



Nordic Resource Management (*NUNAVIS*) in cooperation with Arctic Council SDWG EALLU and Rievdan research project at International Centre for Reindeer Husbandry.

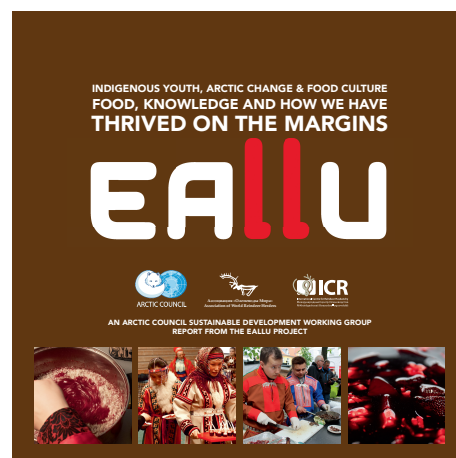
Field Report Norway 2017

International Centre for Reindeer Husbandry

IMPROVED MANAGEMENT OF REINDEER HUSBANDRY BY USE OF SÁMI TRADITIONAL KNOWLEDGE

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The role of traditional knowledge in reindeer herders resource management

Today the Arctic and sub-Arctic is changing in ways unprecedented in our long histories in the north, challenging our traditional ways of life, our wellbeing, our food security and food sovereignty. Glomsrod *et al.*

(2016) address these serious challenges in the Arctic Council report ECONOR. The combination of the rapid and simultaneous changes in land-use (oil and gas, mining, forestry, hydropower, tourism, etc.) and climate affecting the timing and location for hunting, gathering, herding, and fishing activities, constitutes a legitimate concern for the future of traditional indigenous livelihoods (Degteva *et al* 2017). The material basis for reindeer husbandry – that is, the seasonal pastures on which the reindeer husbandry depends on – is threatened. Reindeer herding, which since ancient times has provided a sustainable way of managing the environment and is the foundation of the unique cultures in the sub-Arctic taiga, is in real danger of disappearing. While Arctic Indigenous and traditional lifestyles are facing unprecedented impacts from climate change and resource development, they are also implementing creative ways of adaptation (Nyman and Larsen *et al.*, 2014). Still, Degteva *et al* 2017 stress the importance of local and regional decision-makers understanding and mitigating potential future development and advancing adaptation strategies. Tipping points for the continued existence of traditional livelihoods may be passed in some areas within the next two decades. When developing adaptation strategies to address climate and environmental change in the Arctic and sub-Arctic, all available types and sources of knowledge including indigenous peoples traditional knowledge need to be included for improved local management of natural resources. For example Arctic indigenous peoples practicing traditional livelihoods possess a rich, varied and valuable body of traditional and contemporary knowledge about food culture and system.

Recently, researchers (Huitric, Peterson, Rocha *et al.*, 2016) investigated what factors build and erode resilience in the Arctic. They found a correlation between people's ability to self-organize and their resilience to change. Self-organization requires knowledge, local-level monitoring, and the ability of people to define problems and solutions and implement agreed-upon action plans. A key step towards enhancing resilience across the Arctic is to understand the social, behavioural and ecological processes that strengthen and erode resilience. An important part of this is to understand the social-ecological system of food production in the Arctic. The role of governance systems must not be overlooked when assessing food security. For instance, recent research underlines the need for holistic strategies to include traditional ecological knowledge in the governance of reindeer husbandry (Turi, 2016). We assume co-management and participatory processes alone are not enough in the field of Arctic indigenous peoples' food governance. If we are to fully prepare communities to a changing Arctic, we also have to include traditional knowledge about indigenous peoples' food systems in the governance of Arctic natural resources.

Our report to NUNAVIS project focus on Saami reindeer herders traditional knowledge in Norway where we use reindeer herders food system as an example of traditional knowledge and how herders economy resource management can be improved by use of this knowledge base. The Nordic Resource Management (*NUNAVIS*) has been a part of the Arctic Council report to the Fairbanks Ministerial meeting May 2017: EALLU, Indigenous Youth, Arctic Change & Food Culture, knowledge and how we have thrived on the margins (Burgess *et al.*, 2017). Our report to NUNAVIS is also about the on-going Rievdan studies at International Centre for Reindeer Husbandry (ICR) about increased use of traditional knowledge in management of reindeer as food resource. One example is how indigenous peoples knowledge can be used in the Sámi traditional slaughtering processes compared knowledge used in the industrial slaughtering processes to improve management and herders green economy. Our part of NUNAVIS has developed pilot reindeer herders traditional knowledge standards for use in decision-making of food resources from reindeer to improve sustainable economy of the communities. We have also improved the capacity to use traditional knowledge through course development, (called 8j-100 course) and the delivery of the EALLU report to Arctic Council Ministerial meeting has provided a communication of the experience.

We believe that *NUNAVIS* has strengthen the international collaboration aimed at promoting democratic community participation in decision-making on the use of natural resources, and the project will further develop and improve specific tools to support this while cooperation with EALLUs is to strengthen navigation towards future sustainability in reindeer husbandry with focus on the role of traditional knowledge in social-ecological Arctic food system. RIEVDANs major objectives is to research traditional cultural capabilities in Sámi reindeer husbandry and the opportunities embedded in traditional knowledge and scientific knowledge with focus on adaptation to change and reconciliation. We conclude that documentation and use of reindeer herders traditional knowledge about resource management and food their own food system will improve the future management Saami reindeer husbandry.

LESSONS LEARNED NUNAVIS - EALLU cooperation and added value.

NUNAVIS –EALLU outcome underline that Arctic food governance, as well as marketing and supply chains, must be adjusted to better accommodate indigenous traditional knowledge, family-based reindeer herding and other traditional indigenous livelihoods, and indigenous peoples' local economies. We recognize the need for special efforts to realize that Arctic indigenous peoples and societies are in position and able to utilize arising opportunities from Arctic change, on their own terms, based on their own needs, their own resources, knowledge base and people, so that the opportunities of our changing Arctic can be real opportunities for all. We recognize that economic freedom of indigenous societies is a key foundation for their adaptation to Arctic change, and that any civilization is dependent on using the knowledge of its people to build its own societies, We ecognizing that climate change is also about what we are going to eat in the future, and furthermore recognize the rich understanding and knowledge-base Arctic Indigenous Peoples food has not been fully utilized for innovation and local economic development.

ACTIVITIES: To achieve the objectives, the project has comprised the following Seminar activities on use of traditional knowledge and food systems.

Seminar program from Arctic Council Ministerial meeting in Fairbanks Alaska with 100 participants:

Perspectives in Circumpolar Reindeer Production

Welcome to the launch of the EALLU Arctic Council 'Indigenous Peoples Cook Book

DRAFT PROGRAM MAY 10th 2-4 pm

Location: Wood Center, Rooms C & D, UAF

Knowledge about circumpolar indigenous peoples' food systems is essential to the future ability of communities to adapt to Arctic changes and maintain their cultural and economic sustainability. This seminar is the outcome of a series of community-based workshops, seminars and youth engagement activities in Russia, Norway and Alaska about Arctic indigenous peoples' food culture. This seminar will include a panel discussion and short knowledge presentations from Alaska, Norway and Russia drawn from the new Arctic Council EALLU food book. Perspectives will be given on the ways reindeer and other resources are being used to improve the quality of life for local communities. The program will be

followed by a tasting reception where Alaskan reindeer meat will be served. This tasting will highlight both Scandinavian, Russian and American recipes developed to showcase reindeer meat.

A) Demonstration of circumpolar food culture – reindeer meat tasting

Young Sámi chef Nils Bendik Dunfjeld serving reindeer meat from Alaska, together with world reindeer herders and Arctic indigenous peoples.

B) Panel discussion – Future of Reindeer Herders' Economy:

Moderators: Dr Prof. Greg Finstad, Manager, Reindeer Research Program and Mr Anders Oskal, Executive Director, International Centre for Reindeer Husbandry

Panelists:

-Mr Bruce Davis, Midnite Sun Reindeer Ranch

-Ms Ann Davis, Owner, Midnite Sun Reindeer Ranch

-Mr George Aguiar, Archipelago Farms

-Mr Mikhail Pogodaev, Executive Chair, Assoc. of World Reindeer Herders, Russia

-Mr Johan Mathis Turi, Secretary General, Assoc. of World Reindeer Herders, Norway

-Representatives from Stevens Village Reindeer/Bison Farm

C) Launching of Arctic Council Indigenous Food Book “EALLU - Indigenous Youth, Arctic Change & Knowledge of Food Culture. How We Have Thrived on the Margins.”

Arctic Council Sustainable Development Working Group Report from the EALLU Project in 2015-2017.

Recommendations from the Project to the Arctic Council. **Executive Director Anders Oskal (Sámi),**

Project leader, Norway

Short Presentations from Alaska, Norway and Russia:

Dr Mikhail Pogodaev (Even), Co-Project leader, Russia

World Reindeer Husbandry– traditional knowledge and reindeer husbandry. Perspectives from Republic of Sakha Yakutia, Russia

Researcher Svetlana Avelova (Evenki), Russia

Traditional Cuisine of Evenki People, Russia.

Researcher Alena Gerasimova (Evenki), Russia

The Evenki Cook book - The Value of Reindeer Blood and Blood Sausage for Evenki Reindeer Herding Peoples – Examples of Traditional Knowledge,

Bruce Davis (Inuit), US Alaska

Midnight Sun Reindeer Ranch. The Nome Cookbook initiative

Reindeer Herder Issat Turi (Sámi), Norway

Sámi historical perspectives of reindeer husbandry in Alaska.

Carolina Behe (Inuit), ICC Alaska

Food security in Inuit food systems.

Suanne Unger, AIA Alaska Traditional Unangan/ Unangas (Aleut) Food - Food is the sustenance for the life.

Short Discussion and Q&A Session

Moderated by Prof. Svein D. Mathiesen

Prof. Svein D. Mathiesen, UArctic EALÁT Institute at International Centre for Reindeer Husbandry, Norway.

Arctic Indigenous students in IASSA Umeå, Sweden

SESSION 3 CULTURE IASSA UMEÅ JUNE 9th-10th Food and Indigenous Cultural Revitalization in the North Chair: Mikhail Pogoda FRIDAY 9th 10:30

ORAL PRESENTATIONS 10 min + 5 min. 11 presentation (3 hours)

Navigating towards future sustainability in reindeer husbandry: The role of traditional knowledge in social-ecological Arctic food systems Svein D. Mathiesen

“He hunts a lot and I work”: Contemporary gendered aspects of Inuit food sharing in Nunavut Magalie Quintal-Marineau

Indigenous Peoples’ Food Empowerment: Local Economies & Resilience in a Changing Arctic Anders Oskal, Philip Burgess et.al

Sámi reindeer herder’s perspective on reindeer meat quality - some examples of traditional knowledge Sara Ravdna BM Eira, Nechei Serotetto, Issat Turi, and Svein D. Mathiesen

The Knowledge of Sami and Nenets Embedded in their Language: The connection between slaughtering techniques and the quality and taste of reindeer products Nechei Serotetto, Ravdna B M E Sara, Marina Lublinskaya, Maria Barmich

Traditional Knowledge of the Indigenous Peoples of Chukotka about Production, Storage and Processing of Food Products Svetlana Chernyshova, Angelina Terletskaia

LUNCH

Relation to Food, Relations through Food in Every Day Life and Rituals of Amguema Reindeer Herders (Chukotka) Virginie Vaté, Davydova Elena

Traditional Cuisine of Evenki People: linguoculturological aspect Svetlana Avelova

Food as a vehicle for the political: Colonial relations and food policy in the Eastern Arctic Eleanor Stephenson

Customs in indigenous food culture: why reindeer herders don’t eat the tip of the reindeer tongue Alena Gerasimova , Johan Mathis Turi, Anders Oskal

The Place Of The Bear Festival In The Ob-Ugrian Cultural Revival Anna Lamalice
Finish 1500 hrs

POSTER PRESENTATION FRIDAY 9^h 15.30

Suovas - Preserving Reindeer Meat in the Smoke of the Lavvu Kia Krarup Hansen, Rávdná Biret Márjá Eira Sara, Camilla Brattland, Inger Anita Smuk and Svein Disch Mathiesen

Somatic Lexical System - a Unique Source of Traditional Knowledge of Indigenous Khanty People Zoya Ryabchikova, Elizaveta Pershina

The Role of Traditional Food Systems in the Self-Identification of Nivkh from the North-East Coast of Sakhalin Lyudmila Gashilova

That Which We Ate, Made Us Strong. Dmitry Turks Arkady Gashilov,

Festive food preserves Koryak language and knowledge in Kamchatka and Magadan oblast'. Olesya Bolotaeva, Roksana Avevkhay, Anatoliy Sorokin

Language and Knowledge in Koryak Food Culture: The names of native dishes in Koryak language Olesya Bolotaeva

Wild plants in the food culture of Siberian Yu'pik and Chukchi: Biodiversity in Practice Olesya Yakovleva

Dolgan Knowledge & Tradition in Food Culture as a Health Protector Anna Chuprina, Svetlana Chernyshova

General Principles of Establishing the Traditional Food Systems of Indigenous Peoples of Chukotka Svetlana Chernyshova, Tatiana Terletskaya

Food and Indigenous Cultural Revitalization in the North based on the ARCTIC COUNCIL SDWG REPORT EALLU PANEL DISCUSSION Saturday 10th 10:30 – 1200 Chair: Svein D Mathiesen

Panel: Alexander Pilasov, Anders Oksal, Igor Krupnik, Ravdna B M E Sara, Gail Fondahl, Mikhail Pogodaev

Reindeer Herders' Professional Days World Reindeer Herders Assembly Jokkemokk Sweden.

[Thursday August 17 - Main Congress Hall](#)

09.00 Welcome President of Saami Council Mrs Åsa Larsson Blind TBC

Plenary session: INTERNATIONAL PERSPECTIVES (main congress hall)

Chairs: Deputy Speaker of the Yamal Duma, Dr Sergey Kharuchi and phd student Helena

0905 Mr Gregorio Velasco Gil, Lead of FAO Pastoralist Knowledge Hub, UN FAO Rome, Italy. The Pastoralist Knowledge Hub and the Global Pastoralist Network Initiative (Title TBC)

0915 Mr Åke Mikaelsson Naturvårdsvärket/Swedish Environmental Protection Agency, Arctic Council ACAP CLEO – Circumpolar Local Environmental Observation System

0925 President Mr Anatoly Dobryantsev, Reindeer Herders' Union of Russia. Food systems and the nature of reindeer husbandry in Russia.

0935 Professor Tor Benjaminsen. States and status of pastoralism TBC Discussion

Plenary session: CULINARY TRADITIONS, FOOD CULTURE AND YOUTH (main congress hall)

Chairs: Mr Alexander Serotetto and PhD student Ravdna B M E Sara

1000 Mrs Nadezhda Gerasimova. Cook Book Launching: Traditional Cuisine of the Evenki People of Southern Yakutia

1015 Executive Director Mr Anders Oskal, ICR. Presentation Arctic Council EALLU food book

1030 Executive Director Mr Are Smuk Figved. Finnmark rein. History of fresh reindeer meat to the market.

1045 Mr Viktor Iugai, Director of the Department of Agriculture, Trade and Food of the Yamalo-Nenets Autonomous Okrug. Status of reindeer husbandry in YNAO.

1100 Ms Marta Okotetto. Making it raw: Nenets reindeer food culture.

1110 Project leader Ms Victoria Harnesk, Slow Food Sápmi. Presentation of Slow Food Sápmi

1120 Chair of State Arctic Committee Mr Prokopy Nikolayev, Sakha (Yakutia) Republic. Food Resources in the High North.

1130 -1230 Panel discussion with short presentations

- Mrs Maret Ravdna Buljo. Sámi perspectives on traditional food culture and innovation. (TBC)

- Ms Representative from Nenets (TBC). Nenets perspectives on traditional food production.

- Mr Nils Tony Bransfjell. A new generation of family based slaughterhouses.

- Mr Per Mathis Oskal. Hjertinrein. Being a herder and running a family based Slaughterhouse.

- Ms Alexandra Galkina. Agricultural production cooperative Tundra. Production and processing of reindeer meat - experience from Kola reindeer herders.

- Ms Jørgen Jonson, Idre Saami villiage. TBC

- Rickhard Lænta Sápmi ren och vilt.

Posters, company presentations and food tasting.

0800 Departure by bus from Jokkmokk to Naturrum, Laponia

BIODIVERSITY, CLIMATE CHANGE, AND PROTECTED AREAS

Main auditorium Naturum Laponia

Chairs: Mikhail Pogodaev and Svein D. Mathiesen

1000 Welcome Mr Bernt Wennstrøm, board member Laponiatjuottjudus .

Ms Kristin Nilsson, Manager of the National Park Center NATURUM. TBC

1030 Mr Åke Mikaelsson, Naturvårdsverket/ Swedish EPA and Arctic Council ACAP.

1045 Ms Helena Omma. Chair of Mija Ednam, the Saami villages NGO that was established to be a part of the Laponia world heritage management.

1100 PhD Dmitry Marfuslov. Taiga reindeer husbandry and the history of territory of traditional nature use, Sakha (Yakutia) Republic, Russian Federation.

1115 Dr Iulie Aslaksen, Statistics Norway. The concept of biodiversity and indigenous peoples knowledge (10 min).

1130 Mr Baasankhuu Gos, Dukha Taiga reindeer husbandry and national parks in Mongolia (10 min).

1145 Mrs Kathrine Johnsen, GEF UNEP Nomadic Herders project (10 min).

At the Assembly of World Reindeer Herders in Jokkemokk August 2017 a group of 10 students from Reindeer Herders Upper Secondary School in Kautokeino was gathered for 2 workshop to discuss the major outcome of NUNAVIS_EALLU with main focus on increased awareness and use of Saami Reindeer Herders traditional knowledge in future resource mangagement.

A special declaration was developed in Jokkemokk based on the contribution from our project.

Traditional knowledge and training courses

Training of indigenous youth about documentation of traditional knowledge related to changes of biodiversity. In 2016 32 indigenous students, Chukchi, Even, Evenki, Dolgan, Nenest, Dukha and Saami all from reindeer husbandry in the circumpolar north applied to a 10 ETCS international bachelor course which was developed on documentation of traditional knowledge related to biodiversity in the local environment. After two weeks training, including lectures, literature reading, practical exercises, oral presentations, field work and a lavvu dialogue at Saami University of Applied Science in Kautokeino Norway followed by home work in local communities a total of 29 students past the final examination in the autumn 2016. Main thematic, in the course Biodiversity in a circumpolar indigenous perspectives, was CBD, articles 8J and the concept of traditional knowledge. The course empowered indigenous communities in the North to Arctic change. Students learned to build bridges between analytical and empirical approaches to traditional knowledge and the role of traditional knowledge in the conservation of biological diversity. It did provide students with practical experience in using methods to document traditional knowledge on biological diversity in a systematic and ethical manner. The course is base on CBD and article 8j and was given in, Saami, Mongolian, English and Russian language for indigenous students from the circumpolar north. The main goal was to increase the insights in the relationship between traditional knowledge and biodiversity for indigenous students for the sustainable development and protection of the Arctic. UArctic EALÁT Institute aims at a continued contribution to a holistic strengthening of knowledge development, research, education, monitoring, information and outreach for circumpolar reindeer husbandry. The project will develop new methods and try new dialogues in this training arena for Arctic indigenous peoples for TK and biodiversity. The training goals included the protection of the Arctic and sub-

Arctic regions of the earth is important for the sustainable development of reindeer herding in Arctic indigenous societies. A total of 29 students passed the exams at Saami University of Applied Science. A special agreement between Saami University for Applied Science and International Centre for Reindeer Husbandry in the framework of University of the Arctic was made implementation of the course.

Following students participated:

BULJO, ELLE SARA EIRA -
CHUPRINA, ANNA -
AVELOV, VIACHESLAV –
KOLESOVA, ANNA
BULJO, BIRET –
KOLESOV, IGOR
SEROTETTO, NECHEI
DUBOVTSEV, ANDREY
ZAKHAROVA, SOFIIA –
OKOTETTO, MARTA
PROKOPYEVA, ELENA
SEROTETTO, ANASTASIIA
VASILIEV, MAKSIM –
BATKHISHIH, BURMAA
BAYANDALAI, KHOSCHIMEG
GANBAT, SARANTUYA
GANBOLD, BAYARMAGNAI
GOMBO, TSETSEGMAA
ZOLZAYA, UUDUS
ZORIGT, ZAGALMAA
SIDOROVA, IANA –
KAURGIN, PETR
NUTENDLI, MARIIA
NUTENDLI, NADEZHDA
REUNDIU, MAKSIM
PUREVJAV, UDVAL
TUPRIN, ROMAN –

Further development and testing of standards to incorporate traditional knowledge into decision-making on the use of resources as human food

Standard templates for the use of community observation of traditional food resources will be further developed and tested so that community members are able to strengthen their documentation and communication of knowledge on the status of natural resources. This will help to improve the local people's and authorities' decision-making on the use of natural resources based of the outcome of the EALLU report:

Traditional knowledge - Slaughtering processes and meat quality - from Sámi reindeer herders perspective

It is common that a reindeer herder chooses to slaughter a good animal for itself. There is a certain way of choosing the right reindeer for the purpose and a method on how the reindeer is slaughtered. Usually the reindeer is killed by stabbing a knife straight to the heart so the blood runs out a little bit and then tie the esophagus/throat so the contents of the stomach do not come up in the mouth. Then the reindeer is left for a while, to “*baggat*” or “*virrat*”. When a reindeer is being slaughtered in a Sámi home a traditional slaughtering method is used. The slaughtering method is common in all Sami region but with some variations. These methods have been used and passed over to the younger generations for a long time. The knowledge embedded in the method and words used during the slaughtering explain the slaughtering process, names of different way of slaughtering and parts of the reindeer. In Konrad Nielsen’s (1979) systematic part of the dictionary there are listed 207 words only about the slaughtering process. Each word has an explanation in the dictionaries that explain what the word means. The slaughtering process in the systematic part of Nielsen’s work is divided into seven categories, 1) killing 2) killing place 3) the process of killing, slaughter -reindeer, killing method and killing implements, 4) skinning, 5) dismemberment and dividing up, 6) terms of carcass, and parts of carcass and 7) treatment of the flesh and other parts of the carcass. This show that the knowledge embedded in the words connected to slaughtering are of importance and each word has a meaning that a traditional slaughterer use and should know. There are even more words connected to preparation and conservation of reindeer meat in these dictionaries.

Documentation of traditional knowledge of food culture in Sami Reindeer Husbandry - navigation towards future sustainability

Traditional knowledge in Sámi reindeer herding related to reindeer welfare, handling of animals and Sámi food culture is rich and will be documented until November 2017. Reindeer herders’ traditional knowledge and scientific knowledge about slaughtering, processing of meat, conservation of meat will be investigated to find out if there two sphere of knowledge affect reindeer herders ability to adapt to rapid change? It is important to document traditional food-culture within reindeer herding communities to maintain the knowledge embedded in the language of food used. Sámi reindeer herders’ diet is mostly reindeer meat and other parts from reindeer in different varieties; smoked, cooked, dried and roasted. By focusing on traditional food culture and scientific knowledge in reindeer husbandry, there might be new ways of developing the economy of reindeer herders by highlighting the traditions within food and use of reindeer and that way gain recognition for the traditional ways of harvesting, storing and preserving reindeer meat, using traditional knowledge navigating for future sustainability.

There is little documentation about Sámi reindeer herders’ traditional knowledge about quality of meat which at the same time, include science in a co-production process. *Diehtit* is teoretical while *máhttít* is practical (ibid:62-62) and Eira & Hætta (2015) underline the concept of traditional knowledge is defined in many ways and have several layers. A practice in the Sámi slaughtering process, called *baggat* or *virrat* will be investigated using strandad templates. The method include the rumen of the reindeer to blow up after killing and before removing of the skin. Does the process of *baggat* have a saying for the meat quality? Will *baggat* effect the meat tenderness in reindeer? The traditional customs are important in traditional Sámi slaughtering process. Therefore, it is of interest to investigate the custom of tenderizing meat, the process of *baggat* and *virrat* and discuss if traditional methods could be included in a modern slaughtering process.

Case 1.

SÁMI SLAUGHTERINGPROCESS OF REINDEER

Standard traditional knowledge template from reindeer herding area Guovdageaidnu, Finnmark Norway

This is a standard template for the use of community observation of traditional food resources to strengthen their documentation and communication of knowledge on the status of natural resources. With some variations, the traditional slaughtering method is common in all Sami regions. This template is built on the method from Guovdageaidnu reindeer herding area, Norway.

Timeline of Slaughtering process - in order what happens first				
	What	When	How	Where
1. The process of selecting reindeer to slaughter	Type of reindeer (sex, age, fat/skinny, healthy?) For what reason?	Season of year Growing / waning moon Snow on the grown?	Traditional selection Modern selection	Location (in field or corral or field-slaughtehouse)
2. Implements used to slaughter	Type of knives -Niskkkádanniibii (stick to the neck knife) -Čállinniibii (Cut the skin knife) -Sáminiibi (Sami knife) -Eará niibbit (Other knives)	When are the different knives used	How are the implements used	Where (on carcass) are the different implements used
3. Method of euthanizing (put animal to death)	Explain the euthanizing method	Time of the day Temperature	“Giehtadit” “Niskkkádit” Gun?	Location of euthanaizing

4. “Baggan” – “virrádit”	Explain what happens Why is this a part of the slaughtering process?	How long	How to see/feel it is enough?	Location (is carcass moved any distance?)
5. Skinning - removal of skin	Tools	Time after killing	Explain the process – what happens first. Head, legs, stomach	
6. Buchering of the carcass	What parts? For what purpose?	In what order are parts dismembered?	How many parts?	Where and how are the parts placed during slaughtering?
7. Parts of the carcass	Identify the different parts with the right term/name			
8. Treatment of meat after slaughtering	What happens with meat after slaughtering?		Salting, freezing, drying, smoking etc.	Where is meat ept?
9. Eating	Parts?	The effect of Preparation on tenderness?	How is it prepared? How is the tenderness described?	Where is the prepared food eaten?

CASE 2.

A STUDY ON WAYS OF KNOWING ABOUT SÁMI TRADITIONAL SMOKING PRACTICES

Today's food culture, including the food culture linked to conserving practices in Sámi reindeer husbandry, is facing shifts due to economic, ecological and socio-cultural changes. If reindeer herders are to be able to navigate towards future sustainability, comparing multiple spheres of knowledge could provide new knowledge on possible adaptation strategies. *Suovastuhttit* is the practice of smoking meat and *suovasbiergu*¹ is *smoked meat* (Kåven & Eira, 1995; Nilsen, 1979 (1932, 1962)). What are perceived as correct smoking practices by different actors, in the case of meat conservation, cooking and/or flavouring. To reveal multiple knowledge about smoking we will do qualitative and quantitative case-based studies, different spheres of knowledge on smoking of meat, conservation and traditional food culture. Reindeer herders around the Arctic are known to smoke their meat for conservation. Smoking is one of the oldest techniques for conservation or manipulation for long-term storage (Riddervold & Ropeid, 1988; Sikoraki & Kolakowski, 2010). Sámi traditional smoking practices *Suovastuhttit* is little documented, but is in daily use in reindeer husbandry. We will use smoking of reindeer meat as a case to study how reindeer herders traditional knowledge used, and a pilot template is therefore developed:

TRADITIONAL SÁMI MEAT-SMOKING

Standard template from reindeer herding areas in Finnmark, Norway



This is a standard template for the use of community observation of traditional food resources to strengthen their documentation and communication of knowledge on the status of natural resources. With some variations, the traditional Sámi methods of smoking reindeer meat in the Norwegian part of Sápmi are similar. This template is developed with Sámi reindeer herders from East- & West-Finnmark, Norway

Choosing reindeer to slaughter

☐ male

☐ female

☐ fat

☐ skinny

Year of the animal	0- ^{1/2} (Calf)	1-1 ^{1/2}	2-2 ^{1/2}	3-3 ^{1/2}	4 +	el
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Season/month (Growing moon?):

Other reasons for chosen that animal for smoking:

Slaughtering - Euthanizing

How is the animal put to death (*Giehtadit, niskkádít*)?

What tool is used?

When (time of the day):

Where (slaughterhouse, field-slaughterhouse, in the field):

Temperature at the slaughtering place/snow on the ground etc:

Is the animal bleed of (by heart stick or carotid artery)?

Is the animal *baggan* (how long), when do the disemboweling take place?

Slaughtering - butchering

Into how many parts are the animal butchered:

- ☐ *oaivi* (head)
- ☐ *čeabet*
- ☐ *mielga*
- ☐ *čielggi*
- ☐ *čoarbbealli* (steak)
- ☐ *čoamohas*
- ☐ *erttet* (rib with or without sirloin?)
- ☐ other parts, what:

Is the animal slaughtered for smoking or other use (sick animal, for the use of the fur etc.)?

Is the animal butchered for the purpose of smoking?

Are the bone removed from the meat?

Are the meat parts cut into smaller pieces and/or cut up to increase the surface?

Salting of the meat

What meat parts are chosen for smoking?

- ☐ *Oaivi* (head)
- ☐ *čeabet*
- ☐ *mielga*
- ☐ *čielggi*
- ☐ *čoarbbealli*
- ☐ *čoamohas*
- ☐ *erttet* (with or without sirloin?)
- ☐ other parts? (eg. Gurpi), what?

What salt is used?

- ☐ fine salt, how many hours?
- ☐ coarse salt, how many hours?

How is the salted meat kept? (where, how, in what...?)

Smoking construction

What construction is used for smoking?

- ☐ lavvu/goahti (Sámi traditional tent), what lavvu? (size etc);
- ☐ gamme (Sámi traditional turf or wooden hut)
- ☐ smoking-furnace (with or without smoking canal):
- ☐ other, what:

How is the meat hanged above the fireplace?

Firewood

Woodtype(s):

Describe the wood (shavings, with leafs, size etc.):

Where and when is it picked/from?

The smoking process

How long is the meat smoked?

How is the fire watched (e.g. amount of wood, water (humidity/temperature), presence)?

How to see/taste/feel that the smoke is good/ the meat is done?

Do the meat hang after the fire/smoke went off? What is done with the meat after smoking?

SUCCESS CRITERIA

One could say that “*an opportunity should be an opportunity for all*” in management of local resources in the Arctic. The project has developed new methods for documenting traditional knowledge and improve adaptive skills while enhancing livelihoods economy. The project is linked to International Nomadic Herders project, supported by UNEP and GEF and the Arctic Council, Conservation of Arctic Flora and Fauna (CAFF). International Centre for Reindeer Husbandry are participating in all these projects. We believe that this people- to-people initiative will help build local expertise in operations in reindeer herders community. The Arctic Council EALLU will improve the social ecological resilience in reindeer husbandry in Nordic Countries and the cooperation with Nordic Resource Management (*NUNAVIS*) and provided a unique comparative analysis of how traditional knowledge is used in local management of resources in the Nordic Countries.

