

# YOUTH

## THE FUTURE OF REINDEER HERDING PEOPLES



International Centre for Reindeer Husbandry (ICR) & Association of World Reindeer Herders (WRH) in cooperation with the UArctic EALÁT Institute (UEI).

EALLIN is an Arctic Council project of the Russian Federation and Norway in partnership with the Sámi Council, UArctic and others.

EALLIN is led and implemented by the Association of World Reindeer Herders in cooperation with the International Centre for Reindeer Husbandry.

Cover: Arctic Lavvu dialogue in Kautokeino, March 2012, between circumpolar reindeer herding youth, teachers and HSH Prince Albert II & HSH Princess Charlene of Monaco.

Pic: Riccardo Pravettoni

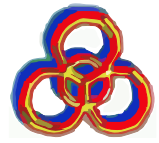


Sustainable Development  
Working Group

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Association of World Reindeer Herders



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# CONTENTS

<b>The voice of reindeer herding youth</b>	<b>5</b>
<i>Key Recommendations</i>	6
<b>1 'EALLIN lea Buorre'- 'Life is good'</b>	<b>9</b>
1.1 <i>Why focus on reindeer herding youth?</i>	10
1.2 <i>Why gather youth in Lavvu/Chum dialogues, workshops and Facebook?</i>	11
1.3 <i>Method: Co-production of knowledge</i>	12
<b>2 Sometimes...Life is Not So Good</b>	<b>17</b>
2.1 <i>"I didn't want to live anymore"</i>	17
2.2 <i>"Cry of pain"- Development of suicidality among indigenous Sámi reindeer-herders as a result of work-related stress</i>	20
2.3 <i>Health care and reindeer herders in the Russian Federation.</i>	23
2.4 <i>Climate change in EALLIN herding areas.</i>	23
<b>3 What Do We Need to Improve Our Lives?</b>	<b>26</b>
3.1 <i>Strengthen our societies through education &amp; competence building</i>	27
3.1.1 <i>Relevant Education for Herding Youth</i>	27
3.2 <i>Traditional knowledge in reindeer herding - A treasure house for the future</i>	33
3.2.1 <i>Continue to preserve opportunities for the development and transfer of traditional knowledge</i>	33
3.3 <i>Drafting fundamental principles for the use of TK in strengthening the Arctic Council</i>	36
3.4 <i>Our silent languages</i>	40
3.5 <i>Focus on the foundation of our livelihood – our families</i>	43
3.5.1 <i>Where are the women?</i>	43
3.6 <i>Equitable access to technology</i>	47
3.6.1 <i>Technology and safety</i>	52
3.6.2 <i>Technology, education &amp; networking</i>	53
3.6.3 <i>Social media and the Reindeer Portal</i>	53
3.7 <i>Use economic models which safeguard our futures</i>	55
3.7.1 <i>The East: Russian reindeer husbandry economy</i>	55
3.7.2 <i>The West – Sámi reindeer husbandry economy in Fennoscandia</i>	57
3.7.3 <i>Reindeer herders' perception of economy, shortcomings of existing models</i>	58
3.7.4 <i>World reindeer herders on economy:</i>	61
3.7.5 <i>A paradox of opportunity: Arctic change</i>	62
3.7.6 <i>A paradox of organisation: Collectivization under the Soviet Union</i>	64
3.8 <i>Predators</i>	66
3.8.1 <i>Predators impact herders' economies</i>	67
3.8.2 <i>Predators are a governance and self-determination issue</i>	68
3.8.3 <i>Predators are a security and mental health issue</i>	69
3.9 <i>Our reindeer need pastures</i>	71
3.9.1 <i>The international protection of indigenous peoples' rights</i>	71
3.9.2 <i>Does the protection of nature protect reindeer herders?</i>	73
3.9.3 <i>This land of competing interests is our home</i>	78
3.9.4 <i>There are many ways our land is lost</i>	80
3.9.5 <i>Development or no development: Exploring the possible</i>	86
<b>4 Young Herders Hopes for the Future of Reindeer Husbandry</b>	<b>90</b>
<b>5 References</b>	<b>93</b>

<b>6 Appendix</b>	<b>106</b>
6.1 <i>Description of the SDWG EALLIN workshops</i>	106
6.1.1 Tromsø (Norway) – January 23-26, 2012	106
6.1.2 Kautokeino (Norway) – March 2012	106
6.1.3 Kolymaskoe, Yakutia (Russia) – March 9-12, 2012	107
6.1.4 Saint-Petersburg (Russia)- November, 2012	108
6.1.5 Jokkmokk (Sweden) – February 15-16, 2013	109
6.1.6 Yakutsk, Yakutia (Russia) – March 15-18, 2013	110
6.1.7 Aoluguya (China) – July 26, 2013	111
6.1.8 Salekhard, Yamal-Nenets Autonomous Okrug (Russia) – September 26, 2013	111
6.1.9 Umeå (Sweden) – January 30-February 1, 2014	112
6.1.10 Kautokeino (Norway) – March 24-27, 2014	113
6.1.11 Laponia National park (Sweden) – March 28-30, 2014	115
6.1.12 IPCC launching meeting Kautokeino (Norway) – March 31, 2014	116
6.2 <i>EALLIN home and herding</i>	117
6.2.1 Sápmi (Norway, Sweden & Finland)	118
6.2.2 Yamal Nenets Automous Okrug (Russia)	120
6.2.3 Sakha Republic (Russia)	122
6.2.4 China	124
6.2.5 Mongolia	125
<b>7 The Institutions Behind the Report</b>	<b>127</b>
7.1 <i>Contributers and knowledge partners</i>	127
7.2 <i>Author Affiliations</i>	128
7.3 <i>Web Resources:</i>	128

## TEXT BOXES

TEXT BOX 1 - COULD YOU LIVE LIKE THIS?	25
TEXT BOX 2 - 'EALLIN LEA BUORRE'	26
TEXT BOX 3 - OTTAWA TRADITIONAL KNOWLEDGE PRINCIPLES	38
TEXT BOX 4 - VOICE OF A YOUNG EVENKI HERDER	45
TEXT BOX 5 - BIRGEN	46
TEXT BOX 6 - THE TOFALAR: REINDEER HUSBANDRY IS DISAPPEARING	84
TEXT BOX 7 - VOICES OF REINDEER HERDING YOUTH – EALLIN JOKKMOKK	89



## The voice of reindeer herding youth

Youth are the future of reindeer herding peoples everywhere. Reindeer herding is an ancient livelihood practiced across the Arctic and Sub-Arctic regions, areas that have become the intense focus of science, development and policy interests, and are predicted to experience dramatic climate shifts over the next decades. Young reindeer herders today face an uncertain future: The full range of consequences and impacts of climate change is unclear, their pastures are being lost, and the conditions under which they practice today may well be very different by the time they are middle-aged. The goal of this endeavour is to bring the voice of reindeer herding youth to the Arctic Council: the good, the not so good and most importantly, what young herders want to see changed in order that they can bring their livelihoods into a future which their following generations will want to follow. This report is one of the deliverables to the Arctic Council Sustainable Development Working Group project 'EALLIN – *The Voice of Reindeer Herding Youth 2012-2014*'. The main goal of the project was *to maintain and further develop a sustainable and resilient reindeer husbandry in the Arctic*, working towards a vision of *creating a better life for circumpolar reindeer herders*. Through this project, over 160 youth from different reindeer herding peoples have had the opportunity to meet each other, learning maybe as much about *themselves* in the process as they learned from their peers. The material, findings and recommendations below are derived from 12 community-based workshops in Norway, Sweden and Russia, China and Mongolia, where herding youth have been both organizers and participants. (See pp 15-16). An Executive Summary to this report is also available, entitled 'Youth – The Future of Reindeer Herding', which can be viewed and downloaded at [eallin.org](http://eallin.org)



*Pavel Sergeevich Vinokourov, Momsky District. Pic: Galina Sleptsova*

## Key Recommendations

Young herders, scientists and authors of this report make the following joint recommendations to the Arctic Council, that for 'Life to be Good':

### WE NEED TO BE HEALTHY:

- *Special attention needs to be paid to young herders' health care. Mental health issues require culturally relevant and specific expert care urgently in some regions.*
- *Access to fair and prompt response times to emergency health care situations in a culturally appropriate way is critical for nomadic herders in particular.*
- *Living conditions and quality of life need to be supported in accordance with locally specific customs and values so that reindeer husbandry is a viable choice for young people and their families.*

### OUR HERDING LANGUAGES NEED SUPPORT & RECOGNITION:

- *Support traditional models of governance and recognize that without such models, reindeer husbandry would not be possible.*
- *Recommend that the Arctic Council and its Members pay special attention to and take action on the status of reindeer herders' indigenous languages. The knowledge embedded in the professional languages of herders is a vital tool for the survival of the livelihood.*

### PREDATORS MUST NOT THREATEN OUR LIVELIHOOD

- *Heavy loss to predators continues to threaten the sustainability of reindeer herding in multiple regions. Young reindeer herders ask to be equipped with means by which they can effectively influence policies for predator management.*

### WE NEED NEW TOOLS IN THIS ERA OF ARCTIC DEVELOPMENT – SO DOES INDUSTRY

- *Loss of grazing lands and fragmentation of reindeer pastures and migration routes continues to threaten the sustainability of reindeer herding in multiple regions. Young reindeer herders ask to be provided with training courses and education to professionalize their societies in industrial relations and processes with developers.*

- *Industry and local institutions operating in areas of reindeer husbandry need to acquire and consider cultural competence in their local hiring practices in order that benefits are accrued locally*

#### WE NEED ACCESS TO TECHNOLOGIES THAT WORK FOR US

- *Equal access to telecommunication technologies across reindeer herding communities is needed so that young herders can unleash its potential in their communities, for their own purposes, on their own terms.*

#### WE NEED ECONOMIC MODELS THAT SAFEGUARD OUR FUTURE:

- *All forms of reindeer husbandry need to be supported equally across nation states and special attention should be paid to the traditional ownership practices of family based reindeer herding including indigenous understandings of private reindeer ownership.*
- *Create mechanisms and opportunities for young reindeer herders so that they can initiate their own added value businesses and bring new products to the market.*
- *Young reindeer herders in some regions, especially in the taiga, need start up support in order to manage and thrive. Without this help they often cannot even begin in the livelihood.*

#### WE NEED TO RECOGNISE THAT HUNTING IS ALSO INTRINSIC TO WHO WE ARE:

- *Hunting is an important source of food and income for reindeer herders in many regions and local hunting regimes and practices exist that can operate effectively outside official hunting regulations*

#### OUR NETWORKS NEED SUPPORT TO THRIVE :

- *Young reindeer herders ask that the Arctic Council support and facilitate fora where pan-Arctic reindeer herding youth can meet, exchange best practices and learn.*
- *Young reindeer herders asks that the Arctic Council and its Members support the Arctic Indigenous Peoples' Culinary Network Institute and UArctic EALÁT Institute, so they can deliver their relevant and culturally specific educational programs to indigenous youth.*
- *Young reindeer herders ask the Arctic Council and its Members to support the Arctic Indigenous Scientists Association (AISA), for the benefit of the Arctic. AISA was established in part to stimulate recruitment of indigenous youth into academia for the benefit of their own societies, so that solutions and expertise can be found from within.*



- *Young reindeer herders expressed the hope that the important work of EALLIN and the networks it has established be enhanced and further supported. Young reindeer herders are thankful to the Arctic Council for their support of the EALLIN project, which has connected and energized young reindeer herders.*
- *Young reindeer herders asked that the Arctic Council recognize and pay attention to the Aoluguya Declaration, on the occasion of the 5<sup>th</sup> World Reindeer Herders Congress in Inner-Mongolia in 2013.*



*Reindeer Herder, Hunter in the Taiga, Pic: Yuri Kokovin.*



# 1 *'EALLIN lea Buorre'– 'Life is good'*

***Eallin*** means “life” in Sámi language.

***It is related to the word ealát which means “good pasture conditions” and eallu which means “herd”***

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This is the final report of the *Arctic Council Sustainable Development Working Group (SDWG) EALLIN project “Reindeer Herding and Youth”*.<sup>1</sup> This project represents a continuation of the legacy of both the Arctic Climate Impact Assessment (ACIA) and the International Polar Year (IPY), and is an IPY legacy project. It is linked to the strategic goals of Russia’s Arctic Policy to 2020 and Beyond adopted in 2008 and the Russian Federation 2009 Climate Change Doctrine. The project is also closely linked to activities under the UArctic EALÁT Institute (UEI)<sup>2</sup> at the International Centre for Reindeer Husbandry (ICR)<sup>3</sup>, notably the circumpolar courses *Training of Future Arctic Leaders initiative* and *Reindeer Herders meet Arctic Industrial Development – Understanding Challenges of Impact Assessment* and *Reindeer Herders Food Culture*. The project started in 2011 under the Swedish Chairmanship in the Arctic Council, continuing into the Canadian Chairmanship. The project is linked both financially and content wise to the UNEP Nomadic Herders project<sup>4</sup>, coordinated by UNEP/ GRID-Arendal, Norway and Association of World Reindeer Herders (WRH). This report was financially supported by The Government of Norway; the Republic of Sakha (Yakutia); the Yamal Nenets AO; the Russian Federation; the Barents Secretariat; the Prince Albert II Foundation; the Swedish Sámi Parliament and the Nordic Council of Ministers.

The AC SDWG EALLIN project is related to several key areas of importance highlighted by the Arctic Council in the Kiruna Declaration of 2013 and the 2011 Nuuk Declaration, as well as the recommendations from the 9<sup>th</sup> Conference of Parliamentarians of the Arctic region in 2010. As recommended by the Tromsø Declaration this project also addresses the needs for adaptation and vulnerability strategies to be focused on the community level and “...reiterate the importance of the use of Arctic Indigenous Peoples’ traditional knowledge and capacity-building initiatives in the planning and implementation of measures to adapt to climate change” (The Nuuk Declaration 2011). The project also addresses the recognition “... that climate change and other negative factors have impacted the traditional livelihoods and food safety and security of Arctic Indigenous Peoples” – a key area of the Nuuk Declaration.

This project will contribute to the Strategic Policy Priorities of the Norwegian MFA by among other things, strengthening and consolidating Norway’s leading position in knowledge about northern areas. Further, the project seeks to improve the basis of management of environmental and natural resources in the north, such as the sustainable management of the petroleum resources. This would be achieved through contributing to the improvement of the relationships between local youths and industry workers, as well as building capacity and

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<sup>1</sup> <http://www.eallin.org>

<sup>2</sup> <http://www.ealat.institute>

<sup>3</sup> <http://www.reindeerportal.org>

<sup>4</sup> <http://www.nomadicherders.org>

knowledge development among youth. The project also has an emphasis on tradition-based knowledge as a knowledge resource in dialogue, development and decision-making processes in the terrestrial areas of Arctic indigenous peoples.

The project will strengthen the extent to which indigenous people are able to participate and get involved in the changes happening in northern areas, as a means to help protect their culture, traditions in the midst of land-based industrial and commercial development.

The project will strengthen the collaboration with Russia, which formally serves as the host of the project in the Arctic Council, especially with regards to the indigenous people in the northern areas. The initiation of the EALLIN project thus represents a milestone in engaging the Russian Federation in international reindeer husbandry cooperation. The EALLIN project further represents a positive, constructive and active engagement of Russia and Russian authorities, both centrally and regionally, for the improvement of Arctic indigenous peoples livelihoods. It represents a unique exchange of knowledge and experience between Norway, Russia, and a number of other countries also engaged in reindeer husbandry, as a result of contact between indigenous youths of the various associated regions under the framework of the Arctic Council. This supports Norway's aspiration to be at the front in knowledge related to the Arctic.

## 1.1 Why focus on reindeer herding youth?

Since the future of reindeer husbandry and its traditions lies with the youth, the most pressing question is to see whether youth within reindeer husbandry want to continue in this traditional livelihood and under what terms? Climate change and globalization are long-term challenges, therefore, our responses must also be long-term, i.e. investing in our youth.

Climate change and socio-economic change are now evident across the Arctic (IPCC 2013). Global and regional scenarios project dramatic changes in temperature, precipitation and snow conditions in the key areas of reindeer herding (Benestad 2008). Together with social-economic changes these trends are particularly evident in reindeer herding cultures, in their traditional areas and communities. Adding the degradation of pastures due primarily to industrial development, along with the consequences of a changing climate; the future of reindeer husbandry will undoubtedly be challenged (Magga *et al* 2011). These changes are going to have a heavy impact on the decisions young people make and whether reindeer herding as a livelihood is a viable choice for them and their young families. Competence, skills and new technologies need to be built into reindeer herding communities on terms that work for young herders. Empowering young herders to develop their own adaptation strategies to meet future changes is the best route for ensuring that this precious storehouse of knowledge about how best to live in a challenging environment is not lost.

The meaningful engagement of indigenous peoples for the future is “...*fundamental to addressing circumpolar challenges and opportunities*” (Tromsø Declaration, 2009), and Ministers have further “...*emphasized that a fundamental strength of the Council is the unique role played by Arctic indigenous peoples.*” (AC Kiruna Declaration, 2013). This must clearly also apply to the engagement of indigenous youth.

The hope is that the AC SDWG EALLIN project is a contribution towards a vision of creating a better life for circumpolar reindeer herders by:

- Linking reindeer herding youth throughout Fennoscandia, Russia and the Eurasian landmass, to share knowledge and lessons learned in their quest to ensure the future viability of a sustainable reindeer husbandry.
- Creating space for improved dialogue between reindeer herders and industry - a key issue for those in the Arctic practicing traditional livelihoods whose lands are increasingly of interest to industry.
- Working as a tool for recruiting indigenous youth to scientific work, by building competence locally in indigenous peoples' societies and encouraging the active engagement of reindeer herders in securing sustainable futures for themselves, their reindeer and their communities by building resilience.
- Assembling all the knowledge revealed in the EALLIN workshops, into key findings and recommendations disseminated to the Arctic Council. The long-term desired effect is a sustainable and resilient circumpolar reindeer husbandry and reindeer herding cultures, in the face of Arctic change.

Youth are the future of reindeer herding peoples. They are the ones that will carry on the traditions and skills related to reindeer herding. They hold in their hands the responsibility for the future of the reindeer and their communities. We strongly argue that building competence between reindeer herding youth in different regions is a critical factor for the protection of the Arctic, and will enable the maintenance of Arctic biodiversity and the sustainable development of Arctic indigenous societies.

## 1.2 Why gather youth in *Lavvu/Chum* dialogues, workshops and Facebook?

Dialogue is key to developing understanding and to building relationships. Through this work it has become apparent that young herders not only have a lot to say about the things that matter to them but also that they have a lot to say about what they think should be done to make their lives better. How best to encourage young herders to talk? Bring them together. As EALLIN means 'life', young herders wanted to stress that 'life is good', and they want to make it better as there are many factors that are making life 'not so good'. The challenges are many and they are as diverse as the peoples' herding reindeer. But reindeer herding youth, just as their parents and grandparents who initiated international collaboration among reindeer peoples' in modern times 25 years ago have found through the EALLIN process, that they face strikingly similar challenges to varying degrees, wherever they live.



### 1.3 Method: Co-production of knowledge

EALLIN brought young herders together by arranging a series of community workshops. Workshops were held in Norway, Sweden, Russia and China and involved young herders as well as scientists and experts in the field of traditional knowledge, natural resources and

#### ARCTIC LAVVU DIALOGUE

A forum where herders dialogue with scientists, authorities and industry in more familiar surroundings such as traditional tent poles, fire & reindeer hides.

“*Lavvu*” is the Sámi term  
for the traditional nomadic tent used in Sápmi  
Evenki use the “*Djuh*”, Chukchi use the “*Yaranga*”, Nenets and others use the “*Chum*”

environment, representatives of indigenous peoples, the executive and legislative authorities, NGOs and the media.

Reindeer herding youth participants included Sámi from Fennoscandia, Nenets and Khanty from the Yamal Nenets Autonomous Okrug, and Dolgan, Chukchi, Yukagir, Even and Evenki from the Republic of Sakha (Yakutia), as well as Evenki from China and herding youth of Mongolia.

The project was built on the successes and methodologies of one part of the IPY EALÁT project<sup>5</sup>, whereby young reindeer herders interviewed reindeer herding elders about traditional use of the land, climate change and reindeer.

EALLIN has further developed the use of place-based community workshop methodologies developed in SDWG EALÁT Information<sup>6</sup>, which proved to be a useful tool for community engagement and knowledge sharing. These workshops allowed for a diverse range of peoples, gender, age groups, social and economic backgrounds to communicate with each other in a collaborative and mutually beneficial environment.

There have been multiple statements regarding the need to join scientific and traditional knowledge, to give a clearer understanding of climate and other changes, and their consequences (ACIA 2004). This was also supported by Sámi reindeer herder and linguist Eira

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<sup>5</sup> See <http://www.ealat.org>

<sup>6</sup> See <http://www.reindeerherding.org/projects/ealat-information/> for a list of deliverables from this project and where you can download the book: *EALÁT: Reindeer Herders' Voice. Reindeer herding, traditional knowledge, and adaptation to climate change and loss of grazing land.*

(2012), who studied Sámi snow concepts and discussed the importance of using traditional knowledge when looking at adaptation strategies for herders.

Community-based workshops address this need and have represented an arena where science and traditional knowledge have met, where reindeer herders, scientists and local authorities have been brought together in dynamic discussions on important issues related to reindeer husbandry. This has utilized in a concept 'arena' for indigenous youth engagement and exchange throughout the Arctic, resulting in capacity building for the participants and their respective local communities. Community based workshops with a focus on youth are beginning to be more utilised elsewhere in in the Arctic to explore themes related to youth, resilience and change (see for example Ulturgasheva 2014)

These workshops are a way to co-produce, where reindeer herders' local observations of change and their resilience and adaptive capacity, are used to explore, analyze, interpret and understand change. The data achieved through participant field observations and dialogues in the workshops are thus qualitative. They help to give an in-depth understanding of the complex human-ecological relationships in reindeer husbandry, and expands the co-production of knowledge about adaptation. Participant work is used to attain a greater understanding of the holistic foundation of reindeer husbandry; their working life, their cultural connections to herding, their behaviours, attitudes and challenges. In addition, this method has the potential to stimulate a feeling of confidence between herders and other participants (observers, researchers, industry and politicians) and raises questions and answers (field conversations). However for such an approach to be effective, there needs to be close attention paid to risks, uncertainties, political structures and institutions (Dodman and Mitlin, 2013)

## **What kind of questions were raised throughout the EALLIN Project?**

*What challenges do youth face in the future? (Jokkmokk)*

*How should we meet these changes and challenges? (Jokkmokk)*

*What kind of knowledge do we need and how can we learn from each other? (Jokkmokk)*

*Are youth are leaving reindeer herding in your community? (Aoluguya)*

*Are you experiencing the lack of ... women, income, areas and/or reindeer? (Aoluguya)*

*Why do you think these shortages exist? (Aoluguya)*

*Do you feel that youth in your area should take responsibility to build up your reindeer herding communities? (Aoluguya)*

*How do you carry out your responsibilities today? (Aoluguya)*

*What more could you do? (Aoluguya)*

***What should be done in the next 4 years by youth, before the next World Reindeer Herders' Congress in 2017? (Aoluguya)***

***What did I do so that my grandchildren could continue with reindeer herding? (Umeå)***

***What does the 'good life' mean to you? (Umeå)***

The hope is that information derived from these workshops could lead to new research questions and projects, where a process of co-production between herders and scientists in monitoring changes could be developed. By focusing on research, education, monitoring and information, this project could contribute to developing participatory methods and strengthen knowledge development on traditional knowledge and knowledge related to changes affecting circumpolar reindeer husbandry.



*EALLIN Kautokeino 2012. Pic: Riccardo Pravettoni*



# EALLIN FROM SÁPMI TO SAKHA

## 1 TROMSØ

January 23-26, 2012

## 2 KOLYMSKOE

March 9-12, 2012

## 3 KAUTOKEINO

March 22-30, 2012

## 4 SAINT-PETERSBURG

November 30, 2012

## 5 JOKKMOKK

February 15-16, 2013

Joint Skype seminar with Yakutsk

## 6 YAKUTSK

March 15-18, 2013

## 7 AOLUGUYA

July 26, 2013

## 8 SALEKHARD

September 26, 2013

## 9 UMEÅ

January 30 - February 1, 2014

## 10 KAUTOKEINO

March 24 - 27, 2014

## 11 LAPONIA

March 28 - 30, 2014

## 12 KAUTOKEINO

March 31, 2014



Inuvialuit-Sami

Inupiaq-Yupik

Chukchi

Chukchi Chuvans

Koryak

Yukagir

Yukagir

Eveny

Eveny

Eveny

Ngenasan

Dolgan

Dolgan

Eveny

Evenki

Negidals

Uil'ta

Nenets

Nenets

Mansi

Khanty

Kets

Kets

Evenki

Evenki

Tofalar

Soyot

Tozha

Dukha

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## 2 Sometimes...Life is Not So Good

Young herders who attended the EALLIN workshops were motivated to change reindeer husbandry for the better and keen to further engage more youth in this process, all agreeing that without youth, the future of reindeer husbandry is bleak. Discussions among youth included the challenges of societal diseases and suicide prevention in times when herding communities are affected by many new factors. This report indicates that reindeer herders as a group may historically have been protected against suicide in reindeer husbandry. However, today many reindeer herders experience stress loads over time, and this work-related stress can have fatal consequences for some individuals. The Arctic Council has previously addressed this issue with the Hope and Resilience report (2009).

This chapter will lead you to one herder's story, which helps reveal why this problem can arise among reindeer herders. His story reflects on the situation in Sweden, because reindeer herders in this region have brought up the issue but we know from meeting young herders from across the world that this situation is not unique to Sweden. As there is a lack of research on this critical topic, we have chosen to use Sweden as a case study, thanks to the courageous speech by a young Sámi herder named, Piere Bergkvist during the 5<sup>th</sup> World Reindeer Herders' Congress in Aoluguya, China, July 24-28, 2013. The speech is reprinted here in its entirety with his permission.

### 2.1 "I didn't want to live anymore"

***My name is Piere Bergkvist, and it is little wonder that I stand here today. Seven years ago, I was going to commit suicide and end my life. I want to tell you why I had such thoughts and what made me think about ending my life.***

*After finishing the elementary school, I planned to continue with my education. I applied to a school in Östersund, but I stayed there only for few months because it was very hard to be there. I was bullied and called ugly names because I was Sámi. After that, I felt I could not continue to be there, so I quit the school. I started to work in reindeer husbandry, and after a while I decided to for this way of living, to work with reindeer. I invested and bought livestock. During the winter, we had many predators, and we lost many reindeer. Every day I came into the forest in the morning and knew that I was going to find a whole lot of dead reindeer.*

***One day I found six dead reindeer in an area no bigger than a hundred meters area. This really affected me strongly.***

*I had gone for it and bought reindeer, and then I experience that predators take reindeer from me. In a few months we lost over 60 reindeer. Some years after this, we got bad grazing conditions during the winter and lost many reindeer to predators. When we finally managed to gather all reindeer, and had delivered reindeer for slaughtering to a slaughterhouse, we got the message that the slaughterhouse was bankrupt. We did not get any income from the slaughtering. It was very tough to live a year without income. One simply had to borrow money to survive.*



*In addition, our district ended in a dispute with someone who wanted to build a tourist complex in the middle of our winter pastures. Many of the local residents were against us. This affected me strongly, and I felt very bad for several years. It is very difficult now in Sweden because there is a very large pressure of the predators that we have, it is mentally hard when you see that your own herd decreases constantly. But, this is not all. The life on our winter pastures is getting harder and harder. We have a lot of exploitation in our district, not only in my district but also throughout Sweden.*

*In our winter pastures, they are building windmills and the grazing area decreases constantly. You start worrying if there will be any winter pastures left. In addition, the mining industry is also coming everywhere in Sweden. They have also been drilling for minerals and uranium in the middle of the area where I have my herd in the summer.*

*Then, 7 years ago, I became a father for the first time, and it was the strongest moment that I have experienced in my life. Despite the fact that I had a son, I felt really bad.*

***When my son was 6 months old, it became simply too much for me, too tough for me. I felt I could not live anymore. I was sitting with the gun and was going to end this life.***

*Then a picture arose for me, and it was a picture of my son. He was the one who saved me, because I simply got second thoughts. I told my spouse what I had been planning, and it is clear that it was not easy for her to hear all this. I tried to do something about it. I got help from the health care, and I went to a psychologist. After a while I could feel that I felt better. Some years passed, and I felt that I got back the spark of life, and I felt I would even fight for reindeer husbandry, because this is what I want to work with. I did not tell anyone that I had felt bad because I was ashamed to talk about this.*

***A few years ago, I got the message that my relative and close friend had committed suicide. This affected me very strongly.***

*I got very angry with him because he had done what he did. Then I was angry, especially with myself for not telling others that I had been feeling bad, that I had same thoughts to end my life, that I got help and that it is possible to get out of such crisis. I have held many lectures in Sweden and I see that it helps young people who feel bad. Over the last 10 years, many young people in Sweden have committed suicide. But I see that there is a change when I have given lectures and shared my story.*

*I live in the middle of Sweden, in Jämtland, and am a member of a county group, that is working to establish a Sámi competence center for mental health, as in Norway. I have visited SANKS in Norway and we try to establish such a competence center also in Sweden.*

*That is what I wanted to share with you.*<sup>7</sup>

Piere spoke in his speech about SANKS. SANKS (*Samisk nasjonalt kompetansesenter - psykisk helsevern og rus*)<sup>8</sup> is based in Karasjok, Norway and is the Sámi National Centre for Mental Health. SANKS has a national responsibility to contribute to the development of equal opportunities within the mental health and substance use fields for the Sámi population in Norway.

It is important to note that there is no such facility or comparable for institution for Sámi in the other countries in which they live: Sweden, Finland or Russia.

The following text is taken from the article “Cry of Pain”, by Anne Silviken and Petter Stoor of the National Centre for Mental Health, The Finnmark Hospital Trust.



*Herding reindeer in Troms, Norway. Pic: Kia Krarup Hansen*

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<sup>7</sup> Piere Bergkvist, 5<sup>th</sup> World Reindeer Herders' Congress in Aoluguya, China, July 24-28, 2013 (Transcribed from audio recordings by E. Sara, 01/09/2014)

<sup>8</sup> See <http://www.finnmarkssykehuset.no/sanks/category10180.html>

## 2.2 "Cry of pain"- Development of suicidality among indigenous Sámi reindeer-herders as a result of work-related stress

### ***Suicide among Sámi reindeer-herders***

Suicide rates among indigenous people are in general higher than the majority population, especially in the arctic region. Tatz (2005) has proposed that suicide among indigenous ought to be understood as a social disease, rather than merely explained by mental diseases, and he underlines the significance of historical and cultural context. In an indigenous perspective this could include historical trauma such as colonization, forced assimilation and cultural discontinuity, as well as minority status and rapid social changes. Several of these factors can be identified when analysing challenges connected to maintaining traditional livelihoods, such as reindeer husbandry among the Sámi. We will use Williams (2001) psychological model "Cry of pain", as a framework to understand how suicidality can develop as a result of work-related stress within the Sámi reindeer-herding context.

There is limited research of the prevalence of suicide among the reindeer herding Sámi. A register-based follow-up study among Sámi in northern Norway in the period 1970-98 found significant increased suicide mortality in the general Sámi population, but no significant suicide mortality among Sámi belonging to reindeer husbandry (Silviken et al., 2006). In Sweden, two register-based studies among Sámi reindeer herders in the period 1961-2000 found no significant increased risk of suicide (Hassler et al., 2004; Ahlm et al., 2010). While another register-based study from the same period, found a

significantly increased risk of suicide, but only in the early follow-up period (1961-1980) and not during the later period (1981-2000) (Hassler et al., 2005).

Although these findings are not consistent, it appears that Sámi belonging to reindeer husbandry, in the respective time periods have had a moderate mortality of suicide, especially compared to other indigenous populations in the Arctic. Possible explanations could be that Sámi reindeer herders have experienced lesser degrees of assimilation and thereby greater cultural continuity than many other indigenous groups. These factors have been proven as protective in suicide, in other indigenous contexts (Chandler & Lalonde, 1998, Chandler et al., 2003). Åhrén (2009) also describes Sámi reindeer herders as having strong in-group membership and secure ethnic identities, factors that are associated with better mental health among Sámi adolescents (Kvernmo & Heyerdahl, 2004).

### ***Development of suicidality among reindeer-herders - a "Cry of Pain"***

Williams has developed a psychological model "Cry of Pain" to understand suicidal behaviour (2001). According to Williams suicidal behaviour can be understood as a consequence of certain life conditions, in response to a situation with three components.

1. **Defeat** - an experience of defeat, loss, or humiliation that offers a large need to escape from the situation.

2. **No escape** - an experience of being trapped.

3. **No rescue** - an assumption that this condition will last forever. When these components converge they can give rise to a phenomenon Williams calls "entrapment". "Entrapment" is central in the development of suicidality and is characterized by overwhelming feelings of helplessness (2001).

### ***"Defeat" - Major strains in reindeer husbandry***

Reindeer husbandry is characterized by hard work (of physical and mental character) in challenging climatic conditions. There are several factors in the reindeer husbandry related to internal and external strains and conflicts that can convey a sense of defeat, loss and/or humiliation. These include predators, access to grazing areas, poor pasture conditions, mixing of herds and long lasting land-conflicts with private landowners, and other industries (forest companies, hydro power, wind power, mining, tourist etc.) invading the pastures and migratory routes. Problems with predators are on the rise in many grazing areas, and pose a serious threat to the industry through loss of reindeer and conflicts in relation to the prevailing policy regarding predators. Research from Sweden has shown that working conditions for reindeer herding Sámi are characterized by a difficult economic situation, a perception of high demands, low control, low level of social support and little hope for the future (Daerga et al., 2008; Sjölander et al., 2008).

### ***No escape - an experience of being trapped***

Several of the strains mentioned previously are at a structural level but causes

problems on the individual level (e.g. predator policy, regulation of overgrazing, pasture conditions and land-conflict). Challenges of this nature leave no room for problem solving at the individual level and can cause a feeling of lack of control and powerlessness. In fact, Kaiser, Røung & Renberg (2013) has shown that young male Sámi reindeer herders in Sweden may experience low influence on central reindeer herding challenges as well as lack of confidence in, and understanding from, authorities as central to their own understanding of themselves as reindeer herders. The structural level challenges can hence be viewed as internalised within the herders as feelings of hopelessness.

### ***No rescue - an assumption that this condition will last forever***

If you work in an industry, that sometimes is very stressful, and the strains can persist for years, a relevant question could be "Why don't you just change job?". In general it could have been the solution or rescue out of a stressful and burdensome work situation. However, reindeer herders do not experience the industry only as a job, but rather as a central part of who they are (their identity). Reindeer herding is a traditional family based livelihood that is passed on to new generations through life-long socialization processes. Choosing oneself "out" of the industry is therefore inconceivable for many herders since it will have devastating effects on themselves, their children and also the continuation of a Sámi cultural heritage. This is encapsulated in a quote by a young Sámi male talking in relation to the idea of leaving the reindeer industry: "Who am I if I stop working with the reindeer? There wouldn't be anything left of me" (2013). In Williams model, this can be interpreted as completing the last component in suicidality development - namely that



there is no rescue, since the situation is expected to last for life.

within the reindeer-herding industry and from the public support system. <sup>9</sup>

### ***Concluding comments***

In the article, we discuss how the work-related stress in reindeer husbandry can lead to the development of suicidality according to Williams model "Cry of Pain". Reindeer husbandry is an industry with very resilient people with cultural pride, and previous studies have indicated that reindeer-herders Sámi as a group may have been protected against suicide. However, today many reindeer-herders experience stress loads over time, and this work-related stress can have fatal consequences for some individuals.

Recent studies from Sweden suggests that Sámi reindeer herders may be seen as a risk-group, based on increased symptoms of anxiety and depression (Kaiser, Sjolander, Liljegren, Jacobsson, & Renberg, 2010) as well as suicidal thoughts and plans (Kaiser & Renberg, 2012; Omma, Sandlund, & Jacobsson, 2013). The study by Kaiser and colleagues (2010) indicates that work-related stress is strongly associated with depression and anxiety among reindeer herders, and especially among men. According to Kaiser and colleague, these findings may be understood as a consequence of mental health problems and lack of hope for future solutions, and they claim that the results may reflect the challenging situation that now prevails among Swedish reindeer herding Sámi (Kaiser & Renberg, 2012).

Due to several challenges in a reindeer-herding context, is important to prevent work-related stress and to intervene early in the suicidal process to prevent a fatal outcome. This requires an effort both

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<sup>9</sup> Silviken A (2011). "Reindrift på helsa løs" - Arbeidsrelatert stress i reindriftnæringen i lys av Mark Williams modell "Cry of pain". *Suicidologi* 3: 10-14

## 2.3 Health care and reindeer herders in the Russian Federation.

Although youth in the EALLIN workshops highlighted this issue, it is important to note that there are few investigations on societal diseases and overall health among reindeer herders in Russia, but according to World Health Organization (WHO) the suicide rate among indigenous peoples in 1998-2002 amounted to more than 100 cases per 100,000 population (in Russia as a whole- 38),<sup>10</sup> Another indicator of health, Infant Mortality Rate (IMR) in the Yamal Nenets AO and the Sakha Republic are over twice that of the Nordic countries. The Evenki AO is four times higher (Rautio, Poppel & Young 2014) In fact, there it has been established that major gaps in knowledge remain regarding the health and well being of indigenous people in Russia (Rautio, Poppel & Young, 2014). Youth recommended that these issues should be more in focus. There was a wish to increase the availability of health care and the implementation of health programs, consistent with the principles of the WHO. Collections of statistical data on the category of indigenous peoples in the regions where they live should be stored and analyzed. Important areas should be psychological help, identification of environmental risks and major outreach work and education<sup>11</sup>. Access to quality health care services is one of the most challenging issues for reindeer herders in the Russian Federation due to remoteness of reindeer herding areas, the huge distances and lack of transportation and communication infrastructure. The low income and status of reindeer herding as a profession also contributes to poor health among herders. EALLIN workshops revealed that there is a serious shortage of culturally appropriate health care for herders and their families.

*"I want the reindeer herders' work to be honourable, to not be mocked"(Chukchi herder, EALLIN St. Petersburg 2012).*

*"The profession of reindeer herder must be recognized at the state level. Now it is considered only as a way of life" (Khudi H.A. B -31 group, Serotetto V.A. T -31 group, EALLIN Salekhard 2013)*

## 2.4 Climate change in EALLIN herding areas.

Climate changes are now evident across the Arctic (IPCC 2013). In all the communities where EALLIN workshops were held, herding youth reported dramatic changes. Furthermore reindeer herding youth were worried that the long-term effects of the warming of reindeer pastures is not understood nor recognized. Global and regional scenarios project changes in temperature, precipitation and snow conditions in the key areas for reindeer herding communities (IPCC 2013). The temperature has increased primarily in the spring between 1961-1990, both in Finnmark, Norway and the Yamal region in Russia, while precipitation seems to have increased in all seasons (Vikhamar- Schuler et al. 2010 a,b,c). The snow season

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<sup>10</sup>См.: Богоявленский Д.Д. Народы Севера России: демографический профиль на рубеже веков: сб. «Влияние глобальных климатических изменений на здоровье населения российской Арктики» / публикация представительства ООН в Российской Федерации. С. 17.

<sup>11</sup>См.: Абрютин Л.И. Между двух огней. Влияние социальных и экологических факторов на здоровье коренных малочисленных народов Севера. сб. «Современное состояние и пути развития коренных малочисленных народов Севера, Сибири и Дальнего Востока Российской Федерации» / издание Совета Федерации, 2013. С. 230-231.

is typically 220–250 days a year in both regions. The Finnmark and Yamal climate variation is partly correlated with the North Atlantic Oscillation (NAO)-index ( $R \approx 0.5$ ) (Vikhamar-Schuler et al. 2010a). In Sakha the average winter temperatures are usually between -35 to -45C, while temperature has increased primarily in spring, (Vikhamar-Schuler et al. 2010 a,b,c) making snow melt occur earlier which has led to severe flooding. Climate scenarios indicate that summer temperatures in Finnmark and Yamal may increase by 2 to 4 C in 100 years, while winter temperatures may increase by 7 to 8 C (Benestad, 2011). These changes affect not only snow melt but also vegetation. Forest and tundra fires have become more frequent and intense in across Siberia (Loranty et al 2014) and this is also impacting vegetation. The intensification of these impacts over time adds additional stress to the practice of herding, especially when herding opportunities and pastures are being limited in other spheres.



*Kolymskoe Tundra. Pic: Kia Krarup Hansen*

## Text Box 1 - Could You Live Like This?

### Could you live like this?

*Vástit rehálaččat: Sáhtálit go duodas lávus orrut jagiid birra. -40 galbmagráda olgun, duljiid vuolde náđđut. 4 diimmu girdiin lagámus gávpogii, itge don beasa earet girdiin dohko. Jus háliidat oahpu váldit fertet ruovttu guođđit. Gáiddus oahppu? It leat it gullan ge dan birra. Bohccuiguin bargat lea garra eallin, muhto it don eaiggát iežat bohccuid, leat stáhta dahje fitnodaga reanga ja du bálká lea 1000 ruvnnu mánnui. Návddit háddjejit du ealu, muhto it don daid jovssa ja veahki it oaččo it fal it gostege. Sovjetáiggi leat rehkenasttan ahte akta nisssonolmmoš lea nuogis 8 dievdoolbmo biebmat. Danin eai leat go du muohát ja siesát geat barget siidda luhtte, muđui eai leat nuorra nieiddta gávdnamis. Eai ge sii ge hálit boazoeallimii. Gilis gal juobenge bivat nohkkat ja nu buorre go doppe lea hivsset dálu siste. Datgal lea albma buorre dilli!*

*Piotr jearai mus, sáhtášit go orrut dáppe guokte jagi? Ja háliidivččet go ná eallit agibeavái? Vástidin rehálaččat: In dieđe. In dieđe jus dán áigásaš sáminuorat birgelivčče šat ná, mii geat leat hárvánan geahppasit eallimii. Minsiidda geaidda lea diehttelas beassat mátkkoštit, oahpu váldit, mis leat iežamet dihtorat ja telefovnnat, biillat ja skoterat. Ja mis leat liegga dálut gos orrut, gal mii fal maid muhtumin lávostallat, muhto dan moadde geasseija, dieđe leašgo dat muitalanveara ge dáidda olbmuide. Dál easka ipmirdan isá-váinni sániid go lávii munnje lohkat "Allet dii nuorat niegat doložiid ilá, dat lei garra eallin."*

Answer honestly: Would you be able to live in a lávvu all year? -40 Degrees outside (Fjällräven parkas do not work here, I'm telling you) and sleep under reindeer skins every night. To the nearest town it is a four hour flight and the only way to get there is by airplane. If you want to study, you have to leave your home, distance education is something you have not even heard about. Reindeer herding life is hard and you do not own your own reindeer. As a reindeer herder you are a State or a company employee and your salary is about \$200 per month. The wolves ravage your herd but you cannot do much about it. Surely, you are allowed to shoot them, if you only had the opportunity to hunt them down. During Soviet times it has been calculated that one woman is enough to serve eight men, so that is how many women will be employed as reindeer herders. If you are a young guy, the only women in the tundra are your elder relatives. How much fun is that? Anyway, in the village there is good standard! There they even have indoor toilets! And it is warm and comfortable to sleep.

Piotr Kaurgin (reindeer herder of Turvaurgin obshina) asked me if I could live there for two years. And could I imagine to live like that for the rest of my life? I answered honestly: I do not know. I do not know if today's Sámi youth want to live like this anymore, as we have become used to a more comfortable life. Traveling, education, to have our own computers, telephones, cars and snowmobiles is something we take for granted. We live in houses and even though we also stay in a lávvu sometimes, those few nights are hardly worth telling about to these people. Now I finally understand my father when he used to say, "Do not dream about past times, it was a hard life"



Helena Omma, Svetlana Avelova. EALLIN Kautokeino. Pic: Riccardo Prevattoni



### 3 What Do We Need to Improve Our Lives?

At the EALLIN workshop in Umeå youth had to text their ambitions and future visions for reindeer herding, answering the questions “what did I do so that my grandchildren could continue with reindeer herding “or “what does the good life mean for you”? Their vision was then to be written on paper, and held in front of a camera where they would read his or her vision to the viewer. These visions were presented in the short video “*EALLIN lea buorre*”<sup>12</sup> .

#### Text Box 2 - ‘EALLIN Lea Buorre’

##### EALLIN lea buorre

#datbuorreallin #detgodalivet #thegoodlife

“Reindeer herding is my safety. I know who I am and what I want, thanks to the reindeer” Helena Partapuoli

“I never stopped believing on reindeer herding” Sanna Vannar

“The connection between the reindeer and human being” Sofia Engström

“I raised the position of reindeer herders in international and national decision making and politics” Helena Omma

“I practiced reindeer herding during my whole life, because I loved it and I never gave up” Johan Andersson

“Always remember your roots! Try to learn your history and it will be easier to understand the entire world. And never give up” Mikhail Pogodaev

“I worked to raise the consciousness of reindeer herding in the majority society. Our culture is a wealth that more people should get in touch with” Elena Walkeapää

“I participated in the improvement of empowerment for the Saami in the society” Per Jonas Partapuoli

“I brought Sámi reindeer herding back to Alaska” Issat Turi

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<sup>12</sup> Watch: <http://www.youtube.com/watch?v=EhAFHwH77HI>

## 3.1 Strengthen our societies through education & competence building

### Our Own Knowledge and Languages Are Key

*“That with the big changes now coming in the Arctic, the Arctic Council is still not focusing on education. Reindeer herding is closely attached to traditional knowledge and language. Did you know that we have over 300 words to describing snow in Sami? Reindeer herding is very much dependent on the language in its way of communicating and describing to others and this is something unique. The reindeer herding youth of today not only need to learn this traditional knowledge and master the language, they also need to keep up with modernization. We live in a modern world and it would be stupid not to adapt. Worth noticing though is that traditional knowledge and language should have a more obvious part in the general education of reindeer herding youth today as well as the fact that we need to educate ourselves in societal issues; but it is also important that the majority society has knowledge about reindeer herding, which in the long term can lead to mutual respect and sustainable communication”*

(Elena Walkeapää EALLIN Jokkmokk 2013).

#### 3.1.1 Relevant Education for Herding Youth

Today when reindeer husbandry is being impacted by of industrial development, climate change and loss of grazing lands, in order to lead successful livelihood, a herder needs to have veterinarian skills, knowledge in business, economy, law and other disciplines. But where can reindeer herder gain knowledge in these disciplines at the same time as they continue to work with their herds? There is a need to develop distance education and courses for young reindeer herders, as well as exchange between different reindeer herding regions.

Education is one of the most important and significant issues for reindeer herders today because it gives reindeer herding youth wider opportunities to maintain their livelihood. Youth raised questions on education at every EALLIN workshop. Every reindeer herding region has strong similarities, and sometimes differences, for example, the strong will of Sámi youth to become reindeer herder persists, while the fact that young people leaving reindeer husbandry in Russia is a big challenge.

*“All young reindeer herders have or wish to have an education together with the work with reindeer” – results from EALLIN Umeå, 2014.*

*“In order to preserve reindeer husbandry we need to attract youth” – results from EALLIN Yakutsk 2013.*

All the countries that have reindeer husbandry represented have a compulsory system of education for all children aged 6-16, which is also free of charge. Still there have been significant challenges in delivering models of education that are appropriate and effective to indigenous peoples in rural areas in all places where reindeer husbandry is practiced (Hirshberg & Petrov, 2014). EALLIN youth in the St. Petersburg workshop (2014) felt that because of these education challenges, children were being separated from the intergenerational and situational transmission of traditional knowledge and this might be one of the reasons for the low interest in continuing with reindeer herding after school.

In Russia, during Soviet times, children of reindeer herders were separated from their parents and sent to boarding schools. This policy has been extremely difficult for parents and children (Kryazhkov, 2010: 405). While isolated from their parents, children had difficulties in studying and at the same time, did not gain reindeer herding skills. Today some reindeer herding villages in Russia still have boarding schools where the children of reindeer herders live and study, only visiting their parents during school holidays. Children, who spent their first years of life in tundra or taiga, cannot get used to the rhythm of life in villages or towns, where they study. Often, they also no longer want to return to reindeer herding camps. Many such young people, who were torn from their native roots, face social exclusion (Kvashnin 2010) The fact that young people do not want to work in reindeer husbandry in most parts of Russia is clear and this threatens the future of the livelihood and the transmission of traditional knowledge.

Experience has shown that for many indigenous small-numbered peoples of the Russian North, who are leading traditional nomadic way of life, the most appropriate form of education for children are nomadic schools such as those which existed in the USSR in the 1920-30's. The revival of nomadic schools began in the Republic of Sakha (Yakutia) in the early 1990's (Arefiev 2014). On the 22<sup>nd</sup> of July 2008 the Sakha Republic parliament adopted the Law "On Nomadic Schools of the Sakha Republic (Yakutia)"<sup>13</sup>.

Despite the isolation from settlements, nomadic schools provide children with access to basic education through the Internet. Children are encouraged to study the culture and language of their peoples, and are also given an opportunity to lead the traditional way of life. Children get a basic education and at the same time, work with reindeer, which means that they will gain more knowledge from their parents, follow their traditions and will transfer traditional knowledge and skills in reindeer husbandry to future generations (Discussions from EALLIN Yakutsk 2013).

*"Here [in the taiga] children live with their parents, they go to school without breaking away from their families. And they will continue transferring traditional knowledge to the next generations" – Svetlana Egorova about nomadic schools, Aldanskiy region. EALLIN Yakutsk 2013*

Unfortunately, the nomadic schools that are in existence today can only provide children with a basic compulsory education, which may last for 1-5 years. There is a challenge when a student reaches the period when they start to study hard sciences, such as physics or

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<sup>13</sup> См. Закон № 73-IVо кочевых школах Республики Саха (Якутия) от 22.07.2008

chemistry. In these terms, children will be less educated than those children of their age, who receive their education at local schools. Of course, nomadic schools have specific needs in terms of legislation, textbooks, and support to families for transportation and infrastructure. The system of nomadic schools also requires special training of teaching personnel, which may require changes in federal state educational standards. Attracting and retaining teachers in Siberia is difficult – there is a high turnover rate in taiga schools (Hirshberg & Petrov, 2014). In addition, the challenges of actually establishing nomadic schools are considerable (see for example Lavrillier, 2013 on her experience of establishing a nomadic school to serve Evenki reindeer herders). There are said to be seven to eleven nomadic schools in Siberia, yet only *two or three* are ‘nomadic’ (i.e. the schools move along with the nomads). The others are housed in small school buildings located in the middle of nomadic areas in the tundra and taiga (Lavrillier 2013).

*“Nomadic schools are the backbone of reindeer husbandry. And there is a huge need in specially trained teachers” – Tatyana Terletskaya, indigenous teacher from Chukotka. EALLIN Saint-Petersburg 2014.*

According to Kryazhkov (2010), the establishment of nomadic schools and kindergartens, as well as community-based, taiga, stationary-nomadic and other schools with distance and on-line methods, is one way for indigenous peoples who lead a traditional way of life, to gain access to education (Kryazhkov, 2010). The Law “On Nomadic Schools” should be adopted at the federal level and there is valuable experience in the Sakha Republic (Yakutia), from which other regions could benefit.

Besides establishing nomadic schools there is also a need to develop local schools and pay more attention to preserving traditional knowledge and language. There should be special classes for children in reindeer herding regions about reindeer husbandry, including practical training and handicrafts. If learning native languages and studying traditional knowledge are encouraged within the educational process, then this stimulation may become a tool towards preserving cultural traditions (Kryazhkov, 2010).

In discussions regarding the availability of education for reindeer herders in Russia at the EALLIN workshops the impression was that young people from reindeer herding families have two choices: leave for the big cities or stay in the tundra (or taiga). There is a tendency that children, who grow up away from their families do not wish to come back after school graduation and prefer to stay in towns or cities.

*“In Yamal it is a problem that only few indigenous graduates come back after their studies. And they lose traditional knowledge in sewing clothes, constructing chums or even herding reindeer” – Nechei Serotetto, young reindeer herder from Yamal, EALLIN Kautokeino 2014*

*“In some areas reindeer herding youth does not finish basic general school education that results in inability to continue education at college level” – results from EALLIN St. Petersburg 2014*



In Russia it is difficult for a reindeer herder to find an institution, which can accept the nomadic life of reindeer herders and provide him/her with those disciplines that a reindeer herder actually needs, with the notable exception of the Yamalsky Agricultural Economic College<sup>14</sup> in Salekhard, where students can gain knowledge in veterinary science, law, and accountancy. This is a valuable role model for other regions in Russia. The creation of a college for reindeer herders in Topolinoe, Republic of Sakha (Yakutia), could be a solution for reindeer herders from different regions of the Republic. In Russia, a new national education law has been passed which gives students the right to have instruction in their indigenous languages, but this right has limits. It is too early to say whether the new law is having an impact (Hirshberg & Petrov, 2014, Russian Federation 2012).

Remote or distance education and online tools can offer some possible solutions for this challenge. One example is the distance education model for reindeer herders in Norway “Sámi allaskuvlla johttioahpahuš” (Sámi University College’s portable teaching for reindeer herders) where reindeer herders were equipped with a computer, Internet access and online courses in topics relevant to their livelihood. This distance education provided students with a basic education for university level and several of the students continued with further studies as Bachelor in Reindeer Herding studies at the Sámi University College and will be finishing their degrees in the spring of 2015.

*“A distance education system for reindeer herding youth further needs development of a method of exchange of students from different reindeer herding countries, possibilities with telecommunication and the establishment of mechanisms of transportation for reindeer herders families (parents, school students) from camps to the village, in spring and autumn” - recommendations from the Kolymaskoe Declaration, to the Ministry of Education of the Sakha Republic (Yakutia), the Ministry of Communications and Telecommunications of the Russian Federation and the Ministry of Agriculture of the Sakha Republic (Yakutia).*

There is a strong body of literature on Indigenous education that argues that for it to be effective, it needs to be based on western science, knowledge and traditional knowledge (e.g. Barnhardt, 2005). The UArctic EALÁT Institute (UEI)<sup>15</sup>, intends to deliver educational opportunities for reindeer herders and could be a tool to implement education solutions for other reindeer herding regions. The UEI was established in 2009 and is a virtual institute created under the umbrella of the University of the Arctic and was established to maintain networks established in the circumpolar north during the IPY and to increase the cooperation related to information exchange, research and education in the circumpolar reindeer husbandry. The institute focuses on knowledge production related to reindeer herders’ traditional knowledge, land use change and their food cultures, through increased information, documentation, research, monitoring and education as an adaptation strategy to the rapid changes occurring in the Arctic. The Institute has organized multiple seminars between 2011-2014 towards these ends. UEI needs continued financial and scientific support to create systematic educational courses for reindeer herding youth on a national and

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<sup>14</sup> <http://www.ypat-salekhard.ru/>

<sup>15</sup> <http://www.ealat.institute>

international level, as well as assistance from Universities to develop tailored training programs.

In Kautokeino, Norway, there is the Sámi Upper Secondary and Reindeer Husbandry School where it is possible to receive a higher education in reindeer husbandry for those who are planning to continue their family business and become a reindeer herder. The education lasts for 4 years: 2 years of theory and 2 years of practice. The school provides training for Sámi youth, which come from different reindeer herding regions of Norway, and they have created a curriculum for reindeer herding teaching. The School also offers courses in handicraft, reindeer meat and leather processing etc., and invites teachers from different regions of the circumpolar North to conduct courses (Gerasimova, Internship report, 2013). After the upper secondary school, the Sámi University College (SUC)<sup>16</sup> in Kautokeino offers different courses and a full-time bachelor study over three years (180 credits) in reindeer herding studies where students immerse themselves in topics related to reindeer herding. The program introduces a multidisciplinary program with a combination of scientific knowledge and methods and Sámi traditional knowledge, showing for example how *siida*<sup>17</sup> knowledge is a parallel system to scientific knowledge and perspective. Other topics include reindeer as a resource, pastures and herding, plants and knowledge of pastures, knowledge on landscape, topography and herding, in addition to *siida* organization and systems of state management of reindeer husbandry, legislation and jurisprudence.

In 2014 the *Árbediehtu*-course "Traditional knowledge; theory, method and traditional knowledge as a basis for management of resources in the North" was initiated and 14 students graduated in the spring who were mostly were from reindeer husbandry. This course introduces traditional knowledge in general and Sámi traditional knowledge in particular, and about the value of this knowledge both now and in the future. The emphasis is on scientific approaches to this knowledge, including documentation methods, and how traditional knowledge can help to contribute to strengthen local communities and indigenous livelihoods. The foundation of the course is the Convention of Biodiversity and 8(j). This autumn the course started again, with 22 students where most of the students are from reindeer herding families.

*"In Finland, there are education programs and vocational training for reindeer herding youth in Finland. From the reindeer herding youth's perspective, there is need to both integrate traditional knowledge into education and also include training about international and national law and governance pertaining to reindeer husbandry in education programs. Also more co-operation with other reindeer herding peoples is needed" – Anne-Maria Magga, young reindeer herder and Phd student from Finland. EALLIN Kautokeino 2014.*

According to the EALLIN workshops, many young reindeer herders expressed their wish to gain a higher education and study disciplines, which may be useful in reindeer herding life.

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<sup>16</sup> <http://www.samas.no>

<sup>17</sup> The *siida* has many meanings, but basically is a Sámi local community that has existed since time immemorial.

From the Umeå workshop it was revealed that many reindeer herders wish to have a higher education besides their reindeer herding work:

*“To organize courses on legislation for reindeer herders, because 90 % of them don’t know their rights” – reindeer herder from Yakutia, EALLIN Yakutsk 2013.*

*“Maintain friendship, partnership and cooperation between reindeer herding regions, so that young herders could practice in other countries, under other circumstances” – Participant, EALLIN Yakutsk 2013.*

Low salaries, difficult living conditions, lack of prestige in being a reindeer herder, these are the main reasons why many indigenous youth in Russia don’t choose reindeer husbandry. But by providing youth with more opportunities for education, to meet other reindeer herding youth, to exchange practice and knowledge might awaken their minds, and make them concerned about the future of reindeer husbandry and their traditions, appreciate their unique way of life and the culture of the indigenous people they belong to.

*“Young reindeer herders should be proud and know what is their aim of life. The important thing is the upbringing of children” – Anatoliy Lebedev, EALLIN Kautokeino 2014.*

*“Sad to hear that some do not want to continue. Education is important. Encourage youth to continue with reindeer herding. Cannot blame the external factors, take the sake in our own hands by educate ourselves. Learn from our elders” (Evenki herders Yun Ting, Aoluguya, Guo Fa, Aoluguya, EALLIN Aoluguya 2013.*

The right to education is one of the main cultural rights of indigenous peoples (Kryazhkov 2010). There is a need to create an education system in the mould of the traditional economic activities of indigenous peoples (Bernhardt 2005). Education is a powerful motivator and a creator of alternate and improved visions for the future, as evidenced by some of the ‘future visions’ stated by young herders at the EALLIN workshop in Umeå:

*“In 10 years - I will defend my thesis in an area that is of benefit to the Sámi community. More and more people have the opportunity for a sustainable reindeer husbandry. Besides the reindeer as a base, I work as an expert and politician. All achieved in 10 years. In 20 years - I can see how the next generation themselves control their lives and future. The Sámi people have autonomy over Sámi land and water, and the consensus is the guiding principle in all decisions. ” - Per Jonas Partapuoli, EALLIN Umeå.*

*“In one year - finished with my Masters! Started cash-in. Bought a car with four wheel drive. 5 years - Active in WRH, we plan the Congress by 2021. I am possibly PhD student if I do not have another good role. 10 years - 37 years. I have found the right way to bring my agenda, so I don't need to spend energy on boring-policies and paperwork. I know where I "live", where my site is. I have my place in my siida. 20 years - 47 years. I stand firmly rooted in reindeer herding and have transferred it to my children / cousin's children / godchildren. I have a position in the society, representing the Sámi and the reindeer herding in the Swedish and the international society. We have real influence in our own affairs. ” – Helena Omma, EALLIN Umeå.*

## 3.2 Traditional knowledge in reindeer herding - A treasure house for the future

Traditional knowledge (TK) represents a key resource in reindeer herding. Through centuries of experience reindeer herding societies have developed and accumulated invaluable knowledge and experience, vested in reindeer herding practices, languages and management strategies (Turi & Keskitalo 2014). Throughout the EALLIN workshops traditional knowledge was a recurring theme. Of particular concern were the importance of transfer of knowledge to younger generations, and the challenges and opportunities associated with applying and integrating traditional knowledge with science and governance.

The discussion below is divided into three themes. The following section discusses the issues relating to knowledge transfer from generation to generation. There follows a discussion of challenges and opportunities associated with integrating traditional knowledge and science. The final section discusses the ongoing process for developing principles for use of traditional knowledge in the work of the Arctic Council led by the Permanent Participant organizations. The conclusions highlight the key recommendations from the workshops.

### 3.2.1 *Continue to preserve opportunities for the development and transfer of traditional knowledge*

Traditional knowledge is transferred from generation to generation, through practice and oral transmission (Berkes 2002). The inter-generational link is crucial for the continued preservation and transfer of traditional knowledge. A great responsibility thus lies within the current adult generation of reindeer herders to teach this knowledge to youth and children. Indeed a failure to do so would deprive reindeer herding youth of future opportunities:

*“...Parents should teach their children the traditional way of life, they shouldn’t deprive them of opportunities to decide some aspects of [...] reindeer herding.”  
– Participant, EALLIN Salekhard 2013.*

Traditional knowledge in reindeer herding is strongly linked to the practice. In other words, traditional knowledge is transferred through oral transmission and through *learning by doing* (Berkes 2009) Therefore the preservation of traditional knowledge is dependent on the continued practice of reindeer herding. In order to foster transfer of traditional knowledge, youth need opportunities to stay on the tundra.

*“In order to not forget the traditions, we just need to follow them and transfer them to the next generation.” – Khudi H.A., EALLIN Salekhard 2013.*

*“The preservation of traditions also depends on the composition of the population. If there is no population of the nation, then there is no tradition, too.” – Serotetto V.A., EALLIN Salekhard 2013.*



*“Traditional knowledge is preserved and is used in the tundra home life. To preserve the traditional knowledge, we need transmit them by inheritance. To save the traditional food we need to love and eat it and, of course, must learn these recipes in our younger years.” – Khudi H.A., EALLIN Salekhard 2013.*

Further, reindeer herding youth participants in EALLIN expressed their awareness and readiness to accept responsibility for the continued preservation and development of traditional knowledge. At the workshop in Umeå, reindeer herding youth conducted an exercise where they drafted their visions for the future in 5, 10 and 20 years. The participants clearly accept and recognize their role and responsibility in ensuring the transfer of TK to future generations, demonstrated by the following quotes:

*“In five years time I will be sustained by reindeer husbandry and I am fighting for that also the next generation can continue reindeer herding” (Mattias)*

*“In 20 years I will be teaching my oldest child how to mark reindeer. I am more active in the political arena again. But life is good, and my reindeer herding enterprise is going well” (Helena Partapuoli).*

*“In 20 years I am 45 years old, working full time with reindeer in the forest and I am trying to teach my children all I know about sustainable reindeer husbandry” (Neila)*

*“In 20 years I am 46 years old. I will have worked towards my goals. I encourage my children and nieces and nephews and godsons/daughters to believe in what they do. I am still fighting for the continued existence of reindeer husbandry” (workshop participant)*

The vision of the future of reindeer herding youth is a vision of strength where they take responsibility for continued practice and transfer of traditional knowledge. In order to facilitate this, workshop participants also emphasized the importance of fostering solidarity and mutual support among reindeer herding youth. In Jokkmokk, for example, the role of social support among youth in preserving language was emphasized:

*“How can traditional knowledge be preserved? ... Help each other. Unfortunately there is not much Sámi spoken in the forest. We need to support each other in beginning to speak Sámi” (Summary from the Lavvu dialogue in Jokkmokk)*

Reindeer herding youth are ready to take on the responsibility of transferring traditional knowledge to future generations. And, they call for opportunities to stay on the tundra, and opportunities to develop networks of mutual support.

Beyond local relations, youth also emphasized the importance of fostering a network of support among reindeer herding youth across the circumpolar north. Through the EALLIN workshops youth from the various reindeer herding areas had the opportunity to meet, discuss and build collaborative knowledge networks. To continue such collaboration, youth

emphasized the importance of developing university-level exchange programs across circumpolar education institutions, focusing specifically on reindeer herding youth. The EALLIN project has been one means of fostering such student exchange. This type of exchange is fruitful not only for fostering networks among reindeer herding youth, but also for fostering knowledge-exchange and knowledge development in reindeer herding societies. Examples include recent works by reindeer herding studies focused on comparing cases from different reindeer herding regions (Gerasimova 2013; Eira, 2012). Indeed, the unique contribution of reindeer herding students in working in the interface between traditional knowledge and science was raised.

*Scientific studies (field studies) among reindeer herders should be a priority over the others. – Boytunova P.L., EALLIN Yakutsk 2013.*

Recent projects organized through ICR, including PhD and Master level courses on reindeer herding organized in collaboration with the UArctic EALÁT Institute, the Sámi University College and the UArctic network have been a means to foster scientific collaboration among reindeer herding societies. In addition, with regards to reindeer herding, the SDWG EALÁT project engaged scientists from reindeer herding backgrounds to explore topics relating to reindeer herding, traditional knowledge and climate change. Examples of the work of this project include Eira's (2012) work on traditional knowledge and terminology relating to snow in Sámi reindeer herding, Sara's (2009, 2011) work on traditional knowledge in the Sámi reindeer herding *siida*, and Turi and Keskitalo's (2014) work on the interactions between traditional knowledge and formal governance in reindeer herding. The experiences from the EALÁT project indicate that involving scientists from reindeer herding backgrounds in projects focusing on reindeer herding topics can facilitate a deeper dialogue between traditional knowledge and science, and thereby yield new insights.

Inspired by such academic collaboration, reindeer herding students and academics in collaboration with indigenous scientists from across the Arctic initiated a process for establishing an association for indigenous scientists (Arctic Indigenous Scientists Association). The aim being to unite both students and established-scientists from arctic indigenous backgrounds in a collaborative effort to improve collaboration between science and traditional knowledge, and to address the ethical dimension involved in the use of traditional knowledge in science (see Young & Brunk 2012).

Indeed, a challenge of Arctic transformation is finding effective governance solutions that utilize the best knowledge available, including reindeer herders' traditional knowledge. On the one hand, asymmetrical power relations between ways of knowing, i.e. between science and traditional knowledge, represent a barrier to incorporating traditional knowledge into policy (Turi and Keskitalo 2014; Sara 2011). To facilitate the use of traditional knowledge in governance, deliberate efforts to overcome such barriers is required. Recently steps have been made towards a better integration of traditional knowledge in governance in the Arctic. Most of these advances have been made in North America, some in Fennoscandia and few in Russia. There is still much to do in order that 'conceptual confusion' does not reign (Forbes & Kofinas, 2014) The section below outlines the work in process for developing fundamental principles for use of traditional knowledge in the work of the Arctic Council.

### 3.3 Drafting fundamental principles for the use of TK in strengthening the Arctic Council<sup>18</sup>

The Kiruna Declaration on the occasion of the 8th Arctic Council Ministerial Meeting in May 2013 called for the Arctic Council to:

*“...recognize that the use of traditional and local knowledge is essential to a sustainable future in the Arctic, and decide to develop recommendations to integrate traditional and local knowledge in the work of Arctic Council.”*

Based on this mandate from the Ministers, a group consisting of the Canadian Chairmanship, Permanent Participants (PPs) and Working Groups (WGs) have worked intensively together, under PP co-leadership, to develop recommendations for how to integrate traditional knowledge in the work of Arctic Council. Through two workshops the group has developed and drafted fundamental guidelines. The project is currently under review in SDWG, which also may result in a need to alter this chapter subsequently.

As a starting point the mentioned group, consisting mainly of PPs, have only focused on Traditional Knowledge (understood as *indigenous* traditional knowledge). The group has thus not focused on *local* knowledge (understood as local knowledge of non-indigenous communities), a term which is in fact in the Declaration text.

A set of fundamental principles for inclusion of TK into the work of the Arctic Council has been drafted. The PPs advocate calling these principles ‘fundamental’ to show that they should be the basis upon which the Arctic Council operates, i.e. a form of ‘ground rules’.

This initiative can be seen as part of the ongoing process of strengthening the Arctic Council that has been intensifying in later years. Indeed, this initiative aspires to change the way the Arctic Council works, how it functions, i.e. *to improve the Arctic Council*. PPs specifically point out that the fundamental TK principles will “*...advance (the Arctic Council’s) objectives by supporting the active participation of Permanent Participants.*”

Recognition of TK has been part of the Arctic Council from its very beginning, e.g. reflected in the words of the Ottawa Declaration from the establishment of the Council in 1996:

*“...Recognizing the traditional knowledge of the indigenous people of the Arctic and their communities and taking note of its importance and that of Arctic science and research to the collective understanding of the circumpolar Arctic;”*

Likewise, TK has been recognized in almost all Arctic Council Ministerial Declarations. Over the years the Arctic Council has existed, there have been some good examples of TK related

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<sup>18</sup> Disclaimer: The author of this section underlines that any assumptions or statements made herein are entirely his own responsibility, based on his own subjective perceptions of the process as one of the participants, and does not in any way attempt to represent PPs’, the Chairmanship’s or any other entity’s positions. Any errors or misrepresentations in this section are thus the sole responsibility of the author

projects. Concerning reindeer herding, the SDWG EALÁT Project needs mention, representing an initiative initiated and led by indigenous peoples themselves. Also of special significance is the Arctic Indigenous Languages Symposium. In addition, there are good examples of mainstream-projects that have included TK in constructive and rewarding ways. A generally acknowledged best-case in this regard is the ACIA report in 2004-2005.

On the other hand, there have also been less successful efforts. As an example, The Aoluguya Declaration, on the occasion of the 5<sup>th</sup> World Reindeer Herders Congress in Inner-Mongolia in 2013 specifically mentions “...note of the CAFF Arctic Biodiversity Assessment (ABA) synthesis document published May 15<sup>th</sup> 2013, and note that reindeer herders’ traditional knowledge and understanding of biodiversity and nature has not been included into the ABA reports.” Developing principles for inclusion of TK into the work of Arctic Council, represents an effort to clarify and outline the means by which TK can and should be included in future projects.

The PPs have clear expectations to the outcome of this initiative, for instance reflected in this introductory passage from the draft TK principles document:

*“...The inclusion, promotion and use of Traditional Knowledge in the work of the Arctic Council is a collective expression of Arctic Council States in supporting the domestic and international rights, roles, and place of indigenous peoples in the circumpolar Arctic; and will address a collective need to produce information that are of use to Arctic indigenous peoples, decision makers and scientists of all cultures from a community level to international governments.”*

PPs further concludes that they represent TK holders, and that PPs are thus

*“...integral to the inclusion and use of Traditional Knowledge in the work of the Arctic Council.”*

The draft TK principle document outlines working definition on Traditional Knowledge, and before reflecting about some of the actual principles we shall have a look at it: Although the PPs themselves did not see a pressing internal need for a definition of TK initially in the process, the group did develop a ‘working definition’ for TK at the meeting in Ottawa. This was primarily done for clarification externally, though not to attempt replacing existing definitions in use by indigenous organisations. The definition was adapted from ICC and GCI definitions of TK, and modified, as follows:

*Traditional Knowledge is a systematic way of thinking and knowing that is elaborated and applied to phenomena across biological, physical, cultural and linguistic systems. Traditional Knowledge is owned by the holders of that knowledge, often collectively, and is uniquely expressed and transmitted through indigenous languages. It is a body of knowledge generated through cultural practices, lived experiences including extensive and multigenerational observations, lessons and skills. It has been developed and verified over millennia and is still developing in a living process, including knowledge acquired today and in the future, and it is passed on from generation to generation.*

The definition is rather broad, which may be seen in relation to that it was made to concur to external needs, i.e. the need to have a working definition for researchers and entities from outside the indigenous communities carrying TK. The resulting document then lists



fundamental 13 principles for the use of traditional knowledge to strengthen the work of the Arctic Council, printed in full in the table below.

**Text Box 3 – Ottawa Traditional Knowledge Principles**

**Principles for the Use of Traditional Knowledge in Strengthening the Work of the Arctic Council)**

1. The use of Traditional Knowledge is an overarching mandate of the Arctic Council and is a central commitment for implementation by the Senior Arctic Officials, Permanent Participants, and all Arctic Council Working Groups.
2. Traditional Knowledge enhances and illuminates the holistic and shared understanding of the Arctic environment which promotes and provides a more complete knowledge base for the work of the Arctic Council.
3. Recognition, respect, trust, and increased understanding between Traditional Knowledge holders, scientists, and representatives of the Arctic States are essential elements in the meaningful and effective inclusion of Traditional Knowledge in the work of the Arctic Council.
4. The inclusion, use, review, and verification of Traditional Knowledge in the work of the Arctic Council will occur at all stages of every agreed-to initiative and will be led and facilitated by the Permanent Participants. Recognizing that Permanent Participants will determine the appropriate use of Traditional Knowledge in work of Arctic Council.
5. Traditional Knowledge is the intellectual property of the indigenous knowledge holders, therefore policies and procedures for accessing data and information gathered from Traditional Knowledge holders should be developed at the appropriate ownership level, recognizing and adhering to each Permanent Participants' protocols.
6. In order to maintain the integrity of specialized information and avoid misinterpretation of Traditional Knowledge, it is crucial that evaluation, verification and communication of analyzed information be conducted by Traditional Knowledge holders with appropriate expertise, to be identified by Permanent Participants.
7. Each of the Permanent Participants represent their respective cultures, communities, peoples and Traditional Knowledge systems and holders; processes of including Traditional Knowledge in the work of the Arctic Council

will respect and reflect this diversity.

8. The inclusion of Traditional Knowledge in the work of the Arctic Council requires adequate capacity and resources to address the unique needs and circumstances of the cultures, languages, communities, governance processes, and knowledge systems of Arctic indigenous peoples represented by the Permanent Participants.
9. Traditional Knowledge and science are different yet complementary systems and sources of knowledge, and when appropriately used together may generate new knowledge and may inform decision making, policy development and the work of the Arctic Council.
10. The use of Traditional Knowledge within the Arctic Council must benefit the knowledge providers and appropriately credit indigenous contributions.
11. The co-production of knowledge requires creative and culturally appropriate methodologies and technologies that use both Traditional Knowledge and science applied across all processes of knowledge creation.
12. Communication, transmission and mutual exchange of knowledge using appropriate language conveying common understanding, including strategies to communicate through indigenous languages, is critical to work of Arctic Council.
13. Recognize the need to bridge knowledge systems, including leveraging existing indigenous knowledge networks, institutions and organizations, as well as developing education strategies to broaden mutual understanding.



*Preparing food on the taiga. Pic: Yuri Kokovin.*

### 3.4 Our silent languages

*“If there is no reindeer, indigenous languages will disappear! When people leave traditional occupations, the language will be forgotten. Reindeer are the very foundation of reindeer peoples’ universe.” – Arkadiy Gashilov, EALLIN St. Petersburg 2014.*

All reindeer herding peoples have their own language and culture. Language is the means by which a person describes his or her own environment, acts, objects and events, etc., and concepts and terms are necessary to explain their meaning to other people (Eira *et al.*, 2010). Reindeer herders’ experience of living with nature and from what nature provides has created a specialist language rich in vocabulary for describing natural phenomena (Eira, 2012). Reindeer herders’ understanding is based on the experience of generations, which has been collected and preserved about the specialized work techniques and language of the herders, both on the individual and herding group levels (Joks *et al.* 2007; Eira, 2012).

Through language people transfer traditional knowledge, culture and traditions to their children. There is a diverse range of languages in reindeer husbandry and include the following groups:

- Uralic (Khanty, Komi, Mansi, Nganasan, Nenets, Sámi, Veps, Enets, Selkup)
- Altaic (Dolgan, Nanai, Oroch, Evenki, Even, Udege, Tofalar, Dukha, Negidal)
- Chukchi-Koryak (Koryak, Chukchi, Itelmen)
- Yukaghir (Yukaghir, Chuvany)
- Yeniseian (Ket)

Linguists consider that most of indigenous peoples’ languages are endangered. In many indigenous communities, only adults and old people can fluently speak their native language, while the youth use mostly the majority languages. For example, in Russia Soyot use the Buryat language for communication, Dolgan people use Yakut, Todzhu Tuvans use Tyva language, and in addition all of them know Russian (Arefiev 2014). Due to historical and socio-economic events in Russia in the areas where indigenous people live, the language situation has been completely changed.

There are many places, where indigenous languages are not spoken at all and where the quality of teaching methods must be improved. For example, in the Murmansk region, Sámi teaching is only in the primary school curriculum (Arefiev 2014). In some schools in the Sakha Republic; students have compulsory subjects on indigenous languages. However, when they become high school students, they have a choice what language to learn for the following two school years. There is a tendency, for native languages to be treated equally with learning foreign languages. Many students have rarely heard native speech and have never used it in their daily life (Arefiev 2014). In Russia, there is a decreasing number of schools where indigenous languages are taught: in 2001/2002 indigenous languages were taught as a

subject in 284 schools, by 2012/2013 this had fallen to 215 schools (Arefiev, 2014). National and regional action is needed on this question to immediately make efforts to improve the educational system for young herders and other young indigenous peoples.

*"We know that in most of our schools the Chukchi language and other languages are taught less and less. In our school Chukchi language is taught from kindergarten to 8th grade, but it is not enough. In general, we should immediately revive and raise the culture. People must understand its significance, or after 2-3 generations it will be more difficult to do it". – Participant EALLIN St. Petersburg 2012.*

*"Problem with learning of indigenous languages: In the Yamal Multidisciplinary College in Salekhard there is no opportunity to learn Selkup language and recently even Nenets, while teaching of indigenous languages in Salekhard had been at a very high level, before several colleges were merged in one. Experts move out of the region, when they lose their job". – Arkadiy Gashilov, EALLIN St. Petersburg 2012.*

*"There is no school in the Verkhnekolymskiy ulus in the village of Utaya. Children do not know their mother tongue and do not want to become reindeer herders. I would like the Utaya school to work, because all kids have to move to the district centers in order to get knowledge". – Participant, EALLIN Yakutsk 2013.*

Fortunately, the situation is not the same everywhere. For example, in the Yamal region in Russia and in the Scandinavian countries many youth engaged in reindeer husbandry use their indigenous languages. However, languages spoken by few people are vulnerable and Any breakdown in the language structure signals a breakdown of their conception of the environment, affecting the nature of knowledge and worldviews passed on from the previous generations (Näkkälajärvi, 2009, Eira 2012). Even in countries where national education systems are ranked very highly (e.g. Finland) and bilingualism is officially supported, youth are becoming more fluent in the language of their nation state than their indigenous mother tongue (Rasmussen 2015). A decline in use of indigenous herding languages could mean changes in traditional management models, and possibly increased vulnerability (Eira, 2012).

If the languages of indigenous peoples disappear, unique knowledge about environment will also disappear. From the point of view of the preservation of cultural heritage, it can be considered that the defence of languages is of equal importance to that of historical buildings and landscapes. Nevertheless languages are not treated in this way as their existence depends on the choices of people, their ethnic identity and their requirements (Zamyatin et al, 2012).

The tundra and the taiga are development hot spots. Many oil and gas extraction projects are underway and more are planned. Industry representatives could better communicate with herders and others in order to have common dialogue. Reindeer herding peoples also need to learn the language of international communication in order to negotiate with industrial companies' representatives. Scientists and industrial workers need to learn the languages of local peoples. While this might seem unrealistic, this challenge must be taken into account and appropriate solutions need to be found.



Languages are part of the world's cultural heritage and language and worldviews are tightly connected. Much accumulated knowledge about the environment is embedded in indigenous peoples languages (Austin & Sallabank 2011). Indigenous languages can be considered as a core element in the maintenance of herders' traditional knowledge. The disappearance of traditional knowledge can be connected to a disappearing of indigenous languages and, therefore, to a reduction in biological diversity (Arefiev 2014).

For example, the Sámi culture bears evidence of a long intimate relationship with the Arctic environment and Sámi languages have a rich terminology for reindeer, snow, and ice (Eira et al, 2010). Sámi snow terminology is in daily use in reindeer herding. Snow concepts are central for daily work with the reindeer, and constitute important parts of herders' traditional knowledge (Eira, 2012).

From an academic point of view, indigenous peoples' languages are insufficiently studied and more research is needed (Austin & Sallabank 2011). There is an urgent need in training personnel among indigenous peoples. For example, in Russia most of scientists in the field of indigenous peoples' languages are close to being retired and the literature (including school textbooks) need to be updated and improved according to modern teaching methods (Arefiev 2014). The Arctic needs new experts, who deeply understand their own particular cultures and peoples. If these experts are from within indigenous peoples' societies, research priorities will be more finely tuned to the specific needs of their peoples.

As a result of the EALLIN workshops numerous recommendations related to education and language were brought forward:

- Create an education system in the traditional economic activities of indigenous peoples, and develop conservation projects, that document traditional knowledge, language and culture (from UN report Tromsø<sup>19</sup>);
- Attract the attention of high level politicians to the problems related to the teaching of indigenous languages (from EALLIN workshop, Herzen University, June 2014);
- Organize international seminars on reindeer herders' lands, in order to discuss importance of preservation of language, culture and traditional livelihoods (from department of Northern Philology of the North-Eastern Federal University M.K. Ammosov);
- Create indigenous language courses for all ages, based on local educational centers (schools, cultural centers, etc.);
- Popularize the study of indigenous languages through local media, TV, radio and online.

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<sup>19</sup> Indigenous Reindeer Husbandry, A study prepared for the UNPFII, 2012, full report available at [bit.ly/1o6JcBc](http://bit.ly/1o6JcBc)

### 3.5 Focus on the foundation of our livelihood – our families

*“We should live life not only for ourselves, but for our development. Primarily, we should think about the family, our culture and we must lead our people forward”*

*– Recommendation from EALLIN Salekhard 2013*

*“We have 29 000 reindeer, 250 reindeer herders, 60% of them are young people. There are 3 million hectares. Tundra, and no women” – Komi herder, Andrey Terentjev, Nenets Autonomous Okrug, Russia, EALLIN Aoluguya 2013*

Reindeer husbandry is a family-based traditional activity. In order for reindeer husbandry to succeed, herders need to be able to support their traditional family structures in order that life on the tundra remains vibrant and strong. Strengthening family life could strengthen reindeer husbandry (Aoluguya Declaration 2013).

*“Honestly, I must admit that the whole problem of reindeer husbandry in Yakutia is the loss of family traditions” – Participant at EALLIN Yakutsk 2013.*

#### 3.5.1 *Where are the women?*

In Soviet times a single job for women in reindeer herding was created – a *tent-worker* (*chumrabortnitsa*). Only one woman could work as *chum* worker at each reindeer-herding unit that consisted of several men. As a result in Republic of Sakha (Yakutia) as well as in other regions women were withdrawn from the tundra and taiga. In Sakha, the rule was to have one female tent-worker for four male reindeer herders, her duties were to cook for men, sew, and help in the work with reindeer. Other women and children were sent to live in the local villages (Habeck 2005). As a result the situation for family reindeer husbandry has deteriorated and led to a loss of traditional knowledge and skills. When women are not in the tundra, knowledge on e.g. traditional food and clothing is lost. Men have to cook modern food themselves and order clothing from elders who live in the settlements. Also some knowledge held by men could be lost. For instance, there are numerous types of reindeer sledges, including those used by women and children. If they are not in use, the knowledge how to make them may also be lost.

From the EALLIN workshop held in Kolymskoe 2012 it was found that this system (of one woman per several men) was still in use for the state employed herders in this area. This raises challenges for the young male herders who wish to start a family. One solution to this challenge may be to change the employment of women / men to a “1 man to 1 woman” system. Other solutions could be around shortening the distances from the men (on the tundra) to the women (in the villages).

At the EALLIN workshop in Saint-Petersburg, young students from Yamal explained why in the 1990’s Nenets reindeer husbandry in Yamal experienced growth, while in other reindeer herding regions during this period there was a clear reduction. One reason offered was that

they mostly have private reindeer husbandry in the region, and a second, that the structure of the family was not changed - whole families of herders were living and working in the tundra.

Today young women from reindeer herding families are often not keen to work in reindeer husbandry and live in reindeer herding camps. This is why improving the living conditions for herders at their camps, such as providing them with modern technologies, electricity, better medical service and so on is a priority.

*“There are a lot of single unmarried people in reindeer husbandry. It is possible and it is necessary to organize meetings between districts, exchange of personnel. New reindeer herding families can be created” - Sleptsova T.K. Bulunsky ulus, EALLIN Yakutsk 2013.*

To become effective reindeer herders of the future, children need to live with their families, including elders, to ensure the transmission of essential tundra and taiga skills, which cannot be learned in books.

The Republic of Sakha (Yakutia) is over 3 Million km<sup>2</sup> making it the largest subnational governing body area in the world, only slightly smaller than India<sup>20</sup> The population is fewer than a million inhabitants, making distances between settlements immense. Reindeer herding is generally located in the most remote places in region, in common with most reindeer herding regions around Russia.

*“Roughly speaking, there are no conditions for reindeer herding in our region (Aldansky ulus). For example, in our community (“Idzhek”) we have to go a few hundred kilometers from the village. In winter, first we go by car to the village Yllymah, where the road ends, then from there to the camp. It takes week on reindeer” – Participant, EALLIN Yakutsk 2013.*

During the summer holidays, for the children to go to the reindeer camp, they need to rent a helicopter and the price of a single trip costs 700,000 Roubles (approx. 13000 USD in early 2015), which herders have to pay themselves. The long distance to schools means children are separated from the family and the herd most of the year, which can lead to a loss in their mother tongue, and skills and interests in the herding life.

*“It would be very nice if the children were involved in reindeer husbandry and its basics since childhood, were brought up on the traditions and values of the people. Future reindeer herders would not only herd reindeer and count them, but would transfer their knowledge and skills to the next generation so that they would have the opportunity to know their traditions” – Participant, EALLIN Yakutsk 2013.*

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<sup>20</sup> Wikipedia: [http://en.wikipedia.org/wiki/Sakha\\_Republic](http://en.wikipedia.org/wiki/Sakha_Republic)

## Text Box 4 - Voice of a Young Evenki Herder

### Voice of a young Evenki reindeer herder

*"Facing the second reading of the draft law "On Nomadic Family" in June 2014 in Yakutsk, we decided to publish a short article where a young reindeer herder from the village of lengra (southern Sakha Republic (Yakutia), Russia) expresses his concern about reindeer herding families and the future of traditional knowledge:*

*" I'm twenty-six years old. I spent all my childhood in taiga with my family, working with reindeer. I can't stay in the town for too long, my legs almost without control carry me into taiga, to my reindeer. Only then I feel comfortable, I start to have good sleep – reindeer are close to me, and my soul is calm. And when the hunting season starts, there is no peace for me – all I start to think about is hunting. So I like living in taiga, everything suits me here..*

*But there are a lot of reindeer herders who cannot create their own families, because girls don't want to live in the taiga or tundra. They got used to living with comforts, such as hot water, electricity, and the internet. Today young women are afraid of those living conditions, which the taiga is giving them. And this is also the reason why traditional knowledge is disappearing. For instance, knowledge in handicrafts. I have to ask elderly Evenki women to sew me traditional clothing, make working shoes from reindeer skin. But usually because of their age, they are not always able to make proper clothing, it is hard for them to prepare reindeer skin. And young girls they don't know how to make this traditional clothing, which is needed for reindeer herders work. It is very sad.*

*While married a reindeer herder can come to his tent, where his family is waiting for him, where it is warm and food is prepared. He can have a good dinner, take a proper rest and continue to work. But bachelors got used to eating instant noodles. It is easy to prepare, but for how long it will be enough to be full, and continue to work? Of course reindeer herder gets tired very quickly, and his work cannot always be finished.*

*It is very good that the Parliament raised the question about nomadic families again. Girls need to be attracted to work in reindeer husbandry. And for that purpose, the living conditions in taiga must be improved. Because today even the material for tents is not of a good quality – it used to be better before. If we don't have reindeer herding families, then how can we preserve our traditions? To whom we will pass our knowledge and experience? To become reindeer herders, children should be raised close to reindeer, in the taiga. And of course they need their mothers to be close to them. "*

*Igor Kolesov, nomadic community "Oldoyo", lengra village, Neryungri region.*

Source: Reindeer Portal:<http://goo.gl/Yf8Nwn>

Interview by Alena Gerasimova.

## Text Box 5 - BIRGEN

### *Birgen*

#### WOMEN'S ROLE in Sámi reindeer husbandry (birgen.no)

Sami reindeer herding has traditionally been a family-based industry, where men and women had different roles and tasks. When the families moved year round with the herd, the man worked most often with the herd, while the woman was in charge of cooking and the upbringing of children. This meant that it was the women who were key for the transfer and training of traditional knowledge and the technical language to the younger generation. Due to changes in society and reindeer herding, the family has become more stationary. Now many women have jobs outside the reindeer husbandry, thereby helping the family business financially. But still today, she has a key role as knowledge provider to the younger generations, in preserving and developing traditional reindeer husbandry knowledge. When there is intensive work needed with the herd, for example, by separation, calves and slaughtering, the women and children all participate. Transfer of knowledge occurs through communication and participation, and it is usually the mother, grandmother or aunt who is the teacher. Thus, women thus have an important role in preserving and developing traditional reindeer husbandry knowledge, recruiting young reindeer herders, as well as maintaining family-based Sami reindeer husbandry.

Reindeer women's professional competence is about to disappear with the older generation, and womens' traditional knowledge and expertise has been little documented. On this basis, ICR together with women in Sámi reindeer husbandry established a three-year project called *Birgen*. The purpose of the project was to strengthen all aspects of the traditional family-based reindeer with special emphasis on women's knowledge and expertise. During the project period, some of the womens husbandry knowledge and work has been documented, and material for use in teaching has also been prepared.

By Elna Sara



*Mother and child in the Taiga. Pic: Yuri Kokovin*



### 3.6 Equitable access to technology

*I have not even thought about the Internet in the tent, but I like this idea. There is partially a network in the Yamal region. But, unfortunately, it is just next to the railway.*

*Nenets youth participant, EALLIN St Petersburg, 2012*

Reindeer herders have always encountered new technologies and have incorporated them as needed and adapted them, or to them as required. Importantly, not all new technologies are embraced - for a multitude of reasons they may not meet the demands of what is after all rigorous and demanding workplace environment. In addition, many technological advances are introduced to larger markets first and take some to arrive in remote areas, if indeed they arrive at all. However, the lack of one technology, may assist a region in leapfrogging right to the next stage of innovation – the rapid spread of mobile telephony and mobile enabled internet access being one such example.

*“Of course, I understand that it’s the 21<sup>st</sup> century, computers, big cities, mobilization and so on. In this case, those who want to become a reindeer herder and live in the forest would be very few. But why does everyone think in clichés? We can perfectly combine our traditions and new traditions and new technologies, and not only combine, but also extract the maximum benefit from it. If we develop this idea and bring it to life, we will have more benefits” – Boytunova P.L. from Aldansky region EALLIN Yakutsk 2013.*

New technologies – from the snowmobile to the mobile phone and the internet, have already transformed the lives of reindeer herders in various ways and this topic was actively discussed in the EALLIN workshops from Sweden to St Petersburg to Sakha and Salekhard.

Youth were both welcoming and desirous of new technologies, most especially access to the Internet through cell phone devices. However concerns were also raised as to the potential for negative consequences that technologies such as the Internet could wreak on traditional activities and livelihoods.

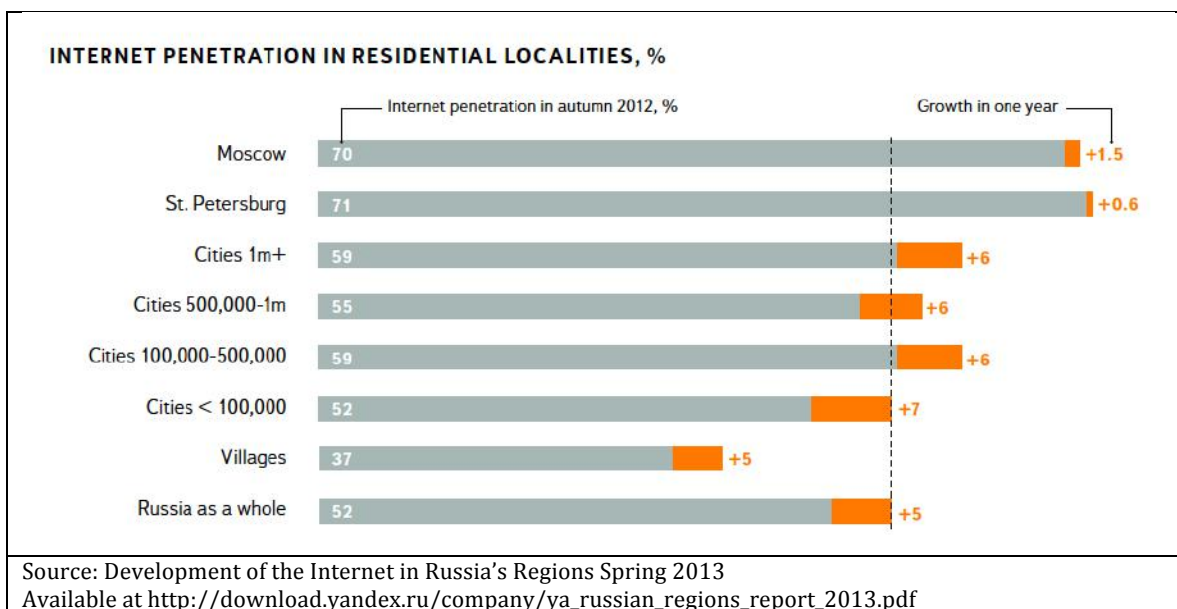
A technology that has rapidly made its way into reindeer herding societies across Russia is the mobile phone. Some argue that we should now be talking about a mobile phone revolution (Stammler 2009) – a play on the phrase ‘snowmobile revolution’ (Pelto 1987) that altered life in the Arctic for herders and hunters immeasurably.

In 1981, the first cellphone network was launched in the Nordic countries, the Nordic Mobile Telephone (NMT) system in Denmark, Finland, Norway and Sweden and anecdotal evidence suggests that reindeer herders in Norway were early adopters of this technology as they quickly realized its potential. By 1988, Norway had the world’s highest density of mobile

phones.<sup>21</sup> By 1991, second generation (2G) *digital* cellular technology was rolled out in Finland, after which came 3G networks (2001) and now 4G with even more data transfer capability.<sup>22</sup>

Just as with mechanized transportation, the integration of cell phone technologies into reindeer herding societies was rapid and complete in Scandinavia long before Russia. However, what is striking is once introduced, its spread across Russia has also been rapid. Russia is now the 5<sup>th</sup> highest country for number of mobile phones and with an estimated 155 phones per person, surpassing the mobile phone per capita figure of Finland, Norway and Sweden.<sup>23</sup> However, reindeer herders work in remote areas, often far from villages, roads and cellphone towers. Cell phone coverage is patchy even in many herding areas in Scandinavia. In Russia, coverage is extremely scarce in reindeer herding areas and focused almost solely on towns, villages and industrial installations.

In Russia, the primary growth in cell phone ownership, data transfers and the reduction in cost of access has been focused on urban areas. Villages in particular lag far behind the urban areas. Remote areas generally have no coverage at all.



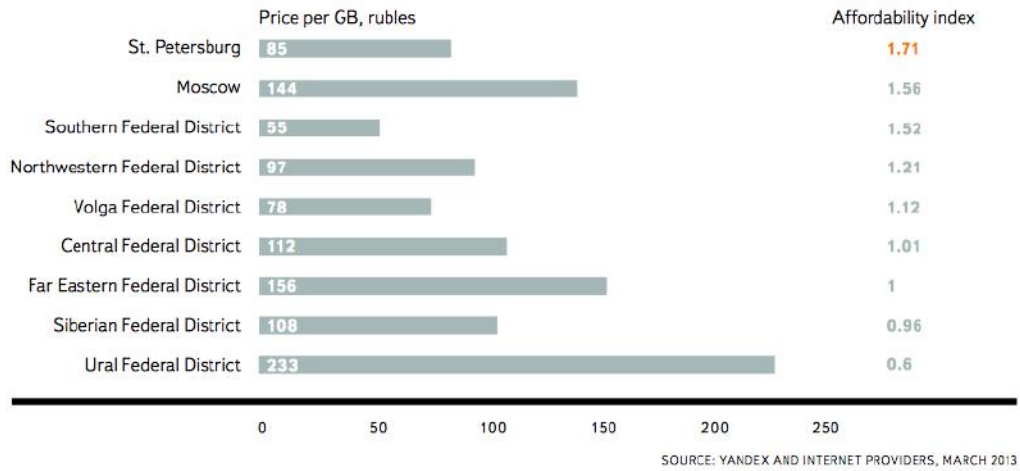
Speed has increased for the same tariff rates and affordability of mobile Internet access has improved. However, there are marked regional variations in Russia, with the Far East, North and Siberia standing counterpoint to the speed, accessibility and affordability of cities such as St Petersburg and Moscow as the following graphs show.

<sup>21</sup>The Mobile Phone Adventure. <http://www.telenor.com/media/articles/2012/the-mobile-phone-adventure/>

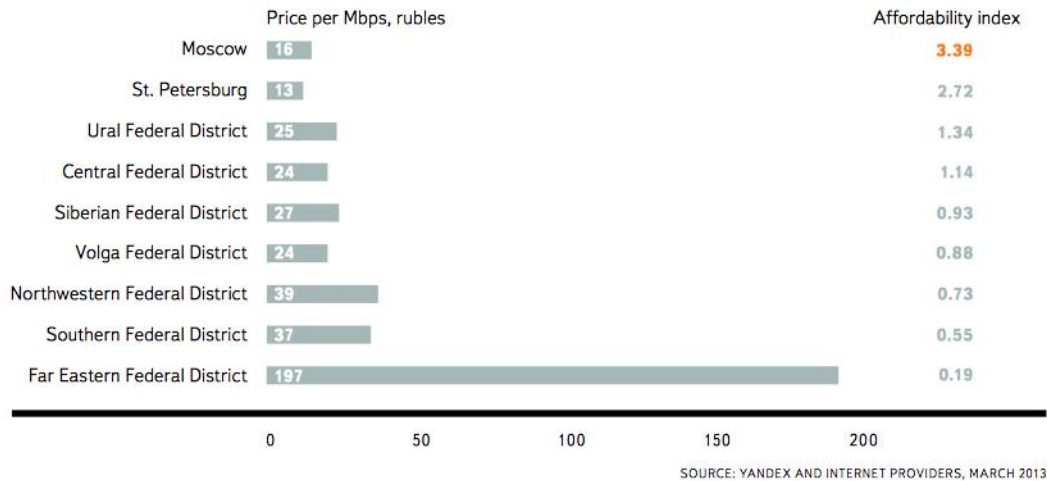
<sup>22</sup>The Mobile Phone. [http://en.wikipedia.org/wiki/Mobile\\_phone](http://en.wikipedia.org/wiki/Mobile_phone)

<sup>23</sup> See Indexmundi.com for list comparisons, eg <http://www.indexmundi.com/g/r.aspx?v=4010>

### PRICE AND AFFORDABILITY OF MOBILE INTERNET ACCESS



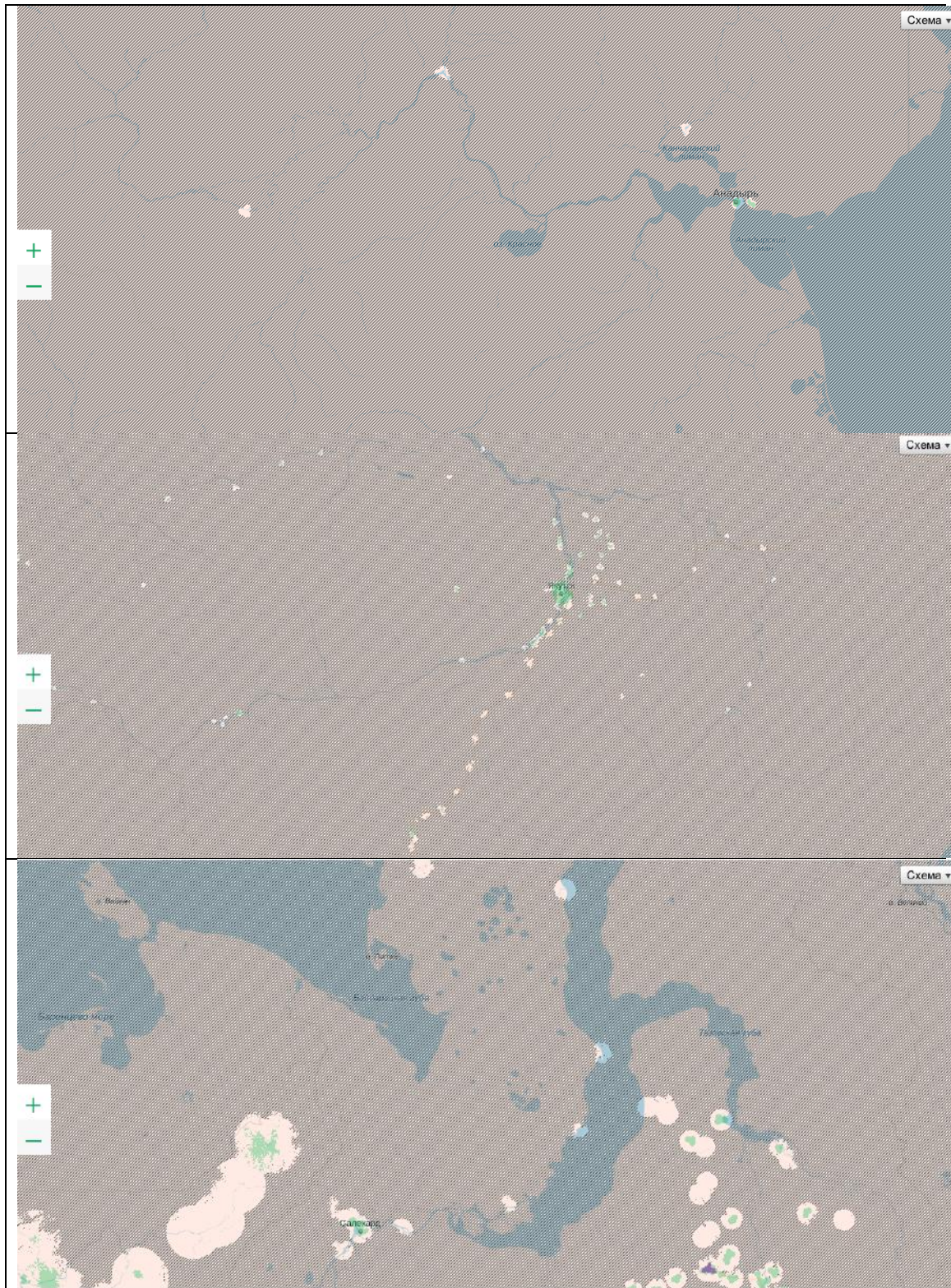
### INTERNET ACCESS COST AND AFFORDABILITY INDEX



(Source: Development of the Internet in Russia's Regions Spring 2013  
Available at [http://download.yandex.ru/company/ya\\_russian\\_regions\\_report\\_2013.pdf](http://download.yandex.ru/company/ya_russian_regions_report_2013.pdf))

Clearly in regions where herders are, it is more expensive to access the Internet using cellphones and the speeds are markedly slower for the same prices as urban areas. By way of illustration of the challenges facing rural mobile users below are a sampling of cellphone coverage offered by *Megafon* one of Russia's largest providers (see megafon.ru). From top to bottom are images of 2G-3G coverage for the region around Anadyr (Chukotka), Yakutsk (Rep. of Sakha (Yakutia)) and Salekhard/Yar Sale (YNAO). It should be noted that this is one carrier, local carriers may and often do have a larger spread of coverage.





As one can see, vast swathes of the Russian backcountry are completely without cellphone coverage. Some of these regions are very mountainous, the distances are immense and the population distribution is very low making it unlikely that private sector expansion of coverage in these rural areas is on the near horizon.

The lack of access was a stated concern in several workshops - In Salekhard, one young herder stated:

*“In the tundra people need a mobile connection. In this way people know what is going on in the world, also in the world of reindeer herding” – Participant EALLIN St. Petersburg 2012.*

Many young herders in the EALLIN workshops spoke with their frustration of the lack of access to the Internet and poor cell phone coverage. Youth in several workshops spoke to the advantages - for information, education, their usefulness for herding purposes and communicating with neighbouring reindeer herding units, keeping in touch with family and friends and connecting to the rest of society.

Full access to the Internet while in the ‘chum’ is some way off. However, technological advances may result in expanded and improved coverage in the next 5-10 years. Norway (the Norwegian Space Centre and Telenor Satellite) have announced plans to expand broadband Internet to the high Arctic over the next decade for Internet by launching new geostationary Satellites. Their focus is likely to be the energy and shipping sector<sup>24</sup>.

A recommendation from the Salekhard EALLIN workshop was that all people working in the tundra should have a satellite phone. Satellite telephony is certainly another option for communication in remote areas. The system with the best coverage in the Arctic is the Iridium phone, which is expensive to purchase - approx \$1350 USD, plus \$60 month access fee and over 1\$/minute and 50c / text. In addition, these phones are for talk and not data.

However - new products are always coming to market. One such is the Iridium Go. At a cost of \$850 USD, it uses specialty apps that are downloaded to your smartphone or tablet to make or receive calls, check and send email, connect to the Internet, send files, track your GPS location and a host of other features. The Iridium works everywhere, even on the North Pole, just as long as the sky can be seen. And while the Internet connection is quite slow at 2.5 Kbps (uncompressed), it is enough to do the basics such as sending small files, or checking the weather from a mobile weather app. The 100' Wi-Fi hotspot (30 meters) lets any authorized in-range device or devices to connect.<sup>25</sup> As prices fall and more Arctic focussed satellites are launched, the costs of these systems will fall. It is worth recalling that early handheld NMT phones cost considerably more (30,000 NOK) than contemporary satellite phones.<sup>26</sup>

Many youth however, pointed out the risks of new technologies and how they might disrupt traditional livelihoods,

*“I think if we have a mobile connection, on the one hand, it will be good; on the other hand, it entails a settled way of life. This leads to the fact that people won't pay attention*

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<sup>24</sup> Northern Arctic Could Have Long Wait for Reliable Broadband, WSJ. January 23, 2014. Accessed April 11, 2015.

<sup>25</sup> See for example [http://www.groundcontrol.com/Iridium\\_Go.htm](http://www.groundcontrol.com/Iridium_Go.htm)

<sup>26</sup> The Mobile Phone Adventure. <http://www.telenor.com/media/articles/2012/the-mobile-phone-adventure/> Accessed April 15, 2015.



*to the reindeers. People are known to require a lot of needs. And the towers will not stand for the whole area of Yamal. And each reindeer herder, a resident of the tundra, will seek to quickly get closer to the tower. In this case there will be a lot of problems.” – Khudi H.A. B -31 group, Serotetto V.A. T -31 group, EALLIN Salekhard 2013*

This young herder points to the law of unintended consequences - that placing cellphone towers along the Bovanenkovo railway on the Yamal peninsula could have both positive and negative consequences for herders, some of which were surely unanticipated.

A Chukchi student in the EALLIN workshop in St Petersburg put it rather well:

*“I want modern things like the Internet and then the good life would not seem like a fairy tale...”*

With the energy sector placing more focus on the Arctic, and its oil and gas resources, the irony is that many herders are ‘energy poor’ in Russia, a fact pointed out by an EALLIN participant in St Petersburg:

*“Even if the problem of Internet access will be solved through cheaper satellite Internet and good coverage, how can nomadic herders charge their devices? There’ll be a need to provide energy generators and fuel?” – EALLIN St. Petersburg 2012*

This participant raises an excellent point - that all these new handheld devices need energy to charge them and this is a challenge when out on the land. It is even a challenge in many villages in the Arctic. The majority of Arctic settlements are powered by diesel which needs to be trucked/shipped in and this is a dirty source of energy and highly vulnerable to interruption. On the village level, some sites could utilise micro hydropower - Microhydropower is generally defined as having a generation capacity of less than 300 kW. Solar power (PV) has some promise for micro power generation on fixed and mobile sites though reduced light in the Arctic during winter months renders this technology of limited use during that period.

A small-scale solution on the family ‘chum’ level could be thermoelectric generation. Thermoelectric generators (also called Seebeck generators) are devices that convert heat (temperature differences) directly into electrical energy, using a phenomenon called the Seebeck effect (a form of thermoelectric effect). An old technology, and one with a very low efficiency, this is a technology that could have a useful function in a reindeer herders tent, while herders are on the land. Fire is an essential part of herders life in the *chum*, for heat and for cooking. New products exist that produce light and power (to charge a phone for example), from the energy produced by a campfire.<sup>27</sup>

### *3.6.1 Technology and safety*

Reindeer herding is a very dangerous occupation and it is possible for reindeer herders to get into difficulty and have no way of alerting their families or other herders. Several youth raised

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<sup>27</sup> See for example: [biolitestove.com](http://biolitestove.com), [flamestower.com](http://flamestower.com) These are relatively inexpensive solutions.

this question and expressed an interest in microchip technology. While personal microchips were considered as being invasive and impractical, options worth investigating are 'Distress Radio Beacons'. The *type* of a beacon chosen is determined by the environment in which it is intended to be used:

- EPIRBs (Emergency Position Indicating Radio Beacons) signal maritime distress,
- ELTs (Emergency Locator Transmitters) signal aircraft distress
- PLBs (Personal Locator Beacons) are for personal use and are intended to indicate a person in distress who is away from normal emergency services;

There are a number of options when it comes to PLB's, which would be the most appropriate type for herders, but ones using the COSPAS/SARSAT satellite network are the most effective in the Arctic and have been in operation for over 30 years. Devices range from USD\$280-\$380. No annual subscription is subsequently needed.

### *3.6.2 Technology, education & networking*

With the rapid development of Information and Communication Technology, there has been a concomitant increase in advances in distance education – a useful model for content delivery to small remote communities. ICR in collaboration with the WRH, the University of Oulu and the Arctic Portal (Iceland) have already tested an online course aimed at reindeer herding youth but also open to all interested parties. The course ran for 12 weeks, was coordinated from Canada, with students and teachers from Russia, Norway, Sweden, Finland, France, the USA, and the UK. Students that completed the course received credit from the University of Oulu, Finland. Technically, students were linked together with Moodle, Skype and other web sharing platforms and the course was a resounding success, with over 50 individuals attending and 6 graduating<sup>28</sup>.

Real time online collaborations have also tested and been successful. A repeated need stressed by youth during the EALLIN workshops was the need for more communication between reindeer peoples and effective networking between regions, to share lessons learned and challenges faced.

To meet these desires two parallel reindeer herding student workshops, in Yakutsk (Sakha), and in Jokkmokk in Northern Sweden which were connected by Skype, February 15-16, 2013. In Jokkmokk there were close to 50 young Sámi reindeer herding students from Sweden, Norway, and Finland while 10 reindeer herding students from all across the Sakha Republic, including Even and Evenki students were gathered in Yakutsk.

### *3.6.3 Social media and the Reindeer Portal*

Social media is expanding rapidly throughout Russia, with a heavy emphasis on youth users, just as in Scandinavia. In Scandinavia, Facebook is by far the most popular social media platform and is heavily used by reindeer herding youth. Twitter and Instagram are also

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<sup>28</sup> 'Adaptation to Globalisation in the Arctic, the Case of Reindeer Husbandry', hosted at vlt.is. Read the backgrounder here: <http://reindeerherding.org/projects/uarctic-ealat-institute/courses-2/>



popular. In Russia, the two most popular social networks are *Vkontakte*, a similar platform to Facebook, and *Odnoklassniki*, a platform for connecting with old friends and classmates. ICR has developed the Reindeer Portal - an online platform in English, Russian and Sámi that focuses on reindeer and reindeer herders around the world. This Reindeer Portal attracted nearly 100,000 visitors in 2014 with well over half coming from countries with reindeer herding present. An increasing number of users are from Russia and content in Russian has been considerably expanded. ICR/WRH also have a Twitter channel and an active Facebook page (over 1000 'Likes'). The Reindeer Portal is a platform for and by reindeer herders from across Eurasia to inform, connect and learn while communicating with the outside world.



*Charging mobile phones on the move. Yamal Peninsula. Pic: Svein D. Mathiesen*

### 3.7 Use economic models which safeguard our futures

Reindeer have always been and remain the foundation of reindeer herding peoples lives. Reindeer provide people with shelter, food, clothing, security and are at the centre of herding peoples' universe, the foundation of their cultures, languages, worldviews and ways of knowing. Reindeer are also the foundation of herders' economies.

One of the most engaging and frequently discussed topics at the different EALLIN youth workshops was the economics of reindeer husbandry. Many young reindeer herders were talking about low income in this livelihood in some regions, resulting in the reality that there is a low interest or possibility among young reindeer herders to continue reindeer herding. This is also connected to a complex of issues regarding the structure of reindeer ownership, especially in Russia. In the western parts of reindeer husbandry, there was much focus on the lack of available pastures and loss of pastures because of encroachment, as well as heavy predator losses, amongst other things.

***“...My name is Samira, I am from Chukotka, from a small village called Kanchalan. I know the hard work of reindeer herders, because I grew up in the tundra. My uncle continues the work of his parents, he is the brigadier of brigade #12. Uncle rarely goes to the village, he has a small salary. And I'm surprised by this! How this hard work could be paid at a minimum. Most of the conditions are not the best now. Sometimes there is no enough food, the reindeer herders begin drinking ... It's very sad. They forget the traditions and don't conduct traditional ceremonies... – Samira Tymnekvyna, young Chukchi reindeer herder and student, EALLIN St. Petersburg 2012.***

#### 3.7.1 The East: Russian reindeer husbandry economy

The reindeer herding livelihood and its economy can be seen in the light of challenging historical events. Throughout the 20th century in different countries there have been attempts in acculturation of indigenous peoples of the North, "civilizing" and "modernizing" of their social and economic activities.

In Russia, during the Soviet regime, after the policy of non-interference in the self-governance systems of the indigenous peoples of the North, the government pursued a policy of transformation in order to integrate these peoples into the family of Soviet peoples by changing their traditional ways of life and traditional economic activities (Klokov, 2001). Similar patterns and national policies were also practiced in Scandinavia. These peoples, who mostly lived nomadic lives were actively transformed into sedentary peoples, and connected into the construction of Soviet society.

With all the positive changes in the lives of herders that are associated primarily with access to social benefits, such as general education, medical care, improvement of living conditions etc., still the process of transformation of the nomadic peoples throughout the Soviet Union was accompanied by profound long-term challenges, such as the loss of identity associated

with the disappearance of the cultures, languages and traditional knowledge of indigenous peoples.

Another significant change in the lives of reindeer herders was the introduction of new approaches to the management of reindeer herding on the basis of scientific development related to agricultural production. Therefore, after the painful process of collectivization began, came the process of enlargement of reindeer units into collective farms, so called *kolkhoz* and *sovkhos*, the purpose of which was to increase the efficiency of agricultural production. It also had a significant impact on the traditional social organization of herders' society and the structure of their economic activities (Stammler 2005).

Soviet science aimed at improving the efficiency of production of reindeer herding. It should be noted that due to the strong support of the activities of the state, reindeer collectives were relatively successful in terms of meat production. Many farms achieved good results, as they delivered hundreds of tonnes of meat per year to the state, built and equipped with modern conveniences, villages for herders and improved social infrastructures.

However, after the collapse of the Soviet Union and its management systems, reindeer dependent economies began a rapid decline. This is primarily reflected in the reindeer population, which in Russia in the 1990s decreased by almost 2.5 times (Jernsletten and Klokov, 2002). The only region in which there was an increase in the number of reindeer was the Yamal-Nenets Autonomous Okrug, which perhaps, among many other reasons, has been explained by the fact that the Nenets reindeer herders were able to preserve family-based reindeer husbandry and because of the existence of private reindeer ownership, that the number of reindeer in this region grew steadily (Stammler 2010).

It is worth noting that despite the transition to the market economy, reindeer management systems from the Soviet period still persist. Former state farms have changed their names to cooperatives, state or municipal unitary enterprises. Some were disaggregated and reformed as *Obshinas* (Stammler 2005b).

The issue of ownership of reindeer remains ambiguous. There are three forms of ownership of reindeer in Russia today: state, public, and private. (Jernsletten and Klokov, 2002) During the years of Soviet power after forced collectivization most of the livestock was in state or public ownership. Today we can say that most of the reindeer livestock can still be considered as public livestock even if they are a part of indigenous *obshinas*. Therefore, the difference between the state and public property, in practice, is not essential (Jernsletten and Klokov, 2002). This situation drives other challenges, ranging from the low incentive of reindeer herders in this kind of economic activity, to poor economic development and low income for reindeer herders' families.

During the EALLIN workshops many young people named low income as the main reason for the outflow of young people from reindeer husbandry. Several noted that in the absence of normal working conditions and extreme environmental conditions many young people do not want to work for the low wages reindeer herding offers. As a result, many people choose higher paying jobs in other areas of economic activity. However, some participants said that



they would like to be engaged in reindeer husbandry, if they could own reindeer and could determine for themselves how they conduct their work.

***Conditions in reindeer husbandry today are quite hard, many youth leaves reindeer herding. We need to have our own private reindeer husbandry. I worked for 20 years, and now have around a thousand reindeer in the taiga. Industries grow, modern life takes over. I would like to continue, for the sake of our reindeer, but we have many problems with transportation, communication, and no infrastructure. So it is difficult to develop the economy of our business***  
– Djulustan Sidorov, Reindeer herder, leader of obshina "Gonam", Sakha Republic, Russia, EALLIN Yakutsk 2013.

A general lack of legal and organizational frameworks for the institution of private ownership of reindeer in Russia in reality takes away from reindeer herders a key issue in any economic activity: motivation. And it threatens the sustainability of reindeer husbandry, because when there is an outflow of youth from reindeer husbandry, it breaks the continuity of knowledge and experience.

Therefore, it seems that the question of ownership to reindeer is one of the keys to the future development of reindeer herding in Russia. In this regard, the EALLIN workshops in Russia revealed hopes of many young herders for improvement of national and regional legislation to better accommodate the private ownership of reindeer, on the basis of traditional understandings of reindeer ownership. At the same time there is a need to solve other pressing issues related to the further development of reindeer husbandry, where state support is also important (see WRH Aoluguya Declaration 2013).

Reindeer herders with better access to markets such as in the west/ Fennoscandia have over time created a meat-based economy for reindeer, and this has also been a positive outcome of the recent oil and gas related boom in parts of the Yamal Peninsula and the Nenets Autonomous Okrug in Russia. In the majority of reindeer herding areas, especially in the Eastern parts of world reindeer herding, the poor state of the local economy and the lack of access to markets has typically meant a very low standard of living for reindeer herders. In such areas, recruitment into the livelihood has been a challenge and this is threatening the long-term sustainability and future of reindeer husbandry.

### *3.7.2 The West – Sámi reindeer husbandry economy in Fennoscandia*

Ironically, what largely appears to be an economic success story in western/ Fennoscandian reindeer husbandry has some less known side effects that may also threaten the long-term sustainability and future of the livelihood, in other ways. The “modernisation” of reindeer herding in Norway (our example here) took off from the mid 1970’s, with the introduction of subsidies based on agricultural models and logic (Reinert, 2006). While the price per kilo of reindeer meat to reindeer herders over the following 20 years was roughly cut in half (in inflation corrected figures), and the vast majority of Sámi traditional family-owned slaughter facilities were eventually closed down, and reindeer herders lost control of the most valuable parts of the value chain for their products (Reinert, 2006; Reinert et al, 2009). Something else

also happened, gradually (and perhaps less visible at the time): The “modernisation” or “industrialisation” of the livelihood has come to impact the original family-based model of reindeer herding among the Sámi. Basic elements of this development are listed below, Myklevold et al (2004), Reinert (2006), Joks (2007) and Reinert et al (2009) etc.:

- New legislation and regulations of entry into reindeer husbandry from the mid 1970s, impacting the internal organising of reindeer husbandry, and also subsequently over time creating a gender imbalance.
- Changes in the industrial structure, with the reduction of local family-owned small-scale slaughtering facilities from the 1990s onwards, with subsequent consequences on important tasks of women and children (in handling fur, food products etc.), as well as concentration of market powers (monopsony).
- Introduction of motorized vehicles also over time contributed to women and children generally living in settlements (i.e. while the men would be out herding). While standards of living may have improved, the role of women could be said to have weakened, while costs have increased.
- A weakening of the basic profitability of reindeer herding, that over time resulted in an increased need for women to gain outside employment to secure family economies, has had consequences also for traditional tasks and the roles of women.

Traditionally, women in Sámi reindeer herding have also played a crucial role in the transfer of knowledge, particularly to younger children (who cannot yet participate in daily herding), see Joks (2007). The “modernisation” of this traditional nomadic livelihood in the west, seemingly a success story as seen from the east, has come at a price: A weakening of the traditional family-based model of reindeer herding. A concerning aspect of this is that this could weaken the mechanisms of transfer of Traditional Knowledge between generations within the families, in part tacit knowledge, which can be seen as a core competence and strategic asset of reindeer herding.

### 3.7.3 *Reindeer herders’ perception of economy, shortcomings of existing models*

Reindeer herders have their own understanding and vision of the economy of reindeer husbandry, which are often different from those of the mainstream society and the “western scientific tradition” (Turi 2013). Although, of course, we must recognize that western scholars have always interpreted the economic categories in reindeer husbandry in accordance with their ideas and practices of western economic science (Turi 2013). Herders, for example, would not have considered the number of reindeer only as a means of production. One of the reasons, as mentioned above, is that the reindeer is associated with all aspects of the life of reindeer herding peoples.

*“...Reindeer herding peoples have always known they have to work in collaboration with nature, not against it”,* says senior Sámi herder and Secretary General of WRH Mr. Johan Mathis Turi (in Oskal et al, 2009). This also reflects a basic general understanding of reindeer herding peoples: *People migrate after the reindeer, not the other way around.* Sámi reindeer herders for instance, say that the reindeer knows best itself where to find pastures. So herders’ tasks are more about guiding the animals, then controlling them. This separates reindeer herders

understanding of their livelihood and economy from for instance a “standard” agricultural understanding, where your animals are more or less fully controlled continuously, e.g. in the barn. Johan Mathis Turi further highlights reindeer herders’ perspectives this way: “...*We have some knowledge about how to live in a changing environment. The term ‘stability’ is a foreign word in our languages. Our search for adaptation strategies is therefore not connected to ‘stability’ in any form, but is instead focused on constant adaptation to changing conditions.*” (Johan Mathis Turi, Secretary General of WRH, Statement at UN World Environmental Day, June 5, 2007).

In reindeer herders understanding, pastures/ good pasture conditions (in north Sámi language “*ealát*”) are the foundation for the reindeer herd (Sámi “*eallu*”), and the reindeer herd is the foundation for the life (Sámi “*eallu*”) of reindeer herders (Magga et al, 2011). While none of the indigenous reindeer herding peoples are known to have the term “sustainable development” in their languages, we still find an understanding of this concept in the above example, hidden in the language. While the term sustainable development might implicitly presuppose the maximizing of production or output, herders’ traditional way of thinking is better expressed by for instance the Sámi term “*birgen*”: If you have enough to manage or cope (“*birget*”), you have enough. Economy is therefore integrated into reindeer herders’ own core understanding of their livelihood, though often with its own different departure points, and is expressed by traditional knowledge manifested through indigenous languages and ways of organising (Sara 2009).

A fundamental challenge, then, is that still today *there seemingly exists no theoretical-empirical economic model adapted for, made for or genuinely suitable for reindeer herding as a traditional, family-based, nomadic livelihood in cyclical and highly variable natural environments*. Still, the economic models that are used often originate from the agricultural sector as Reinert (2006) points out. To quote the Stanford economist Moses Abramowitz in 1993: “...*It ain’t what we don’t know that bothers me so much; its all the things we do know that ain’t so.*” Translated to our situation: One issue is if the economic logic of family-based reindeer herding is not fully understood; another issue could potentially be that one might *believe* one understands it, for good reason by using one’s own models, while in reality one might not.

*Is it possible to increase reindeer herders’ salary? Because of this problem, young people simply do enter reindeer herding. – Young reindeer herder from Yamal (anonymous), EALLIN St. Petersburg 2012*

Wealth, according to the traditional understanding of reindeer herding peoples, is not only expressed by quantitative characteristics, but rather also in quality. We could for instance look at the concept of a “beautiful herd” (e.g. in Sámi language - “*čappa eallu*”): What the term really expresses is that the structure of the herd is made up in such a way that it has been adapted to the available grazing conditions and pasture diversity, as well as to the changing climatic characteristics of the territory concerned, i.e. taking into account the cyclical nature of the environment and climatic changes. This reveals a much more advanced and complex understanding than simply the aesthetic meaning of the term itself (Sara 2009).

The economic situation of reindeer husbandry in the Nordic countries is significantly different from the Russian situation, though in many respects the changes in the management of reindeer husbandry that occurred in the Nordic countries are remarkably similar at its core. In the 20th century in Fennoscandia there was also a process of attempting to “modernize” reindeer husbandry. The authorities utilized economic approaches of scientific research to improve the efficiency of the economic activity in reindeer herding, with a focus on meat production volume for instance in Norway. Today we can certainly say that reindeer husbandry in Fennoscandian countries is likely the most “modernized”. Reindeer herders are using mechanized transportation, a developed production system and good social infrastructure, and there are significant markets for reindeer products. However, the conceptual approaches that have been used in Fennoscandia, introduced by various researchers, were not devoid of the shortcomings that were inherent to the planning and administration of the economy of the Soviet period of Russia's development. Reinert (2006) for instance states that in 1976 agricultural principles and a “planning paradigm” were introduced to reindeer herding in Norway. Subsequently, slaughtering and marketing - the most profitable activities in the value chain - came under government regulation and non-Sámi ownership.

A common feature of public policy in Russia and some of the Nordic countries is the desire to maximize the productivity of reindeer husbandry and introduction of ideas of mass agricultural production, which Erik Reinert calls the introduction of “Fordism” to reindeer herding (Reinert, 2006). However, due to the specifics of reindeer husbandry, cyclicity of natural variations and significant differences of reindeer herding from agricultural production, that desire might actually make reindeer herding more vulnerable to the challenges of climate change and globalization (Reinert 2006).

In political economy, the concept of “sustainability” of management first emerged in the second half of 19<sup>th</sup> and the first quarter of the 20<sup>th</sup> century in Western Europe. According to the theory of “sustainability of small peasant farming” small-scale production in agriculture has an advantage over large and therefore is more viable. The founders of this theory were economists Klawki, Hecht, Puzor and Brentano. In Russia, prominent representatives of this theory have been M.I.Tugan-Baranovsky, P.B. Struve, S.N. Bulgakov and others. According to supporters of the sustainability of small peasant farming, the owners of small farms and their inherent greater diligence, hard work and thrift produces products at lower costs than large farms, favouring the efficiency of small-scale production over large (Nosov 2005).

Therefore, it seems that the economy of reindeer husbandry should also develop along the path of small-scaled reindeer businesses on a family basis, using traditional knowledge and modern technologies in the field of processing of reindeer products. It is necessary to revise the concept of the ‘development’ of reindeer husbandry and develop new approaches and models for reindeer husbandry, which could fit with specific family-based nomadic reindeer husbandry and fluctuations in the natural and climatic conditions of the Arctic and Sub-Arctic.

The traditional livelihood of reindeer pastoralism represents a model of sustainable exploitation and management of northern terrestrial ecosystems based on experience accumulated over generations, conserved, developed and adapted to the climatic and political / economic systems of the north (Magga et al, 2011). It also represents a human-coupled eco-

system, which has developed a historical high resilience to climate variability and change (Turi, 2008; Magga et al, 2011; Arctic Council Arctic Resilience Interim Report, 2013).

The key foundation of reindeer herding is of course reindeer, which provides herders with food, security, clothing, transport, and more. However, herders also rely on a *diversity* of resources in their economic adaptation, including traditional activities such as hunting, fishing, gathering and more, as well as combinations of the above. Reindeer herders' adaptation strategies would seem to be focused on flexibility (ARR, 2013), constant adaptation to changing conditions (following Turi, 2002), and risk spreading through diversity in social organisation, economy and through understanding biological diversity (following Magga et al, 2011; ARR, 2013). Such a starting point does not go well together with a planned-economy paradigm of maximizing output based on monoculture specialized production – which some argue is exactly the model that has been introduced and consolidated in Sámi reindeer herding in Norway by public incentives over the last 30 years. The so-called Lenvik-model (see Reinert 2014) with the slaughtering of reindeer calves for maximum meat production, in kilos, with subsequent reduced diversity in herd structure, use of pastures, types of slaughter animals, even industry structure, reindeer product ranges, reindeer product value chains, and so on. All this taken into account, the contrast between these two ways of thinking and knowing is clear.

#### 3.7.4 World reindeer herders on economy:

To bring in world reindeer herders' own perspectives on their economy, the statements referred below are taken from the *Aoluguya Declaration, on the occasion of the 5<sup>th</sup> World Reindeer Herders' Congress in Aoluguya, Inner-Mongolia, China, July 25-28<sup>th</sup>, 2013*. Held every four years, through the Aoluguya Declaration, world reindeer herders emphasized reindeer herding as a sustainable model for human life in the north:

*“...**Underline** that reindeer herding represents a circumpolar model for sustainable management of the barren Arctic and Sub-Arctic areas, utilizing marginal natural resources which can hardly be used by others, and which historically has not displaced others.”*

The Declaration states a concern for the future of reindeer herding societies facing Arctic change, and specifically mentions the development of reindeer herders' economy as being key for robust societies:

*“...**Recognize** the need for active local reindeer herding societies in face of the major changes that are now happening, and underline the importance of making local reindeer herding peoples and societies capable of handling these changes themselves through local capacity building and ensuring that the voice of reindeer herders is heard, and **recognize** that the freedom of reindeer herders to develop their own economy and value added is a key factor to avoid vulnerability. (...)*

***Underline** that well-functioning reindeer herding communities is dependent on utilizing the knowledge of the people to maintain and strengthen the well-being and resilience of their own societies.”*



The Declaration also highlights the diversity in reindeer herders and reindeer herding societies' economical foundations, including other traditional industries and coping mechanisms:

*"...**Underline** that reindeer herding also includes hunting, fishing, gathering, harvesting and other forms of nature use as integrated parts of the traditional and economic foundation, which is of particular importance for taiga reindeer husbandry."*

As with reindeer herding youth at the EALLIN workshops, the Declaration puts strong focus on the issue of predators, that have clear negative economic implications for reindeer herding families:

*"...**Note with concern** the severe impacts from heavy losses of reindeer to predators and the predator policy and management in Norway, Sweden and Finland,"*

In the Declaration, the significance of economic freedom and concrete economic development for reindeer herders are underlined, including both existing value chains and new economic activities such as tourism:

*"**Reiterate** the statements of the Kautokeino Declaration on the occasion of the 4<sup>th</sup> World Reindeer Herders' Congress in 2009, that underline the importance of economic freedom and improvement of the economic basis of the reindeer herders by securing their access and ownership to the most profitable activities in the value chain, and **support** initiatives and active work for more profitable reindeer husbandry within production, processing and marketing, and the development of strategies for this. (...)*

***Recognize** that development connected to reindeer husbandry such as tourism can be a positive opportunity to improve local reindeer herders' economy, and underline that this also requires sustaining and developing the traditional nomadic reindeer husbandry, and basic ethical principles and schemes for fair division of value added."*

The expression of reindeer herders from around the world through the Aoluguya Declaration emphasize a holistic understanding of the reindeer economy, as a traditional, circumpolar and diversified model. It also addresses the role of economic development, knowledge and people in avoiding the vulnerability of local societies. And finally it includes the need for initiatives and measures to improve the economy of herders.

### **3.7.5**      *A paradox of opportunity: Arctic change*

Indigenous peoples in the Arctic now face major challenges related to changes in their societies, and a changing climate, which might be the first indications of coming major global changes effecting Arctic societies (Magga et al, 2011). Today, climate change and globally driven socio-economic changes are already profoundly affecting reindeer herding cultures (Arctic Council Arctic Resilience Interim Report, 2013; Magga et al, op cit; Oskal et al, 2009, ACIA, 2005; IPCC, 2014). The physical, biological and socio-economic impacts of climate

change in the Arctic also have to be seen in the context of often interconnected factors that include not only environmental changes caused by drivers other than climate change but also demography, culture and economic development. (IPCC, 2014). The negative effects of these global changes comes on top of the socio-economic challenges already faced by Arctic indigenous communities.

These changes are both rapid, profound and interacting, and indeed represent historical change: As the Arctic is now quickly becoming an integrated part of the global economy, we are experiencing changes that we have not seen before in the history of reindeer herding peoples (Oskal, 2014). The combination of the different changes constitutes a legitimate concern for the future sustainability of some of the reindeer herding societies and cultures.

However, change necessarily means both opportunities and challenges, and both are frequently mentioned in the current discourses on the Arctic. A changing Arctic necessarily also means changing economies, and thus also the changing economies of reindeer herders. The Arctic Council, Arctic States, and public debates are focusing both on challenges and opportunities in the Arctic. The possibilities seem many, diverse and rewarding.

However, Arctic indigenous reindeer herding communities often find themselves in a disadvantaged position; The negative impacts of e.g. cumulative land use change and socio-economic conditions often 'overshadow' the possibilities of positive local development, in terms of the communities' capacity to be proactive and take the lead for local actions.

This may be elaborated by the following case (Vistnes et al, 2008), where young Sámi reindeer herder Aslat Ánte M.J Sara, former leader of the Fálá Reindeer Herding District, is commenting on a major industrial development next to their summer pastures: *"...It was said that the new development [Statoil's LNG plant in Hammerfest] in this area would have positive effects for the local community and...many people saw it as a positive development. We reindeer herders were concerned about how this development would affect our future livelihoods – we felt **that the promise of positive effects for the local community put a strong pressure on us.**"* Expectations in this particular city were clearly high with regards to the economic prospects, workplaces, contracts etc. Mr. Sara continues: *"...We had no idea about the scale of the industrial development when it started, and nor did people in the town [Hammerfest] either. It was impossible to make a picture of it before it began and we see it all just now, and only now we see what it has meant and what it can come to mean to us."* According to the company's own figures, it spent ca 500 000 000 USD on purchases from local suppliers in Northern Norway during the development phase. This represents a substantial amount of money for this region, representing major opportunities for business development. At the same time, the reindeer herders sell their own products, mainly reindeer meat, some reindeer fur and so on. Hardly any of the 500 000 000 USD was spent on local reindeer herders, and none of it on the particular herders who got the brunt of the negative effects of this development. Mr Sara concludes like this: *"...We have to try to adapt to this, as long as we can. But to do this, also developers, local and national authorities and mainstream society must be willing to contribute. It cannot be right that one side gets the benefits of development, while the other only get the negatives."* (own highlight).

So the paradox here is that ‘an opportunity is not an opportunity’: What appears to everyone else as great economic prospects in a rapidly changing Arctic does not automatically represent opportunities for all.

The Kuellnegk Neark Declaration (2013) on the occasion of the 20<sup>th</sup> Sámi Congress in Murmansk, Russia stressed the importance that governance frameworks do “...not constrain the Saami peoples’ ability to use their own knowledge in order to cope and adapt to climate change.” Along the same lines, an early recommendation from the IPY/ Arctic Council EALÁT Project was that “...it is important to define institutional mechanisms which constrain indigenous peoples’ original resilience and ability to adapt to climate change.” There are indications that industry structures and governance networks for reindeer herding products are not always in line with the needs for local value added for reindeer herders facing (Reinert, 2006; Reinert et al, 2009, ARR, 2013). The Kautokeino Declaration, on the occasion of the 4<sup>th</sup> World Reindeer Herders’ Congress in Norway in 2009, also highlighted *fair trade regimes* as a way forward in this. Finally, a focus on reindeer herding peoples’ food culture as a means for economic adaptation represents a novel approach to this paradox, as also recommended by EALLIN reindeer herding youth. Mechanisms should be developed to assist reindeer herding youth develop innovative solutions, new businesses and local action, based on their own knowledge and on their own terms.

### 3.7.6 *A paradox of organisation: Collectivization under the Soviet Union*

Historically, there occurred a shift in the internal organisation of reindeer husbandry, in a way separating the east (Russia) from the west (Fennoscandia), by the forced collectivization of reindeer herding in the Soviet Union from the 1930s. This had major impacts on reindeer herding families and peoples, impacts that persist to this day in relation to their internal organisation.

Traditionally, the ways of organising reindeer herding is often based on resilience-enhancing strategies such as promoting diversity and flexibility, based on the traditional knowledge and language of the people, as is the case with Sámi reindeer herding (ARR, 2013; Oskal et al, 2009).

It could be seen as a paradox of organisation that while reindeer herders in the east are surrounded by entities all run by “modern” principles and market economy logic (ie. companies, societies, institutions), reindeer herders are largely confined to still live within the old planned-economy system of collectives.

Traditional Knowledge is today increasingly emerging and respected as an important knowledge base for more comprehensively addressing the impacts of environmental and other changes as well as development of appropriate adaptation strategies for indigenous communities (IPCC, 2014; Magga *et al.*, 2011), including key concepts of diversity and flexibility (ARR, 2013). This cannot be said to have been the starting point of the planned-economy paradigm. This was expressed by the opinion of one participant at the St. Petersburg EALLIN youth workshop in the following way:

*“...If you asked reindeer herders themselves to organise their own societies, I think the answer would not be what Stalin created in the 1930s.”*

To the extent that private incentives, initiative and entrepreneurship are considered positives for the development of local economies, and thereby local societies, there is a need to look at new models of organisation in all areas where reindeer herding is practiced. Reindeer herding youth participating in the EALLIN project have signalled a need for new solutions in this regard, discussing different options and highlighted the importance of promoting reindeer herders food culture as being a valuable tool in enhancing and securing herders’ livelihoods and economies into the future.



*Energy infrastructure is being built across the Yamal Peninsula. Pic: Anna Degteva*

### 3.8 Predators

Reindeer herding youth from Fennoscandia and some regions in Russia strongly expressed that reindeer loss to predation has increased and this problem appeared very much in focus of EALLIN workshops in the Sakha Republic, Sweden, and Norway. In some regions there is a clear growth in certain types of predators over the last decades, such as in Yakutia the number of wolves in 2014 was reported to be ca. 3500 and in 2013 – ca. 2000 vs. a stated optimal of 500-600 (Report by the Ministry of Agriculture and Food Policy 2013). In others, like Fennoscandia, there have been reports on estimated decrease of reindeer predators and, in general, rather moderate number of some, like lynx, wolverines and wolves (ca. 400 wolves jointly among Norway, Sweden and Finland (Brøseth, H. & Tovmo, M. 2014, Brøseth, H. & Tovmo, M. 2013, Wabakken et al. 2014). Recent research in Norway has disputed predator increase and pointed to larger herds and compensation regimes (Tveraa 2014). Nonetheless, EALLIN youth clearly voiced that the number of predators' attacks on domesticated reindeer had increased, whether due to changes in predators' behaviour or, importantly, due to the increased vulnerability of Sámi reindeer herds towards predators. Sámi reindeer herding youth expressed that their losses to predators had grown to such an extent that many herders see it as one of the biggest threats to their livelihood.

*"I think the high number of loss to predators in Norway is a result of the authorities economic subsidies for slaughtering calves. We have to save every female reindeer as a "production-reindeer" to produce enough economically, even though the weak female reindeers aren't strong enough to protect their calves against predators. And that system generates the problem, because the "bad-genetic" female reindeers, that should have been slaughtered in the first place, reproduces weak reindeer. Such a herd is far more vulnerable to predators. We don't have the possibility to adapt the herd structure based on our own knowledge. For example, in areas with higher risk for predator-attacks, one can't have a herd structure based on economic system of calf production." – Johan Daniel Turi, EALLIN Kautokeino 2014.*

*"If reindeer herding should develop, there has to be a bigger understanding of how it really works. It should be a change in the politics of predators, there is way too much predators in Sápmi today." – Participant, EALLIN Jokkmokk, 2013.*

*"The municipality of Inari/Utsjoki has seen a drastic increase in predators reducing the reindeer population for many reindeer herding families. It brings complete loss of livelihoods and culture for some families. Is the future of reindeer herding going to become farming? Similar to pigs/cows/ goats... Maybe herders should fall back to 100 years ago, and live with their herds 24-7... I think this is the only way for the future of a sustainable reindeer husbandry in the extreme northern Finnish forests where predators thrive." – Participant, EALLIN Jokkmokk, 2013.*

*"You say there is not too many predators. Come and visit us in winter!"  
– Participant, EALLIN Kautokeino, 2014.*



*If the issue of controlling the number of predator is not solved in the near future, we can give up on reindeer husbandry. It directly impacts on the survival of indigenous reindeer Peoples.*

*– Pogodaev, M.P., a reindeer herder from Yakutia, EALLIN Yakutsk 2013.*

As discussed in the EALLIN workshops the problem of predation has several dimensions. First of all it damages the economy of reindeer herders, but also – it represents the exclusion of local herders and their knowledge from the management of their homelands. In some cases, it is also a matter of security and social tension, like depression in herders' communities (see Chap 2.1).

### *3.8.1 Predators impact herders' economies*

EALLIN youth stated that economic losses are the first consequence of high predation. Young reindeer herders are especially exposed due to the reason that they are just starting up, but predators considerably decrease the number of reindeer in their herd. In addition, in some areas expanding industrialization also contributes to a concentration of reindeer and predators to a smaller area, which makes the livelihood unsustainable.

EALLIN youth also referred to the fact that compensation systems in the countries where the policies forbid hunting due to predation does not work appropriately. There is no herders' control over understanding and formulating the definition of how much one loses and how it should be compensated. Sámi youth discussed that in Norway they are probably able to prove only 10% of losses to predators and receive compensation for that. But this is at least better than in Sweden, where Sámi don't have even that right: someone else decides how much you should be compensated, based on an expert estimation how much predators consume (Hobbs et al 2012).

In the Republic of Sakha, Russia; there is no compensation for reindeer lost to predation, but in 2012-2014 the regional government has undertaken a major effort, including legal and financial measures to control and decrease the impact of predators (Decree №1834; Resolution from 27.02.2014). However, small private communities of reindeer herders call for special measures to protect their especially vulnerable livelihood.

*“There is a lot done in Yakutia to reduce the number of wolves. But the territory is huge, the wolves are numerous and it is very difficult to hunt them. Therefore, what is done is not enough. There is a need to help private reindeer herding communities to fight the wolves. And regulation of predators' number should occur on a systematic basis”*

*– Dulustan Sidorov, the head of the Evenki community "Gonam" EALLIN Yakutsk 2013.*

In many EALLIN workshops, herders were finding that their herds were under pressure from year to year and they worry that they will not be able to provide an income, or security to their families.

*“Wolves cause great damage to private reindeer herding obshchinas. According to the Ministry of Agriculture, in 2012 we lost 16 000 reindeer in Yakutia as a result of predation. This is one of the main threats to reindeer husbandry in Yakutia today.” – Alexander Grigoriev, head of the Evenki community “Bugat”, EALLIN Yakutsk 2013.*

*“Major losses reindeer herding suffer from the invasion of predators: wolves, bears, wolverines. The reports on consumption by predators only include the number of reindeer that were found, while the ones we didn’t find go to other losses. If a reindeer is alive it would usually come back to the land where it was born and to its herd. If you consider this, then you understand that the damage from predators is much higher than in the reports.” – Participant, EALLIN Yakutsk 2013*

*“A decrease of predators could be a way to increase the production of meat”. – Participant, EALLIN Jokkmokk, 2013*

*“The predators’ compensation system does not work. Sometimes when representative of authorities cannot come to the mountains to witness the accident, we are asked to bring the dead reindeer to the village. Then, while a herder is absent, the predator comes back and takes more reindeer, while it could have consumed the one it killed before.” – Rávdná B.M. Eira, EALLIN Kautokeino, 2014*

*“The number of wolves increases with time; the support measures are not sufficient. There is a desperate need to create normal conditions for herders. At least to provide transportation and equipment for hunting wolves and bears, which are the first threats to reindeer husbandry.” – Participant, EALLIN Yakutsk 2013*

### **3.8.2** *Predators are a governance and self-determination issue*

Reindeer herders of Fennoscandia also pointed out that the states’ predation policy lacks Sámi management and a self-determination perspective. An elder Sámi herder explained:

*“When Sámi had control over predators, we only took the ones that got particularly aggressive to our herds. Now you breed this aggressive type. And our losses are growing. The “experts”, who are supposed to control the number of predation now, they don’t see the difference - they don’t read the behaviour of particular animal. For them all wolves are the same” – Johan M. Turi, EALLIN Kautokeino 2014.*

In addition the youth expressed that Norway’s governance of reindeer husbandry and subsidy policies made reindeer herders change the herd structure towards a dominant number of females and small calves (see Chapter 3.7). A herd of such composition of gender and age is highly vulnerable to predators. EALLIN youth called for changes in predator policies and wished their perspectives and knowledge to be included in the management of nature, and in the management of predators’ in particular.

*“As a young reindeer herder I would like to see a change in the politics of predation: decrease in predators.” – Participant, EALLIN Jokkmokk 2013*

*“I am annoyed that authorities don’t believe us and don’t take our knowledge into consideration. Reindeer herders know that White tailed eagles do take reindeer calves. We have witnessed it many times!” – Rávdná B.M. Eira, EALLIN Kautokeino 2014*

*“In our district we have only one or two Golden eagles, and 50 White-tailed eagles, but authorities don’t consider White tailed eagles as a threat. In May when new-born calves are just 3-5 kilograms, the White tailed eagles take one almost every day.” – Participant, EALLIN Kautokeino 2014*

*“Wolf hunting in the taiga is completely different from hunting in the tundra, where you can use snowmobiles. Wolves are very difficult to get, so the control over their population should be carried out systematically involving the experience of herders, because we have the traditional methods of dealing with wolves, and we know a lot about their habits.” – Alexander Grigoriev, head of the Evenki community "Bugat", EALLIN Yakutsk 2013.*

### 3.8.3 *Predators are a security and mental health issue*

Discussing high number of predators’ attacks on reindeer, EALLIN youth also described various accidents related to herders not being able to protect their own lives and protect their safety. Herders explain that many predators had changed behaviour and become less afraid of humans on account of decreased forage and habitat, and increased interaction with humans. Herders in Yakutia explained that in some areas wolves had started to interbreed with wild dogs and are less afraid of human settlements ((Discussions of youth with elder herders, EALLIN Kautokeino 2014). In May 2013, a Swedish reindeer herder was attacked by a bear.<sup>29</sup> In May 2014, Russian media reported that a bear killed a reindeer herder in the Olutorskiy district of Kamchatka.<sup>30</sup> In China, Evenki herders mentioned that when a bear approached their camp, they had only a dog to defend themselves, as no rifles are allowed (Evenki camp, Aoluguya 2013). Worrisome news about predators attacking reindeer herders come from other reindeer herding regions as well. In this situation reindeer herding youth expressed the need for extra legal and practical measures to be granted to herders for the purpose of self-defence against predators.

*“Proof that the predators are increasing too much is that yesterday when one reindeer herder was out observing his herd, a bear attacked the herd. While trying to protect them the herder was attacked too and got severe injuries. I think this has reached an inappropriate level when one needs to risk his own life for protecting the reindeer.” – Elena Walkeapää, Address to Arctic Council Ministerial, Kiruna, 2013.*

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<sup>29</sup> <http://www.dagbladet.no/2013/05/14>

<sup>30</sup> <http://www.ntv.ru/novosti/602836/>

*“Not sure if I’d able to live in taiga or mountains of Yakutia. There’s too many predators. The wolves are huge here, not like in Sápmi and I don’t have experience with bears”  
–Sámi reindeer herder, EALLIN Yakutsk 2012.*

*“We’ll pay for 2 environmentalists from Europe to come and stay with us in the taiga in winter. The wolves are 150 meters away from our herd. If they are able to stay more than 2 nights we can discuss with them why we need to shoot the wolves” – Participant, EALLIN Yakutsk 2012*

Some EALLIN workshops also focused on the issues of depression among reindeer herding youth and the situation with high predation and an inability to fight it was defined as one of contributors to even suicidal thoughts. The dimension of social depression, including due to high number of predators is described in more detail in Chapter 2.

*“Every summer when I come to my obshchina we have less and less reindeer. It is a bad feeling. Uncle says the number of wolves is very high and they can capture only a few with snowmobiles.” – Even school boy from the Tompo district, during EALLIN Yakutsk 2012.*

*“As for a young reindeer herder it is important for me to see a future within reindeer herding, and not to be depressed. The amount of predators needs therefore to be decreased and the grazing lands need to be bigger.” – Participant, EALLIN Jokkmokk 2013.*



*Predators are a major concern in the Taiga. Pic: Yuri Kokovin*



## 3.9 Our reindeer need pastures

Many issues concerning legal rights to land were raised throughout the EALLIN workshops. Even though reindeer husbandry is connected to – and dependent on – vast areas of land throughout the circumpolar area, reindeer herders and reindeer husbandry have little to no rights acknowledged by the states to their traditional lands. The key word here is land. The necessity to have access to land is crucial for reindeer husbandry, not only in the sense of mere area but land that can be utilized in different seasons and climate conditions.

### 3.9.1 *The international protection of indigenous peoples' rights*

The underlying right of peoples is that they have the right to freely determine their past, present and future. This right is protected by international human rights instruments on different levels (see e.g. Anaya 2004). For reindeer husbandry peoples of the circumpolar North, the right to continue reindeer husbandry is crucial to uphold our cultural, economic, social and spiritual foundation as peoples. The rights holders to traditional reindeer herding lands are the indigenous peoples upholding the tradition of reindeer husbandry and the right to manage the lands is to be managed by the social and social, economic, cultural and political institutions retained by them.

Reindeer husbandry is protected as an indigenous peoples' livelihood by many international and regional human rights treaties. United Nations' Declaration on the Rights of Indigenous Peoples (UNDRIP) is the international communities consensus on the minimum standards for the life and survival of indigenous peoples. While a General Assembly Declaration it is not a legally binding instrument under international law, the UNDRIP is an important standard for treatment of indigenous peoples and is considered to be customary international law<sup>31</sup>.

UNDRIP contains many articles dealing with indigenous peoples' right to self-determination and their rights to traditional lands, territories and resources. Article 3 guarantees, that indigenous peoples have self-determination and Article 4. Furthermore, according to Article 26, '*Indigenous peoples have the right to the lands, territories and resources which they have traditionally owned, occupied or other wise used or acquired*'. At the moment, however, there are no international bodies that monitor the compliance and implementation of UNDRIP.

The only international binding convention on indigenous peoples' rights is the International Labour Organisation's Convention no. 169 concerning Indigenous and Tribal peoples in independent countries. The Conventions places focus on the procedural and land rights of indigenous peoples. Article 14 deals with indigenous peoples rights to lands and territories. Pursuant to article 14 "*The rights of ownership and possession of the peoples concerned over the lands which they traditionally occupy shall be recognised. In addition, measures shall be taken in appropriate cases to safeguard the right of the peoples concerned to use lands not exclusively occupied by them, but to which they have traditionally had access for their subsistence and traditional activities. **Particular attention shall be paid to the situation of nomadic peoples***

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<sup>31</sup> The Special Rapporteur on the Rights of Indigenous Peoples. Report to the General Assembly, A/68/317. (14 August 2012) para. 64



*and shifting cultivators in this respect.*" Article 14 also states, that governments shall guarantee effective protection of indigenous peoples' rights of ownership and possession to their lands and establish adequate procedures to resolve land claims.

Article 15 of the ILO Convention no. 169 deals with natural resources. The article states, that *'the rights of the peoples concerned to the natural resources pertaining to their lands shall be specially safeguarded. These rights include the right of these peoples to participate in the use, management and conservation of these resources.'* States are also obliged to consult with indigenous peoples before exploiting or exploring natural resources and to pay compensation for the benefits arising from the use of natural resources situated on the lands traditionally occupied by the peoples concerned. Thus far, only 20 countries have ratified the Convention no. 169, including Norway. Sweden, Finland, Russia and China have not ratified the Convention.<sup>32</sup>

The protection of reindeer husbandry falls also under Article 27 of the International Covenant on Civil and Political Rights, which states that the individuals belonging to the ethnic, religious or linguistic minorities may not be prohibited from enjoying of one's culture in community with the other members of their group. The Human Rights Committee, the monitoring body of CCPR, have interpreted this pertaining also to the traditional livelihoods of indigenous peoples. Sámi reindeer herders have submitted many complaints to the Committee, but none of the cases have yet been successful.<sup>33</sup>

The European Convention on Human Rights protects the fundamental civil and political rights of the European citizens. The Convention especially protects rights to private and family life of individuals.<sup>34</sup> The European Court of Human Rights, which monitors the compliance of the Convention, has the binding jurisdiction to examine individual applications both in Sweden, Norway, Finland and Russia. Nevertheless, the court's jurisprudence regarding indigenous peoples' livelihoods<sup>35</sup> has not been meritorious thus far.

In conclusion, there are many human rights monitoring bodies accessible for reindeer herding youth in the cases when their human rights such as rights to livelihoods, cultural integrity, property and private and family life become infringed upon. In order for reindeer herding youth to be better prepared for defending their rights to their livelihoods and lands, there should be training programmes about human rights mechanisms and relevant national

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<sup>32</sup> International Labour Organization. Normlex: Ratifications of C169 - Indigenous and Tribal Peoples Convention, 1989 (No. 169). Available in: [http://www.ilo.org/dyn/normlex/en/f?p=1000:11300:0::NO:11300:P11300\\_INSTRUMENT\\_ID:312314](http://www.ilo.org/dyn/normlex/en/f?p=1000:11300:0::NO:11300:P11300_INSTRUMENT_ID:312314) [retrieved 15 April 2015]

<sup>33</sup> Länsman et al. v. Finland, Communication No. 511/1992, U.N. Doc. CCPR/C/52/D/511/1992 (1994); Jouni E. Länsman et al. v. Finland, Communication No. 671/1995, U.N. Doc. CCPR/C/58/D/671/1995 (1996); Jouni Länsman et al. v. Finland, Communication No. 1023/2001, U.N. Doc. CCPR/C/83/D/1023/2001 (2005); Kalevi Paadar et al. v. Finland, Communication No. 2102/2011, U.N. Doc. CCPR/C/110/D/2102/2011 (2014)

<sup>34</sup> European Convention of Human Rights, article 8. [http://www.echr.coe.int/Documents/Convention\\_ENG.pdf](http://www.echr.coe.int/Documents/Convention_ENG.pdf)

<sup>35</sup> See e.g. Application no. 27033/95 by Könkämä and 38 Other Sámi Villages v. Sweden; Application no. 42969/98 by Johti Sapmelacat ry and Others against Finland, 18 January 2005 (Fourth Section); Application no. 39013/04 by Handölsdalen Sámi Village and Others against Sweden, 17 February 2009, (Third Section)

legislation. The need for this kind of capacity building was also highlighted by youth in many EALLIN workshops.

A need for special institutions and competence centers with the responsibility to assist reindeer herders in legal questions and share information about reindeer herders' rights was raised:

*"Is it possible to create special institutions authorized for the protection and rights of indigenous peoples? For example, in each region, at least. Sometimes people are illiterate, and therefore, if any serious problem happened, they would not apply to the court, in view of the fact that just do not know where to go." – Participant, EALLIN St. Petersburg 2012.*

Furthermore, youth felt that reindeer husbandry needed better legal protection against different kinds of encroachments on a national and regional level:

*"There is a need to introduce legislation on the protection of reindeer husbandry, to allocate land for the reindeer pastures and to expand the territory of reindeer husbandry." – Participant, EALLIN Yakutsk 2013.*

### 3.9.2 Does the protection of nature protect reindeer herders?

***The governments protect the nature from us. But we are people that were living on this land for thousands of years in a sustainable way. At the same time big companies dig the ground for gold and other metals, they extract oil and gas, they pollute the environment and say that we can't use the nature as we used to. We can't have dogs when we migrate with reindeer near protected areas, we cannot hunt there, but this is the main source of our subsistence. Maybe I don't understand something? – Evenki reindeer herder, EALLIN Yakutsk, 2013.***

Across many of the areas where reindeer have traditionally been herded, lie valuable oil, gas and mineral resources. With commodity prices increasing and the introduction of new extractive technologies, these areas are seeing a new mineral boom, the extraction of which is precipitating a biodiversity crisis, leading to habitat loss, and an increasing fragmentation of the landscape which is pastures for their reindeer (Degteva & Nellemann 2014).

Major drivers behind this development are the world's need for energy and natural resources, also potentially linked to and facilitated by climate change. As such, globalization very much influences the lives of reindeer herders and the sustainability of their communities. As reindeer herding peoples over time have tried to preserve the pastures on which they are dependent, they have also contributed to preservation of biodiversity. While reindeer herders are not in principle against economic development, there is a growing concern regarding the needs to balance such activity with the traditional livelihoods of Arctic indigenous peoples and biodiversity (Johnsen et al 2010).

Reindeer herders are in crisis mode within many taiga areas. In Mongolia, reindeer herds have fallen by about 50% since the 1970s and remain dangerously low; the livelihood is close to extinction. Within the Russian taiga, the number of reindeer has declined by 85% between 1991 and 2007. In some areas of Russia such as the Irkutskaya oblast, Buryatia, the Amurskaya oblast, the Khabarovskiy kray and others, it has become extinct (Johnsen et al 2010). Nowadays, reindeer herders are the minority in nearly all societies in which they reside, often a minority within a minority. They are generally poorly represented in governance processes, and their institutions are poorly adapted to deal with competing land users and other sectors of society, including industry and even protected areas administrations (which may seek to exclude them from their traditional lands, leading to conflict). Their traditional knowledge, essential for living and working in a challenging and changing environment, is eroding rapidly (Johnsen et al 2010).

The continued disappearance of reindeer husbandry is bad news for biodiversity conservation and sustainable land management in these northerly regions. Across the world, research and practise are increasingly demonstrating the environmental benefits of pastoralism: the benefits it provides to pasture growth and to biodiversity. Reindeer herding is also one of the most sustainable forms of land use there is in the world: 7000 years of continued existence, in areas where high levels of biodiversity still exist, can attest to this. The areas where reindeer herders live – whether it is within hotspots of mega-industrial development (such as in Russia and Fennoscandia) or within extreme biodiversity hotspots (north-west Mongolia is one such example) – provide important test cases for how different sectors of society can co-exist, and achieve biodiversity, land use and sustainable development goals (Johnsen et al 2010).

The connections between reindeer husbandry as a livelihood and Arctic biodiversity are complex. One of the main challenges in reindeer husbandry today is loss of pastures resulting from increasing human activity and infrastructure development, with subsequent habitat fragmentation and reduction in biodiversity.

The challenge of preserving Arctic biodiversity and the sustainability of the nature-based livelihoods of Arctic indigenous peoples is also a knowledge challenge. Science is, of course, important in this context, but not exclusively.

There is also a need to include and involve the knowledge of reindeer herding peoples in the management of the Arctic. As traditional users of land reindeer herders have knowledge about their areas that is deeply rooted in the environment on which they depend. This represents another kind of knowledge, still based on observation and testing, a knowledge that is developed, organized, and transmitted differently from “western scientific knowledge”. This kind of knowledge is experience-based, closely linked to the specific context it originates from. At the same time it represents knowledge probably older than western science itself, developed through generations of reindeer peoples’ observations and living in the north. This knowledge needs also to be respected, used, and implemented in managing the Arctic and Arctic biodiversity. This could happen through the integration of traditional knowledge into science in a real partnership of co-production of knowledge, and through implementing co-management regimes in the Arctic.

Traditional knowledge that herders and their communities have can make a great contribution to both the conservation and the sustainable use of biological diversity (Berkes 2012). It is natural that protection of areas where there is reindeer husbandry ensures the equitable sharing of benefits arising from the utilization of traditional knowledge.

### **Convention on biological diversity, Article 8 (j)**

*Subject to its national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices:*

There is also a great concern of reindeer herders to preserve the biological diversity in a sustainable way for future generations and for communities dependant on reindeer husbandry. These factors bring up a natural interest to protect traditional reindeer husbandry areas of potential long-term negative impacts of developments that might negatively affect these areas.

States usually have a policy to protect the environment from impacts of human activities by establishing protected areas and very often these territories also lie on a reindeer herding pastures. This can lead to a situation when protected area is lost for reindeer herding and reindeer herders use of these areas very much limited. This kind of approach can jeopardize resilience of reindeer herding societies and increase vulnerability in face of climate change and socio-economic transformations.

But there are some examples of different approach when reindeer herders have the possibility to participate in the management of protected areas such as Laponia National Park (Green 2009).

*“The natural value is based on the same foundations as those of the national parks and nature reserves. The purpose of the protected areas and the provisions made to safeguard these are important parts of the judicial and practical management of the area. The value of the view that the Sámi have on nature is also emphasized in the management of the World Heritage. The cultural value is based on the Sámi culture and reindeer industry. Apart from that there are also strong values linked to the traces of new land users who arrived in Laponia in more recent times, like settlers, scientists and tourists. The holistic perspective also includes, in addition to safeguarding the World Heritage values for the future, that development is possible in the area.”<sup>36</sup>*

Laponia provides an example of where the natural and cultural values intersect, and offers some insights into the role of reindeer herding in the management of nature and biodiversity. Until 1996, the Laponia was protected as a natural area, but its designation as a World

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<sup>36</sup>Laponia Management Plan, 2014, available at <http://laponia.nu/om-oss/dokument/>

Heritage Site meant that the local Sámi reindeer herding culture should be preserved as well. Local Sámi herders often find themselves caught between the expectation placed upon them by the majority society to engage in environmentally friendly reindeer herding, and the existing requirement to engage in rational reindeer herding (Nilsson 2003). Laponia now has over a decade of experience in negotiations between different interests; lessons learned from this example could potentially be highly relevant to other reindeer herding regions.

*A new and modernized management of Laponia is based on local participation and joint responsibility taking, where the area is looked at from a holistic perspective, a sustainable perspective and a developmental perspective. In all three perspectives, learning is a constant part of the process.”<sup>37</sup>*

In Russia there is a process to develop a similar concept called ‘Territories of Traditional Nature Use’ which is a specially protected area, which aims to preserve areas where traditional livelihoods are practiced.

The application of the “*terroirs*” concept may also be useful. *Terroir* is an interesting French concept: both a natural and cultural territory which has qualities and specificities that are not found elsewhere. Such a concept could be used when looking at both promoting the unique habitats and cultures where reindeer herding societies exist, as well as in the promotion of alternative livelihoods (especially in the case of Mongolia) (Barham & Sylvander 2011; Vandecandelaere et al 2009).

An increasing number of international policy initiatives call for the inclusion of traditional knowledge and the empowerment of local, Indigenous communities in the protection of biodiversity and land management. Examples include the CBD Article 8j on Traditional Knowledge, Innovations and Practices<sup>38</sup>, which calls on contracting parties to take necessary measures to respect, preserve and maintain traditional knowledge for the conservation and sustainable use of biodiversity. The relatively recent adoption, in 2010, of the Nagoya Protocol on Access and Benefit Sharing (including associated traditional knowledge) is another indication of a step in this direction. Furthermore, at the national level there are indications that traditional knowledge and use is being further recognized, although challenges remain as to its implementation.

Therefore, there is a need to address land degradation and biodiversity conservation in an integrated fashion in reindeer herding regions, by developing biodiversity conservation capacity, capturing, analyzing and applying traditional knowledge for use in co-production approaches, and empowering again nomadic reindeer herders to become the key stewards and main actors for the conservation of critical large pasture ecosystems. There is also a need to increase herders’ capacity to engage with, collaborate and support relevant government institutions with the mandate to conserve biodiversity and promote sustainable land use management, as well as providing reindeer herders with the capacity to engage with the

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<sup>37</sup>Laponia Management Plan, 2014, available at <http://laponia.nu/om-oss/dokument/>

<sup>38</sup>Convention on Biological Diversity. (2012) Article 8(j) – Traditional Knowledge, Innovations and Practices. *Programmes & Issues*. Retrieved from <http://www.cbd.int/traditional>



private sector on a more balanced basis. Furthermore, there is a need to increase the understanding and capacities of government institutions and other sectors of society to engage constructively with reindeer herders, with the goal of improving joint stewardship of the land and improving livelihoods.

### **From the Laponia Management Plan<sup>39</sup>:**

#### *“1.10 The Laponia Process 2006-2011*

*From the time of the establishment of Laponia and until 2005, different attempts were made to create a new management for the area. However the time was not ripe until the autumn of 2005 when the Sámi village organizations in Laponia, the municipalities of Jokkmokk and Gällivare, the County Administrative Board of Norrbotten and the Swedish Environmental Protection Agency initiated discussions and negotiations about the framework for the development of the World Heritage management.*

*On June 20th 2006 the parties made an agreement that laid the foundation for the so-called Laponia Process. They also wrote to the Government, which in December assigned the County Administrative Board to develop the management framework.*

*The work procedure and the process that were the foundation for the new management and this Management Plan are in several ways unique in Sweden. The Laponia Process was based on local, regional and national involvement represented by five parties, Mijá Ednam, which represent Sámi village organizations with land in Laponia, the Swedish Environmental Protection Agency, the municipalities of Jokkmokk and Gällivare and the County Administrative Board of Norrbotten. The process has been based on common basic values, consensus decision-making and participation on equal terms as far as possible. The work has been done with methods based on utilizing traditional knowledge and with fundamental respect for the competence and experiences of all parties, especially for those who make use of land and water in the area.*

*The most important lessons to learn from the Laponia Process are:*

- consensus as the form for decision-making is to be used as far as possible and the council, rádedibme, is an important part of this,*
- the view of nature and culture should be based on the landscape as a whole,*
- the people who live and operate within an area have important competence and experiences that the management cannot be without,*
- the prevailing view on culture and history is changing because of our work so that knowledge and solutions are sought out more from the perspectives of the local cultures,*
- we work within a system and develop and renew it so that the creation of norms, etc. are based on local competence and traditional knowledge,*
- language is an important part in culture creation.*

*The Laponia Process was presented to the Government on July 2nd 2010.*

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<sup>39</sup> <http://laponia.nu/om-oss/dokument/>

### 1.11 Starting-points for the New Management

*To be able to understand the viewpoints that the different stakeholders have on Laponia, it is also important to describe their ideas of what management is and what importance they give local participation. Together these parts make up important starting-points for the new management. The comprehensive view brought forth in the World Heritage appointment is fundamental. In this view, the values that were the basis for the appointment are equal.*

*During the work to develop the Laponia Management, the stakeholders agreed that the work is to be based on a holistic view:*

- *The natural environment and its high values,*
- *The living Sámi culture and reindeer industry,*
- *The historical heritage that previous land use has given rise to.*

*The natural value is based on the same foundations as those of the national parks and nature reserves. The purpose of the protected areas and the provisions made to safeguard these are important parts of the judicial and practical management of the area. The value of the view that the Sámi have on nature is also emphasized in the management of the World Heritage. The cultural value is based on the Sámi culture and reindeer industry. Apart from that there are also strong values linked to the traces of new land users who arrived in Laponia in more recent times, like settlers, scientists and tourists. The holistic perspective also includes, in addition to safeguarding the World Heritage values for the future, that development is possible in the area.*

*A new and modernized management of Laponia is based on local participation and joint responsibility taking, where the area is looked at from a holistic perspective, a sustainable perspective and a developmental perspective. In all three perspectives, learning is a constant part of the process.”*

#### 3.9.3 *This land of competing interests is our home*

The future existence of reindeer husbandry is highly dependent on the availability of grazing land, as the use of vast territories for free reindeer grazing and migration between seasonal pastures is at the core of the indigenous reindeer husbandry system (Turi 2002, Oskal *et al.* 2009, Vistnes *et al.* 2009). Land use change or different loss of land due to development and other drivers of change was one of the biggest worries that youth expressed in most of the EALLIN workshops. Development in the Arctic should be an opportunity for all, but first of all for its residents, including reindeer herders – this was the main outcome of the EALLIN workshops, where youth put forward ideas regarding the issue of industrial development on their lands. Reindeer herders wish to develop their livelihoods at the same level as other “*stakeholders*” in society and youth hoped that their voices and suggestions will be used by the Arctic Council, Permanent Participants, Ministers and other decision makers.

*“I am in that opinion that eight countries are able to perform greater achievements than just one country standing alone.” – Elena Walkeapää, EALLIN Jokkmokk 2013.*

*“Have you ever considered the future of us young reindeer herders? Are you about to allow mining, oil and gas and every other exploitation to have bigger priority than us? We will no longer exist if you continue like this.” – Participant, EALLIN Jokkmokk 2013.*

*“Imagine yourself two hundred years ahead in time, where you will be described as an eradicated people, that had used the land for several hundred of years before any other. The land has to be unexploited and the predators have to decrease.” – Participant, EALLIN Jokkmokk 2013.*

*“Show acceptance – future industrial areas are peoples’ home.” – Participant, EALLIN Umeå, 2014.*

*“To preserve the lives of herders and traditional reindeer husbandry in Yamal, Youth need a guarantee that the gas companies won’t hinder us.” – Participant, EALLIN Salekhard, 2013.*

Reindeer herding youth see the lands where reindeer graze as their home. Despite all the changes that have occurred in reindeer husbandry, there is still a strong attachment to places and dependence on land among reindeer herding peoples (Mustonen & Syrjämäki 2013, Kharyuchi 2004, Nuttall *et al.* 2005). In the EALLIN workshops young herders have strongly expressed that their home is not just a house with a garden, but the land, where their ancestors lived and where their reindeer are. This connection and attitude that young herders have to their homes is being challenged by globalization. The change in land use towards industrial exploration is taken very personally.

*“For the environment to remain preserved we have to watch that the land, where we live stays clean. Yamal is our home.” – Khudi H.A & Serotetto V.A, EALLIN Salekhard 2013.*

*“Don’t forget that there is always a history of an area that the majority don’t or won’t see.” – Participant, EALLIN Umeå 2014.*

*“I would like to tell Obama how great the reindeer herding area truly are and that there is a great deal of life in the Arctic and that now there are big threats to our livelihood.” – Participant EALLIN Umeå, 2014.*

*“Dear Carl Bildt/Stoltenberg/Katainen!  
Please stop all the mining in Sámi areas. We need the land for our reindeer. Come visit us, then we can show you how much it means to us!” – Participant EALLIN Jokkmokk, 2013.*

Throughout the EALLIN project, reindeer herding youth described the direct and indirect impacts they experience when reindeer herding areas become too small. A physical loss of some areas comes with a fragmentation of pastures and migration routes and with nature pollution and disturbance of herds (Degteva and Nellemann 2012), The world has turned its interest to the North and remote regions are receiving an inflow of international companies

and outsiders, who don't always possess cultural competence regarding the region where they are working. A feeling of disempowerment comes when youth realize that they are not able to refuse industrial development projects on their lands. Other indirect impacts refer to conflicts within local indigenous societies and degradation of reindeer health when there is a lack of grazing areas. There are cases of suicidal incidents among herders, who could not cope with multi drivers' stress (Stammler 2005) and the multiple tensions in society they experience personally. Across the Arctic suicidal rates are considerably higher among indigenous youth than non-indigenous and the effects of rapid socio-cultural changes on indigenous youth health, as well as on other groups, still are not well understood (Lehti *et al.* 2009, Hope and Resilience 2009). With loss of land and the loss of other activities, like fishing and hunting that the land provides and that the herders depend on as a livelihood, many youth doubt the very future of their livelihood.

*"Companies from outside cannot put money in something we need for our survival The grazing lands of the reindeer should be protected from exploitation." – Participant, EALLIN Jokkmokk 2013.*

*"Reduce the amount of oil and gas produced by drilling;  
Stop driving by tracked transport;  
Collect the scrap metal across the tundra;  
Recycle waste."*

*– Youth from group B-11, Yamal Polar AgroEconomic college, EALLIN Salekhard 2013*

*"The problem of my area is contamination of water resources near the railway – the fish disappear or go to other places." – Participant, EALLIN St. Petersburg 2012.*

*"Limitation of reindeer pasture area and insufficient quality of pastures, and (caused) physical deterioration of reindeer health are our main problems."– Yunting Gu, EALLIN Aoluguya 2013*

*"Mining in the northern areas of Finland has different effects on the nature. It will push reindeer further north towards Utsjoki and further south towards Ivalo, increasing the density of reindeer in these areas... It could increase spread of disease among reindeer. Further the mining will have a direct negative impact on the water quality of Lake Inari. This is both regarding the fish stocks and the human drinking water quality."  
– Participant, EALLIN Jokkmokk 2013.*

#### **3.9.4**      *There are many ways our land is lost*

Once remote and managed by indigenous herders vast arctic and taiga reindeer areas have now become the land of many interests: there is an economic interests of big business and the States in natural resource extraction; the environmentalists see pristine and 'undisturbed' areas that should be protected areas; and local people still need to be able to use the land for their livelihood (Nellemann and Cameron 1998, Nellemann *et al.* 2000, Nellemann at al. 2001, Nellemann *et al.* 2003, Green 2009).