that have legal status. There are eight cooperatives in Inari and two in Muonio. Saamis are a majority in most of the reindeer-herding cooperatives in Inari, but the Ivalo cooperative that is located in the disputed area also has many non-Saami herders. Most of the reindeer herders in Muonio are non-Saami.

**Table II 24.2 Forest resources and logging in the case study municipalities.**
Sources: Tomppo et al. 2012, Finnish Forest Research Institute and Metsähallitus

| Area and proportion of land classes on forestry land | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Municipality** | **Forest land** | | **Poorly productive forest land** | | **Unproductive land** | | **Total** | |
| | **ha** | **%** | **ha** | **%** | **ha** | **%** | **ha** | **%** |
| Inari | 713 708 | 47.7 | 410 915 | 27.4 | 327 797 | 24.9 | 1 497 420 | 100.0 |
| Muonio | 126 987 | 68.5 | 33 349 | 18.0 | 25 164 | 13.6 | 185 500 | 100.0 |

| **Municipality** | **Average loggings 2000–2013** | | | | **Total loggins** |
|---|---|---|---|---|---|
| | **State** | | **Private** | | |
| | **m³** | **%** | **m³** | **%** | **m³** |
| Inari* | 132 811 | 68.7 | 60 474 | 31.3 | 2 705 998 |
| Muonio** | 35 519 | 59.2 | 24 465 | 40.8 | 839 766 |

*State loggings include loggings in munincipality of Enontekiö
**Private loggings include loggings in the municipality of Enontekiö in 2002

### *24.2.2 Material and methods*

Conflicts in general have at least two sides. They can be fruitful in the sense that they raise important issues and viewpoints that otherwise would be overlooked (Daniels and Walker 2001). But if conflict continues without any solutions or agreement, it may negatively affect well-being. There have been no serious security issues or violence in the study area but threats to life and health have occurred (Hyvönen 2006) and the forest disputes have generated psychological stress and malaise in local communities, especially in Inari.

Data for this case study comes from three survey studies and personal interviews conducted in northernmost Lapland, which includes Inari. Survey studies were conducted in 1999, 2005, and 2013, using questionnaires that were mailed to a population of local Saamis and non-Saamis. Detailed information on data and methods of the first two surveys are reported in Jokinen 2000 and 2001 and Hallikainen et al. 2006.

The author also conducted 87 personal interviews in northernmost Lapland during 1999 and 2000. Interviews dealt with the use of nature, conservation, and cultural issues connected with environmental themes. Purposive sampling and snowball sampling were used (Bernard 1995). Informants were males and females representing different ages and various social, professional, and ethnic groups (Jokinen 2001). Participatory observation took place during Metsähallitus natural resource planning in 1999 and 2000 (Sandström et al. 2000) and periods in the field with Saami reindeer herders in 1998 and 1999. Observation took also place during the research project Sustainable Multiple Use of Forests in Northern Lapland between 2004 and 2008 – the author was a member of the research team and steering group. Both quantitative and qualitative methods were used to analyse the material. Qualitative methods included text and discourse analyses.

There have been several recent studies on both of the conflict cases (Linjakumpu and Valkonen 2007, Raitio 2008, Sarkki 2008, Sarkki 2011). Publications concerning natural resource planning by Metsähallitus and newspaper articles were used as background material for the evaluation of sustainable forest management.

## 24.3 Forestry and reindeer herding dispute in Inari

### *24.3.1 The conflict*

Forestry in the Saami home district is strongly concentrated in the municipality of Inari, to some southern parts of the municipality of Enontekiö, and to northern parts of Sodankylä in the Vuotso area. The state owns 90% of land in Inari, and Metsähallitus governs the area. (Sihvo et al. 2006). Private forestlands make up only 13% of forestlands in the Inari municipality (National forest…2010) but about 35% of timber in Inari comes from private forests (Table II 24.2). On average, forests in Inari are at least 140

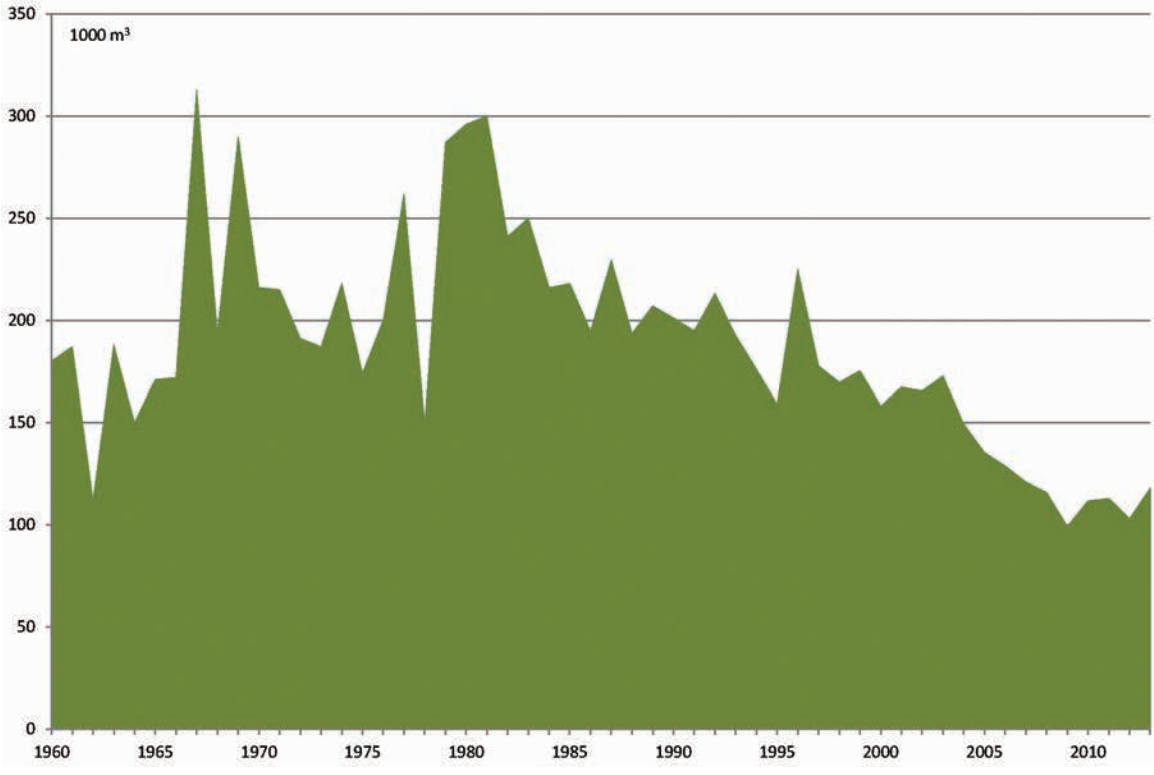


**Figure II 24.2 Loggings in state-owned forests in Saami home district. Almost all timber comes from municipality of Inari.** Source: Metsähallitus.

years old, so they are fairly rich in arboreal lichens and important for reindeer (Jaakkola et al. 2007, Hallikainen et al. 2008). State forestry is less intensive than private forestry, but it has been under scrutiny due to its character as a common pool resource (Ostrom 1990) and common national property.

Tensions and disputes between forestry and reindeer herding on lands of the crown have a long history. In the 19th century, the growing forest sector saw reindeer economy problematic because herders cut down trees with arboreal lichens to feed the herd during wintertime. Later, extensive logging in state-owned forests from the 1960s to 1980s (Figure II 24.2) raised worry about pastures (Veijola 1998b, Rytteri 2006.) The first public voice of Saami reindeer herders against logging was presented in 1970 in the article "Metsähallitus Destroys Reindeer Pastures" (Nyyssönen 1997).

The Inari forest conflict started in the late 1980s and was more or less active up to 2009 (Veijola 1998a, Hallikainen et al. 2006, Hallikainen et al. 2008, Raitio 2008). The latest escalation of the conflict began in early 2000s after Metsähallitus designed its first natural resource plan for northern Lapland in 2000. Reindeer-herding cooperatives of Inari stated that they will not accept the logging plans (Sandström et al. 2000). Herders from the Hammastunturi cooperative stated that valuable old-growth forests for reindeer should not be logged.

From the point of view of reindeer herders, logging causes devastating damage to winter pastures because it reduces the amount of arboreal lichens (Figure II 24.3). Arboreal lichens are indeed important food in springtime when snow conditions are difficult (Jaakkola et al. 2007). Reindeer access to ground lichens also is made more difficult when logging wastes cover the snow or winds toughen the snow in clear-cut logging areas. Forestry creates more pressure on pastures that have already declined due to use by tourism or the energy industry. Herders also stress that herding provides job opportunities, especially in remote villages, and it is an important part of maintaining Saami culture.

Loggers, state forestry, and forestry NGOs stated that logging and reduction of arboreal lichens are a minor problem. According to them, the larger problem is overgrazing caused by the reindeer herders themselves. The forestry view is that the whole conflict was caused by outsiders, especially Greenpeace, which they believe mislead some Saami herders – their stance is that the conflict should be solved locally, without any outsiders.

Harvesting is mainly done by forestry workers and is subsidised by the government. Economic calculations indicate that forestry is a better business at the regional level than reindeer husbandry, but husbandry creates more jobs (Vatanen et al. 2006). Metsähallitus has reduced logging from the top levels of 300 000 m³ in the 1980s to close to 110 000 m³.

The Finnish Ministry of Agriculture and For-

**Figure II 24.3 Arboreal lichen is important food source for reindeer.** ©Mikko Jokinen

estry named an official receiver to find a solution to the situation. The receiver heard from 30 different quarters: stakeholders, NGOs, interest groups, and institutions. The report and its recommendations had a contradictory reception. Environmental organisations were mainly satisfied; Metsähallitus, the municipality of Inari, and forestry organisations were mainly dissatisfied (Linjakumpu and Valkonen 2007, Raitio 2008).

Stakes were high during 2004 and 2005. Herders complained about the situation to the United Nations Human Rights Committee. Saami reindeer herders called Greenpeace to make it aware of forest issues in Inari (Linjakumpu and Valkonen 2006, Rytteri 2006). Greenpeace entered Inari and established a Forest Rescue Station to support herders' demands for saving old-growth forests and important winter pastures (Greenpeace 2012). Soon after, loggers built a counter-camp, Anti-Terror Info Center, as a protest against Greenpeace activists.

Greenpeace's actions raised a strong response in Inari. The municipality circulated a petition against Greenpeace. Outsiders were seen as a major problem that fomented disputes among local actors, disputes that otherwise would not have taken place. The future of the forest industry in Lapland and the Kemijärvi pulp factory, owned by Stora Enso Ltd., was seen as threatened (Linjakumpu and Valkonen 2006.) In 2007, the pulp factory decided to close down. The company denied that the decision was made because of Greenpeace or the forest dispute, claiming it was due to cost-effectiveness.

Three Saami persons, the Paadar brothers, sued Metsähallitus in 2005 over logging in the Nellim village area, complaining that these operations harmed their constitutional right to carry on Saami culture. The Finnish district court decided on acquittal and Metsähallitus demanded considerable compensation due to delayed logging (Raitio 2008). The situation seemed to be deadlocked, but finally in a surprise

move, Metsähallitus and the Paadar brothers reconciled in 2009 and 16 000 ha of forestland was set apart from forestry activities for 20 years. The agreement terminated all lawsuits between the parties and the process underway in the UN Human Rights Committee, as the Paadars withdraw their appeal to the committee. After successful negotiations in Nellim, Metsähallitus made an agreement with other reindeer-herding cooperatives in Inari in 2010. A total of 90 000 ha of forestland was excluded from forestry activities for the next 20 years (Metsähallitus 2010). The forest conflict in Inari was finally settled after more than 20 years.

### *24.3.2 Local perceptions of the impacts and reasons of the conflict*

The third survey in 2013 was conducted together with Seija Tuulentie and Liisa Tyrväinen concerning the use of nature in northern Lapland and the Inari forest dispute. The survey was targeted to 18- to 75-year-old residents of the municipalities of Inari, Utsjoki, and Enontekiö. Sampling was stratified random sampling, where 50% were people having Saami as their first language and 50% with Finnish as the first language. Among other background variables, people were asked to identify their ethnic background. A total of 1480 persons received the questionnaire through the mail and 504 persons responded, for a response rate of 34.1%.

About one-fifth of local people mentioned that the forest dispute had a negative impact on their personal well-being. It is interesting that almost half of the ethnic Finns estimated that the dispute had negative impacts on all local people of Inari. People felt that they were more tolerant than their fellow citizens (Table II 24.3.)

The majority of local people in Inari (Finn 47.6 % and Saami 66.7%) expressed that the reason for the dispute was rooted in the high economic aims of Metsähallitus. In Finland, parliament sets objectives for Metsähallitus to make a profit. In Finnish forest discussions, these objectives are seen as perhaps the major reason for logging that is too intense and for problems arising from reconciliation of forestry and other land-use forms (Rytteri 2006, Lapin Kansa 2012). That is also how local people afterwards viewed the situation (Table II 24.3.).

People were more in agreement about the objectives and role of Metsähallitus: 50% of Finns and 59.1% of Saamis felt that the forest dispute was prolonged by contradictory objectives set by Metsähallitus. Only few disagreed with the statement. A bit less than half (Finns 39.6% and Saami 45.5%) also felt that the dispute was protracted because Metsähallitus had a double role in the conflict (Table II 24.3.) It was a stakeholder as well as a mediator that tried to keep up negotiations between reindeer herders and the forestry it was carrying out.

There is a statistically significant difference (khi$^2$ test, p=0.000) between Finns and Saamis concerning opinions on the role of outsiders in the forest dispute: 76% of Finns and 44.8% of Saamis agreed that the conflict took place because outsiders like Greenpeace took part of the process – 37.3% of Saamis disagreed with the statement. (Table II 24.3.)

It is also very clear that Finns (66%) saw collaboration between herders and Greenpeace as negative, while Saamis (58.2%) saw it as acceptable. The statistical difference is evident. Moreover, Finns (only 17.2% agreed) did not see reindeer herders' demands as acceptable while Saamis did (68.7%). Furthermore, Finns (39.1%) viewed forestry demands more acceptable than Saamis did (23.9%). A total of 28.4% of Saamis saw Greenpeace's role as essential in the agreement, compared with 6.6% of Finns. There is no doubt that ethnicity mattered in the case of Greenpeace, reindeer herding, and forestry (Table II 24.3.)

More than one-third (35.8%) of Saamis felt that reconciliation had major positive effects on their well-being, compared with 18.7% of Finns. About half of both groups did not have an opinion. 40.3% of Saamis and 34.9% of Finns saw reconciliation promoting well-being in the municipality (Table II 24.3.)

Finns believed that the agreement had more positive impacts on reindeer herding than did the Saamis: 28.4% of Saamis disagreed that the agreement guarantees adequate pastures, while only 10.3% of Finns disagreed. Still, 70% of Finns felt that preservation of forests according to the agreement does not significantly help with overgrazing due to reindeer herding, while 41.8% of Saamis felt the agreement did not help reindeer economy because of overgrazing. With respect to whether preservation is a threat to forestry in Inari, 37.3% of Finns felt that it is, compared with 28.4% of Saamis. Saamis believe more generally (59.7%) that the agreement's decision not to harvest also supports nature-based tourism. Only 38.4% of Finns agree with that (Table II 24.3.)

The survey study shows that there was a general concern about the role in Metsähallitus in the conflict. Local people also felt that economic aims established by Metsähallitus are too high and that the organisation has contradictory objectives. Saamis and Finns saw the role of Greenpeace very differently – Finns more negative than Saamis – and Finns feel more positive about forestry than the Saamis, who viewed reindeer herding as more important. Ethnic background is a key variable that divides opinions and attitudes. The situation has not changed since earlier studies (Hallikainen et al. 2006).

**Table II 24.3 Local Finns' and Saamis' opinions about Inari forest dispute.**

| Statements. Do you agree? N = 213–218. | Ethnic background | Totally or fairly agree | Totally or fairly disagree | No comment or can not say | Total | Significance level khi² test |
|---|---|---|---|---|---|---|
| Dispute had major negative impacts on my personal well-being. | Finn | 20.0 % | 34.0 % | 46.0 % | 100.0 % | |
| | Saami | 25.8 % | 45.5 % | 28.8 % | 100.0 % | |
| Dispute had major negative impacts on my well-being of residents in Inari. | Finn | 47.3 % | 17.3 % | 35.3 % | 100.0 % | |
| | Saami | 31.8 % | 33.3 % | 34.8 % | 100.0 % | |
| The reason of the dispute was due to too high economic aims set to Metsähallitus. | Finn | 47.7 % | 17.4 % | 34.9 % | 100.0 % | |
| | Saami | 66.7 % | 9.1 % | 24.2 % | 100.0 % | |
| Dispute protracted because Metsähallitus has contradictionary responsiblities (like nature conservation and forestry). | Finn | 50.0 % | 14.9 % | 35.1 % | 100.0 % | |
| | Saami | 59.1 % | 7.6 % | 33.3 % | 100.0 % | |
| Dispute protracted because Metsähallitus has double role (stakeholder and mediator). | Finn | 39.6 % | 15.4 % | 45.0 % | 100.0 % | |
| | Saami | 45.5 % | 10.6 % | 43.9 % | 100.0 % | |
| Dispute took place because there where outsiders in process (like Greenpeace). | Finn | 76.0 % | 10.0 % | 14.0 % | 100.0 % | 0.000 |
| | Saami | 44.8 % | 37.3 % | 17.9 % | 100.0 % | |
| Co-operation between Saami reindeer herders and Greenpeace was acceptable. | Finn | 9.3 % | 66.0 % | 24.7 % | 100.0 % | 0.000 |
| | Saami | 58.2 % | 26.9 % | 14.9 % | 100.0 % | |
| Demands of reindeer herders were acceptable. | Finn | 17.2 % | 54.3 % | 28.5 % | 100.0 % | 0.000 |
| | Saami | 68.7 % | 17.9 % | 13.4 % | 100.0 % | |
| Demands of forestry were acceptable. | Finn | 39.1 % | 16.6 % | 44.4 % | 100.0 % | 0.001 |
| | Saami | 23.9 % | 41.8 % | 34.3 % | 100.0 % | |
| Agreement could not have been made without Greenpeace. | Finn | 6.6 % | 68.2 % | 25.2 % | 100.0 % | 0.000 |
| | Saami | 28.4 % | 37.3 % | 34.3 % | 100.0 % | |
| Agreement could not have been made without new scientific knowledge. | Finn | 19.9 % | 8.6 % | 71.5 % | 100.0 % | |
| | Saami | 22.4 % | 22.4 % | 55.2 % | 100.0 % | |
| Agreement had major positive impacts on my personal well-being. | Finn | 18.7 % | 25.3 % | 56.0 % | 100.0 % | |
| | Saami | 35.8 % | 20.9 % | 43.3 % | 100.0 % | |
| Agreement had major positive impacts on personal well-being of residents in Inari. | Finn | 34.9 % | 14.8 % | 50.3 % | 100.0 % | |
| | Saami | 40.3 % | 6.0 % | 53.7 % | 100.0 % | |
| Agreement guarantees adequate pastures for reindeer herding. | Finn | 44.5 % | 10.3 % | 45.2 % | 100.0 % | 0.004 |
| | Saami | 37.3 % | 28.4 % | 34.3 % | 100.0 % | |
| Preservation of forests do not help reindeer economy significantly due to overgrazing. | Finn | 70.0 % | 3.3 % | 26.7 % | 100.0 % | 0.000 |
| | Saami | 41.8 % | 40.3 % | 17.9 % | 100.0 % | |
| Preservation of forests do not threat the future of forestry in Inari. | Finn | 27.3 % | 37.3 % | 35.3 % | 100.0 % | 0.032 |
| | Saami | 49.3 % | 28.4 % | 22.4 % | 100.0 % | |
| Preservation of forests supports nature-based tourism in Inari. | Finn | 38.4 % | 23.8 % | 37.7 % | 100.0 % | 0.004 |
| | Saami | 59.7 % | 14.9 % | 25.4 % | 100.0 % | |

### *24.3.3 Locals meet outsiders, Saami and non-Saami*

A theme that always emerges in northern forest and land-use issues is the power of decision-making. Lapland has a centuries-old tradition of antagonism between centre and periphery, south and north – a confrontation that has its roots in the colonial history of Lapland (Valkonen 2003.) The antagonism is alive and well and is reproduced in today's discourses and interpretations that steer opinions concerning what is right or wrong for Lapland. Decision-making power in natural resource issues is perhaps the main field where this juxtaposition occurs.

Local people's opinions on who should have power in land-use issues has been studied in northern Lapland (Jokinen 2000, Hallikainen et al. 2006). The main result from these survey studies shows the desire for giving more decision power to local people, less to stakeholders that are considered outsiders. Almost 25% of respondents said that the Finnish Parliament should have no decision-making power at all, even in questions related to state-owned forests in northern Lapland. It is likely that local people in northern Lapland are not that radical; the answer would likely be different in face-to-face interviews. But results of the surveys indicate that there is a strong and widely shared cultural model for including locals much more strongly in decision-making. The parallel message is that outsiders, including the Finnish Parliament, should not make decisions about "our" lands and waters.

The cultural model would also give more power to local individuals than to local organisations. When asked, Saamis said persons should have more power in decision-making but that the Saami people's democratic organisation, the Saami Parliament, should have less power. The result is not surprising: individuals usually generate a more positive image than organisations or institutions, which are considered to be more powerful and responsible for policy-making, both good and bad.

The fact that local people want to increase their decision-making power is not unique – it is a cross-cultural, global phenomenon. People believe that decisions having significant impact on people's physical environment and local economy should be made locally. However, in Finnish society, the demand for local decision-making in northern Lapland seems to be stronger than elsewhere in Finland. One reason is undoubtedly the strong regional identity that northern Lapland and the Saami home district (*Sápmi*) have (Valkonen 2003, Lehtola 2012).

The Inari forest dispute is a complex of cultural, social, ecological, and economic issues. The nature of conflict and social tensions between ethnic groups cannot be understood without the historical perspective. Saamis belonging to different language groups (Northern Saami, Skolt Saami, and Inari Saami) are the ethnic group known to have lived longest in the area and, as an indigenous group, are a minority.

Saami historian and professor of Saami culture, Veli-Pekka Lehtola (2012), has studied encounters between Saamis and Finns in Finland. He points out that the public and academic discussion on Finnish colonialism related to Saamis and ethnic authenticity that has proliferated in recent decades has been simplistic. When Finnish immigration to areas now in the Saami home district really started in the 17th century, it was not just that non-Saami groups occupied land and natural resources of the Saami. Nor did it mean that Saamis as an ethnic group started to vanish while Finnish ethnicity and culture took over. Some ethnic Saami families and individuals adopted new livelihoods and cultural features from Finns and were finally recognised as Finns. Sometimes ethnic Finns assimilated into the Saami community and were finally recognised as Saami. Due to marriages and cultural trade-offs, there were also people considered to be mixed blood. The history of aboriginal and non-aboriginal people in Finland is not the same as what happened, for example, in Australia and the United States. Encounters and consequences were less drastic. Lehtola stresses that the history of Finns and Saamis in Lapland is more like cultural change, interaction, and adaptation.

In 2013 the question of Saami status in Finland remains a hot topic. Arguments in newspapers and other media have looked to broaden the definition of who can have Saami status. In 2011, the Supreme Administrative Court made a decision to accept four persons as Saamis due to documents that go back to the 1820s and because the persons identified themselves as Saami (Supreme Administrative 2011). That has raised a worry among Saamis that masses of non-Saami Finns could get status as Saamis, marginalising genuine Saamis inside the "neo-Saami" community (Näkkäläjärvi 2013). In 2013, 35 academic scientists from various disciplines appealed as a scientific community to the Finnish government not to broaden the Saami definition too much to avoid assimilation by Finns and also to stress the meaning of group-identification instead of self-identification in the acceptance process (Yleisradio 2013).

### *24.3.4 Who should have more power in land-use decisions?*

The question of who is a "real" Saami (Valkonen 2009) or local (Valkonen 2003) has been going on in northern Lapland for the past 20 years or more. Being a Lappish native-born person does not necessarily guarantee genuine membership as part of local people. Family backgrounds and kinship issues are considered essential factors in small ethnic and tribal communities (Harris and Johnson 2002).

Based on ethnographic observation and data from this study, local people in villages and municipalities in northern Lapland seem to not identify themselves as "general Finns." If they recognise themselves as Finns, they are a special category, perhaps Lappish. Saami people have their own identity but there are also people with mixed identities, and a person can have both Saami and Finnish identities due to mixed family kinship. Still, in our survey study in 2013, only 0.6% (three persons) mentioned their ethnic identity as something other than Saami or Finn.

| | | ACTION | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Ethnicity | Compared to | Loggings | Nature-based tourism | Reindeer herding | Mining | Berry picking | Mushroom picking | Non-locals hunting and fishing |
| Saami | Finns | *** | *** | *** | ** | ** | *** | *** |

ANOVA – * p=0,01-0,05, ** p=0,001-0.009, *** p≤0.000

**Figure II 24.4 Diverse ethnic opinions on land use in northernmost Finland.**

Immigrants who are referred to as "brought by train" have the weakest status, right after tourists. The overarching element between the different social groups is that local people want to stand out from other Finns and especially southerners. Without doubt it can be stated that there is north Lappish subculture in Finland.

The cultural model of antagonism between north and south is overwhelming. The state-owned lands are considered to be "our lands" or "our backyards." The idea, though old and traditional, has no legal status. From the government's viewpoint, there are no local privileges on state-owned lands, but the local folks' model is something completely different. There have been several studies on the history of law (Korpijaakko 1989, Korpijaakko-Labba 2000, Joona 2003, Enbuske 2008) trying to prove or resolve the Saami people's rights on crown lands. No solutions to this politically problematic issue have yet been found.

Compared with local Finns, the Saamis, have different relationships to many land issues. For example, Saamis have a more negative attitude towards logging, mining, and tourism and a more positive link to reindeer herding (Figure II 24.4), which is not surprising. The essential question is why Saamis think differently. Presumably it is because of their position as a minority and their identity as the first known nation in the area. In general, ethnicity has been found to be the most important background factor explaining different attitudes to certain land-use patterns. Tourism, forestry, and mining can be harmful to reindeer husbandry while they also represent the activities and power of the majority.

### *24.3.5 Differences in attitudes towards land-use patterns between Saamis and Finns*

The largest nature conservation areas in Finland are located in northern Lapland. About 66% of lands and waters are under some level of conservation (Sihvo et al. 2006). Several studies have focused on the local people's opinions about nature conservation in the north (Jokinen 2000, 2001, 2002). Almost every informant stressed the point that conservation is a problematic thing, something negative. When asked whether conservation areas should be eliminated, the answer was again unanimous: no. People who seem to be against nature conservation are in fact satisfied with large conservation areas.

The paradox can be explained. People resist nature conservation because in many cases it represents something non-local, imported, or "south" that has a negative connotation. The concept of nature conservation carries the invisible label of "other" and it can be recognised as an attempt to control "our" lands and waters by "others," The term *conservationist* has an even more negative echo, though many informants pointed out that he or she did not even know any conservationist. Nevertheless, conservation areas support local and traditional needs for subsistence use of nature – hunting, gathering, and fishing – and restrict devastating land-use patterns and outsiders like tourist hunters. Conservation areas support the heritage of old-time nature use and needs. Time itself is an important variable when studying and implementing the cultural sustainability of forest management in Lapland. New solutions and decisions on land-use that support traditions are usually found highly acceptable (Jokinen 2009)

The unresolved question about the land and water rights of the Saami as indigenous people is implicit in the conflict (Raitio 2008, Nyyssönen 2011, Hallikainen et al. 2008). Finland has not ratified the International Labor Organization Convention on Indigenous and Tribal Peoples (ILO 169), which concerns the rights of indigenous and tribal peoples. Social tensions between individuals, families, social, and ethnic groups have been present in Inari. This is not an unusual situation in small traditional communities where this kind of social heritage over generations partly promotes the conflicts.

**Figure II 24.5 Mustavaara old-growth forest nearby Pallas-Ylläs national park.** ©Eero Haapala

## 24.4 Forestry and tourism dispute in Muonio

The Muonio forestry dispute in 2006 and 2007 arose between Metsähallitus and local people and entrepreneurs. During the natural-resource planning process, local people and the Muonio municipality had during the 1990s and 2000s suggested that the northern part of Muonio, especially the Mustavaara (Figure II 24.5) area that covers about 13 000 ha, should be excluded from logging due to its importance for nature-based tourism, reindeer herding, and local people's recreational use. The Muonio reindeer-herding cooperative, which is mainly non-Saami, is located in the Mustavaara area.

The message had been extraordinarily unanimous, and it is unusual for a Finnish municipality to oppose logging because of economical and other reasons. A few local tourism entrepreneurs also stood for the exclusion and against logging. Those against logging stated that uncut forests of Mustavaara provided more jobs in tourism than forestry gave to a few harvester entrepreneurs (Sarkki 2008).

Even though the local message was clear, Metsähallitus decided to start logging in Mustavaara at the end of 2006. This decision launched large demonstrations in Muonio and for first time in Finnish environmental history, leaders of a municipality and notable businessmen were protesting against forestry operations. The conflict situation led shortly to non-public negotiations between Metsähallitus, entrepreneurs and the municipality. Stakeholders against logging wanted to handle this environmental conflict at the local level, without Greenpeace or other non-local organisations. The simultaneous forest conflict in Inari was seen as an example to avoid.

Finally, businessmen were willing to pay a rent to Metsähallitus not to log Mustavaara for 10 years. Details and sum of the rent were not published (Sarkki 2008). The solution was unique in Finland and largely questioned because the Act on Metsähallitus (1378/2004) states that local and multiple uses as well as social and cultural needs should be taken into account in the forest operations of Metsähallitus. Criticism focused on the point that Metsähallitus now collected a fee for the services that it should, by law, provide free. The rent was nicknamed "protection money (Figure II 24.6). The Metsähallitus natural-resource planning process, which had already been criticised for not really focusing on local needs (Raitio 2008), turned out to be even more unconvincing.

The Muonio forest dispute and the solution to the conflict were boosted by publication of an open letter to the minister of Agriculture and Forestry by scientists in 2007. In this letter researchers appealed the government and Metsähallitus not to log anymore in natural (old-growth and pristine) forests in order to


**Figure II 24.6 Cartoonist Seppo Leinonen's view on forest dispute in Muonio.**

support biodiversity, reindeer herding, Saami culture, nature-based tourism, and other multiple uses. Forest management in state-owned forests was considered unsustainable (Avoin kirje…2007).

In both the Inari and Muonio forestry disputes, local needs, and cultural aspects have been an essential part of the discussion. It was important to define what kind of locality and whose local opinions were the most significant. In Inari, forestry workers have asked whether the Saami reindeer herders' culture was more valuable than theirs, as did the Saami forestry workers. The tacit and politically incorrect answer by those defending Saami reindeer herders was presumably "yes." The idea of positive discrimination for Saami people (or any minority) was built on same logic.

In both cases only a temporary solution was achieved. Originally the Muonio deal was to expire in 2017, but in April 2014 Metsähallitus, Muonio municipality and local stakeholders including reindeer herding co-operative and tourism business in the area reached an agreement about the land use of 13 300 ha. This new agreement is in force until 2040. It expanded protected by 2000 hectares (of this 53 % forest land). Forestry use will continue on 4600 hectares (35 % of total area), but according to the agreement, only moderate thinning, selective loggings or small-scale openings are allowed on forest land. The needs of tourism and reindeer herding as well as landscape and ecological values should be taken into consideration in logging operations (Ylimuonion valtionmaiden… 2014).

Pressure to maintain old-growth forests has not disappeared. In 2013, the University of Lapland undertook a study that showed that 41.5% of incomes in Inari and 32.5% in Muonio come from tourism (Satokangas 2013), and nature is the main pulling force in tourism in Finnish Lapland (Tyrväinen et al. 2010), Jokinen and Tyrväinen 2013).

## 24.5 Conclusions: Was sustainable forest management out there?

The forest disputes in Inari and Muonio were finally resolved. The critical question from the perspective of this book is whether it was because of successful forest management or other non-institutional reasons.

Both conflict venues were located in state-owned forests governed by Metsähallitus. In both cases Metsähallitus was a stakeholder in the conflict, but at the same time, it was the authority responsible for nature conservation, supporting local employment, and for making a profit out of forests and use of natural resources in a manner that would not hinder the Saami peoples' possibility to continue their culturally important reindeer herding. Metsähallitus was also the mediator in conflict management. It is quite obvious that Metsähallitus was loaded with complex and contradictory tasks and roles. In environmental conflict management, it is important that roles are clear, the mediator is independent, and discussion processes are open (Daniels and Walker 2001, Kyllönen et al. 2006).

The key tool for sustainable forest management by Metsähallitus is the participatory natural-resource planning process where stakeholders and citizens can give their statements and express opinions concerning the use of natural resources. Still, as observed

in Inari and Muonio, this management tool is not valid enough to prevent or handle conflict situations. Moreover, there seems to be significant mistrust and frustration about the planning process among the local public (Hast 2013). People feel that in the end their opinions do not have any real effect on the plan and operations itself (Sarkki and Heikkinen 2010).

There are at least three possible reasons why the public feels that the planning process does not work. First, local communities are not homogenous and they usually have divergent opinions on how natural resources should be used, as demonstrated by the case in Inari. This is also a challenge for culturally sustainable local development.

Second, the public might have misunderstood the nature of the natural-resource planning process. It was not decision-making but rather a discussion about what should be done.

Third, it is possible that even in situations where the local message is solid and coherent, it does not necessarily have an influence on final decisions, as was the case for over a decade in Muonio. This hints that the public criticism on a malfunctioning planning process is justified.

If it was not successful forest management, what resolved the two forest disputes? The answer may be cynical, but it seems that the final key for harmony was money and markets through networking, international campaigns, and pressure. In Inari, Greenpeace, together with the Saami Council (non-governmental organisation of Saami people), initiated an international campaign against logging in Inari and to remove the main timber buyer, Stora Enso, from all ethical index listings, such as the Dow Jones Sustainability Index and the Nordic Sustainability Index (Raitio 2008). Stora Enso was removed from the Italian Banca Etica ethical investment fund in 2007 (Saami Council 2007). As a global actor, Stora Enso did not want to harm its reputation by buying small-scale amounts of disputed timber. Finally Metsähallitus was willing to settle with reindeer herders and opposing parties. Stakeholders declared that they are happy with the resolution. It is highly probable that without international operations and market pressures achieved by the actions of Greenpeace and the Saami Council, the settlement would have not taken place. The Inari forest dispute was deliberately expanded to an international case in environmental and aboriginal networking (Linjakumpu and Valkonen 2007). In the end, the Saami reindeer herders' culture had more weight than other local cultural aspects.

The Inari forest dispute got international attention not only because of Greenpeace and the Saami Council. The documentary film *Last Yoik in Saami Forests* was published in 2006 (Hyvönen 2006) and received awards in several international film festivals. The television drama *Lopun alku* (*Beginning of the End*) was aired in 2009 in Finland and told a story about the Inari forest conflict (Kujanpää 2009). Both films sympathised Saami herders. It is difficult to estimate the level of impact those films had on decision-making but it is possible that they supported the settlement.

In Muonio, the community that was against logging chose another strategy. It wanted to keep the dispute and conflict management local (Sarkki 2008). Communication through natural-resource planning and the local level, between Metsähallitus and the municipal administration, did not bring solution within some 15 years. Finally two notable local businessmen from the tourism sector negotiated with Metsähallitus about the rent they were willing to pay for protection of the forests under conflict. When this deal was about to expire, an institutional solution was finally found. Near future will show how solid the settlement is.

Multiple-use is the key word in forest issues in Lapland. Households have traditionally had several sources of incomes, such as fishing, hunting, and reindeer herding. This model is still valid for modern households. New parallel opportunities are tourism, entrepreneurs, and public services. Other important uses and management tasks are nature conservation and local people's recreational use of forests. Cultural sustainability of forest use in Lapland is strongly tied to the continuous opportunity for traditional and free activities like fishing, hunting, and berry picking. Nature-based tourism is a rather new way to make a living out of forests, and in certain areas of Lapland, it is the most important livelihood in economic terms.

Forest management in these cases was not sensitive to cultural forms of forest use other than forestry. Other needs were identified but they did not have strong weight in the decision-making process during early years and without outside pressure.

The cases of Inari and Muonio are not unique. The questions of who has access and rights to local and national natural resources and who should have decision-making power are asked around the globe. The demand for enhancing indigenous and local peoples' rights on land and natural resources is worldwide as well.

Stakeholders in both forest disputes have been local, national, and global (Heikkinen et al. 2010). The government, through Metsähallitus, sees forests of northern Lapland as a natural resource or business potential the same as any state-owned resource in Finland. Meanwhile, local people see them as "their backyard," a property that belongs to local people even though there is no juridical statement by the Finnish government supporting that interpretation. Saami rights to land are also unclear and an unresolved political issue. These divergent interpretations, institutional and local, set very different premises for

what can be a socially or culturally sustainable use of nature.

While the majority of local people wanted to keep forest disputes and negotiations local, the solutions were found through international campaigns, companies, and markets. We can say that there is an ongoing cultural shift in northernmost Finland. Local people see and want to see themselves as self-sufficient and independent, but flows of natural resource material, decision-making, and power are more delocalised than ever. People appreciate traditional livelihoods and patterns of nature use but mostly earn their livelihoods elsewhere. The past is strongly present in everyday life and cultural values, which is typical in all (arctic) cultures that have gone through rapid cultural change. This kind of parallel timescale creates special challenges for administration and policy-making because multiple needs are derived from past, present, and future.

What were the lessons learned? In the future, there will probably be more and more pressure to use natural resources in non-traditional ways, and nature-based tourism will be one key stakeholder in the area. Struggles for access to natural resources will be tougher in the future, also for mining. Solving the issue of Saami rights on land and water will continue to be on the political agenda. Global markets and global actors are here to stay and there are no weak or strong signals predicting the return to the purely localised management systems. However, from the viewpoint of socially and culturally sustainable forest management, we cannot dismiss local needs and voices. One approach could be explicit "glocalization," a process that ties together global and local conditions, cultures, and actors. Companies and other actors would be simultaneously local and global (Swyngedouw 2004). Through networking, local communities might be able to mobilise their cultural values and practices to global processes. From the perspective of cultural sustainability, local communities must be conscious of the process and accept it.

If sustainable forest management is taken seriously, present planning and decision-making processes must be enhanced and made plausible.

## References


Act on Metsähallitus 2004. Available at: http://www.finlex.fi/en/laki/kaannokset/2004/en20041378.pdf [Cited 11 Oct 2012].

Akwé: Kon –ohjeet 2011. Biologista monimuotoisuutta koskevan yleissopimuksen sihteeristö. Ympäristöhallinnon ohjeita 1/2011, Luonto, s. 50. Ympäristöministeriö. Helsinki. Available at: http://www.ymparisto.fi/download.asp?contentid=127576&lan=fi [Cited 11 Sep 2013].

Avoin kirje 2007. Avoin kirje maa- ja metsätalousministerille. Tutkijat vetoavat luonnontilaisten metsien säilyttämisen puolesta. (Open letter to minister of agriculture and forestry). http://www.helsinki.fi/lehdisto/tutkijakirje/index.shtml [Cited 20 Sep 2012].

Axelsson, R., Angelstam, P., Degerman, E., Teitelbaum, S., Andersson, K., Elbakidze, M. & Drotz, M.K. 2013. Social and cultural sustainability: criteria, indicators, verifier variables for measurement and maps for visualization to support planning. Ambio 42: 215–228.

Berkes, F. & Folke, C. 1998. Linking social and ecological systems for resilience and sustainability. In: Berkes, F. & Folke, C. (eds.).1998. Linking social and ecological systems. Management Practices and Social Mechanisms for Building Resilience. Cambridge University Press, Cambridge. 459 p.

Bernard, R.H. 1995. Research methods in anthropology – Qualitative and quantitative approaches. Altamira Press, Walnut Creek. 584 p.

Constitution of Finland 1999. http://www.finlex.fi/en/laki/kaannokset/1999/en19990731.pdf [Cited 12th Oct 2012].

Covenant on Civil and Political Rights 1976. United Nations.

Culture 21 2011. Lobbying for culture as the 4th pillar of sustainable development in the process of the Rio+20 summit. Agenda 21 for culture. United Cities and Local Governments – Committee on culture. Available at: http://www.agenda-21culture.net/docs_circulars/Ideas%20for%20Rio+20%20-%20ENG.pdf [Cited 11 Sep 2013].

D´Andrade, R.G. 1995. The development of cognitive anthropology. Cambridge University Press, Cambridge. 272 p.

Daniels, S.E. & Walker, G.B. 2001. Working through environmental conflict – the collaborative learning approach. Praeger Publishers, Westpor, CT. 299 p.

Diehl, P. A. & Gleditsch, N. A. 2000. Controversies and Questions. In: Diehl, P.A. & Gleditsch, N.A. (eds). Environmental Conflict. Westview Press, Colorado. 343 p.

Enbuske, M. 2008. Vanhan Lapin valtamailla – Asutus ja maankäyttö historiallisen Kemin Lapin ja Enontekiön alueella 1500-luvulta 1900-luvun alkuun. (Occupation and land use in Kemi and Enontekiö district in Lapland from 16th to 20th century). Bibliotheca Historica 113. Oulu. 570 p.

Esseen, P.A., Ehnstriim, B., Ericson, L. & Sjoberg, K. 1997. Boreal forests. Ecol. Bull. 46: 16–47.

Greenpeace 2012. Forest Rescue Station set up in Finnish Lapland. Press release, March 2, 2005. Available at: http://www.greenpeace.org/international/en/press/releases/forest-rescue-station-set-up-i/ [Cited 10 Oct 2012].

Hallikainen, V., Jokinen, M., Parviainen, M., Pernu, L., Puoskari, J., Rovanperä, S. & Seppä, J. 2006. Inarilaisten käsityksiä metsätaloudesta ja muusta luonnonkäytöstä. (Opinions on forestry and other nature-use in Inari). Metsätieteen aikakauskirja 4/2006: 453–474.

Hallikainen, V., Helle, T., Hyppönen, M., Ikonen, A., Jokinen, M., Naskali, A., Tuulentie, S. & Varmola, M. 2008. Luonnon käyttöön perustuvat elinkeinot ja niiden väliset suhteet Ylä-Lapissa. (Nature-based livelihoods and relationships between them in Northern Lapland). Metsätieteen aikakauskirja 3/2008: 191–219.

Harris, M. & Johnson, O. 2002. Cultural Anthropology. Boston. 369 p.

Hast, S. 2013. Taistelu tuulimyllyjä vastaan - Tieto ja oikeuttaminen kahden Länsi-Lapin luonnonvarakiistan hallinnassa. (Fight Against Windmills – Knowledge and Justification in two Natural Resource conflict in Lapland). Sosiologia 50(4). In press.

Heikkinen, H., Fornander, D., Jokinen, M. & Sarkki, S. 2010: Global area conservation ideals versus the local realities of Reindeer Herding in Northernmost Finland. Int. J. Business and Globalisation, 4(2): 110–130.

Helle, T. & Jaakkola, L. 2006. Metsien rakenne ja porojen talvilaitumet.(Forest structure and reindeer winter pastures). In: Jalonen, R., Hanski, I., Kuuluvainen, T., Nikinmaa, E., Pelkonen, P., Puttonen, P., Raitio, K. & Tahvonen, O. (eds.). Uusi metsäkirja. Gaudeamus, Helsinki. p. 239–240.

Hellström, E. 2001. Conflict cultures – Qualitative Comparative Analysis of environmental conflicts in forestry. Silva Fennica Monographs 2. 109 p.

Hyvönen, H. 2006. Last Yoik in Saami Forests? Available at: http://www.imdb.com/title/tt1352730/ [Cited 24 Jun 2013].

Jaakkola, L., Helle, T., Soppela, J., Kuitunen, M. & Yrjönen, M. 2007. Effects of forest characteristics on the abundance of alectorioid lichens in northern Finland. Canadian Journal of Forest Research 36: 2955–2965.

Jokinen, M. 2000. Tutkimus Ylä-Lapin luonnonkäytöstä – tiivistelmä alustavista tuloksista. (Study of nature-use in Northern Lapland – preliminary results). In: Sandström, O., Vaara, I., Heikkuri, P., Jokinen, M., Kokkoniemi, T., Liimatainen, J., Loikkanen, T., Mela, M., Osmonen, O., Salmi, J., Seppänen, M., Siekkinen, A., Sihvo, J., Tolonen, J., Tuohisaari, O., Tynys, T., Vaara, M. & Veijola, P. (eds.). Ylä-Lapin luonnonvarasuunnitelma. Metsähallitus. Vantaa. 247 p.

Jokinen, M. 2001. Ihmiset haasteena metsätaloudelle ja tutkimukselle – ylälappilaisten luonnonkäytön motiiveja. (People as a challenge for forestry and research). Julkaisussa: Varmola, M. & Tapaninen, S. (eds.). Onko Lapin metsissä kaikki kunnossa? Metsäntutkimuslaitoksen tiedonantoja 820. Helsinki.

Jokinen, M. 2002. (ed.). Erämaata etsimässä – Kirjoituskilpailu Lapin luonnonkäytöstä. (Looking for wilderness – Writing competition over nature-use in Lapland). Metsäntutkimuslaitoksen tiedonantoja 867. Helsinki.

Jokinen, M. 2009 Ylä-Lapissa kaikki ei sovi yhteen. (You cannot reconcile everything in northern Lapland). Helsingin Sanomat. Available at: http://www.hs.fi/paakirjoitus/artikkeli/Vanhat+ja+uudet+elinkeinot+kilpailevat+tilastaYl%C3%A4-Lapissa/HS20090905SI1MA01g5f [Cited 4 Sep 2013].

Jokinen, M. & Tyrväinen, L. 2013. Can we predict with tourist opinions. Presentation in IAIA13 conference in Calgary, May 13. Available at: http://www.metla.fi/hanke/7451/pdf/13052013-jokinen-ja-tyrvainen.pdf [Cited 24 Jun 2013].

Joona, T. 2003. Finland and the Process of Ratifying ILO Convention No.169. Indigenous Affairs 3: 40–45.

Kemppainen, J. & Nieminen, M. 2001. Poronhoito Suomen saamelaisalueella. (Reindeer herding in Saami district in Finland). Poromies 1: 22-29.

Korpijaakko, K. 1989. Saamelaisten oikeusasemasta Ruotsi-Suomessa – Oikeushistoriallinen tutkimus Länsi-Pohjan Lapin maankäyttöoloista ja -oikeuksista ennen 1700-luvun puoliväliä. (Legal status of Saami people in Sweden and Finland). Lakimiesliiton kustannus. Helsinki. 595 p.

Korpijaakko-Labba, K. 2000. Saamelaisten oikeusasemasta Suomessa – kehityksenpääpiirteet Ruotsin vallan lopulta itsenäisyyden ajan alkuun. (Legal status of Saami in Finland). Diedut 1. Pohjolan Painotuote Oy. Rovaniemi. 235 p.

Kroeber, A. L. & Kluckhohn, C. 1952. Culture: A Critical Review of Concepts and Definitions. Papers of Peabody Museum of Archaeology & Ethnology, Harvard University, Vol 47(1).

Kujanpää, H. 2009. Lopun alku. TV drama film. Available at: Kyllönen, S., Colpaert, A., Heikkinen, H., Jokinen, M., Kumpula, J., Marttunen, M., Muje, K. & Raitio, K. 2006. Conflict management as a means to the sustainable use of natural resources. Silva Fennica 40(4): 687–728. http://www.imdb.com/title/tt1346634/ [Cited 24 Jun 2013].

Lapin Kansa 2012. Metsähallitus tekee tänäänkin valtiolle yli 300 000 euroa – ja tahti kiihtyy. Available at: http://www.lapinkansa.fi/Lappi/1194782091824/artikkeli/metsahallitus+tekee+tanaankin+valtiolle+yli+300+000+euroa+ja+tahti+kiihtyy.html [Cited 17 Jun 2013].

Lehtola, V-P. 2012. Saamelaiset suomalaiset – Kohtaamisia 1896-1953. Suomalaisen Kirjallisuuden Seura. Helsinki. 528 p.

Linjakumpu, A. & Valkonen, J. 2006. Greenpeace Inarin Paadarskaidissa – verkostopolitiikkaa lappilaisittain. Politiikka 48: 3–16.

Metsähallitus 2010. Metsähallitus and Inari reindeer herding cooperatives agree on reindeer pastures. News releas December 10, 2010. Available at: http://www.metsa.fi/sivustot/metsa/en/WhatsNew/newsreleases2010/Sivut/MetsahallitusandInarireindeerherdingcooperativesagreeonreindeerpastures.aspx [Cited 20 Sep 2012].

Metsähallitus 2012a. Natural Resource Planning. Available at: http://www.metsa.fi/sivustot/metsa/en/NaturalResources/Planningmethods/Naturalresourceplanning/Sivut/NaturalResourcePlanning.aspx.[Cited 20 Sep 2012].

Metsähallitus 2012b. Planning methods. Available at: http://www.metsa.fi/SIVUSTOT/METSA/EN/NATURALRESOURCES/PLANNINGMETHODS/Sivut/PlanningMethods.aspx [Cited 9 Oct2012].

Nyyssönen, J. 1997. Luonnonkansa metsätalouden ikeessä? Saamelaiset ja tehometsätalous. In: Roiko-Jokela, H. (ed.). 1997. Luonnon ehdoilla vai ihmisen arvoilla? Polemiikkia metsien suojelusta 1850-luvulta 1990-luvulle. Atena. Jyväskylä. p. 99–128.

Nyyssönen, J. 2011. Identity Politics and Alliance Building between the Sami Delegation and Conservationists in the Kessi Forest Dispute. In: Andrée Corvol (ed.). Foret et paysage Xe-XXe siècle, L'Harmattan, Paris. 452 p.

Näkkäläjärvi, K. 2013. Kuntarakenneuudistuksen mysteeri ja arktiset tunnelmat. Suomen Saamelaiskäräjien puheenjohtajan Klemetti Näkkäläjärven blogi. Available at: http://klemetti.blogspot.fi/2013/05/kuntarakenneuudistuksen-mysteeri-ja.html [Cited 19 Jun 2013].

Ostrom, E. 1990. Governing the commons. The evolution of the institutions for collective action. Cambridge University Press. Cambridge. 280 p.

Pennanen, J. & Näkkäläjärvi, K. (eds). 2003. Siiddastallan – From Lapp communities to modern Sámi life. Siida Sámi museum, Inari. 237 p.

Reindeer Husbandry Act 848/1990. Available at: http://www.finlex.fi/en/laki/kaannokset/1990/en19900848.pdf [Cited 11 Oct 2012].

Raitio, K. 2008. You can't please everyone – Conflict management practices, frames and institutions in Finnish state forests. Joensuun yliopiston yhteiskuntatieteellisiä julkaisuja 86. Joensuu. 271 p.

Rytteri, T. 2006. Metsän haltija – Metsähallituksen yhteiskunnallinen vastuu vuosina 1859–2005. Suomen Tiedeseura. 180 p.

Saami Council 2007. Italian ethical fund excludes Stora Enso because of Inari wood. Press release. Available at: http://www.saamicouncil.net/includes/file_download.asp?deptid=2215&fileid=2865&file=Stora%20Enso%20PRESS_RELEASE_2007_06_08.pdf&pdf=1 [Cited 3 Oct 2012].

Saami Parliament 2013. Saamelaisten määrä vuoden 2007 Saamelaiskäräjävaaleissa. Statistics from Saami Parliament. Available at: http://www.samediggi.fi/index.php?option=com_docman&task=doc_details&gid=8&Itemid=20&lang=davi [Cited 11 Sep 2013].

Saastamoinen, O. 2005. Multiple ethics for multidimensional sustainability on forestry? Silva Carelica 49: 37–53.

Sandström, O., Vaara, I., Heikkuri, P., Jokinen, M., Kokkoniemi, T., Liimatainen, J., Loikkanen, T., Mela, M., Osmonen, O., Salmi, J., Seppänen, M., Siekkinen, A., Sihvo, J., Tolonen, J., Tuohisaari, O., Tynys, T., Vaara, M. & Veijola, P. 2000. Ylä-Lapin luonnonvarasuunnitelma. Metsähallituksen metsätalouden julkaisuja 38. 246 p.

Sarkki, S. 2008. Forest Dispute and Change in Muonio Northern Finland. Journal of Northern Studies 2(2): 9–29.

Sarkki, S. 2011. The Site Strikes Back – Multi-Level Forest Governance and Participation in Northern Finland. University of Oulu, Oulu. 114 p.

Sarkki, S. & Heikkinen, H.I. 2010. Social Movements' Pressure Strategies during Forest Disputes in Finland. Journal of Natural Resources Policy Research 2 (3): 281–296.

Satokangas, P. 2013. Matkailulla maakunta menestyy - Matkailun tulo- ja työllisyysvaikutukset 12 lappilaisessa kunnassa vuonna 2011. Lapin korkeakoulukonserni. 41 p.

Secretariat of the Convention on Biological Diversity 2004. Akwé: Kon Voluntary Guidelines for the Conduct of Cultural, Environmental and Social Impact Assessment regarding Developments Proposed to Take Place on, or which are Likely to Impact on, Sacred Sites and on Lands and Waters Traditionally Occupied or Used by Indigenous and Local Communities. CBD Guidelines Series. Montreal. 25 p.

Shore, B. 1996. Culture in Mind – Cognition, Culture, and the Problem of Meaning. Oxford Univeristy Press, New York. 428 p.

Sihvo, J., Gröndahl, K., Stolt, E., Tuovinen, T., Salmi,J. & Tolonen, J. (eds.). 2006. Ylä-Lapin luonnonvarasuunnitelma (Natural resource plan of Northern Lapland). Kausi 2006–2010. Metsähallituksen metsätalouden julkaisuja 57. 171 p.

Silvennoinen, H. & Sievänen, T. 2011. Ulkoilu luonnossa yksityisten omistamilla alueilla. Teoksessa Sievänen, T. & Neuvonen, M. (ed.). Luonnon virkistyskäyttö 2010. Metlan työraportteja 212. 190 p.

Statistics Finland 2013. Available at: https://www.tilastokeskus.fi/index_en.html [Cited 18 Jun 2013].

Strauss, C. & Quinn, N. 1997. A Cognitive Theory of Cultural Meaning. Cambridge University Press, Cambridge. 323 s.

Supreme Adminstrative Court 2011. Korkeimman hallinto-oikeuden päätös KHO2011:81. Available at: http://www.kho.fi/paatokset/56037.htm [Cited 19 Jun 2013].

Swyngedouw, E. 2004. Globalisation or 'glocalisation'? Networks, territories and rescaling, Cambridge Review of International Affairs 17(1): 25–48.

Tomppo, E., Katila, M., Mäkisara, K. & Peräsaari, J. 2012. The Multi-source National Forest Inventory of Finland - methods and results 2007. Working Papers of the Finnish Forest Research Institute 227. 233 p.

Tyrväinen, L., Silvennoinen, S. & Hallikainen V. 2010. Kansainvälisten matkailijoiden maisema- ja ympäristöarvostukset Pohjois-Suomessa. Metlan työraportteja/Working Papers of the Finnish Forest Research Institute 147. 52 p.

UN 2012. The future we want- zero draft of the outcome document. Rio+20 United Nations Conference on Sustainable Development, June 2012. Rio de Janeiro. 19 p.

UNESCO 2001. UNESCO universal declaration on cultural diversity. Records of the general conference, 31st session, 15 October–3 November 2001, Paris, France. Annex I, Volume 1 Resolutions. UNESCO, Paris. 171 p.

Valkonen, J. 2003. Lapin luontopolitiikka – analyysi vuosien 1946–2000 julkisesta keskustelusta. (Nature policy of Lapland – Public discussion during 1946 and 2000) Tampere University Press, Tampere. 240 p.

Valkonen, S. 2009. Poliittinen saamelaisuus (Political Saami). Vastapaino. Tampere. 308 p.

Vatanen, E., Pirkonen, J., Ahonen, A., Hyppönen, M. & Mäenpää, I. 2006. Luonnon käyttöön perustuvien elinkeinojen paikallistaloudelliset vaikutukset Inarissa. (Economic impacts of nature-based livelihoods in Inari). Metsätieteen aikakauskirja 46: 435–451.

Veijola, P. 1998a. The northern timberline and timberline forests in Fennoscandia. Resaerch Papers 672. The Finnish Forest Research Institute, Kolari. 242 p.

Veijola, P. 1998b. Suomen metsänrajametsien käyttö ja suojelu. (Use and conservation of Finnish timberline forests). Metsäntutkimuslaitoksen tiedonantoja 692. Metsäntutkimuslaitos, Kolari. 171 p.

WCCD 1995. Our creative diversity. WCCD, Paris. 64 p.

WCED 1987. Our common future. Report of the World Commission on Environment and Development. United Nations. New York. 247 p.

Yleisradio 2013. Tiedeyhteisöltä vetoomus hallitukselle saamelaismääritelmästä. Available at: http://yle.fi/uutiset/tiedeyhteisolta_vetoomus_hallitukselle_saamelaismaaritelmasta/6664208 [Cited 19 Jun 2013].

Ylimuonion valtionmaiden käyttösuunnitelma 2014. Muonion kunta & Metsähallitus. 45 p. In print.