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TRAPPED IN THE NET OF CIRCUMSTANCES

Nature use practices of the Sami people of Lovozero in the changing socio-economic, administrative and environmental settings

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Thesis submitted for the Degree of
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Trapped in the net of circumstances

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Abstract

This thesis is a local community study, which examines the issues of nature use by the Sami people in the settlement of Lovozero – a community situated in circumpolar Russia, where nature use is mainly presented by reindeer herding, fishing, hunting, and gathering. Leaning on the extensive list of references and combining information from various information sources, this interdisciplinary research pursues descriptive and exploratory purpose.

The research is based on fieldwork carried out in Lovozero in May 2013. Through the qualitative research methods, namely ten semi-structured interviews and short-term participant observation, the study explores local people's experiences of the circumstances that impact nature use in Lovozero, and point out their responses to the challenges in this regard. In addition, this thesis attempts to identify the categories of meaning of nature use practices for the Sami residents of Lovozero.

The findings of the study reflect that though nature use has a significant importance for the Sami residents of Lovozero as both material and cultural elements, nature use by the Sami in the Murmansk Region is associated with a number of problems related to the socio-economic, administrative and environmental circumstances. The present-day responses to the challenges in this regard are represented by short-term coping strategies, which do not prove to be efficient in the current situation of persistent stress.

The thesis argues that developing resilience in Lovozero would require building long-term adaptive strategies, based on cooperation between the local Sami institutes and the regional authorities, and assuming involvement of the local people into the decision-making process. The study additionally highlights the presence of local Sami officials in the picture and gives voices to their suggestions of possible solutions to the existing challenges in regard to nature use. The thesis, thus, might have some relevance in the framework of the Sami political movement.

Key words

Lovozero, Sami people, local community study, nature use, socio-economic challenges, environmental pollution, climate-related changes, coping mechanisms, adaptive strategies, resilience.

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CHAPTER 1. Problem statement and research methodology

1.1. Introduction

The Sami people are indigenous to the area, which today encompasses parts of Norway, Sweden, Finland, and the Kola Peninsula of Russia. The Sami have been practicing nature use for centuries. Although many Sami today keep urban lifestyles, and nature use has to a large degree lost its original meaning in terms of subsistence, some researchers claim that nature use has preserved its importance for many Sami people as an economic activity, for recreation, and in people's sense of identity (Rybråten and Hovelsrud, 2010:315).

This interdisciplinary research is devoted to the nature use practices of the Kola Sami people in the conditions of changing socio-economic, administrative and environmental settings. The focus of the study falls on Lovozero, a community situated in the circumpolar Russia, with a Sami population of 21,3% of its residents (Federal Service of State Statistics, 2013:569). The analysis is based upon ethnographic data encompassing residents' attitude to nature use, as well as examination of factors impacting nature use practices. It is the ambition of the present research to explore people's experiences of the changing settings that impact nature use in the community of Lovozero. It is also worth mentioning that the study focuses on nature use on individual level, as individual activity for recreation or as a part of the job.

1.2. Topic presentation and research questions

The settlement of Lovozero is a community in the Murmansk Region, which is located in the North-West of Russia on the Kola Peninsula (see map 1). It borders the Republic of Karelia (Russia) in the south and Lapland Region (Finland) and Finnmark County (Norway) in the west. According to the results of the Russian national census of 2010, 725 people out of 3,406 inhabitants of Lovozero, have identified themselves as Sami in 2010 (Federal Service of State Statistics, 2013:569). Traditionally, the occupation of the Kola Sami has been a combination of hunting, fishing, gathering and reindeer herding. Nowadays, nature use by the indigenous population of the Kola Peninsula is mainly focused on reindeer herding. Hunting lost its original significance by the end of the 19th century, when game became sparse. Gathering is claimed to have gained renewed importance because of the present difficult economic situation. In addition, freshwater fishing continues to be a common activity for the local people (Matishov, 2001:6).

Map 1: Position of Lovozero settlement in the Arctic.



It is believed that various drivers of change bring challenges and opportunities in regard to nature use practices in Lovozero these days. Factors that have an impact on nature use practices in the community include environmental issues, as the level of local pollution in the Murmansk Region is quite high. Recent climate-related changes are also creating concerns regarding future possibilities for current nature-based activities. Finally, the socio-economic context contributes

greatly to the picture and cannot be left apart when discussing nature use practices in the Russian Federation (Huntington and Fox, 2006:87-88).

Research questions addressed in this study are as follows:

- In what ways are nature use practices important to the residents of Lovozero?
- What are the factors impacting nature use in the community of Lovozero, and how are the residents of the settlement responding to the changes caused by these factors?

The present research has a descriptive and exploratory purpose. The study aims to describe and produce more information about the nature use practices of the Sami residents of Lovozero and investigate socio-economic, administrative and environmental contexts around nature use in the settlement. Additionally, the purpose of the thesis is to identify the categories of meaning of nature use practices for the Sami residents of Lovozero.

The Russian part of Sapmi is a vast field for potential research. It is hoped that the study can contribute to collecting knowledge about the Lovozero settlement, its people and their nature use practices. Therefore, the study might be of some interest for scholars and researchers engaged in related topics. Additionally, the thesis might have relevance in the framework of the Sami political movement.

1.3. Methodology

1.3.1. Qualitative interviews

Qualitative interview has been the main method of producing data for the research. Byrne (2012:208) refers to the qualitative interview as a method of data generation, rather than data collection. Thus, in qualitative interviews, data is being produced as a result of interaction between the researcher and the respondent. This type of interview was chosen because it is considered to be particularly useful as a research method for accessing individuals' attitudes and values (Byrne, 2012:208-209).

All in all, 10 semi-structured face-to-face interviews were arranged with the local people who are/have been involved in the nature use. Following the concept of semi-structured interviews, I have prepared questions, which shaped the focus of the research and were used to guide the interview procedure. Additionally, before entering the field, I chose to follow the framework of the postcolonial indigenous research paradigm described by Bagele Chilise (2012:7), presupposing conversations with open framework. As open-ended questions leave more freedom to the interviewed to respond in a relatively unrestricted manner, people are more likely to share their views, interpretations of events, understandings, and experiences (Byrne, 2012:209).

In the course of interviews, I tried to avoid complex questions that asked several matters at a time and formulations that could cause misinterpretation. I also tried to be aware of respondent's vocabulary breadth and limitations, not making questions too academic or difficult, and at the same time, not oversimplifying them. A sound recorder was used (with consent of the interviewed) for recording as much and as precise information as possible.

1.3.2. Presentation of informants

The identities of all the informants, who participated in the present research, are kept anonymous, and the pseudonyms are used in this text instead of their real names. One could argue that in such a small community as Lovozero, it might be easy to recognize people from information provided in their regard. This has been taken into consideration, and it is has been made sure that no such identifiable information is provided. It might be also worth mentioning that no sensitive information is included in this text. All the informants are adults in the age groups between 30 and 80 and have signed written informed consent for the use of obtained information in the present research.

My first informant's pseudonym is Anna. Anna is a kind-hearted woman who hosted me during my visit in Lovozero and made my stay comfortable. She has also provided me with a network of people I then spoke with. Anna is a Sami from the Voronya village who was relocated to Lovozero in her early childhood in 1960's when her village was flooded due to the construction of a hydropower plant (see chapter 2, section 2). Anna is fond of fishing and is an experienced berry and mushroom gatherer. She practices nature use only for personal purposes and in her free time. During our long talk, Anna shared her personal stories in relation to nature use and life in the settlement in general, which has broadened my perspectives significantly.

Sergey is the second person I was lucky to talk to. He is a Sami from the Ponoy River coast, who takes interest in fishing and hunting. Of course, those are not Sergey's main occupations and have no commercial meaning, but he mentioned that they take an important place in his life. Sergey has briefly shared his observations in regard to the changing climate and reflections on the wildlife in the area. This has increased my knowledge of the current situation in this regard.

The third person I spoke to was Yuriy, who was also among my youngest informants. Yuriy has been involved in fishing and berry gathering since childhood. He was also among the two informants who mentioned receiving economic profit out of selling cloudberry. Yuriy has shared his personal fishing stories, provided some valuable information about existing laws and regulations in this regard, and even loaned me a couple of environmental reports.

Maria became my fourth informant. She is the elder of the community. Just as Anna, Maria is originally not from Lovozero but was subjected to relocation from the Voronya village. Maria grew up in the tundra with her parents and later on has travelled the tundra extensively with her husband, who was a reindeer herder. During that time she worked as a so-called "lavvo worker", cleaning, washing clothing, sewing and cooking. Nowadays, her age and health condition keeps Maria from fishing and gathering, which she used to do in her younger days. Maria, however, shared her opinion about how the climate and ecological situation in the region has changed over the last half of the century, and how this contributes to the quality of fish and berries.

My fifth informant's pseudonym is Yelena. Yelena is a Sami from a family of reindeer herders. Since childhood she has been spending summer months free from school together with her parents in the tundra. Yelena is deeply fond of berry picking. She gathers berries not only for personal use, but also sometimes for selling. Being an experienced berry picker, Yelena shared valuable information about the current quality of berries and how it has changed over the last couple of decades. She also suggested her theories explaining the changes, and commented upon the environmental situation in the settlement.

Nadezhda is the sixth person I interviewed during my stay in Lovozero. Nadezhda is also a Sami, who has spent much of her childhood in the tundra together with reindeer herders. Spending time out in the nature and gathering berries is Nadezhda's favourite. During our long talk, she shared her views and perspectives concerning socio-economic and administrative context around the Sami nature use, which I am infinitely grateful for.

The next person I spoke to was Dmitriy – the Sami from Sosnovka village residing in Lovozero. Mikhail is fascinated with fishing and hunting for personal use. He shared his wildlife observations and explained the controversy of the situation around hunting, which became valuable data for the present research.

Mikhail was the eighth person I talked to. Like many others in Lovozero, Mikhail is of mixed descent and identifies himself as a Sami-Komi. Since childhood, Mikhail has been taking interest in fishing and mushroom gathering. From Mikhail I learned more about locally observed climate-related changes and their effect on nature use.

My ninth informant's name is Luidmila - a pensioner. Like two other informants, Luidmila is originally from Voronya village. Gathering berries and herbs have been Luidmila's big hobbies since childhood. Luidmila kindly shared her observations of changes in climate and the environmental situation in the settlement, as well as concerns in regard to those changes.

Aleksander was the last person I interviewed during my stay in Lovozero. This interview was special as well. Aleksander agreed to take me fishing on a lake with him, which was a valuable experience itself. During our trip, Aleksander told me about existing fishing regulations and challenges in this regard, shared his reflections on the climate-related changes and environmental situation in the region. Observing the fishing process with my own eyes helped me to understand this activity better.

During my stay in Lovozero no reindeer herders were present. This is not surprising taking into consideration the peculiarities of reindeer herder's lifestyle (see chapter 3, section 2). I was lucky, however, to obtain information relevant to reindeer herding from other informants, who have reindeer herders among their family or friends.

It is also worth noting that during my stay in the settlement, I was able to interview Valentina Sovkina, who is the Chairperson of the Sami parliament in Russia and a local resident of Lovozero. Meeting this energetic and devoted woman was not only a pleasure, but also a great opportunity to obtain the perspectives from the official representative of the Sami people in Russia and an activist in Sami politics.

1.3.3. Participant observation

Participant observation was chosen to be used as a supplementary tool for obtaining non-verbal information during the field work. Marshall and Rossman (2011:140) identify participant observation as an essential element of all qualitative studies, and continue by mentioning that participant observation suggests involvement of the researcher in the social world chosen for the study. Such involvement assumes that the researcher becomes both a participant, and an observer, or more precisely – a participating observer, and begins to experience reality as people in the focus of the study do (Bernard, 1994:138; Marshall and Rossman, 2011:140).

It is important to highlight that participant observation in its original meaning presupposes durable involvement in the life of the community in focus (Marshall and Rossman, 2011:140). Bernard (1994:139-140), however, argues that researchers do not always have the luxury of doing long-term participant observation fieldwork. He continues mentioning that the amount of time devoted to participant observation certainly makes a difference in what the researcher is likely to find out, but even a few days/weeks long participant observation can be useful.

The present thesis did not imply a long-term ethnographical fieldwork. My stay in the settlement of Lovozero was in total 10 days, and therefore cannot be referred to as a long-term participant observation. Nevertheless, following Bernard (1994:140), I argue that even though this participant observation was short-term, it still has value as an additional method for the present master thesis.

Thus, qualitative data obtained during observations facilitated my deeper understanding of life in the settlement and people's attitude to the nature use. I have been spending much of my free time with the local children in Lovozero, getting to know them and the way they live. These children were not asked questions in regard to the topic of the project but helped me create a complete picture of life in the community, which will be discussed in chapter 3.

1.4. Theoretical perspectives

The main arguments in this thesis will be based on several theoretical concepts. Thus, discussion of nature use in Lovozero in the conditions of changing socio-economic, administrative and environmental settings is based on studies and theories regarding the concepts of coping mechanisms, adaptive strategies and resilience.

1.4.1. Coping mechanisms and adaptive strategies

In order to discuss human social adaptive responses to changes, the present research addresses the study “Marine social-ecological responses to environmental change and the impacts of globalization” by Perry et al. (2011). Basing their argument on analysis of human social adaptive responses to changes in environmental conditions in four different human societies, Perry et al. (2001:17-18) distinguish between coping mechanisms taking place on the short time scale, allowing for a relatively quick return to previous conditions, and adaptive strategies that occur on longer time scales and require more permanent adjustments.

According to Perry et al. (2011:13-14), short-term responses (coping mechanisms) presume surviving unfavourable periods by the so-called “riding out the storm”. This strategy presupposes intensification of effort, migration to other places, increasing reliance of self-employment, employment in other sectors, and financial dependency on the government. The present work aims to find out what kind of short-term responses are employed by the Sami residents of Lovozero in the face of factors that impact nature use in the community.

Long-term responses (adaptive strategies) according to Perry et al. (2011:14), presume more advanced and resilience-orientated adaptation that should be employed when the stresses are long-run. In the context of fisheries, described by Perry et al. (2011:14-15), adaptive strategies include political reforms, restructuring the nation’s fishery system, capacity building, or community closure. The current thesis aims to suggest what kind of long-term responses could be potentially employed in regard to nature use practices in the settlement of Lovozero in order to contribute to successful adaptation to the existing challenges in this regard.

Perry et al. (2011:19) also refers to Hamilton et al. (2003), who has discussed how two communities located in the same region of Greenland coped with the situation of the change in regard to the available marine resources. It was determined that the community, which took early decisions concerning investments in the new types of equipment, held stronger contacts with local authorities, and preserved limited dependence on external initiatives, ended up to prosper from the changes, while the other community faced significant challenges in this regard. Thus, Perry et al. (2011:19-20) conclude that successful strategies for ensuring community resilience are more likely to be developed on the local, than on the national level. Thus, it is highlighted that people should be involved into developing of proposals, which will potentially affect them. In the course of the paper, this argument is used in order to highlight the necessity of considering opinions of the local Sami activists as a potential basis for decision-making in regard to the issues of nature use.

1.4.2. The concept of resilience

Resilience is related to the magnitude of shock that a system can absorb, its self-organization capability, and its capacity for learning and adaptation. According to Huntington and Fox (2006:92), more resilient social systems are able to absorb larger shocks without collapse. Folke (2006:243) expands the notion of resilience, suggesting that it is not simply a way to achieve stability while absorbing external shocks, but also an ability to innovate and transform. Chapin III et al. (2006:198) in their article “Building Resilience and Adaptation to Manage Arctic Change” identify resilience as “sustaining those attributes that are important to society in the face of change”.

Another study discussing resilience belongs to Broderstad and Eythorsson (2014). Basing their argument on the analysis of the recent social-ecological histories of two coastal Sami communities, Broderstad and Eythorsson (2014:4-5) claim that communities may respond to changes in various ways, but these ways will depend on the options that are available for local actors at the moment of change. According to Broderstad and Eythorsson (2014:5), each community consists of individual households, and therefore, community responses can be understood as the sum of the responses of its households. They further state that a functional community is more than just a number of households, and is able to act through the other mechanisms as well. Thus, municipal organs, political parties, voluntary organizations, private organizations and other institutions connected to political, economic and civil society networks can potentially be used by communities in the process of response to changes. The present paper also aims to point out if there are conditions for acting through various institutions in the settlement of Lovozero. In the present thesis, this idea is also used as a point of departure for arguing that the options, available for the local people of Lovozero in the face of change, are determined to a great degree by the authorities.

Broderstad and Eythorsson (2014:12) additionally point out that changes may also include new opportunities for local communities, especially if combined with appropriate economical and political initiatives. Thus, Broderstad and Eythorsson (2014:14) believe that the changes in legislation in regard to fisheries initiated by the Sami Parliament, investment support and introduction of certain fishing regulations, have made a difference for the situation in regard to local fisheries, and contributed to the increase of the fishermen in the communities. For example, the so-called “invasion” of the red king crab, combined with a governance innovation established in 2008, seems to be the most important reason for the revival of the fjord fisheries in Nesseby since 2010 (Broderstad and Eythorsson, 2014:12). Following this idea, the present study also suggests that there might be opportunities hidden in challenges for the people of Lovozero.

1.5. Information sources and previous research

Previous research embraces publications with the focus on nature use of the Kola Sami in general and the situation in Lovozero in particular from historical, cultural, socio-economical and administrative perspectives, as well as evaluation of environmental situation and climate change impact on indigenous people in the region.

In order to illustrate the changes in the Kola Sami nature use patterns over the 19-20th centuries and to trace historical development of Lovozero, I have addressed several studies on the history of the Kola Sami people. One of the most recent works on this topic is the study on the life of the Kola Sami in the Soviet Union by contemporary researcher Lukas Allemann. Approaching the historical events through the personal stories of the Kola Sami people, Allemann reflects on the fundamental changes in the Kola Sami lifestyle and on how people dealt with the changes.

“Kola Sami Relocated Groups” (2007) by N. Gutsol et al. is another major comprehensive study that discusses the destructive impact of the Soviet policies on the Sami lifestyle. By combining personal stories, ethnographic data and archive materials, Gutsol et al. explore distinctiveness of the traditional economy and the culture of the Kola Sami people, and deep transformations that fell upon the Kola Sami lifestyle during the Soviet Era.

It is also worth to highlight the book “Eastern Sami Atlas” (2011) by Tero and Kaisu Mustonen, which represents a holistic description of various aspects of the Kola Sami’s life from the pre-Revolution period to the contemporary post-Soviet context. The book is based on materials from historical and ethnographic documents, explorer accounts and oral histories of the Sami themselves. Additionally, Chapter 10 “The Murmansk Region” by Maksim Kuchinskiy in the collective monograph “North and Northerners” (2012) was used to fill in the gaps in both historical overview of the Kola Sami nature use, and the present-day situation in this regard.

The current status of nature use by the Kola Sami is described in “Murmansk Oblast Regional Feasibility Report” (2001) by Grigory Matishov et al. The same report also sheds some light on the environmental situation in the region. Another report - “The Problems of the Wildlife Management by the Kola Sami and the Nunavut Inuit” (2010) by Oparin and Umanskaya has also been used for obtaining information about the nature use practices on the Kola Peninsula today. Basing the research on fieldwork data from 2007-2008, the report discusses the problems of present resource management in the Murmansk Region and relations between the local population, federal government and mining companies in this regard.

The work of Yulian Konstantinov “Reindeer-herders. Field-notes from the Kola Peninsula” has been particularly useful in regard to the section on reindeer herding practices. In his article on reindeer herding on the Kola Peninsula today, Konstantinov draws on the realities of the reindeer herding with regard to the historical events that have determined them.

In order to discuss the current importance of the nature use to the Sami of Lovozero, I have employed the work by Kozlov et al. on the traditional food of the Kola Sami. Andrey Kozlov is a Russian anthropologist and expert in medical anthropology, a Doctor of Biological Sciences and a Doctor in Medicine. One of the chapters in the book “The Kola Sami in the Changing World” by Kozlov et al. discusses the connection between the changes in traditional Sami diet and increasing level of potential health risks among the Sami.

For discussions on the ecological situation in the region, I have referred to the “Report on Health and Disease Control in the Murmansk Region” by Oprya et. al. (2013). Among other questions, the report examines the estimated level of pollution in the Murmansk Region and health related problems in the Lovozero Municipal District in particular.

The article “The Changing Arctic: Indigenous perspectives” by Huntington and Fox (2006), from the Arctic Climate Impact Assessment Scientific Report (2006), has been useful while discussing climate-related changes in the region. Another article – “Hunting, Herding, Fishing and Gathering: Indigenous Peoples and Renewable Resource Use in the Arctic” by Mark Nuttal et al. from the same report, draws on environment change situation in the Russian part of Sapmi.

The present work also touches upon existing rules and regulations over nature use on the Kola Peninsula and the rights of the Sami people in this regard. The majority of Federal Laws and Regulations were approached online through the Electronic Fund of Legal and Regulatory Technical documentation on www.cntd.ru.

In order to discuss the current situation in regard to nature use on the Kola Peninsula, I have also addressed a number of articles from several news providers. It was decided to use both governmental and independent news sources at both a regional and state level of Russian and non-Russian origin for obtaining information from different perspectives. Thus, I used news articles from the Federal Portal of the Russian Federation, the Official Website of the Administration of Lovozero Settlement, State Television and Radio Broadcasting Company “Murman”, and the Official Portal of the Murmansk Region, which is run by the government of the Murmansk Region.

I have also used newspaper “Nasha Versiya” – a weekly independent newspaper of journalistic investigation, and the Independent Civil News Portal “7x7” – a non-state Russian news web-site, run by community leaders, civil activists, and independent journalists. The Informational Center of the Finno-Ugric Peoples “Finugor”, and an open internet news service Barents Observer, run by the Norwegian Barents Secretariat have also become valuable information sources, which helped to shape the picture of the current situation in regard to nature use on the Kola Peninsula.

1.6. Reflexivity and ethics

Having been always interested in interconnections between people and nature, and fascinated by the variety of ways people and nature can communicate, I have frequently found myself upset by the fact that the modern world often leaves little or no place for relationship with nature – our cradle and our final abode.

I was first introduced to the issues related to nature use by the Kola Sami while participating as an interpreter in various conferences with the focus on the indigenous people of the Arctic. That time shaped my interest in the subject, and it has been further developed in the process of taking the Master of Indigenous Studies programme at the Arctic University of Norway (UiT). The above-mentioned programme gave me tools and knowledge for conducting the study on the topic of my interest, whilst my background as an insider in the region and a person somewhat familiar with the settlement of Lovozero, has facilitated the research. Additionally, being a Russian language speaker has opened more opportunities in regard to information sources, and ensured the proper communication with the informants. Furthermore, I believe that my position as a researcher, who is an insider in the region of study, and an outsider in regard to the community in focus, gave me some additional perspectives on the research questions.

Ethical issues are of major importance in any social research involving people, and especially when dealing with indigenous peoples and small communities. This thesis supports the point of King and Horrocks (2010:110), who argue that the participants of research should be giving their “informed consent”, approving that they understand what their participation in the research will involve, and that they agree to participate without inducement. Obtaining informed consent from the participants is, therefore, a way of protecting their interests. Thus, at the stage of making contacts in regard to the present project, I, as a researcher, made sure to introduce myself, share the topic, purpose, legitimacy, and methods of the research to those who will be involved in it, tell them about the protection which they may expect as respondents, the extent of demands which are to be made to them, and ask for their consent and will to participate.

Additionally, King and Horrocks (2010:117) stress that protection of individual privacy in the course of social research is the underlying principle of respect. Anonymity is thus an important ethical rule to follow. In the present thesis, all informants' identities are kept anonymous. Additionally, even though the research does not presuppose obtaining delicate information, the participants of the research have been consulted on what is considered delicate and should not be published.

1.7. Thesis overview

This master thesis is presented in five chapters. The first chapter presents the topic of the study and research questions. It additionally describes the used methodology and provides an overview of the main theoretical perspectives and previous research works on the topic.

As Nuttal (2006:678) mentions, the problems faced by Russia's northern indigenous peoples can only be understood by reference to Soviet and post-Soviet transformations. Chapter two, therefore, is an overview chapter devoted to the description of nature use practices of the Kola Sami in a historical perspective with a particular focus on historical events that have become turning points in the history of the Kola Sami people.

Chapter three discusses the current situation in regard to the nature use by the Kola Sami in the Lovozero settlement and in the Murmansk Region generally. It additionally attempts to explore the meaning of nature use practices for the Sami residents of Lovozero.

Chapter four addresses the drivers of change that impact nature use in the community. This chapter focuses on the information obtained during the interviews and some statistical data. It aims to explore how socio-economic, administrative and environmental contexts are perceived by the Sami residents of Lovozero, and how in their opinion, they impact nature use practices in the community. The chapter further proceeds with a discussion of what coping mechanisms local people of Lovozero use in the face of the change, and addresses the possibility of building resilience for the Sami residents of this community.

Chapter five is a concluding chapter, which summarizes findings of the thesis and sets perspective for the future research.

CHAPTER 2. Nature use of the Kola Sami in a historical perspective

This chapter sets the context of the current study and gives an overview of nature use practices of the Kola Sami in a historical perspective. The aim of the chapter is to illustrate the changes in the Sami nature use patterns and to trace historical development of Lovozero. Special focus is given to various historical events and factors that had impact on the Sami traditional nature use, as those circumstances are believed to be important in relation to the current status of nature use and can explain many of the modern challenges in its regard. Chronological description does not cover the period of deep history, as it was the 19-20th century that brought the most significant changes to the Sami lifestyle and is, therefore, most relevant for the current study. Despite the fact that the present thesis focuses on nature use in a particular settlement, namely Lovozero, the scope of this chapter is expanded beyond the limits of the above-mentioned settlement, as many present day Sami residents of Lovozero, including some informants who participated in the present study, practiced nature use in different places before they were resettled to Lovozero.

The chapter consists of three descriptive sections and a conclusion. Contemporary researcher Allemann in his study on the life of the Kola Sami in the Soviet Union (2013), distinguishes between several historical periods in relation to the Kola Sami: before the October Revolution, after the October Revolution, Perestroika and Post-Soviet period. The present chapter encompasses the above-mentioned periods, replacing the periods of before and after the October Revolution by the periods of before and after the 1930's, as it is mostly the politics of collectivization and economic centralization (see section 2.2.), in the 1930's that had a dramatic influence on the lifestyle and nature use of the Kola Sami. The arguments in the chapter are based on written materials on the topic and supplemented by statements from the informants where suitable.

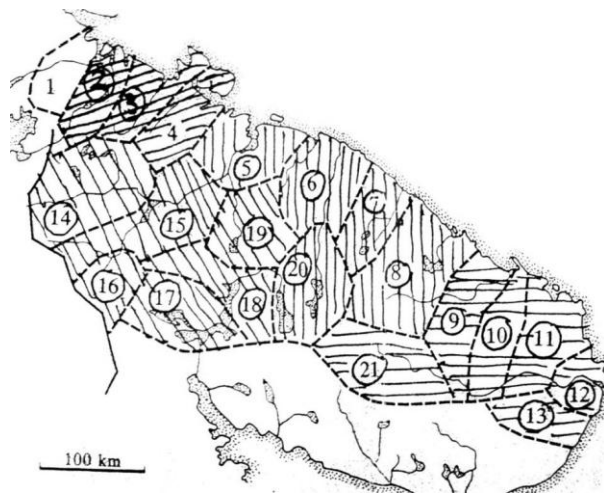
2.1. Nature use of the Kola Sami before the 1930's

2.1.1. Sami sijt as the system of natural resources distribution

It is known that populating of the Kola Peninsula by the ancestors of the modern Sami began several thousand years ago, when the post-glacier landscapes began its formation (Matishov, 2001:4). Since those times and until approximately 1930's, the Kola Sami lived in communities based on kinship ties (Afanasyeva, 2013:12; Mustonen, 2011:24). Such a community is referred to as "sijt" in the Kildin Sami language and "pogost" in Russian. Some studies suggest that the word "sijt" corresponds to the Northern Sami term "siida", which is also used to identify the type of Sami settlement (Afanasyeva, 2013: 14).

Afanasyeva (2013:16) mentions that in the beginning of the 20th century there were 21 sijts on the Kola Peninsula (see map 2). Allemann (2013:31) writes that sijts were usually small, with the population of less than one hundred to a few hundred people, and acted as socio-economic and cultural unit for the Kola Sami. In addition to the settlement itself, sijts also embraced grazing and hunting lands and other territories important for community, functioning as a system of natural resources distribution (Gutsol et al., 2007:10). All territories, including pastures, hunting and fishing lands and moss fields, which belonged to a sijt, were distributed between families in a settlement according to the traditions of inheritance (Afanasyeva, 2013:13). In addition, sijt served as an arena for discussion of family issues, nature use related questions, and solving conflict situations between community members (Gutsol et al., 2007:11). Sijt remained a functional system until the 1930's when it was abolished with the start of the state policy of collectivization and centralization (Allemann, 2013:31), which will be discussed in the next section of this chapter.

Map 2. Territories of the Sami sijt on the Kola Peninsula before 1930's¹



- | | |
|---|--|
| 1. N'javddam (Нэйдэн, Neyden) | 11. Limbes (Лумбовка, Lumbovka) |
| 2. Pac'jogk (Пазрека, Pazreka) | 12. P'enne (Поной, Ponoу) |
| 3. Pесam (Печенга, Pechenga) | 13. Sosnevke (Сосновка, Sosnovka) |
| 4. Muetk (Мотовский, Motovskiу) | 14. Sosnevke (Сонгельский, Songelskiу) |
| 5. Kiilt (Кильдин, Kildin) | 15. Nuett'javvг (Нотозеро, Notozero) |
| 6. Koardegk (Воронье, Voronye) | 16. Sarvesjavv'г (Гирвасозеро, Girvasozero) |
| 7. Lejjavv'г (Семиостровье/Левозеро, Semiostron'e/Levozero) | 17. Akkel (Бабинский, Babinskiу) |
| 8. Arsjogk (Варзино, Varzino) | 18. Čukksuel (Экостровский, Ecostrovskiу) |
| 9. Jovvkuj (Йоканьга, Yokan'ga) | 19. Masel'k (Пулозеро/Масельга, Pulozero/Masel'ga) |
| 10. Guoddemjavv'г (Куроптевский, Kuroptevskiу) | 20. Lujavv'г (Ловозеро, Lovozero) |
| | 21. Kintuš (Кинтуш/Каменский, Kintush/Kamenskiу) |

¹ Karl Nickul (1977) from Kalstad (2009) from Afanasyeva (2012:15-16). The names are given in the Kildin Sami language, in parenthesis – its Russian equivalent and English transcription.

Gutsol et al. (2007:48) write that the Lovozero community is believed to have existed since 1574, and the first written records about it appeared in the 17th century. The settlement was middle-sized in regard to other Kola Sami settlements and by the end of the 19th century had a population of 125 people, the overwhelming majority of whom were the Sami. The main occupations of the Sami in Lovozero were traditionally freshwater fishing. In winter it was common to hunt fur game and wild reindeer (Gutsol et al., 2007:48; Mustonen, 2001:51).

2.1.2. Brief description of the nature use practices of the Kola Sami

The main nature use practices for the Sami on the Kola Peninsula in general included freshwater and sea fishing, hunting on land and sea, reindeer herding, and berry gathering. Reindeer herding as well as hunting were primarily men's tasks, while freshwater fishing, berry picking, sewing and cooking were considered to be women's activities (Allemann, 2013:31-32; Kuchinskiy, 2012:150).

Fishing was a significant part of the subsistence economies on the Kola Peninsula in 19th century. According to the census by Dergachev, in the 1870's, income from fishing constituted not less than 50% of total Kola Sami income (Gutsol et al., 2007:24). Fishing territories were clearly divided between families and have been considered their private property that they could rent or sell. Inland fishing was centered around whitefish, while freshwater fish species like pike, perch, grayling, Arctic char, burbot and roach were also considered valuable. The most significant catch from the sea was salmon, cod, flounder and halibut² (Mustonen, 2011:26, 71).

According to Tero and Kaisu Mustonen (2011:76), hunting on the Kola Peninsula before the 1930's focused on the Arctic fox, fox, otter, beavers, squirrel, weasel, brown bear, wolf, wolverine, wild reindeer, moose, rock ptarmigan, wood grouse, capercaillie, seals, geese, ducks, loons, and swans³. The hunting season began in early November. It was typical for hunters to have their specific areas encircled with trap lines, which were checked every couple of days. Tero and Kaisu Mustonen (2011:76) write that reindeer were hunted using trap-pits, which were covered with moss and snow. Such traps could trap up to five reindeer at a time. Seal hunting, which lasted until the 1920's, used to take place from February to March. Hunting was performed by groups of five-six men, and the catch could be up to 160 seals per day. The moose and goose hunt also took place in springtime.

² See Appendix 1. Equivalentents for the names of fish species

³ See Appendix 2. Equivalentents for the names of animal and bird species

The customary way of herding of the Kola Sami was different from the methods used by the other reindeer herding peoples of the far north of Russia and Siberia. First of all, the herds of the Kola Sami were relatively small (not more than 2,500 animals) and reindeer grazed unattended in summer. Reindeer therefore were considered semi-domesticated. Secondly, reindeer herding by the Kola Sami was organized in a semi-nomadic way, which means that herders were moving with the reindeer according to the seasons. Allemann (2013:33) argues that the Semi-nomadic lifestyle of Kola Sami is probably related to the fact that the Kola Peninsula is relatively small in size and is limited in its territory, in contrast with the settlement areas of the other reindeer herding peoples of the far north of Russia and Siberia. This “scattered” form of herding was thus not accidental: it is particularly beneficial in tundra, where vegetation, especially the reindeer moss, is very slow to recover. Therefore, moving from one grazing area to another helped to avoid overgrazing of the territories (Allemann, 2013:31-33).

In the beginning of summer, reindeer migrated to the windswept coasts, away from the bothersome insects, which are so abundant inland. The Kola Sami followed the reindeer and spent summers at their permanent settlements on the coasts practicing salmon seasonal fishing and hunting sea mammals. Flocks were collected in autumn (November) with the help of dogs, and driven inland, where they grazed closer to the Sami’s winter settlements and could therefore be protected against wolves. Winter settlements were located inland, deep inside the Kola Peninsula, in the forests rich with firewood and good moss for reindeer, which made them a safe shelter for both humans and animals during severe winter times. This system functioned well, until the 1930’s when it was abolished due to collectivization (see section 2.2.) (Afanasyeva, 2013:13-14, Allemann, 2013:32).

2.1.3. The end of the 19th century and the start of rapid changes

It was, however, before collectivization, when the traditional form of Kola Sami reindeer herding began to erode. In 1886-1887, the Komi started migrating into the Kola Peninsula from the Izhma basin west of the Urals (Allemann, 2013:68; Gutsol et al., 2007:24). The Komi came together with the Nenets as hired herdsman and the huge reindeer flocks (up to 5,000 heads) (Allemann, 2013:37). It is worth noting that reindeer herding methods of the Komi people contrasted sharply to that of the Sami or Nenets. Already since the 17th and 18th centuries, the Komi were no longer nomads. Their reindeer herding had an extensive character and focused on mass production for further export to Moscow and Norway (Allemann, 2013:39). Thus, having faced a problem of overcrowding of their grazing lands, the Komi people have requested a permission to settle on the Kola Peninsula (Allemann, 2013:37). According to Gutsol et al.

(2007: 48), the newcomers settled in the Virma River-valley, which runs through Lovozero, and started rapid development of commercial reindeer breeding. Lovozero, thus, appeared to be in the very center of economic activity. The population of the settlement was steadily increasing, and by 1915 Lovozero was one of the largest settlements on the peninsula with the population of 690 people (167 Sami, 493 Komi, and 30 Nenets).

However, it was not only the people who grew in number. The expansion-oriented and therefore space-demanding form of reindeer breeding typical for the Komi, contributed to significant increase of reindeer stock on Kola Peninsula: the reindeer population on the Kola Peninsula increased from 5,000 animals in the mid-19th century to the 74,000 heads at the beginning of World War I (Allemann 2013:68). Additionally, as Allemann (2013:40) mentions, different grazing styles contributed to growing confrontations between the Sami and the Komi people. Thus, the free-grazing reindeer of the Sami people have been often mistakenly taken for escaped or wild reindeer by the Komi, who unlike the Sami kept watch over their reindeer summer and winter alike. Sami's reindeer, therefore, were quite often included into the Komi's herds. As a result, the Sami's flocks were constantly decreasing, while the Komi's herds kept expanding. Eventually, it was a common practice that the Sami and Nenets worked as herdsmen for numerous wealthy Komi. Of course, there were also independent and relatively wealthy Sami, but they were in the minority compared to the Komi. All those factors pushed out the ecologically balanced Sami form of reindeer herding, leading to their social downgrading well before the October Revolution.

2.1.4. Sami self-determination pattern and its abolishment

It is also worth mentioning that in Tsarist (pre-revolutionary) Russia, the Sami of Kola Peninsula had their own administrative territory, which was referred to as "Kola-Lapp district". This district consisted of four administrative areas, which in their turn included several sijts. The so-called Kola-Lapp district was managed by the assembly of the representatives elected by the Sami people themselves: four representatives from each of the four administrative areas, one representative from each sijt and a representative of the Tsar government. Therefore, the assembly acted as an arena for negotiation between the government and Sami people and was used as a mechanism to solve economic, social, and family questions as well as to handle conflicts between communities. This system ensured protection of the Sami cultural interests and traditional customary laws. It is also a proof of the existence and acknowledgement of the specific Sami self-determination pattern, which existed on the Kola Peninsula in the late 19th century (Afanasyeva, 2013:17-18).

The October Revolution of 1917, which overthrew the Russian monarchy, resulted in the collapse of the Russian Empire and the rise of the Civil War in 1917-1923 has, however, changed national political attitudes and ideologies towards the indigenous people of Russia, including the Sami people (Afanasyeva, 2013:19). Consequences of the October Revolution for the Kola Sami people are discussed in the next section of this chapter.

2.2. Nature use of the Kola Sami after the 1930's

2.2.1. Under the policy of collectivization

After the October Revolution of 1917, the Soviet Union's state policy focused on establishing a socialist state and building a socialist society. From the Soviet perspective, this kind of development required certain changes. Thus, liquidation of private property in favour of joint ownership, which is much easier for the state to control, was seen as a priority direction. Joint ownership was proposed as an alternative to private property, and assumed consolidation of individual farms into collective ones. The policy of establishing such collective ownership enterprises is also known as collectivization. This measure was believed to facilitate intensive development of agriculture and significantly boost rural economy (Afanasyeva, 2013:19-20).

Thus, the period between 1920's and 1940's was marked by establishment of state collective farms called "kolhoz" all over the Soviet Union. Following the concept of kolhoz, all its members were required to give possession over their private property (usually cattle, households, and land) to the collective farms (Afanasyeva, 2013:20). It is worth mentioning, however, that the members of collective farms were still allowed to keep a small number of private reindeer within the state herd (Allemann, 2013:69). All kolhoz members were supposed to work hard to achieve the boost of the local resource economies. The Sami and other indigenous peoples of the North were most often engaged into fishing and reindeer meat production (Afanasyeva, 2013:20). According to the data from Economic Census of the Circumpolar North of the USSR (1926), the main sources of income in the Sami households included reindeer herding (29,8%), fishing (33,8%), hunting on land and sea (10,9%), other incomes (22,5%) (Gutsol et al., 2007:23-24). The other activities included pearls trade and transportation of goods with reindeer (Afanasyeva, 2013:20). In addition, conventional breeding of cows, sheep, pigs and goats was also typical for the collective farms of the Kola Peninsula (Allemann, 2013:69).

For Lovozero, reindeer herding had bigger importance, than for other settlements. By the end of 1930's, 98% households of Lovozero were a part of the "Tundra" kolhoz. Initially those were 46 Komi households, 9 Nenets households, and 3 Sami households (Gutsol et al., 2007:49).

Altogether 13 collective farms were organized on the Kola Peninsula as the result of the Soviet policies (Afanasyeva, 2013:21). Tero and Kaisu Mustonen (2011:72) point out that the establishment of collective farms destroyed the ownership of lakes and discouraged traditional Sami fishing. Additionally, as reindeer became the state property, herding was systematized with brigades of herdsman working as employees on a shift basis. Their wives could either join them to help in cooking and cleaning or could choose to stay in the settlements working at collective farms. If both parents worked in the tundra, the children had to stay in boarding schools. Of course, not every mother wanted to leave her children to boarding schools, and mothers often stayed in the settlement. In any case, however, reindeer herders' families were torn apart, and traditional knowledge was no longer passed on as children no longer lived with the reindeer herders all year. Thus, children and young people did not learn the profession of reindeer breeder from their fathers (Allemann, 2013:68, 95, 124; Mustonen, 2011:88).

It is, however, worth noting that reindeer herders' children, who went to boarding schools, were able to spend summer holidays with their parents, who worked in tundra. Yelena mentions that many of her age-mates used to spend all summer month with their parents in tundra and all the younger children of pre-school age used to be with the parents for the whole time.

Yelena: We⁴ lived in Lovozero, and our parents⁵ were working in tundra. The families that time were big: with 7-8 children! Parents used to leave for tundra in April and come back only in December. In the beginning of summer, they would send someone for us. So to say, the babies were with them all the time, and the children, who attended school, were picked up in the beginning of summer and brought back in August.

Of course, summer trips to the tundra for a glimpse of the reindeer herders' life could not replace the full-time training to become one. However, I believe that such experience has contributed to formation of deep ties with nature and the perception of nature use an important element of the Sami culture, which will be further discussed in chapter 3.

The period between 1931 and 1938 had been, perhaps, the hardest people for the citizens of the Soviet Union. During this time many people were subjected to forced collectivization: confiscations of land, property, monetary savings, etc. People, who protested taking their private property or who still preferred the semi-nomadic life, were referred to as "kulaki", which meant affluent, having more than everyone else, and not willing to share. In protest, some reindeer herders were slaughtering their own reindeer to avoid giving them away to collective farms.

⁴ Children (author's note)

⁵ Reindeer herders (author's note)

Such people were then accused of counterrevolutionary activity and subjected to political repressions. During the 1930's over 100 Sami people were executed, sent to the labor camps or prisons in connection to this. Often those were the most skilled reindeer herders and the community leaders (Afanasyeva, 2013:20-21, Allemann, 2013:73, Kuchinskiy, 2012:150).

2.2.2. Relocations and their consequences for the Kola Sami

The semi-nomadic life of Sami people was seen by the Soviet Union's government as "backward" and not promising. Sami people, therefore, were constantly referred to as a dying-out ethnic group in contrast with the Komi people, whose sedentary methods of reindeer herding were preferred by the Soviet Union. The Soviet government argued that reaching the aim in establishing a socialist state was not possible without overcoming the so-called "primitive" indigenous cultural and economic traditions of nomadic lifestyle. Therefore, collective farms also had a purpose of accustoming nomadic peoples to a sedentary way of life (Afanasyeva, 2013:20-21; Allemann, 2013:68-74).

In order to implement this plan the state undertook the initiative of merging the Sami's winter and summer settlements, which took place in the beginning of collectivization (between 1931 and 1938). Many of the Sami's winter settlements were closed and their population was relocated to larger, year-round settlements, such as Varzino, which were founded directly on the coast to ensure better access to the traffic routes and the year-round ice-free sea route connecting many places on the Kola Peninsula. People were however, unhappy with their new places of residence, as their opinions and knowledge of the local peculiarities of climate and vegetation were disregarded. In particular, coastal areas were not suitable for winter residence – the north coast is almost entirely destitute of trees, which means a lack of protection from the icy winter winds and lack of firewood (Allemann, 2013:69-71).

Those, however, were not the only changes introduced in regard to the Sami settlement pattern. The second wave of resettlements occurred during war periods. As the Russian-Finnish conflict of 1939-1940 resulted in the change of the Russian-Finnish boundary pattern, many Sami had to leave their villages. Moving away from the German-Russian frontline during the Second World War was another reason for relocations (Allemann, 2013:77-80).

The third and final wave of resettlements was from the 1950's to the 1970's and has resulted in closure of more than 40 settlements. The official reasons were the enlargement of the most important collective farms, with smaller collective farms classified as "unproductive" and closed. Allemann (2013:84), however, argues that the true reasons for liquidation of small Sami

settlements were military and industrial interests. He points out that almost all the settlements that were liquidated (Yokan'ga, Varzino, Lumbovka, etc.), were located on the Barents Sea coast – the strategic area, where the Soviet Union bordered Norway – a NATO country. Therefore, Allemann (2013:84) believes that removing civilians from the coastal area of the Barents Sea had to do with establishing military bases in that area. Additionally, the growing demand for energy encouraged construction of several hydroelectric power plants on the Kola Peninsula. As a result, Ivanovka and Voronye settlements were flooded. Several Sami settlements also stood in the way of the powerful mining industry. Gutsul et al. (2007:6) believes that industrial activities on the Kola Peninsula have resulted not only in separation of the Sami people from their traditional nature use areas, but also in significant ecological degradation of the whole peninsula. (Afanasyeva, 2013:24; Allemann, 2013:80-84; 129-130, Gutsul et al., 2007:6)

In this way, resettlements of the Sami between the 1930's and 1970's involved an estimated 70-80% of all the Sami residing on the Kola Peninsula. All the modern Sami settlements were founded after 1917 (for example, Chudz'yavr and Krasnoschelye) or redesigned in accordance with Soviet urban planning concepts. The Sami born in Lovozero and Sosnovka were the only ones not subjected to resettlements. Lovozero, however, was affected in a different way: it became a major place of centralization of the Sami people on the Kola Peninsula, as the majority of Kola Sami were relocated into this settlement (Allemann, 2013:89; Gutsul et al., 2007:48).

Allemann (2013:91) mentions that relocations to the new settlements, including Lovozero, which attempted to concentrate people compactly on a small territory, have had tremendous consequences for the Kola Sami. Thus, Lovozero gathered together not only different ethnic groups, such as Russians, Komi, and Nenets, but also Sami from different sijts, who spoke different dialects. Some of them found it difficult to communicate with one another in Sami. In this situation, the Russian language gained a new importance. This has only encouraged the repression of the Sami language. Additionally, most people, who were resettled to Lovozero, had no new homes to live in. Many people had to live for years either in confined spaces with relatives or in abandoned houses and barns. As Allemann (2013:101) notices, “homelessness at that time did not mean living on the street, but as having to live in overcrowded conditions with friends or relatives” (Allemann, 2013:91-101).

Many of my informants shared their personal memories about relocations to Lovozero during the interviews, although I did not intend to bring up this topic, which illustrates that the issue of relocations is far from being forgotten.

Anna: I was 2 years old in 1965, when we were resettled to Lovozero, to this one block that was build specially for the Sami people from Voronye [...]. And we lived there – 17 people, if I am not mistaken... or 15 people in one apartment. We slept right on the floor. It was very crowded.

This degrading situation was supplemented by spreading unemployment, which was a taboo subject in the Soviet Union. The government did not acknowledge the problem, and it was not publicly discussed and dealt with. In addition, it was criminalized. The word “unemployment” was replaced by the word “parasitism” or “slovenliness”. No one was allowed to be “idle” and stay away from work, even though practically there was no work available in settlements now overcrowded with people. The government responded to the emerged problem by creating so-called “therapeutic-prophylactic work camps”, where unemployed people were forced to go. Such labor camps practically provided the state with a free work force. Even though people were free after some years of working in such camps, their chance of getting job after being stigmatized as a “social parasite” was close to zero (Allemann, 2013:102-104).

Additionally, by the 1970’s, the reindeer husbandry on Kola Peninsula faced the problem of overgrazing due to unconsidered use of resources. Sedentary reindeer herding praised by the Soviet Union resulted in degradation of grazing areas caused by too heavy anthropogenic pressure on the fragile subarctic ecosystem. This problem was later solved by the transition back to semi-nomadic reindeer herding (Kuchinskiy, 2012:152). The status of reindeer herding, however, was irrevocably altered by the professionalization of reindeer herding, which no longer was perceived as a part of the Sami culture and way of life. This has resulted in the profession being seen as unattractive, because either the men had to live in the tundra for weeks or months at a time without wives and children or, if the wives came along, the children had to live in boarding school. At the same time, the children and young people no longer learned the profession of reindeer breeder from their fathers (Allemann, 2013:91-95).

Allemann (2013:91-92) mentions that starting in the 1970’s “the shock of resettlement gradually gave way to a normal life”, and that many Sami from Lovozero during that time were quite satisfied with their lives: the herdsman were well-paid government employees with high allowances for harsh working conditions, and a well-functioning system of veterinary care was developed. Yulian Konstantinov (2005:5) also enumerates the benefits for reindeer herders during the late Soviet times: annual premiums for fulfillment of plans, cheap air- and land-transportation, free holidays to the south, childcare and health services, and early retirement schemes. Allemann argues that this short period from the middle of 1970’s until Perestroika, is remembered by many Sami from Lovozero as the best times.

2.3. Kola Sami nature use during Perestroika and the post-Soviet period

2.3.1. Perestroika and its implications for the Kola Sami

The word “Perestroika”, which literally means “restructuring”, refers to the period of political and economical reorganization in the Russian Federation under the rule of General Secretary (and later president) Mikhail Gorbachev during the 1980’s (Stephan 1991:35). In the Western world Perestroika is widely associated with the reform of glasnost, which literally means “openness”. The policy of glasnost called for increased freedom of speech, and for the first time attention was paid to the challenges and problems of the Sami that until then could not have been discussed in public. Additionally, under Gorbachev’s rule, one can speak of a “national awakening” of the Kola Sami. In 1989, the Sami Association of Kola Peninsula was founded with the goal of establishing contacts with Sami of Fennoscandia and protecting Sami interests in various fields, including nature use. Following it, there appeared a parallel association - the Public Organization of the Sami of the Murmansk Region (also known as OOSMO). Since the early 1990’s, these organizations have been able to participate in the work of the Sami Council (Allemann, 2013:122-123; Mustonen, 2011:117; Stephan, 1991:45). Nowadays in the Murmansk Region, there are 8 non-governmental associations and 3 non-profit associations, related to the Sami issues (Official portal of the Murmansk Region, A).

Perestroika also promoted reform and rationalization of the existing socialist system of state ownership and contributed to economic liberalization of the country. Thus, from 1989 onwards, certain changes started happening in reindeer herding. There was of course no direct return of nationalized property back to people, but the state farms were reorganized and transformed into agricultural production companies owned by the workforce. This is how the largest reindeer farms of the Murmansk Region today - agricultural production companies “SHPK Tundra” based in Lovozero and “SHPK Olenevod” based in Krasnoschelye - came to be (Allemann, 2013:122-125; Kuchinskiy, 2012:151-152; Stephan, 1991:35).

2.3.2. Being a Sami in a post-Soviet Russia

However, one should not be deluded about the life of indigenous peoples of Russia during and after Perestroika. The period of transition to a market economy in post-Soviet Russia has been difficult and has brought sharp changes to the economic and social conditions of the indigenous peoples of the Russian North. First of all, with the end of the Soviet era, the life of reindeer herders has undergone radical changes. To start with, they have lost all vital benefits that they had during the late Soviet times. Furthermore, state support for the reindeer herding industry

disappeared, but conditions for private entrepreneurship had not formed yet. Thus, reindeer herders got caught in a state of transition from a Soviet centre-planned economy to a post-Soviet market economy. Konstantinov comments that in the early post-Soviet time, reindeer herders occupied the lowest social niche (Nuttal et al., 2006: 678; Konstantinov, 2005:4-5).

In addition, this period resulted in a significant reduction in the population of domesticated reindeer. One of the reasons for that was the adoption of the new Federal Law on Weapons in 1996, which has tightened the rules for possessing firearms. As a result, reindeer herders, who used to have guns for protecting the herd from the predators, no longer received permission to carry firearms. Poachers, on the contrary, managed to preserve their weapons, and the mass hunting of the reindeer began. The economic crisis of the 1990's, low salaries and regular detention of wages has contributed to the situation: poachers also needed to feed their families (Newspaper "Nasha Versiya", 2005).

Not only reindeer herders faced challenges in the early post-Soviet Russia. During the 1990's, the Kola Peninsula, just as the rest of the Russian Federation, found itself the process of redistribution of power and property, which was accompanied by the liquidation of communal ownership. This process is however, known to be poorly controlled, and the results of it were often surprising. Thus, in 1994, the Sami of the Lovozero Municipal District found out that according to the agreement between the authorities of the Murmansk Region, Lovozero and American and Finnish entrepreneurs, the Ponoy River (the largest river on the peninsula, the major salmon fishing spot) had been leased by the latter for a period of 15 years. According to the lease terms, fishing in the river was not allowed even for the Sami, who have traditionally used this fishing area. This has caused significant damage to the Sami households, as reindeer herding at that time was in a crisis, and fishing was an important source of economic support for the Sami. Oparin and Umanskaya (2010:37) mention that as the Sami have lost an annual catch of 40-80 tones of salmon, they had to adapt to the new economic conditions. Thus, some Sami started to establish tourist, fishing and hunting companies. Those companies, however, turned out to be uncompetitive and have gradually stopped its existence (Oparin and Umanskaya, 2010:37).

All this resulted in what was typical for the whole Russia at that time increasing social ills – unemployment, poverty, disease, family breakdown, crime, suicide, and alcoholism. Mortality among indigenous peoples of Russia in general increased by 35.5% in the 1990s. The main risk group for mortality has become young adults, and the main causes of death were injuries, accidents, and suicide (Allemann, 2013:128-129; Vlassova, 2002:33).

2.3.3. New millennium – new changes

Some changes for the Sami people started happening at the beginning of the new millennium. Thus, there have been approved a number of laws securing the interests and rights of the Sami as a part of indigenous small-numbered peoples of the Russian Federation. In 1999, Federal Law № 82-ФЗ On Guarantees of Rights of Indigenous Small-Numbered Peoples of the Russian Federation was adopted by the State Duma⁶. This law embraces such important spheres for indigenous people as land use, environmental protection of the places of traditional residence, socio-economic and cultural development, and protection of traditional lifestyle, economies and activities (Federal Law № 82-ФЗ, Article 8). Following this law, several Regional Target Programmes “Economic and Social Development of the Indigenous Small-Numbered People of the North in the Murmansk Region” have been initiated. For implementation of the Regional Target Programme for 2006-2008, 65,3 million rubles were provided, including 54,2 million from the regional budget. The goals of the programme included: creating conditions for sustainable development of the Sami residing on the Kola Peninsula, complex development of traditional economies, their resource and production capacities, national-culture development, improvement of educational level, etc. (Regional Target Programme “Economic and Social Development of the Indigenous Small-Numbered People of the North in the Murmansk Region” for 2006-2008).

Another piece of legislation - Federal Law № 49-ФЗ On the Territories of Traditional Nature Use of Indigenous Small-Numbered Peoples of the Russian Federation was adopted in 2001. It aims to protect original places of residence and traditional lifestyle of the indigenous people of Russia, preserve and develop distinctive indigenous culture, and preserve biologic diversity in the areas of traditional nature use (Federal Law № 49-ФЗ, Article 4). It is worth highlighting that nature use issues represent a significant part of the legislation in regard to the indigenous people of Russia. Thus, both Federal Law № 209-ФЗ on Hunting and Preservation of Game Resources and on making amendments in some legal acts of the Russian Federation (Federal Law № 209-ФЗ, Article 2.4) and Federal Law № 166-ФЗ on Fishing and Preservation of Aquatic Biological Resources (Law № 166-ФЗ, Article 2.1.6) highlight that taking into consideration the interests of population groups, for whom hunting and fishing respectively are the basis of subsistence, including indigenous small-numbered peoples of the North, Siberia, and Far East of Russia, is among their fundamental principles.

⁶ State Duma in the Russian Federation is the lower house of the Federal Assembly of Russia (author’s note).

Additionally, according to the Article 12 of the previously mentioned Federal Law № 82-ФЗ, indigenous small-numbered peoples of Russia have the right to establish their own kinship communities (“obschina” in Russian language). The same Federal Law defines obschina as a form of self-organization of individuals, belonging to small-numbered peoples and united on the basis of blood kin relations (family, kin) and/or territorial-neighborhood principles. According to the same law, such kinship communities are created with the aim to protect original territories of residence of small-numbered peoples, as well as to preserve and develop traditional lifestyles, economies, and culture (Ministry of Justice of the Russian Federation, 1999).

Since 2002, several federally-recognized indigenous-controlled kinship communities were established by the Kola Sami (Mustonen, 2011:119). Once being registered as an obschina, the community has a right to participate in a competition with other potential users over the land for the purposes of maintaining traditional lifestyle and economies. If obschina gets the right to use the land, it avoids paying fees for it (Bjørklund and Olsen, 2006:7; Mustonen, 2011:119-120). Regional Target Programme “Economic and Social Development of the Indigenous Small-Numbered People of the North in the Murmansk Region”, which is aimed at supporting the traditional Sami households, also supports these new kinship communities. The governor of the Murmansk Region, Marina Kovtun, often underlines that in the framework of this programme, kinship communities receive governmental support from the federal and regional budgets for the upgrading and purchase of facilities, such as snowmobiles, motor boats, etc. (Official portal of the Murmansk Region 2012, B).

It is hard to say how many kinship communities there are in the Murmansk Region today. According to the data from the Official portal of the Murmansk Region (A), there are 29 registered kinship communities⁷. In 2012, Kuchinskiy (2012:153) wrote that most of the communities produce traditional Sami clothing, and 5 communities are involved in reindeer herding. He also mentions that in most instances, the amount of reindeer is small, and reindeer herding has a supplementary role, while the most economically important activity for kinship communities is ethno tourism. Tero and Kaisu Mustonen (2012:119-120) argue that such communities are the possibility of land ownership through federal legislation. It is, however, worth mentioning that the process of obtaining the land for the purposes of maintaining traditional lifestyle and economies is rather complicated, and some scholars believe that the legislation in this regard has not been fully implemented yet (Bjørklund and Olsen, 2006:7).

⁷ This data, however, cannot be considered truth in the last resort, as the Official portal of the Murmansk Region does not mention the date, for which the information was valid.

The topic of nature use carried out in the framework of the modern Sami kinship communities in Russia is undoubtedly a perspective field for study. It is important to note, however, that the present thesis does not encompass this subject due to the limitations of the research conducted on the master degree level. The above-mentioned topic is thus open for future research.

2.4. Conclusion

Having addressed certain historical events that have taken place in the 19-20th centuries, it is possible to distinguish between two turning points in the history of the Kola Sami people. Strictly speaking, those have been crucial moments not only for the Kola Sami people, but for all living in the country. These turning points have had a significant influence on the existing system of nature use and to a great degree have determined the current situation in this regard.

The October Revolution of 1917 is the first turning point. With the overthrow of the Tsarist regime, the Sami self-determination pattern was abolished, and replaced by the attitudes of disregard for Sami people's opinions. What is more, the policy of collectivization and centralization, which began in the 1930's has brought significant changes to the Sami lifestyle and nature use pattern. First of all, establishment of collective farms destroyed the ownership of lakes and discouraged traditional Sami fishing. Secondly, Kola Sami reindeer herding, which began eroding after arrival of Komi and Nenets people in 1880's, has undergone a complete transformation from being a way of life and a part of culture to a purely professional occupation, which meant that families were separated for most of the time. As a result, such a profession gained a low status. Additionally, during the early Soviet era many skilled community leaders were subjected to political repressions. Furthermore, extensive industrial development resulted in degradation of the ecology in the region. Finally, due to numerous relocations on the Kola Peninsula, the *sijt*, as the old form of Kola Sami settlement and nature resource distribution, has officially stopped existing. Massive resettlements have also resulted in Lovozero becoming the major place of centralization of the Sami people on Kola Peninsula.

Perestroika can be considered the second turning point in the history of the Kola Sami. It is worth noticing that the latter decades before the collapse of the Soviet Union are often remembered as very good times by the Sami residents from Lovozero, mainly because the way of life stabilized and the favourable conditions were created for the reindeer herders of the Kola Peninsula. This favourable period, however, was not very long. People had hardly recovered after the significant changes that the Soviet period brought, when the new changes approached. Perestroika brought not only privatization of the reindeer herding farms and a "national

awakening” of the Sami, but also a number of problems, associated with the economic instability of post-Soviet Russia. Thus, reindeer herders have lost all the benefits and state support that they had during the late Soviet times. This resulted in significant degradation of the reindeer herding as an economic branch, accompanied with reduction in the population of domesticated reindeer and falling status of the reindeer herder profession. Additionally, during the chaos of 1990’s, the Sami lost access to several vital salmon fishing rivers. Generally speaking, the period of economic instability in the post-Soviet Russia has resulted in increased social ills such as unemployment, poverty, disease, family breakdown, crime, suicide, and alcoholism among the Kola Sami.

Thus, it is possible to conclude that the 20th century has been a century of harsh changes for the Kola Sami people. Most of the changes have a social-economic character and are connected to the change of lifestyle and nature use system. Additionally, the region has undergone a significant environmental degradation, which is also directly connected to nature use. The reasons for the changes have been rooted in the external factors, namely the change of power, change of leading ideology, and the following socio-economic reforms.

The new millennium has also brought some changes for the Kola Sami. In particular, those are connected to the developing legislation securing the interests and rights of the indigenous small-numbered peoples of the Russian Federation. Nature use issues are represented in a significant part of the newly developed legislation. The third chapter of this thesis is devoted to discussion of the current situation in regard to nature use in Lovozero and in the region in general, as well as examines the meaning of nature use practices for the Sami residents of Lovozero.

CHAPTER 3. Nature use by the Sami residents of Lovozero: regulations, current situation and meaning

The previous chapter provided an overview of nature use practices of the Kola Sami in a historical perspective. This chapter is devoted to discussion and analysis of the current situation in regard to the nature use by the Kola Sami in the Lovozero settlement and in the Murmansk Region generally. There are several reasons why the chapter to a large degree focuses on the situation concerning nature use and management by the Sami in the Murmansk Region in general. First of all, nature use of the Sami residents of Lovozero often expands beyond the borders of the settlement, and is, therefore, a subject to a larger discussion. Additionally, available data often does not focus on the Sami residents of Lovozero only, but on the Kola Sami in general. Thirdly, the legislation related to nature use for Lovozero usually concerns the whole region.

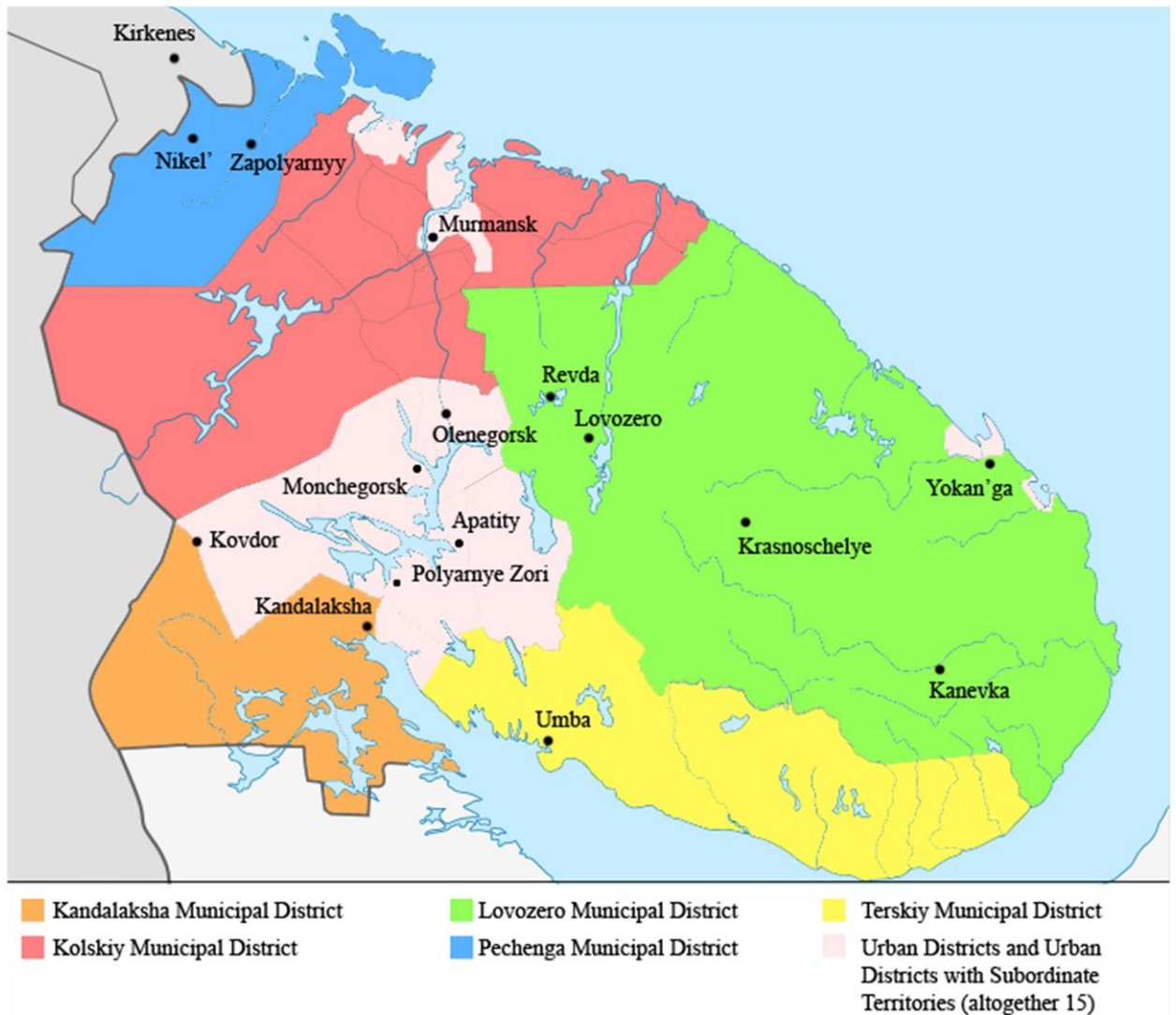
The main ambition of this chapter is to describe how, where, and according to what laws and regulations Kola Sami, and especially the Sami from Lovozero, practice nature use. The arguments are based on the written materials on the topic, data from interviews with informants and legislation in regard to nature use in the Russian Federation. Information available from the literature is complemented with informant's statements to make the picture complete.

The chapter starts with a description of Lovozero today, and proceeds with discussion of the current situation regarding the most important types of nature use for the Sami people of Lovozero, namely reindeer herding, fishing, hunting and gathering. It is worth mentioning that the sections in regard to hunting and gathering turned out to be shorter than the sections devoted to reindeer herding and fishing. This is explained by the fact that there is generally less focus on these types of nature use. The chapter culminates with discussion of the meaning of nature use practices for Sami residents of Lovozero.

3.1. Lovozero today

The Kola Peninsula belongs administratively to the Murmansk Region, which comprises approximately 144,000 km² and is divided into five municipal districts. Lovozero Municipal District is the biggest of them, with a territory of around 52,000 km² (see map 3). The administrative center of the municipality is the settlement of Lovozero, which is a twin town to Norwegian Karasjok (Official portal of the Murmansk Region, B).

Map 3. Administrative map of the Kola Peninsula



Lovozero shares its name with the nearby lake Lovozero – the fourth largest lake in the Murmansk Region (over 200 km²), and a lake out of which Voronya river flows out. The settlement is located on both sides of the small river Virma (see photo 1), which flows into the Popovskoye Lake. All these water basins are important fishing areas for the local population. One of the major employers for the residents of Lovozero is the agricultural production cooperative “SHPK Tundra”, the main focus of which is reindeer herding, reindeer meat processing, and manufacture of clothing and souvenirs from reindeer fur. Besides fishing and reindeer herding, the local population is to a certain degree involved in hunting and gathering, which will be discussed in more details later in the course of this chapter (Official website of the Administration of Lovozero Settlement).



Photo 1: Lovozero on the both coasts of Virma River in May 2013.

Lovozero is often referred to as the “Sami capital” of the Kola Peninsula. According to the results of the Russian national census in 2010, 725 people out of 3406 inhabitants of Lovozero, have identified themselves as Sami⁸. That means that the Sami compose about 21,3 % of the population in Lovozero. The other nationalities include Russians (1373 people), Komi (925 people), Komi-Izhems (442 people), Nenets (86 people), Ukrainians (76 people), and nationalities, whose representatives in Lovozero account less than 50 people: Belorussian, Kabardian, Mordovians, Pomors, Tatars, Germans, Azerbaijanians, Kazaks, Korelians (Federal Service of State Statistics, 2013:569). It is also worth mentioning that according to the same national census, there are 1599 people, who identify themselves as Sami in the whole Murmansk Region (Federal Service of State Statistics, 2013:254, 443). Besides Lovozero, Sami people also live in the villages of Krasnoschelye, Kanevka and Sosnovka, the city of Murmansk, Kolskiy Municipal District and the urban district of Kovdor (Bjørklund and Olsen, 2006:6).

Cultural life of Lovozero is mainly represented but not limited to the Museum of Local History, Recreation Centre and a lavvo-shaped National Cultural Center, which has become the business card of the settlement. Every spring Lovozero hosts festival called “Prazdnik Severa”⁹ with traditional reindeer races. The festival is very popular and attracts guests not only from the neighboring settlements, but also from the capital of the region. June is the time of the

⁸ It was decided to use data from 2010, as it is the latest official and trustworthy data on this issue. The more recent data is often controversial, and therefore, cannot be considered reliable.

⁹ Literally means “Celebration of the North” (author’s note).

“Traditional Sami Games”, which have been held annually since 1985. The “Games” include competitions in lasso casting, crossbow shooting, rowing, and the specialty: Sami female football. Additionally, annual open-air rock festival “Na Rogah”¹⁰ takes place in Lovozero in June and hosts young rock bands from all over the region (Official website of the Administration of Lovozero Settlement, Informational Center of the Finno-Ugric Peoples “Finugor”, A).

My impression of Lovozero has undoubtedly been influenced by my background as a young Russian from the neighboring city of Murmansk, which made me often unintentionally compare the two settlements, and by the fact that I have been to Lovozero before for various culture-related events. Being in Lovozero with the research mission, however, made me reflect upon some small things that I would have not paid attention to otherwise. Using the method of



Photo 2: Curious stray cat in Lovozero

participant observation, mentioned in chapter 1, I was focusing on perceiving every-day reality through the “glasses” of a researcher. As a result, I have come up with some interesting observations. For example, I noticed lots of stray cats and dogs in Lovozero. People give names to them, feed them and treat them as if they are collective (see photo 2). To be honest, I liked this attitude. It made me feel that animals too are somehow part of the community. Throughout the whole period of my visit to the settlement, I felt safe and welcomed. People were nice to me, and seemed rather open. The village charmed me with its quietness. It is so small that I

never needed transport, but could walk anywhere I wanted. Though, there is a widespread opinion that alcoholism is a serious problem of small settlements like Lovozero, I haven’t observed anything related to this issue. Neither have I observed beggars or homeless people, who are not rare in my hometown Murmansk. I should, however, mention, while I was in Lovozero, a young man committed suicide for the unknown reasons. This might be an indicator of some inner community problems that are not visible to the short-term visitor.

¹⁰ Literally means “On the horns”, and has a phraseological meaning “Drunk, partying and having fun” (author’s note).



Photo 3: Lovozero is a settlement of contrasts. On its territory it combines both rural and urban landscapes.



Photo 4: This block of apartments was built especially for the Sami people relocated from Voronye settlement. Beyond the block one can see the pipe of Lovozero boiling station.

The further sections of the chapter proceed with a discussion of the current situation regarding the most important types of nature use for the Sami residents of Lovozero, namely reindeer herding, fishing, hunting and gathering. It is worth mentioning that nature use in Lovozero has lost its original importance as a source of subsistence, as the majority of population is involved in wage earning employment, receive salaries and obtain food from the shops. The attempts to determine the current meaning of nature use for residents of the settlement is provided in section 3.6. of this chapter.

3.2. Reindeer herding

As it was discussed in the previous chapter, reindeer herding has traditionally taken a large place in the life of the Kola Sami. Today, reindeer herding in the Murmansk Region is determined by the Law of the Murmansk Region on Northern Reindeer Herding in the Murmansk Region (2002). According to the Article 5.1 of this law, the priority right for reindeer herding is given to the indigenous small-numbered peoples of the North and ethnic minorities residing in the Murmansk Region, original culture and lifestyle of whom includes reindeer herding. This definition embraces the Sami, Komi and Nenets people. Additionally, Article 9 of the law mentions state support of the reindeer herding. The state support includes financial support, fire protection of reindeer pastures, and population regulation in regard to animals which cause harm to reindeer herding.

The main employer and provider of the reindeer economy in Lovozero is “SHPK Tundra” (Mustonen, 2011:100). As it was mentioned in the previous chapter, agricultural cooperative companies in Russia date back to the Soviet times, and represent reorganized state farms. The grazing lands belonging to “SHPK Tundra” along with the other company “SHPK Olenevod” based in Krasnoschelye, occupy almost all the territory of the Lovozero Municipal District, as well as some territories of the nearby municipalities (see map 2) (Konstantinov, 2005:7). According to the official data from 2005, “SHPK Tundra” owns 28,700 reindeer (Regional Target Programme “Economic and Social Development of the Indigenous Small-Numbered People of the North in the Murmansk Region” for 2006-2008). This information somewhat corresponds to the data acquired from informants Yuriy and Nadezhda, who mentioned that “SHPK Tundra” and “SHPK Olenevod” own each around 25 thousand reindeer. It should be noted that estimating precise number of reindeer in either cooperative company, or the region in general is quite challenging due to the lack of available official and trustworthy information.

It is also hard to determine the exact number of the Sami from Lovozero who are involved into reindeer herding today. Bjørklund and Olsen (2006:10) argue that none of the reindeer herding companies in the region can be considered indigenous, as the majority of employees are Russians or other non-indigenous people. In 2005, Konstantinov (2005:8) writes that the number of Sami reindeer herders in Lovozero was less than a hundred. In 2010, Oparin and Umanskaya (2010:39) mention that officially not more than 13% of the Sami from Lovozero are involved in the reindeer herding (which makes around 94 people assuming that the population of Lovozero is 725 people). According to the information from the Barents Observer for December 2013, there are approximately 60 people occupied in the “SHPK Tundra” today (Barents Observer 2013, A). Precise numbers of Sami reindeer herders in Lovozero remains, thus, undetermined within the

framework of the present thesis. However, if the above-mentioned data is correct, it appears to be a trend that the number of Sami reindeer herders in Lovozero is decreasing.

Since the Soviet times, reindeer herders work in brigades on a salary-based system (Oparin and Umanskaya, 2010:38-39). Tero and Kaisu Mustonen (2011:100) wrote that there were 9 brigades in “SHPK Tundra”. According to the information from Anna (2013) and the Barents Observer for December 2013, there are 7 brigades left in 2013. Even though “SHPK Tundra” receives state subsidies (10 million rubles every year), some reindeer herders claim that this amount of money is too little to make the husbandry efficient (Barents Observer 2013, A).

It is also worth noting that it is a common practice for reindeer herders to have their own reindeer. Generally, the number of private reindeer, which belong to the herders, does not exceed 10 per reindeer herder, however, some herders own up to 100 and more heads. Private reindeer are grazed together with state/company owned ones. This practice dates back to the Soviet times (Kuchinskiy, 2012:151-152) (see chapter 2, section 2).

As it was mentioned in the previous chapter, it is also modern Sami kinship communities (obschina) that practice reindeer herding amongst other activities. It is worth to highlight, however, that there is a significant lack of official and trustworthy information in regard to kinship communities in general and reindeer herding by kinship communities in Lovozero in particular. As it was mentioned in the previous chapter, the present thesis does not focus on nature use by kinship communities, so this topic remains open for future research.

Reindeer herding on the Kola Peninsula today follows the Sami pattern of free grazing, described in chapter 2. It is worth mentioning that even though this system has been considered as “backward” and put aside by the early Soviet leaders, it proved to be the optimal grazing pattern on the Kola Peninsula. In 1970’s, after the region faced the problem of overgrazing, free grazing was reemployed as a practice (Kuchinskiy 2012:152). In summer, reindeer are grazed on the shore of the Barents or White Sea. Approximately in September, reindeer start moving inland, where they are gathered by herders. By the end of December, all the animals are taken to autumn-spring grazing areas further from the coast, to the forest tundra. There they are gathered in corrals, counted and divided between different households and brigades according to ear marks of reindeer. Some reindeer are selected for slaughter. It is customary to start slaughter as strong frosts set in. Formerly, it used to take place in the end of December, but in the recent years the frosts come later, and people have to wait until February (the issue of changing climate will be discussed in chapter 4). The other animals, which are not subjected to slaughter, are driven to the winter grazing areas, to the forest zone, where they stay under the supervision of

herders, who take shifts. One winter shift lasts from 10 days to 2 weeks. During this time, two herders live in a hut or reindeer herding base in tundra. As snow begins to melt (end of March – beginning of April), the reindeer are taken to autumn-spring grazing areas. Beginning of May is the calving period, when herders protect newborn calves from predators. In the end of May – beginning of June calves get earmarks, and in June all the reindeer are released for free grazing¹¹ (Bjørklund and Olsen, 2006:9; Oparin and Umanskaya, 2010:46; Kuchinskiy, 2012:152).

The profession of reindeer herder in the Murmansk Region today deals with a number of difficulties. The biggest of them is, perhaps, poaching, which causes drastic losses of private and company owned reindeer. Additionally, the work of the reindeer herder is associated with low salaries and manpower shortage. These issues will be a subject of discussion in the next chapter.

3.3. Fishing

Another important branch of traditional household for the Kola Sami in general, and Sami living in Lovozero in particular, is fishing. Fishing in the Murmansk Region is regulated by the three major documents: The Federal Law № 166-ФЗ¹², The Fishing Regulations for the Northern Fishery Basin (2009), The Law of the Murmansk Region №376-01-3MO¹³. These documents vary in size and amount of details, but being combined, represent an extensive number of rules.

First of all, it is important to mention that Article 18 of the Federal Law № 166-ФЗ distinguishes between fishing grounds and water objects of the common use. Fishing grounds represent water objects, leased to private entrepreneurs or legal bodies for various reasons. Most often those reasons are recreational and sport fishing¹⁴ (especially salmon fishing). Fishing in such fishing grounds for all the citizens, thus, requires buying a special voucher¹⁵ (Committee of Fishery of the Murmansk Region 2014; Federal Law № 166-ФЗ, Article 18). It is also worth mentioning that harvesting of Atlantic salmon and king crab for the purpose of recreational and sport fishing in the Murmansk Region is allowed only upon obtaining the above-mentioned voucher (i.e. only in the fishing grounds) (Fishing Regulations for the Northern Fishery Basin, paragraph 79).

Recreational and sport fishing in the water objects of common use of the Murmansk Region is not prohibited, does not require permission, and is free of charge for all citizens, including the

¹¹ The above description of reindeer herding practices has a general nature, as it is not the ambition of the present thesis to give a detailed description of the reindeer herding techniques.

¹² Law on Fishing and Preservation of Aquatic Biological Resources (2008).

¹³ Law on Recreational and Sport Fishing in the Murmansk Region (2002).

¹⁴ In this text: fishing for personal use and for recreational purposes (author's note).

¹⁵ A document confirming entering into agreement about provision of services in the sphere of fishing (author's note)

Sami people (Law of the Murmansk Region №376-01-3MO: Article 2). All fishermen must follow regulations in regard to species prohibited for harvesting (rare and endangered species), restrictions concerning places of fishing during certain time periods, the minimal size of caught species, allowed fishing gear, etc¹⁶.

In addition to being able to fish freely in the water objects of common use along with the regular citizens, the Sami people, both individuals and kinship communities, have a right to apply for special catch quotas. Firstly, they can apply for the so-called “permission for the harvesting of aquatic bioresources, for which total allowable catches is undetermined¹⁷” for maintenance of traditional lifestyle and traditional economic activity (Committee of Fishery of the Murmansk Region 2013 B). For the traditional fishery in 2013, 15 Sami individuals and 3 kinship Sami communities have been granted a total quota for 20,8 tones of aquatic bioresources, for which total allowable catches is undetermined. Those species are perch, pike, burbot, trout, European cisco, smelt, roach and char¹⁸ (Progress Report on the Activities of Committee of Fishery of the Murmansk Region 2013:5; Order № 54 of the Committee of Fishery of the Murmansk Region).

Secondly, the Sami people have a right to apply and receive the quotas for fishing the species, for which total allowable catches is determined (valuable fish species): cod, haddock in the Barents Sea and cisco in the inland water bodies (Committee of Fishery of the Murmansk Region 2013 A). In 2012, the Committee of Fishery of the Murmansk Region received 1,143 applications from Sami (including individuals 8 kinship Sami communities). As a result, the Sami people of the Kola Peninsula have received a total quota for 300 tones of cod, 75 tones of haddock, and 12 tones of cisco for 2013 (Progress Report on the Activities of Committee of Fishery of the Murmansk Region 2013:5).

It is also worth noting that in terms of such quotas, the Sami have the right to use traditional fishing methods, which include fishing with nets, while for the other groups of population fishing with nets is not permitted for recreational and sport fishing. Thus, additionally to the unlimited fishing with generally permitted fishing gear in the water objects of common use, the Sami people, both individuals and kinship communities, have a right for special catch quotas, which lets them to fish with both fishing nets and other gear (Fishing Regulations for the Northern Fishery Basin, paragraph 83.1 and 109).

¹⁶ For more detailed information see Fishing Regulations for the Northern Fishery Basin.

¹⁷ Article 16.5 of the Federal Law № 166-ФЗ distinguishes between fishing the species, for which total allowable catches is determined (limited according to the legislation) and fishing the species, for which total allowable catches is undetermined (not limited, but recommended).

¹⁸ See Appendix 1 “Equivalentents for the names of fish species”.



Photo 5: Fishing with nets in Lovozero Lake.

Informants from Lovozero mention that there are many Sami in the settlement, who fish. The most common places for them to fish are Popovskoye Lake, Lovozero Lake, Virma River, Sergevan River and Voronya River (except for spawning period). Traditionally, in Lovozero Lake there have been such fish as cisco, grayling, pike, perch, and burbot¹⁹. Opinions about the quality of fish are divided among informants: some consider the quality of fish to be good or satisfactory, and some are concerned with fish size and quality and claim that there is less variety of fish in the recent decades. This issue will be discussed in more details in the next chapter.

Salmon fishing has been a very special topic since the times of Perestroika. As it was mentioned in the previous chapter, during the 1990's a number of tourist fishing camps were established on the salmon rivers, which were among Sami fishing spots. Upon the established conditions, the Sami have been permitted to fish in the areas, leased by these companies only after obtaining a special voucher, which in practice is too expensive for the Sami to afford. The conflict of interest between tourist fishing companies and the indigenous people has for a long time been acute. Today, the Kola Sami have the right to apply for a special quota for salmon. According to the Federal Fishing Agency (2012), the Sami receive a quota for over 15 tones of salmon every year (Informational Center of the Finno-Ugric Peoples "Finugor", B). The issues related to fish catch quotas are, however, surrounded to constant controversy in regard to the implementation of quotas. These matters will be a subject of discussion in chapter 4.

¹⁹ See Appendix 1. Equivalents for the names of fish species

3.4. Hunting

Hunting in the Murmansk Region is regulated the Resolution № 186-III²⁰ and the Federal Law № 209-ФЗ²¹. The latter emphasizes that one of its main principles is taking into consideration the interests of people, for whom hunting makes the basis of subsistence, including indigenous small-numbered peoples of the North, Siberia, and Far East of Russia (Federal Law № 209-ФЗ, Article 2.4). The same law also distinguishes between assigned hunting areas²² and hunting areas of the common use, which, according to the law, must compose not less than 20% from the total hunting area of the Russian Federation (Federal Law № 209-ФЗ, Article 7.2.).

According to the Article 14 of the Federal Law № 209-ФЗ, recreational and sport hunting in the assigned hunting areas is possible after obtaining a special voucher²³ and permission for the harvesting of the game resources. Recreational and sport hunting in the hunting areas of the common use (the whole Lovozero Municipal District belongs to the hunting areas of the common use) requires only permission for the harvesting of the game resources. This permission can be obtained from the Ministry of Natural Resources and Environment. In order to apply for such permission, one should have a hunting license, a license for possession of hunting weapons, pay official fee (currently 400 rubles), and pay the so-called “tariff for the use of the wildlife objects” (Ministry of Natural Resources and the Environment 2014). According to the Article 333.3 (part 1) of the Russian Tax Code (part 2), the current tariff for hunting brown bear is 3,000 rubles; moose – 1,500 rubles; wild reindeer – 300 rubles; wolverine – 450 rubles; weasel – 60 rubles; wood grouse – 100 rubles²⁴. For comparison, minimum subsistence level for the third quarter of 2013 is 10,241 rubles a month per person (Resolution № 615-III).

Article 19 of the previously mentioned Federal Law № 209-ФЗ, provides special policies in regard of hunting by the indigenous small-numbered peoples of the North, Siberia, and Far East of Russia. The policies arise, however, some controversy. This controversy is discussed in the chapter 4.

Some informants have given comments in regard to the visible changes of the fauna on the Kola Peninsula. It is possible to generally sum up their comments with the common observation of the increased amount of fur game, such as foxes and squirrels, during the later decades. The local

²⁰ Regulation on Approval of the List of Spices Permitted for Hunting and the Conditions of Hunting in the Hunting Areas of the Murmansk Region, excluding Conservation Areas of Federal Importance (2012)

²¹ Law on Hunting and Preservation of Game Resources and on making amendments in some legal acts of the Russian Federation documents (2009)

²² Usually assigned to the governmental, cooperative or public organizations.

²³ A document confirming entering into agreement about provision of services in the sphere of hunting.

²⁴ See Appendix 2 “Equivalents for the names of animal species”.

people themselves explain this by the decreasing value of fur and less demand in fur game as a result. Additionally, it was mentioned that in recent years there is increased number of bears and wolverines. Furthermore, according to the informants the amount of wood and black grouse vary from year to year, while the population of wild reindeer is steadily falling.

Hunting wild reindeer is a special issue. According to the Resolution № 350-III, adopted in 2013, there is a three-year ban for hunting wild reindeer in the Lovozero Municipal District. This ban was set because of the extreme decrease of the number of both wild and domesticated reindeer in the region due to poaching. Poachers hunt domesticated private reindeer under the veil of wild ones, which has contributed to significant decrease of herds. The issue of poaching is discussed in more details in the next chapter.

3.5. Gathering

According to Tero and Kaisu Mustonen (2011:76), gathering of pine tree bark, berries and waterfowl eggs have been incorporated in the seasonal activities of Kola Sami for hundreds of years. Today, gathering is perhaps the only type of nature use, which is not restricted by any limitations, and is, therefore, quite a popular activity. It is worth mentioning that according to Kozlov et al. (2008:66), mushroom picking, which is quite popular among the Kola Sami now, was not typical for them in the first part of the 20th century. This also corresponds to the information obtained from one of the informants.

Anna: My aunt told me that their generation did not use to eat mushrooms in their childhood. It is hunger during the War that drove them to start gathering mushrooms. But otherwise, mushrooms were considered to be reindeer food. And even now: when we gather mushrooms she tells me not to pick up the large ones. She says: those are for reindeer.

According to the informants, mushrooms on the Kola Peninsula grow in abundance. Among the most common ones are such mushrooms as boletus²⁵, orange-cap boletus, birch boletus, yellow boletus²⁶. Among the commonly gathered berries one can name blueberry, cowberry, crowberry, and cloudberry.

²⁵ Are considered to be King Mushrooms, are ones of the most valuable mushrooms in Russia (author's note).

²⁶ See Appendix 3. Equivalentents in the names of berries and mushrooms



Photo 6: Frozen mushrooms on the frying pan in one of the hospitable homes of Lovozero. Freezing mushrooms is a common way of preserving them for the whole year.

It is most often women and children/teenagers that gather mushrooms and berries these days (Oparin and Umanskaya, 2010:47). Most of my informants have been involved into gathering since childhood and do it for personal use. There are, however, people, for whom gathering means more than recreation. Tero and Kaisu Mustonen (2011:76) mention economic importance of berry gathering. According to them, in 1994, 10 tons of cloudberry were exported to Sweden. The price for cloudberry in 2008 was 120 rubles/kg. As Tero and Kaisu Mustonen state, three hundred kg is the average amount for a family to gather in a season. As a rule, people sell gathered berries to the companies, which proceed with selling them to Scandinavian countries.

Anna: Blueberry, cowberry, crowberry, cloudberry – all of these are accepted for money. [...] Some people make their living from cloudberry gathering. Cloudberry is highly valuable. It is well paid for in Norway, Finland. [...] I know that it is exported for cosmetic use, and for making cloudberry liquors. That is why people here earn good money on gathering cloudberry.

According to almost all the informants, who expressed their opinions on this topic, berries have lost their quality, abundance and became smaller in size comparing to several decades ago. Most informants mention that large berries of good quality can be now found only in remote areas, but not close to inhabited localities. Mushrooms are reported to have different taste and appearance around inhabited localities and far from them (in tundra). Informants explain this by local pollution and over-gathering, which they believe take place. Those issues will be discussed in more details in chapter 4.

3.6. Meaning of nature use for Sami residents of Lovozero

Rybråten and Hovelsrud in their article about local experiences of global climate change in the community of Unjarga/Nesseby (Norway) argue that even though natural resource-based activities and different kinds of harvesting no longer provide the same level of livelihood sustenance as years ago, they remain of great importance to many Sami people as economic activities, for recreation, and in people's sense of belonging (Rybråten and Hovelsrud, 2010:315). Having read this, I thought that it would have been interesting to find out in which ways nature use is important to the residents of Lovozero. During personal interviews, all my informants have been asked questions about the meaning of nature use for them. Basing on the obtained answers, I, as a researcher, have distinguished between several major ways, in which nature use is important. I am, however, aware, that several people cannot speak for the whole community. Scholar Marie Battiste also pinpoints that only a comprehensive study can grasp the opinion of a community as a whole (Battiste 2008:505). The present summary, therefore, should be understood in the context of interviewed people and as an attempt to determine the ways, in which nature use is important for the Sami residents of Lovozero.

3.6.1. Individual relationships to/with nature

A great majority of the informants, who chose to speak about the meaning of nature use in their lives, mentioned that nature use is a way for them to be closer to nature and to communicate with it. Many informants mention nature's healing and inspirational powers, stating that nature gives strength, joy, inspiration, helps to relax, and enriches inner world.

Anna: It is only nature that heals me. If I don't travel to nature at least 4 times a year, the year is wasted. In summer we always travel to Voron'ka²⁷ area to live there in chum²⁸ for a week or so. I just have to live in chum! The nature heals me. Sometimes you can just come to the birch, hug it, ask for strength, health... and you have the feeling that it is flowing into you, the strength from the trees. Of course, the tree type matters. Some people feel comfortable with pine tree, some with rowan-tree. I know that the birch matches me. I feel it.

Such attitude to nature allows arguing that nature itself has a deep personal meaning for the Kola Sami people, whom I talked to. Building on that, I argue that nature use has more than simply recreational meaning, but great importance. The deep personal relationship of people with

²⁷ Voronya River (author's note)

²⁸ Lavvo (author's note)

nature and nature use practices also reveals itself as some informants expressed deep sorrow about the change in the essence of contacts with nature.

Yelena: People used to be interconnected with nature, to be one with it. They were doing something they loved and knew how to do, and it filled their lives with joy. When people were separated from nature, their lives have dramatically changed. [...] Nowadays, people mainly travel to tundra because of economical reasons: to come and to take.

Some informants articulate the importance of nature use as of something that forefathers have been doing. This attitude can be interpreted in terms of traditions' continuation and self-identity as a Sami. Additionally, it was often mentioned that the land represents interconnection with forefathers.

Yelena: Now we have an opportunity to travel to the seaside, some other places in Russia. But if I don't go to the tundra, to my places, I don't have the feeling I have been on vacation at all. [...] I know people, who grew up in tundra, people like me. Whenever they have a chance, they also try to travel to tundra, to the places, where they grew up, where their parents lived. Sometimes, you look at the river, see a boat and get the feeling that it is the father, who is coming home.



Photo 7: Heating water for tea. Campfire cooking is an essential part of being out in the nature.

It is additionally worth mentioning both the practical and artistic meaning of the products of nature use, which are widely used by the Sami craftswomen and craftsmen for making household items and traditional clothing. Thus, reindeer bone is a common material for manufacturing handles and scabbards for knives, as well as other small items. Certain parts of reindeer horn are used for making harnesses for those reindeer that carry sleds. Reindeer horn is said to be indispensable for this purpose (Interviews with Anna, 2013; Yelena, 2013; Nadezhda, 2013; Luidmila, 2013).

Reindeer fur and skin are widely used for manufacturing traditional Sami clothes, which is regaining its popularity among the Sami living in Russia these days. Traditional Sami winter clothes are said to be especially appreciated by the reindeer herders, as it proves to be more suitable for the work in cold tundra conditions than any other mass produced clothing. Reindeer sinew thread is considered to be a valuable component when it comes to sewing clothes. Additionally, fish skin is quite commonly used in the Kola Sami tradition of making small items, such as purses (Interviews with Maria, 2013; Luidmila, 2013).



Photo 8: Reindeer fur remains a popular material for the Sami handicraft.

3.6.2. Traditional food as a basis of national cuisine and a source of vital vitamins

Some informants state that nature use is a foundation of traditional cuisine. One of the informants has shared a story about the dish called “Yav” with crowberry that has been traditionally used in the Kola Sami cuisine.

Anna: It is a meat soup, but bones and meat are taken away. You add black flour in this bouillon and it becomes very thick. And then you add crowberries. You eat it with a spoon, just like a soup. It is véry tasty. I tell you this and it makes my mouth waters (laughs).

Additionally, many informants are convinced that traditional diet has a special importance for people who have been eating it for centuries, and is, thus, a source of vital traditional subsistence. Nature use represents, therefore, a method of getting this vital subsistence.

Anna: Only our local berries provide us with the vital vitamins we need. Apples and bananas are of course tasty to eat, but I don't think there is much use from them.



*Photo 9: Freshly-caught fish cooked on the campfire.
Local fish is still an important part of the Kola Sami diet today.*

Yelena: In September-October I always feel craving for meat, for fresh meat. And not beef, pork, or chicken, but specifically reindeer meat. Because it has already become a hardwired desire. It is already a necessity.

This opinion finds certain support in some scientific works. Thus, Kozlov et al. (2008:39) in their book “The Kola Sami in the Changing World” argue that as a result of centuries-long food

habits, human populations develop certain genetically determined ability to assimilate particular types of food, which Kozlov et al. refer to as food adaptation. According to Kozlov et al. (2008:43-47, 58), the traditional diet of the Kola Sami²⁹ included meat, fat and interiors of reindeer and other game animals in wintertime, and various river and lake fish in summer time. Gathering was an additional source of nourishment. Thus, the traditional Kola Sami diet can be characterized by high consumption of protein, significant consumption of carbohydrates, low consumption of fats, sugars and lactose. Kozlov et al. (2008:43-47, 58) claim that centuries-long adaptation to such “arctic” diet resulted in the change of specifics of frequency of genes, which determine the character of metabolism.

According to the results of the 10-year research in Lovozero by Kozlov et al., food habits of the Kola Sami have significantly changed over the last 50 years. Even though the modern Kola Sami diet still to a great degree includes traditional food products, they often give way to rapidly spreading standard products of industrial production and imported food products. A good illustration of this tendency can be the menu of Lovozero secondary school, which in 1995 still included meals of reindeer meat and local fish, while in 2005 became completely “Russified”. Generally the amount of protein in Kola Sami diet has decreased, but is still high, while consumption of fats and sugars has increased more than two times and has exceeded recommended norms (Kozlov et al. 2008:39, 53-63).

This tendency raises a number of concerns. In particular, Kozlov et al. argue that genetic adaptation to this “new” diet is not formed, while genetic adaptation to the old “arctic” diet, which used to work in its favour, often works the opposite way in regard to the “new” diet. Kozlov et al. conclude that in this way development of the new food habits often becomes the reason for various health disorders, the most dangerous of which are diabetes and atherosclerosis (Kozlov et al. 2008:39, 59-67).

3.6.3. Economic reasons

The economic meaning of nature use was least mentioned among my informants. Actually, even though two of my informants stated that they practice berry gathering for both personal and economic use, neither of them have stressed its economic importance for them. This, however, does not mean that gathering or any other type of nature use does not have economic meaning for other residents of the settlement, who did not participate in the study. As it was discussed

²⁹ Kozlov et al. define “traditional Kola Sami diet” as a type of cuisine that the Kola Sami have developed by the end of the 19th century. Even though by that time, the Kola Sami diet has been to some extent influenced by Russians, Pomors, Norwegians, and other people, it was still greatly based on traditional nature use practices.

earlier in this chapter (section 3.5), berry gathering is claimed to bring significant income for some people. Additionally, it is possible to suggest that nature use has indirect economic importance, providing people with food and thus reducing their expenses in this regard.

Additionally, as it was mentioned previously, products of nature use are used by the Sami craftswomen and craftsmen for manufacture of various items, many of which go for sale. Reindeer bone, for example, is a common material for making souvenirs – necklaces, key chains, magnets, statuettes. Additionally, the latest trend made it quite popular to purchase larger handmade items of indigenous design – purses, cell phone bags, bracelets – all made from products of nature use – fish skin, reindeer skin and fur.

3.7. Conclusion

This chapter focuses on discussion and analysis of the current situation in regard to the nature use by the Kola Sami in Lovozero settlement. Lovozero is often referred to as the “Sami capital” of the Kola Peninsula, even though today Sami residents in Lovozero compose only 23,1 % of its total population. Despite the small size of the settlement and its relatively remote location for the capital of the region, it has quite a varied cultural life, and can be described as a nice quiet place. Today, the Sami population of Lovozero is involved in such types of nature use as reindeer herding, fishing, hunting, and gathering.

The majority of reindeer herders in Lovozero are employees of the agricultural cooperative “SHPK Tundra”, which is the main provider of the reindeer economy in Lovozero. This company is not considered to be a Sami enterprise as the majority of its employees are non-Sami. Almost all domesticated reindeer in the region belong to reindeer herding companies. The exceptions are inconsiderable in number private reindeer of reindeer herders and reindeer that belong to modern Sami kinship communities. The amount of those reindeer is, however, undetermined.

Fishing is another important branch of traditional household in Lovozero. According to the existing laws, in addition to the unlimited fishing with generally permitted fishing gear in the water objects of common use, the Sami people have a right for special catch quotas, which let them to fish with both fishing nets and other gear. These quotas vary in terms of fish and the amount permitted for its harvesting. Thus, quotas can be distinguished between quotas for the harvesting of aquatic bioresources, for which the total allowable catches is undetermined (perch, pike, burbot, trout, European cisco, smelt, roach and char), quotas for the harvesting of aquatic

bioresources, for which total allowable catches is determined (valuable fish species: cod, haddock in the Barents Sea and cisco in the inland water bodies), and quotas for salmon fishing.

Recreational and sport hunting in the Murmansk Region can be performed only after obtaining a special permission, which must be paid for, according to the type and number of species, which are to be hunted. Indigenous small-numbered peoples of the North, Siberia, and Far East of Russia, as well as people, who do not belong to the above-mentioned category, but reside in the places of their traditional living and economic activities, and for whom hunting is the basis of subsistence, are granted relief of paying the fee for obtaining the permission to hunt. Additionally, there is a three-year ban for hunting wild reindeer in the Lovozero Municipal District aimed to eliminate poaching of domesticated reindeer and to restore its population.

Gathering is perhaps the only type of nature use, which is not restricted by any limitations, and is, therefore, quite a popular activity. It is most often women and children/teenagers, who are involved in mushroom and berry gathering these days. Berry gathering has economical importance to some people, as cloudberry have a great demand in Scandinavian countries.

The present study has also attempted to determine ways, in which nature use is important to the interviewed residents of Lovozero. Upon the obtained empirical data, it is possible to conclude that even though nature use these days is not the basis of subsistence for the Kola Sami, it is still important in several major ways. First of all, people who practice nature use have maintained individual relationships with nature, in which nature serves as the source of energy, inspiration and relaxation. Additionally, various products of nature use are widely applied by the Sami craftswomen and craftsmen for making household items and traditional clothing, some of which also go for sale and bring thus economic profit. Furthermore, nature use is important as a source of traditional food as a basis of national cuisine and a source of vital vitamins, which is to a certain extent supported by official research. Not the least are the economic reasons. Of course, the majority of modern Kola Sami have salary-based employment and obtain food from the shops. Nevertheless, it is possible to suggest that nature use has indirect economic importance, providing people with food and thus reducing their expenses in this regard. Therefore, it is likely to assume, that nature use is important for the Sami residents of Lovozero as both material and cultural basis.

The next chapter proceeds with the discussion of the factors of socio-economic, administrative and environmental relevance, which impact nature use of the Sami people in the Murmansk Region, and in Lovozero particularly.

CHAPTER 4. Nature use by the Sami residents of Lovozero in the changing socio-economic, administrative and environmental context.

The aim of the present chapter is to describe how factors of socio-economic, administrative and ecological relevance affect nature use by the Sami people in the settlement of Lovozero. Additionally, this part of the study intends to explore the local perceptions of the changing socio-economic, administrative and environmental contexts of the nature use. The chapter embraces theoretical discussion devoted to human social adaptive responses to changes, and aims to identify the coping mechanisms, employed by the local people, who face challenges in regard to nature use. Special focus is given to the suggestions of the local Sami officials in regard to improving the existing adaptation mechanisms.

The chapter starts by addressing socio-economic and administrative context around nature use in the Murmansk Region, and proceeds with ecological and climate-related issues. The material for this chapter is drawn from previous research, official data, and information obtained from the informants. It should be kept in mind that information obtained from the informants represents an emic interpretation of the impact of various factors on the nature by the residents of Lovozero, and the study does not argue that this is the truth in the last resort.

4.1. Socio-economic context

The choice of the issues examined in the present section is stipulated by the information obtained from the informants. Thus, this part of the paper brings to the discussion the most “burning” questions in relation to the nature use by the Sami people in the region generally and in the settlement particularly. The section is organized in parts with each part covering socio-economic/administrative challenges for each particular type of nature use.

4.1.1. Reindeer herding: the issues of poaching and low salaries

One of the major problems associated with reindeer herding on the Kola Peninsula today is poaching. Poaching is not a hidden problem; it is often discussed in the Murmansk Region local mass media. As it was mentioned in the chapter 2, since the end of the Soviet Union the number of poachers has increased dramatically. The reasons for that include poor economical conditions and high levels of unemployment that encourage people to look for alternative ways of providing food for their families, and the appearance of roads in the tundra, which makes reindeer grazing areas easier to enter (Allemann, 2013:128; Kuchinskiy, 2012:154).

Poaching in the Lovozero Municipal District had a dramatic effect on the population of reindeer: the number of reindeer in the region has decreased over 20,000 heads during the last couple of decades. Poachers, who are usually well-equipped and have snowmobiles, do not shoot one animal, but take several. Thus, in 2004, 50 reindeer bodies were found in one place alone. In addition, poachers do not take the whole body, but prefer only the “best” parts – usually the legs, thus leaving lots of waste, which in its turn helps predators to increase their populations, and, thus, causes another problem (Interview with Anna, 2013; Newspaper “Nasha Versiya”, 2005).

For quite a long time the problem of poaching was somewhat ignored, but in the light of critical nature of the situation, some measures were finally taken. Thus, a three-year ban for hunting wild reindeer in the Lovozero Municipal District has been set in 2013 (Resolution № 350-III). Now, when reindeer hunting is illegal in Lovozero Municipal District, shooting reindeer in Lovozero Municipal District automatically means “inflicting harm to the game resources”, which reserves a fee, calculated according to the Order No 948³⁰ of the Ministry of Natural Resources and Environmental Protection. Thus, three poachers, who were caught in February 2014 after having shot two reindeer Lovozero Municipal District, were charged 90,000 rubles fee (Official portal of the Murmansk Region 2014, B).

Proving the fact of poaching is, however, quite difficult. Catching poachers red-handed is rather a matter of luck, than a common practice. Usually reindeer herders find the bodies of already dead animals, and while the police come to the areas of crime, all the traces are lost. Sometimes herders encounter poachers personally, but as they have no right to carry guns for protection of their herds, there is not much they can do. Meanwhile, poachers are as a rule well-armed and pose danger not only to the animals, but also to the people, who get in their way (Allemann, 2013:128; Kuchinskiy, 2012:154). Anna has shared a tragic story connected to poaching.

Anna: Reindeer herding these days is hard. Reindeer don't like small territories. They should be grazed freely or otherwise they get ill. But there are so many poachers! So it's all the time: if it's not the bear, it's the poacher, who is going to kill the reindeer. And reindeer herders are not allowed to carry guns. Oh, we have so many cases like that! In my family³¹ alone, three people were murdered by poachers because of reindeer! My uncle, for example, was found strangled. Along with him 15 reindeer corpses were found: no back legs, and no tongues³². And he did not have a gun. Not even to protect reindeer, but he could not even protect himself!

³⁰ Order on Approval of the Methods for Calculating the Extent of Damage caused to the Environment.

³¹ By family, Anna refers to the large kinship group, which is very typical to the Kola Sami (author's note).

³² When poachers kill reindeer, they take only the most valued parts of its body (author's note).

Poaching is also associated with money losses for the reindeer herders. Thus, if some reindeers from the cooperative farm are missing, the economic loss is divided between the members of brigade.

Anna: Another relative of mine could not effort taking his family for a summer holiday. He received minus 15 rubles³³ as vacation allowance. Why was money withdrawn from him? Because, there lacked 8 reindeer in his herd. So the loss was divided between all members of brigade.

Nowadays the raids against poaching are carried out by the inspectors of the Hunting Supervision of the Ministry of Natural Resources and Environmental Protection. The number of inspectors today is, however, not sufficient to eliminate the problem of poaching in the region (State television and radio broadcasting company “Murman”: 2014, A). Since 2012, there has been talk about establishing the-so called “reindeer police” following the example of Norway and Finland. This idea was initiated by local reindeer herders, Sami leaders, and members of regional parliament, and the discussion has even been forwarded to the federal level (Barents Observer 2013, B; Newspaper “Nasha Versiya” 2005). However, so far talks remain talks, and the problem of poaching has not been solved yet.

Allemann (2013:128-129) argues that drastic losses of reindeer, which are less protected from wild animals and poachers is also a result of herdsmen trying to minimize the time spent in the tundra as much as possible. Reindeer herding is not only hard, it is also poorly paid, making the job unattractive. This also finds proof in the statements from informants:

Anna: Those reindeer herders, who work for cooperative farms receive kopecks³⁴! They work in tundra only because they have their private reindeers that they should graze. If he leaves tundra, his reindeer will be gone immediately! Private farms will not take care of their private herds.

Oparin and Umanskaya (2010:39-41) argue that the profession of a reindeer herder is “getting old”. There are few young specialists among reindeer herders. Even though quite a significant number of young specialists who chose to study reindeer herding graduate from Lovozero Training College No 26 every year, the majority of them choose to work in other spheres than reindeer herding, associated with long shifts of living in tundra. Oparin and Umanskaya (2010:39-41) suggest that the decreased interest of young people in the reindeer herding

³³ A deduction of 15 rubles (author’s note).

³⁴ Phraseological expression, which means: to receive very little money. 1 Kopeck is 1/100 of 1 ruble (author's note).

profession is rooted in the policies during the Soviet time, when reindeer herding stopped being passed from father to son.

As a researcher, I find this opinion valid to a certain degree. When reindeer herding transformed from being a lifestyle to being a job, it undoubtedly lost part of its original meaning. However, I argue that the main factors, which impact people's interest in the profession of a reindeer herder, belong to the socio-economic sphere. Thus, as it was mentioned in chapter 2, in the latter years of the Soviet Union, reindeer herding was a well-paid profession with numerous benefits for reindeer herders during the late Soviet times: annual premiums for fulfillment of plans, cheap air- and land-transportation, free holidays to the south, childcare and health services, early retirement schemes (Allemann, 2013:92). The profession of reindeer herder was prestigious, and as a result – attractive, and this is exactly what is missing today.

In fact, an attempt by reindeer herders to minimize the time spent in the tundra, mentioned by Allemann (2013), and a decreased interest of young people in reindeer herding profession, noticed by Oparin and Umanskaya (2010), can be referred to as short-term coping mechanisms of people, who struggle with the unfavourable socio-economic context of reindeer herding, and seek ways to adapt to it in the best possible way. However, as Perry et al. (2011:13-14) mentions, such strategies of “riding out the storm” are only efficient for the short-term stresses. On the other hand, successful adaptation to the long-term stresses requires engagement of long-term adaptive strategies, which presume more advanced and resilience-orientated adaptation. In the case of reindeer herding on the Kola Peninsula, such long-term adaptive strategies could potentially include improving the working conditions of reindeer herders, bringing salaries for this hard labor to an adequate level, and solving the problem of poaching. A three-year ban for hunting wild reindeer in the Lovozero Municipal District has been a first step in this direction. The next step might be introducing reindeer police, which has been discussed for the past several years. Together, these attempts might significantly improve the situation in regard to poaching in the region. In addition, it is possible to assume that these measures would also help to recover the status of the reindeer herder's profession and contribute to the elimination of the problem in relation to the lack of the young Sami, who choose this profession.

4.1.2. Fish catch quotas: bureaucratic obstacles and problems in implementation

As it was mentioned the previous chapter, Kola Sami have a right to apply and receive the quotas for various fish. The application procedure is, however, associated with a number of bureaucratic obstacles. First of all, fish catch quotas are valid for one year, and applications for quotas,

therefore, must be submitted every year (for example, in 2013, one applies for obtaining fish catch quotas for 2014). In order to apply, one must submit an application to the Fishery Industry Committee (FIC) and attach a number of documents. The FIC is located in Murmansk, while the majority of the Sami lives in other settlements, and people do not always have the opportunity/can afford travelling to Murmansk. Some organizations take a mediation role in this issue and apply for quota collectively (on behalf of many other Sami, who for different reasons cannot come to Murmansk themselves). Sometimes, the cost of such meditation is up to 1500 rubles, and the Sami end up losing money in the course of such practice (Interview with Valentina Sovkina, 2013; Kuchinskiy, 2012:153).

Thus, Kuchinskiy (2012:153) describes a conflict that occurred around catch quota in 2011. OOSMO applied to the FIC with over 700 applications, but the FIC responded with a rejection. It was argued that the applications were submitted after the deadline and were completed incorrectly: those, who applied had mixed applications for catch quota and the proxy notice relating to the further sell of fish. Kuchinskiy (2012:153) highlights that this illustrates underdevelopment of the legal framework between the Sami people and the representatives of administration.

Today, one can see the attempts to ease the system and make it more accessible. Thus, in 2013, the residents of Lovozero received assistance in regard to filling in quota applications. Members of the Fishery Industry Committee took a trip to Lovozero in order to meet with residents of Lovozero and collect their quota applications. This practice is planned to be implemented on a regular basis (State television and radio broadcasting company “Murman”: 2014, A).

Valentina Sovkina, Chairperson of the Sami parliament in Russia and a local resident of Lovozero, agrees that bureaucracy is a serious issue. During our talk, Valentina suggested ways, which she believes could improve the existing system. Valentina suggests that bureaucratic obstacles associated with the process of application for fish catch quotas can be eliminated by introducing a special register, which would represent a name list of all those, who have the right for receiving the quotas. Thus, people would apply and submit the necessary documents once and for all, instead of going through the same procedure every year. All the newborn and passed away Sami are registered through the Civil Registry Office, which would provide this information in order to update the lists of those, who should receive quotas.

Bureaucracy is, however, not the only issue related to fish catch quotas for the Sami people of Russia. Another, and perhaps more urgent problem concerns implementation of quotas. Thus, as it was discussed in the previous chapter, the Kola Sami have a right to apply and receive the

quotas for harvesting fish from the Barents Sea, namely cod and haddock (Committee of Fishery of the Murmansk Region 2013 A). According to the information from the Official portal of the Murmansk Region 2014 (A), 1066 Sami (including 4 kinship communities) have received this quota for 2014. On the average, each Sami received quota for fishing 280 kg of cod, and 70 kg of haddock for 2014, which seem to be quite impressive. It is, however, a tricky issue.

Harvesting 280 kg of cod from the Barents Sea can be somewhat hard without a fishing vessel, and no Kola Sami have one. Additionally, elder Sami population might find it very challenging to go sea fishing themselves. As a result, a special system was developed. According to this system, public organizations and kinship communities gather quotas from people and employ a fishing company in order to obtain this quota and fish according to it per power of attorney. Of course, a fishing company receives certain payment for its services. The fish, which is caught according to the quotas, technically belongs to the Sami, but in reality the Sami people most often get only a monetary compensation for it. In 2010 such compensation was 6,000 rubles per person (Kuchinskiy, 2012:153).

Having discussed the meaning of nature use to the Sami residents of Lovozero, it seems to be unquestionable that this compensation cannot be compared neither to the traditional products themselves, nor to the pleasure from actual harvesting. Of course, the Sami can chose to receive the fish instead of money, but what is one supposed to do with 280 kg of cod and 70 kg of haddock at a time? In addition, poor economic conditions make the offer of money quite tempting. As a result, the Sami of the Kola Peninsula are often left without fish (Kuchinskiy, 2012:153). This system of catch quota management is also criticized by the Kola Sami themselves, who evaluate the existing quota system as not efficient.

Aleksander: The fishing quota practice is very ineffective. People get all the fish at once, and there are neither enough storage facilities, nor opportunity to consume that much.

As Valentina Sovkina suggests, there is a possible solution for this problem as well. According to Valentina, fishing companies should be called for tender to receive the right to fish according to the Sami fish catch quotas. The caught fish would be transported to the local shops, where it would be stored in the freezers. The Sami people, thus, would always be able to receive sea fish, not all at once, but in portions. A record keeping system would register who has received fish, how much, and during which time period in order to ensure the proper quota implementation.

Valentina Sovkina: Of course, people will continue losing some economic value of quotas by paying off to the fishing vessel, and to the shop, but they will still loose less than they do today.

And then I will be sure that if our children and our elders do not have enough money for milk and bread, they will always receive fish.

Valentina has also mentioned that she has already proposed to the local government her ideas both in regard to introducing register of people, who have the right for fish catch quotas, and distributing of the fish products caught according to quotas through the local stores, but received quite an imperturbable answer.

Valentina: I was told that it was a good, a correct, but difficult mechanism. That it requires setting many wheels in motion. But I believe that it's not that difficult. It is worth doing once, and then it will function by default.

It is not only sea fish catch quotas implementation that is challenging. Salmon fishing represents another controversial issue. As it was mentioned in the previous chapter, today, the Kola Sami can apply for a special quota for salmon. According to the Federal Fishing Agency (2012), the Sami receive a quota for over 15 tones of salmon every year. However, according to Boris Skavronskiy, - the legal expert of the Association of Sami in the Murmansk Region (OOSMO), in reality these quotas are left largely unimplemented. The legislation does not determine fishing grounds for the so-called “traditional industry”, and the rivers are simply occupied. The best salmon fishing spots are leased to tourist companies, where the Sami are not permitted to fish without obtaining a costly voucher (see chapter 3, section 3). The only available spots are located far away from the settlements and are inappropriate for fishing with permitted fishing gear (Boris Skavronskiy for Independent Civil News Portal “7x7”, 2013). Therefore, the conflict of interests between the Sami of the Kola Peninsula and the tourist companies seems to be still going on.

The problem, which is rooted in the absence of formally determined fishing grounds for the Sami people, has an administrative character and can be solved by adjusting the legislation. As Boris Skavronskiy further suggests, it would have been a good solution to determine fishing grounds for the Sami people. According to Skavronskiy, this step would actually fix the existing legislation loop, and make the implementation of salmon quotas possible (Boris Skavronskiy for Independent Civil News Portal “7x7”, 2013).

Thus, one can see that there are a number of challenges in regard to fish catch quotas for the Kola Sami. Some of the challenges are related to bureaucratic obstacles in the process of application for quotas, and others have to do directly with quotas' implementation. In the existing situation, application for quotas collectively with the use of mediators, and employing a fishing company for harvesting fish from the Barents Sea can be referred to as short-term coping

mechanisms. Neither of the systems, however, proves to be efficient. It is likely to assume, therefore, that continuing such strategies in the long-run perspective cannot ensure resilience of the community.

As Perry et al. (2011:19-20) argue, involvement of the people affected by the proposals made in their regard, is crucial for building community resilience. In the described above situation, one can see that there are local Sami officials, such as Valentina Sovkina and Boris Skavronskiy, who have definite suggestions about how it is possible to improve the existing practices in regard to fish catch quotas. Valentina Sovkina has proposals about how to eliminate bureaucracies in regard to fish catch quota applications and about how to make sea fish catch quotas implementation more efficient. Boris Skavronskiy suggests what should be done for salmon catch quotas to function. Following the argument of Perry et al. (2011), I, as a researcher, argue that it is important for the regional authorities to consider the suggestions of the local Sami activists to see if they would prove themselves as efficient adaptive strategies.

Additionally, as Broderstad and Eythorsson (2014:5) argue, acting through institutions, connected to political, economic and civil society networks, is a potentially good response strategy that can be applied by the communities in the face of challenges. Both Valentina and Boris are representatives of Sami institutions - Sami parliament in Russia and Association of Sami in the Murmansk Region respectively, which opens a possibility of acting on institutional level in the present situation, and can be potentially beneficial for the community of Lovozero.

4.1.3. Hunting: dissonance of theory and practice

The situation in regard to hunting is also rather difficult. Chapter 3 mentioned that according to the Federal Law № 209-Ф3, recreational and sport hunting in the Murmansk Region can be performed only after obtaining a special permission, which must be paid for, according to the type and number of species, which are to be hunted. The federal law, however, emphasizes that it highly values the interests of indigenous people in the sphere of nature use, and provides exceptional policies to them in this regard. Thus, according to the Article 333.2 (part 2) of the Russian Tax Code (part 2) and to the Article 19 of the Federal Law № 209-Ф3, indigenous small-numbered peoples of the North, Siberia, and Far East of Russia, as well as people, who do not belong to the above-mentioned category, but reside in the places of their traditional living and economic activities, and for whom hunting is the basis of subsistence, are granted relief from paying the above-mentioned tariff.

However, in order for hunting to be referred to as the basis of subsistence, a person must live out of it. If the person is employed and receives salary, however, hunting cannot be considered this person's basis of subsistence. Thus, the majority of the Sami from Lovozero do not satisfy the above-mentioned conditions, and are not granted relief of paying the fee for obtaining the permission to hunt. As everyone else, in addition to paying official fee and tariff for the use of the wildlife objects, the Sami of the Kola Peninsula must possess a hunting license, a license for possession of hunting weapons, weapons that correspond to the existing standards, and all this costs money as well (Department of State Hunting Control of the Ministry of Nature Resources and Environment of the Murmansk Region 2014). The average Sami person, however, might not be able to bear all the expenses associated with hunting. As a result, there are few Sami, who choose to hunt, which can be referred to as a response mechanism, employed by people to adapt to the situation.

The fact that the Federal Law is referring to subsistence as a condition for obtaining benefits in regard to nature use might illustrate the existing attitudes of oppressive authenticity towards the indigenous people of Russia. Jefferey Sissons (2005:39) in book *Indigenous Cultures and Their Futures*, refers to oppressive authenticity in its social meaning as a number of conditions that the indigenous peoples should fulfill to prove their authenticity (for example, belonging to traditional kinship groups, living in traditional places of residence, etc.) In the present situation, understanding of indigenusness is closely linked to the subsistence, which might be referred as oppressive authenticity attitude. Sissons (2005:52-53) also mentions alike situation that recently took place in New Zealand, where it was resolved that only tribal Maori were authentic and able to receive fish catch quotas. Thus, the discussion in regard to oppressive authenticity attitudes seems to be quite topical today. In this regard, the current hunting legislation for the indigenous peoples of Russia uncovers the potential opportunities for the deeper research.

4.1.4. Over-gathering of berries

The previous chapter highlighted the economic importance of berry gathering, in particular – cloudberry, which is highly demanded for export. Some of the local people from Lovozero, however, believe that the presence of this economic aspect creates certain problems in regard to this type of nature use. Thus, Anna highlights that now there are much fewer berries (especially cloudberry) in the places, where they used to be in abundance. Anna and several other informants blame this on intense gathering, which takes places because of the berries' economic value and absence of any regulations in this regard. According to informants, people do not leave enough berries for restoration when gathering, and thus, there are fewer berries each year.

Anna: You have to leave a “seed” for life to continue. If you grab everything without remainder, the berry will not grow again. So now there are less and less berries.

According to some informants, the situation related to over-gathering of berries is obviously related to the change of economic system: in the earlier times people used to gather only for themselves and their families, and gathering berries was never seen in the framework of mass production. These days, challenging economic situation often forces people to seek additional financial sources. Informants mention that in the rush for profit, people often don't follow gathering traditions and gather berries too early. According to informants, such disruption of tradition based on knowledge leads to degradation of berry fields.

Yelena: Last year there were no berries on the place where the berries should have been according to all the signs and knowledge [...] May be it is because people start gathering berries so early. When we lived in tundra we used to gather the cloudberry only after 2nd of august when it was mellow. We used to gather only mellow berries. Now people don't follow this knowledge and tradition. They start gathering berries when it is barely mellow. May be that has influenced.

It is worth noting that in contrast with the previously mentioned challenges in regard to other nature use types, the problem of over-gathering was not found described in information sources other than informants, who participated in the present study. It is, therefore, important to keep in mind that the information presented above should be perceived as emic interpretation of the situation in regard to berry gathering, which of course, does not discredit its validity. The issue of over-gathering seemed important for the local residents of Lovozero, and therefore, could not be ignored in the present study.

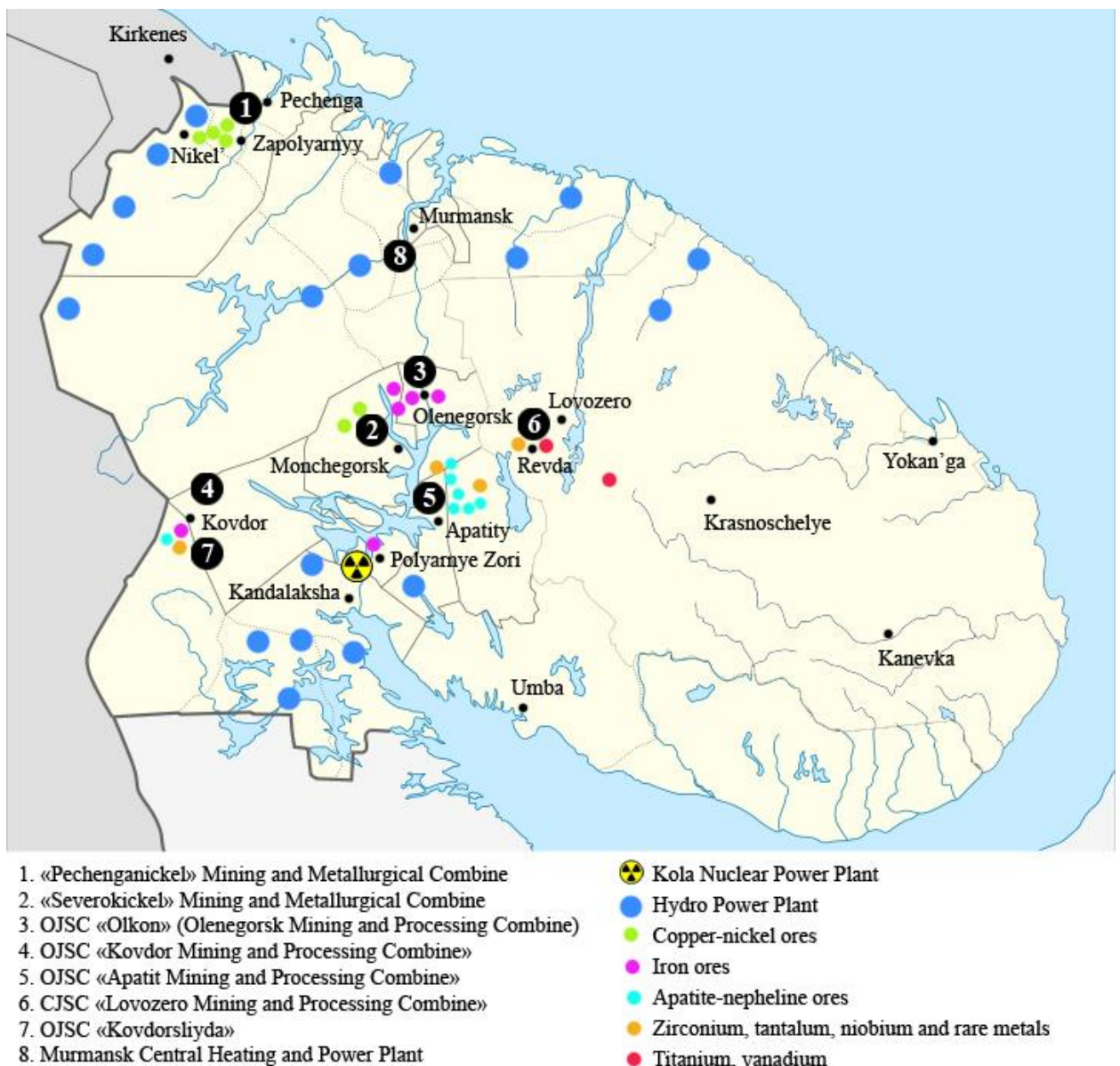
4.2. Environmental pollution

As it was discussed in the previous chapters, residents of Lovozero carry out nature use practices not only in the limited area of the settlement itself, but also in the whole Lovozero Municipal District and even outside of its limits. Additionally, remote sources of pollution tend to spread over long distances. Therefore, apart from focusing on the environmental situation in the settlement itself, it is considered necessary to discuss the environmental situation in regard to the whole Murmansk Region.

4.2.1. Industrial complex of Kola Peninsula

Murmansk Region can be characterized as the most urbanized and industrially developed region in the entire Arctic. The leading sectors in the region are marine fishing, mining and enrichment of apatite, nepheline and iron ores, ferrous metallurgy (copper, nickel, aluminum), and power generation (Kola nuclear power plant, numerous small-scale hydro power plants) (Matishov, 2001:5). The largest industrial companies of the region are Pechenganickel and Severonickel Mining & Metallurgical Combine, which belong to Kola Mining and Metallurgical Company (KMMC), Mining and Processing Combines of Kovdor, Lovozero, Olenegorsk and Apatity (see map 4). As it is seen on the map 4, most of the industrial development is concentrated in the urbanized areas in the middle of Peninsula, leaving the eastern part largely undeveloped (Bjørklund and Olsen, 2006:4).

Map 4. Industrial Complex of the Kola Peninsula



According to the Murmansk Oblast Regional Feasibility Report, in 2001 the region was on the top list of all Russian Regions in terms of atmospheric emissions of sulphur dioxide. In particular mining and the metals industry have created ecological disasters in the areas around the towns of Nikel' and Monchegorsk. Whole forest zones have been killed off by sulphur dioxide emissions, with continuing serious consequences (Allemann, 2013:130; Matishov, 2001:8).

The mining industry is also the leader in fresh water pollution in the region. The Severonickel combine alone discharges over 10 million m³ of poorly treated waste waters in the Imandra Lake. The region's water bodies are intensely polluted by the Pechenganickel, Apatit, Kovdor and Lovozero Mining and Processing Combines. Despite decreasing production put in the recent years, water bodies are being polluted by toxic fall-outs from the atmosphere, as well as by industrial, agricultural and municipal waste waters (Matishov, 2001:7-8).

The main contributors to marine pollution are the seaport, industrial complex and city wastes in the Kola bay, as well as numerous naval bases in the northwestern coastline of the Kola Peninsula. Alongside chemical pollutants (e.g. oil hydrocarbons, surfactants, biogenic substances), numerous sources of radiation hazard should also be mentioned in this regard. One should not forget that Kola Peninsula has a strategic importance to Russia, and hosts a large nuclear submarine base on its territory. Additionally, there are numerous temporary storages of spent nuclear fuel on the Kola Peninsula (Matishov, 2001:8).

It is possible to sum up the situation with the words of Lukas Allemann (2013:130): "Given the relatively small area, early colonization and dense population of the Kola Peninsula, the problems attendant on urbanization and industrialization are greater than in most other sub-Arctic regions of Russia". All this raises a number of concerns in regard to the effect of environment pollution on nature and humans.

4.2.2. Ecological situation in Lovozero

According to the Report on Health and Disease Control in the Murmansk Region in 2012, Lovozero Municipal District is among the least polluted in terms of atmospheric and soil pollution in the Murmansk Region. Freshwater pollution in Lovozero Municipal District is on the average with relation to the whole region (Oprya et. al., 2013: 11-15)

All 10 informants have been asked questions in regard to ecological situation in Lovozero. Two informants have refrain from answering the questions, and two informants found ecological situation satisfactory.

Nadezhda: *Ecological situation is not very bad so far. The tundra of the Kola Peninsula is not way too damaged by snowmobiles and human activities in comparison with Nenets Autonomous Okrug, for instance. There is no oil development in our tundra.*

At the same time, 6 informants expressed their concerns about pollution in the Lovozero settlement and the whole Municipality of Lovozero. The majority of concerns seem to be connected with pollution from Lovozero boiler station located in the very heart of the settlement. The station provides 100% of the settlement's heating demand and is, therefore, vital for its residents. The main fuel for the boiling station is mazut (oil fuel) (Heating System in Lovozero settlement of the Lovozero Municipal District for 2014-2028). According to Anna, Yuriy and Yelena, when the boiler station used coal instead of mazut, the pollution was not that strong. After the station started using mazut a couple of years ago, the pollution from Lovozero boiler station has significantly increased. According to interviewed residents of Lovozero, it has impact on the quality of water, air and vegetation, which affects people's health. What is more, informants argue that the pollution is so strong, that it is actually visible:

Anna: *I don't know what kind of mazut they use for this boiler station, but this year we had black snow! It is beyond belief (with frustration)! And when it melted, all this went into soil and rivers. And this is our fish, our potatoes, our berries and our mushrooms. And then, what kind of fish do we eat? [...] Last year we also had black snow.*

Additionally, informants mention pollution coming from Lovozero Mining and Processing Combine, located in Revda. This combine specializes in extraction of loparite concentrate – a raw material for tantalum, niobium and rare elements, partially titanium (Matishov, 2001:15).

Maria: *Fish from tundra lakes has another taste than local fish from Lovozero. Local fish is not tasty. How can it be tasty if there is white foam in the river! I have seen it myself! Wastes from Revda mining and processing plant are emptied right into the Sergevyan River which flows into Lovozero Lake. The fish from the Sergevyan River smells like petrol!*

It is worth noting that the local water basins are also being polluted with waste water. Thus, waste waters from Lovozero are discharged into the Virma River. According to the information from the Federal Portal of the Russian Federation, water and wastewater treatment facilities in Lovozero are old, work in overloaded conditions, and do not provide efficient wastewater purification. Modernization of water and wastewater treatment facilities in Lovozero has been planned for 2010-2015 (Schitinskiy et al., 2010:20). The state of wastewater treatment facilities in the settlement today is not known.

Among other mentioned sources of pollution is pollution connected to modern technologies, such as an increasing number of cars, snowmobiles, motor boats, planes etc. Generally, informants are quite concerned with affects of pollution on health.

Maria: The generation born in 50s is the oldest one among those, who are left. The others were laid low with cancer. Where does this cancer come from? People used to be much healthier when they lived in tundra.

According to statistics based on the study of ecologically-determined diseases published in the Report on Health and Disease Control in the Murmansk Region in 2012, the most common health related problems in the Lovozero Municipal District among adults over 18 years old are connected to the endocrine disorders (diabetes, thyroid dysfunction, etc.). As for oncology diseases, there are no available statistics in regard to the Lovozero Municipal District in particular. However, in 2012, cancer morbidity in the region increased by 22% compared to 2008, and is generally higher than in the rest of Russia (Oprya et. al., 2013: 24-26).

4.2.3. Effect of industrial activities and pollution on nature use

Development of industry is directly connected to the condition of natural resources, and, as a result, has certain impact on nature use. This section combines opinions in regard to the impact of pollution on the nature by the residents of Lovozero with data from official reports.

Kuchinskiy (2012:154) argues that development of industrial objects in the Murmansk Region causes degradation of grazing lands. Allemann (2013:130) also mentions that the consequent construction of roads and industrial plants has severely reduced the reindeer habitat. In addition, it is believed that poor ecological situation contributes to the decline of the quality of the natural resources. Thus, Kozlov et al. (2008:60) argue that the liver of reindeer tends to accumulate industrial pollutants in high concentrations. Consuming large amounts of reindeer meat from polluted areas thus results in relatively high intake of harmful substances into human organism. Kozlov et al. (2008:60) mentions that reindeer meat from Finland contains 10-45 times more nuclear pollution than in reindeer meat from Greenland located far from industrial centers. One might assume that reindeer meat from the Kola Peninsula might be affected as much or more than the meat from Finland, considering that the Murmansk Region hosts some nuclear objects.

Some informants also claim that the ecological situation in the region contributes to the fish quality decline. Thus, Aleksander mentioned that from time to time some fish mutations appear: fish with no eye or no fin. Other interviewed people also mentioned a decline in fish quality.

Thus, Anna uses traditional knowledge to determine the quality of fish:

Anna: When we lived in tundra, my aunt always used to say: a fresh, clean³⁵, and good fish always curls up tail and head when you start frying it. It doesn't happen anymore. I fish here, in Lovozero Lake, and sometimes fry fish right after I catch it. It doesn't curl. It means that the fish is not ecologically clean anymore.

In addition, informants state that the quality of berries has changed compared to several decades ago. In particular, interviewed people highlight a change in taste, appearance and general quality. The degradation in the berries' quality is articulated in connection with environmental pollution:

Anna: In tundra berries are good. Cloudberry is still clean, juicy and bright orange! The same with cowberry. In our Khibiny Mountains you can find very good cowberry. But near Lovozero... (pause) there are no good berries. [...] Blueberry used to be very big, and now blueberry is very small, especially near roads.

Many informants have also mentioned black spots on berries (cloudberries and cowberries) which grow near inhabited localities.

Anna: About may be 15 years ago we first noticed black spots on cloudberries. It can be one part of the berry that is black, one tiny bit, but if you don't take it out, with time it spreads on the whole berry and destroys it.

The change of quality also relates to mushrooms. More specifically, informants highlight that mushrooms gathered around inhabited localities and far from them (in tundra) differ in taste and appearance to a great extent.

Anna: I don't gather mushrooms close to Lovozero. I go very far, around 10 km from Lovozero, closer to mountains. Or my husband drives me somewhere, but only not in the direction of the highway. I never gather anything there.

Anna is not the only one, who prefers remote locations for nature use. Many informants have mentioned that it is not safe to fish, gather berries or mushrooms near inhabited localities and roads. This is mainly explained by the wide-spread belief that the reason for the decline in quality of natural products is rooted presumably in the industrial activities of the region. The choice of locations remote from inhabited localities and roads and places, can be considered, therefore, as an attempt to adapt to the existing unfavourable ecological situation. This is, however, a short-term coping mechanism. It is challenging to assume what could be a long-term

³⁵ In this text: without parasites, good quality (author's note)

adaptive strategy in this situation. Neither pollution, nor its consequences cannot be reversed entirely or fast enough. In this regard, environmental pollution can be referred to as possibly the most difficult factor to adapt to. However, acknowledgment of the problem and preventing its further development would be a great step in the right direction.

4.3. Climate-related changes

This section represents the intention to find out how climate-related changes are perceived by the Sami residents of Lovozero and what their impact is on nature use. It might be worth noting that climate-related changes were among the least mentioned by the informants, in regard to the factors of impact on their nature use.

4.3.1. Climate-related changes observed in Lovozero

One of the articles from the Arctic Climate Impact Assessment Scientific Report (2006) describes some climate-related changes observed by the residents of Lovozero. According to the article, residents of Lovozero acknowledge that climate changes are very visible, and have a definite impact on the nature use. Mentioned observations of changes include early springs, late autumns, warmer winters, changes in local weather patterns, low water levels, etc. According to the Arctic Climate Impact Assessment Scientific Report (2006), some of those are regarded by the local population as disturbing factors for nature use in general and for reindeer herding in particular (Huntington and Fox, 2006:87-90).

In the framework of the present research, residents of Lovozero who practice nature use have been asked questions in relation to climate-related changes that they observe. It is worth keeping in mind that the present section, as the previous one, summarizes emic interpretations of climate-related changes and their effect on nature use. The absolute majority of the informants emphasized certain changes in climate. Most claimed that there are no dramatic climate-related changes in the region, but the changes are obvious and visible. Thus, all informants in one way or another have mentioned that during the last decades winters have become generally warmer, with no severe frosts or storms and less snow. Summers, on the contrary – have become generally cooler. Springs were mentioned to come earlier, and autumn frosts – later, which, therefore, confirms that data from the previous research.

Anna: I think that snow used to melt later than now. May 25th was our last day of school year. We used to go to forest on this day, and there was always snow all over! And now, look: it's May 20th today and no snow left at all neither in the settlement, nor in the forest.

Interviewed residents of Lovozero also reflect on the character of the changes. It was often mentioned that the changes are first of all, very gradual and secondly, have a cyclic nature. Thus, three out of ten informants concluded that changes in weather happened in the years before (sometimes the spring could come in May, sometimes in there was still ice on Lovozero Lake in July).

Nadezhda: *Climate has always been changing and has always varied. They say that winters have become warmer now. But this³⁶ winter 2012-2013 has been quite cold, so the water basins froze on time. (pause) Summers are different too. Summer in 2011 was cold, while summer in 2012 was very wet.*

Additionally, some informants mentioned that the weather has become unpredictable, and nature signs cannot be relied on anymore for weather prediction.

4.3.2. Impact of climate-related changes on nature use

The changes in seasonal pattern are considered to have the biggest effect on reindeer herding. As Huntington and Fox mention (2006:88), the herders traditionally use waterways, such as many rivers and lakes of the Kola Peninsula, as their transportation routes. Due to later autumns and warmer winters, water basins don't freeze in time, and when they do freeze, the ice is often weak and may break, which makes the familiar routes potentially unsafe. Additionally, gathering reindeer in such conditions is more difficult. As a result, reindeer herders have to either change the routes of movement, or wait until it becomes colder (Huntington and Fox mention 2006:88; Interview with Nadezhda, 2013).

Moreover, the rhythm of the yearly cycle of herding and slaughtering of reindeer is disrupted. As it was mentioned in the previous chapter, normally slaughter starts as strong frosts set in. Formerly, it used to take place in the end of December, but in the recent years the frosts tend to come later, and herders have to wait until February (Kuchinskiy, 2012:151). During this time of waiting, reindeer lose weight and consequently price.

Both strategies described above can be referred to as short-term coping mechanisms, which are used in the face of climate-related changes. At the same time, those mechanisms show to be quite ineffective, causing economic loss and predetermining potentially dangerous situations both for animals and humans. Therefore, the necessity of adopting more extensive strategies functioning in the long run is obvious.

³⁶ winter 2012-2013 (author's note)

Valentina Sovkina, the Chairperson of the Sami parliament in Russia commented on the situation by saying that a solution to this issue in her opinion would be arranging compact slaughtering units right in tundra, which would both solve the problem associated with climate-related changes and help to optimize existing reindeer herding practices. According to Valentina, this would help animals to avoid losing weight during the wait.

Valentina Sovkina: Reindeer end up losing much weight while covering vast distances from the middle of the Kola Peninsula to the current slaughtering unit in Lovozero. If there were appropriate conditions for reindeer slaughtering in tundra, we could solve this problem. Additionally, the factor of bogs and lakes freezing later would not matter. Currently, such compact slaughtering facilities cannot be managed because they do not fulfill the sanitary requirements.

Establishing compact slaughtering units in tundra could be referred to as an attempt to create a long-term adaptive strategy in the conditions of climate-related changes affecting reindeer herding. Broderstad and Eythorsson (2014:4-5) argue that successful adaptive strategies in the face of change are often the result of the local actions, but they significantly depend on the options that are available and considered relevant under given political, economic and ecological circumstances. Additionally, if combined with appropriate economical and political initiatives, some challenges may also provide new opportunities for local communities. Following this argument, it is possible to assume that establishing compact slaughtering units in tundra, which can be a potential long-term adaptive strategy, would require support and engagement of local authorities for increasing the chances for success of such an initiative. Additionally, establishing compact slaughtering units might not only eliminate the climate-related problems, but also help to optimize the existing practices, ensuring that reindeer will not lose weight before slaughtering.

4.4. Conclusion

The present chapter discussed the nature use by the Sami people of Lovozero settlement in the changing socio-economic, administrative and environmental context. As it follows from the discussion, socio-economic and administrative context around nature use represents a number of challenges for the local Sami people. In the sphere of reindeer herding, socio-economic challenges are associated with low salaries and poaching, which has a dramatic effect on the population of reindeer. In case of fishing, the main issues of concern are connected to fish catch quotas application and implementation. In regard to hunting, the problems reveal themselves, when it comes to hunting legislation in regard to the Sami people. Even gathering seems to face certain challenges, associated with socio-economic context: over-gathering of berries.

As the study suggests, people, who happen to be in unfavourable conditions in regard to nature use, seek ways to adapt to them in the best possible ways. Thus, the attempt of reindeer herders to minimize the time spent in the tundra, decreased interest of young people in reindeer herding profession, developing a special system in regard to fish catch quotas, and simply avoiding hunting can be referred to as short-term coping mechanisms as a response to the challenges related to socio-economic and administrative context around nature use.

Analogically, there were found some short-term coping mechanisms that people employ in regard to the factors of ecological relevance. The majority of informants expressed concerns about the impact of pollution on health and nature use. As a short-term coping mechanism people choose to fish and gather berries/mushrooms in places more distant from inhabited localities and roads. Additionally, the absolute majority of the informants emphasized certain visible changes in climate, which are mainly associated with seasonal patterns. These changes cause certain disruption in regard to the reindeer herding. As frosts come later, lakes and bogs do not freeze in time and do not provide a safe path for reindeer herders. As a result, reindeer herders have to change the routes of movement and start slaughtering later.

As the thesis suggests, short-term coping mechanisms are only effective for short-term stresses. Following this idea, it is possible to suggest that since the challenges in regard to socio-economic, administrative and environmental contexts of nature use in Lovozero are persistent in their nature, it is important to develop long-term resilience-oriented adaptive strategies. The present study suggests that successful adaptive strategies depend on the several factors. First of all, involvement of the people affected by the proposals made in their regard is crucial for building community resilience. Secondly, support and participation of the regional authorities is necessary for providing options adaptive strategies.

As it was noted in the chapter, there are local Sami officials, such as Valentina Sovkina and Boris Skavronskiy, who represent Sami institutions and have definite solutions to the challenges in regard to nature use. Following the argument of the study, it is possible to suggest that those solutions, acknowledged and properly supported by the authorities, might create a base for efficient adaptive strategies in the face of changing socio-economic, administrative, environmental and ecological context. Of course, there might be other options in this regard, and it is hard to say without a deeper analysis if ideas suggested by Sovkina and Skavronskiy will turn out to be efficient in contributing to the community's resilience. However, involvement of the local people in the decision-making process, and the will of state for the support of such participation are believed to be crucial for building resilience in Lovozero.

CHAPTER 5. Conclusion

The previous chapters of this thesis have addressed a number of issues related to nature use by the Sami in the settlement of Lovozero. This chapter presents the final discussion of the findings and aims to answer research questions explored in the present study. Additionally, the chapter suggests possible directions for the future research on the topic, and provides some of my personal reflections about this research.

5.1. Meaning of nature use for the Sami residents of Lovozero

One of the ambitions of the present study was to find out the ways in which nature use is important to the residents of Lovozero. Of course, it has been taken into consideration that a few people cannot speak for the whole community. The findings presented below, therefore, should be interpreted first of all in the context of the interviewed people and also as *possible* ways, in which nature use is important for the other Sami residents of Lovozero.

Basing upon the empirical data obtained from the ten interviews with the locals of Lovozero, it is likely to assume that even though nature use has lost its meaning as the basis of subsistence for the Kola Sami people today, it has preserved importance in both material and cultural meaning.

Thus, the majority of people who participated in the study still maintain a deep personal relationship with nature, which is said to be their source of inspiration, energy, joy, strength and health. Several informants mentioned the healing powers of nature, which could point to preserved pre-Christian elements in the Kola Sami culture and is definitely worth further research. Additionally, some informants highlighted the feeling of interconnection with forefathers through nature use. Nature use represents, therefore, an arena for personal relationship with and through nature. This relationship also reveals itself via the manufacture of various household items and traditional clothing from the products of nature use.

Nature use is also articulated as a way of getting vital subsistence, traditional for the Kola Sami. Many informants are convinced that the traditional diet has a special importance for people, who have been eating it for centuries. Thus, eating reindeer meat, local types of fish and berries is considered to be a genetically stipulated necessity for the Kola Sami people. This opinion finds certain support in the work of the expert in medical anthropology Kozlov et al. (2008). Additionally, food products of nature use are claimed to have a great importance in terms of traditional Kola Sami cuisine.

Furthermore, nature use on the individual level has a certain economic aspect in it. Thus, berry gathering is claimed to bring significant income for some people, as berries are a popular product for export to Scandinavian countries. Additionally, products of nature use, such as reindeer horn, bone, fur and skin are used for production of souvenir items for sale. Finally, it is reasonable to assume that nature use has indirect economic importance, providing people with food and thus reducing their expenses in this regard.

5.2. Factors that impact nature use in Lovozero and response of the local residents

Even though nature use practices have quite a significant meaning for the Sami residents of Lovozero, the situation in regard to Sami nature use in the region appears to be quite controversial. This controversy is often rooted in the present socio-economic, administrative and environmental context around nature use, which was discussed in the course of the present thesis.

Thus, reindeer herding on the Kola Peninsula today is associated with a number of problems, one of which is poaching. Due to poaching, the population of both wild and privately owned reindeer in the region is constantly decreasing. In addition, poaching represents a threat to the safety of reindeer herders, while also causing economic losses. Climate-related changes are also believed to have an effect on reindeer herding. Thus, changes in the seasonal pattern disturb yearly cycle of reindeer herding and slaughtering, which in its turn also leads to economic losses.

These factors together with the relatively low wages for the work of reindeer herder result in the declining number of those who choose this profession. Decreasing interest in the profession of a reindeer herder can be referred to as a short-term coping mechanism of people who struggle with the unfavourable socio-economic and climate-related contexts of reindeer herding and seek ways to adapt to it in the best possible way.

In the sphere of fishing, the problems reveal themselves in the issues related to fish catch quotas, provided especially for the indigenous people. Thus, the process of application for fish catch quotas involves a number of bureaucratic obstacles. Implementation of fish catch quotas is also not always easy. Thus, the Kola Sami have a right to apply and receive the quotas for harvesting fish from the Barents Sea, but have no vessels to do so. As a result, a special system was developed, which can be viewed as a short-term coping mechanism applied in the face of these challenges. According to this system, a fishing company is employed in order to obtain this quota and fish according to it. This caught fish is then bought from the Sami, and the Sami

people receive a monetary compensation. The system, however, does not prove to be efficient because people lose money in the mediation process and as a rule are left without fish.

Implementation of salmon catch quotas represents another controversial issue. As the legislation does not determine fishing grounds for the so-called “traditional industry”, and the best salmon fishing spots are mostly occupied by the large fishing companies, the Sami people can find available places only far away from the settlements. Such places are also often inappropriate for fishing with permitted fishing gear.

The challenges in regard to hunting concern the peculiarities of legislation. According to the existing legislation, indigenous small-numbered peoples of the North, Siberia, and Far East of Russia, as well as people who do not belong to the above-mentioned category, but reside in the places of their traditional living and economic activities, and for whom hunting is the basis of subsistence, are granted relief from paying a fee for obtaining the permission to hunt. However, the majority of the Sami residents from Lovozero do not satisfy this criterion, as they have jobs, and hunting, therefore, cannot be considered the basis of subsistence. Thus, hunting for the Sami is available on the same conditions as for everyone else.

The average Sami person, however, might not be able to bear all the expenses associated with hunting. In the existing situation, avoiding hunting can be referred to as a response mechanism in response to high prices for this activity and the inability to receive a right to hunt for free. The fact that the Federal Law is referring to subsistence as a condition for obtaining benefits in regard to nature use might illustrate the existing attitudes of oppressive authenticity towards the indigenous people of Russia, or might be a measure aimed to secure subsistence-relied communities in the other regions of Russia, if looked upon from the broader perspective.

Empirical data obtained from the informants indicates that the sphere of gathering also faces certain problems associated with socio-economic situation in the region. Thus, according to the informants, berries are being over-gathered due their economic value and absence of gathering regulations. The biggest challenge in regard to gathering according to the informants, however, is rooted in the ecological situation of the region.

Thus, factors of environmental relevance are considered to have certain impact on nature use in Lovozero. Opinions about the ecological situation in the settlement and region in general differ among informants, but the majority expressed concerns about pollution from the Lovozero boiler station located in the very heart of the settlement, pollution coming from Lovozero Mining and Processing Combine, located in nearby settlement Revda, local water contamination, and

pollution connected to modern technologies, such as increasing number of cars, snowmobiles, motor boats, planes etc. Generally, informants are quite concerned with the impact of pollution on health and nature use, and many believe that pollution affects the quality of natural resources, which are harvested by the local population. It is claimed that since industrial activities of the region impact water, soil and air, they impact the quality of the natural resources, such as berries, mushrooms, fish, and reindeer meat. As a short-term response mechanism, people prefer to fish/gather mushrooms and berries further away from the inhabited localities.

As illustrated above, people often respond to the challenges associated with socio-economic, administrative and environmental context of nature use, by employing certain coping strategies. As it was argued in the present thesis with reference to Perry et al. (2011), social systems, which face relatively short-duration stresses (1-2 years), have the potential of using both coping mechanisms and adaptive strategies. When the stresses persist, however, the short-term coping responses are no longer sufficient and longer-term adaptive strategies must be engaged. As it was discussed in the chapter 2, the changes in regard to socio-economic context, administrative and environmental contexts have been going on for at least a couple of decades. Therefore, in order to successfully build community resilience, there is a need to develop short-term coping mechanisms into long-term adaptive strategies.

One can suggest that fish catch quotas are exactly the solution given by the government in order to secure Sami's interest and make the adaptive strategies possible. After all, the provision of fishing quota already means recognition of necessity to provide a hand to the indigenous small-numbered people, and Sami particularly in the case of study. However, even though the existence of such a pattern is undoubtedly a positive tendency, its implementation remains quite inefficient, which leaves no space for developing successful adaptation strategies.

What we observe today is a partial failure of the authorities to help with the provision of options for long-term adaptation strategies in the face of challenges. Government, however, is a very important actor in the process of ensuring local community resilience, as there appear to be some options that only the government can provide. Those include, for example, measures for making existing legislation more effective, which could imply approving the initiatives of local actors, which is also very important.

Following the argument of Perry et al. (2011:19-20), the study suggests that involvement of the people affected by the proposals made in their regard, is important for building successful adaptive strategies in the community of Lovozero. The present thesis reveals that there *are* local Sami officials and activists, who are involved in the discussed issues. A number of definite

suggestions aimed at improving the existing systems in regard to nature use, and overcoming the challenges connected to its socio-economic, administrative and environmental context have been presented in the course of the current study.

Of course, the possibility of applying these suggestions as long-term adaptive strategies is irrelevant without a deeper analysis, which is not the ambition of the present thesis. The study, however, aims to illustrate that there *are* suggestions coming from the Sami people on the local level, and it is important that the local authorities consider them.

5.3. Perspectives of research

The present thesis is a descriptive study, which presents a comprehensive overview of nature use through a historical perspective. Thus, the significance of the research lies within addressing the long-term perspective on the Sami nature use in the settlement of Lovozero and in the region in general: the thesis has covered time periods from the end of the 19th century to current time.

In addition, the research refers to the people's perceptions and personal reflections in regard to the nature use practices and factors that impact them, which opens up the internal perspective on the situation.

Finally, the thesis gives voices to the suggestions of the local Sami officials in regard to the possible solutions to the existing challenges in regard to nature use by the Sami people in Lovozero and in the region generally.

It is worth noting that the present research has quite a broad scope, embracing several aspects in regard to the covered issue. Maintaining such a broad scope was one of the main challenges of the study. It is important to mention, however, that neither of the aspects could be left apart due to the strong interconnection between them and their equal importance to the people I have interviewed. Deeper examination of the each type of nature use or each factor impacting nature use in the settlement will provide, therefore, possible directions for the future research.

Additionally, the present study due to its limitations has left behind nature use by the modern kinship communities on the Kola Peninsula. This challenging topic represents a broad field for exploration, as the situation in regard to kinship communities is quite dynamic, and the phenomenon of "obschina" is relatively new.

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Appendix 1. Table of equivalents for the names of fish species

Used equivalent in English	Biological name in Latin	Name in Russian
Arctic char	Salvelinus alpinus	Арктический голец
Atlantic salmon	Salmo salar	Атлантический лосось
Burtot	Lota lota	Налим
Char	Salvelinus	Гонец
Cisco	Coregonus	Сиг
Cod	Gadus morhua	Треска
European cisco	Coregonus albula	Ряпушка
Grayling	Thymallus	Хариус
Haddock	Melanogrammus aeglefinus	Кумжа
Halibut	Hippoglossus hippoglossus	Палтус
Perch	Perca fluviatilis	Окунь
Pike	Esocidae	Щука
Roach	Rutilus	Плотва
Smelt	Osmerus eperlanus	Корюшка
Trout	Salmo trutta trutta	Кумжа

Appendix 2. Table of equivalents for the names of animal and bird species

Used equivalent in English	Biological name in Latin	Name in Russian
Arctic fox	Alopex lagopus	Песец
Beaver	Castor fiber	Бобёр
Black grouse	Lyrurus tetrix	Тетерев
Brown bear	Ursus arctos	Бурый медведь
Capercaillie	Tetrao urogallus	Глухарь
Duck	Anas	Утка
Goose	Anser	Гусь
Loon	Gavia	Гагара
Moose	Alces	Лось
Otter	Lutra lutra	Выдра
Reindeer	Rangifer tarandus	Олень
Rock ptarmigan	Lagopus mutus	Тундрная куропатка
Seal	Phocidae	Нерпа
Squirrel	Sciurus	Белка
Swan	Cygnus	Лебедь
Weasel	Mustelidae	Куница
Wood grouse	Tetrao urogallus	Глухарь
Wolf	Canis lupus	Волк
Wolverine	Gulo gulo	Росомаха

Appendix 3. Table of equivalents for the names of berries and mushrooms

Used equivalent in English	Biological name in Latin	Name in Russian
Birch boletus	Leccidium scabrum	Подберезовик
Blueberry	Vaccinium myrtillus	Черника
Boletus	Boletus edulis	Белый гриб
Cloudberry	Rubus chamaemorus	Морошка
Cowberry	Vaccinium vitisidaea	Брусника
Crowberry	Empetrum nigrum	Вороника
Mossinnes mushroom	Hebridae	Моховик
Orange-cap Boletus	Leccidium aurantiacum	Подосиновик
Yellow Boletus	Suillus luteus	Маслята