

## Project information

### Keywords

Climate change, climate sensitive infection (CSI), Sapmi, reindeer husbandry

### Project title

ReinCSI - Reindeer herder adaptability to climate sensitive infections in Nenetsia and Sapmi

### Year

2019

### Project leader

Alma Thuestad

### Geographical localization of the research project in decimal degrees (max 5 per project, ex. 70,662°N and 23,707°E)

The Yamalo-Nenets Autonomous Okrug (established in 1929) is located in northwest Siberia, Russia (66.0653° N, 76.9345° E). Sápmi is located in northern Fennoscandia and the region stretches over four countries: Norway (60.4720° N, 8.4689° E), Sweden (60.1282° N, 18.6435° E), Finland (61.9241° N, 25.7482° E) and Russia (61.5240° N, 105.3188° E).

### Participants

Project leader(s)/institutions: Alma Thuestad, [alma.thuestad@niku.no](mailto:alma.thuestad@niku.no), Norwegian Institute for Cultural Heritage Research (NIKU)

Project participants: Zoia Vylka Ravna, [zoia.ravna@niku.no](mailto:zoia.ravna@niku.no), NIKU; Hans Tømmervik, [hans.tommervik@nina.no](mailto:hans.tommervik@nina.no), Norwegian Institute for Nature Research (NINA); Jan Åge Riseth, [jris@norce.no](mailto:jris@norce.no), NORCE; Denis Hevkovich Khudi, Khanibei; Anastasia Alexandrovna Serotetto, MBDOU; Morten Tryland, [morten.tryland@uit.no](mailto:morten.tryland@uit.no), UiT; Stine Barlindhaug, [stine.barlindhaug@samediggi.no](mailto:stine.barlindhaug@samediggi.no), Sami Parliament and Thomas Wrigglesworth, [thomas.wrigglesworth@niku.no](mailto:thomas.wrigglesworth@niku.no), NIKU

### Flagship

Terrestrial

### Funding Source

The terrestrial flagship

## Summary of Results

ReinCSI addresses challenges and implications for indigenous people's lives and livelihoods due to climate change, particularly focusing on climate sensitive infections (CSI) in Nenets and Sapmi. An overall objective of ReinCSI was to bring together social and natural scientists and stakeholders (Nenets and Saami) involved with the two research projects HUMANOR and CLINF in order to exchange research findings and experiences in order to provide a foundation for co-operation and thus contribute to a better understanding of adaptations to different climate sensitive diseases. In order to accomplish this, a three-day seminar and workshop with invited researchers and stakeholders.

*ReinCSI - Use of Traditional knowledge (TK) and science in a comparatively perspective*, was arranged in Kompasset, Fram Centre in Tromsø during 24.-26. september 2019 (see attached programme).

Invited participants/speakers involved reindeer herders from Nenetsia and Sapmi, veterinarians from Norway, Sweden and Russia (Nenetsia), as well as social and natural scientists from Russia (Nenetsia), Sapmi and Norway. The first day of *ReinCSI - Use of Traditional knowledge (TK) and science in a comparatively perspective* consisted of a seminar open for the public. The seminar on the 24. September was also streamed and made available in both Norwegian and Russian on-line. At the current count 200 viewers followed the live-streaming or have watched the recorded seminar afterwards. The workshop also included a field visit to reindeer herders on Kvaløya in Troms.

The participants possess unique information and knowledge on how climate changes influence the health and wellbeing of animals and people within the areas the project encompasses. During the workshop we discussed different strategies concerning adaptation to climate change, climate sensitive infections (CSIs), encroachment of reindeer grazing ranges due to oil and gas industrial development, wind power plants etc. The strategies happened to be different from Sapmi to Nenetsia depended on the level of domestication in the different areas and herding groups.

Based on the results of this seminar and workshop a paper is underway to be published and disseminate our collective knowledge on health challenges related to climate sensitive infection (CSI) and reindeer husbandry. The paper will be submitted to a scientific journal (see point 7 below).

### Master and PhD-students involved in the project

Zoia Vylka Ravna, [zoia.ravna@niku.no](mailto:zoia.ravna@niku.no), NIKU

### For the Management

Stakeholders and the stakeholder perspective are a crucial part of ReinCSI. The project focuses on identifying not only threats and

challenges linked to how climate sensitive infections and climate changes influence livestock and people, but also on how people adapt and overcome such challenges throughout a large geographical area. The comparative perspective may provide crucial information on how both management and stakeholders can face these challenges in the coming years.

#### Published Results/Planned Publications

Z. Ravna, Albin, A., Mørk, T., Nymo, I., Labba, N., Riseth, J. Å & Tømmervik, H. (in prep.): Reindeer herders' traditional practical knowledge: Survival strategies related to climate sensitive infections (CSI) in a changing World.  
The paper is to be submitted to the scientific journal *AlterNative: An International Journal of Indigenous Peoples* (<http://uk.sagepub.com/en-gb/eur/alternative-an-international-journal-of-indigenous-peoples/journal203381>) or *International Journal of Circumpolar Health* (<https://www.tandfonline.com/loi/zich20>).

#### Communicated Results

Information about ReinCSI is available through the project web page: <https://www.niku.no/prosjekter/reincsi/>

##### **Seminar available online:**

The open seminar *ReinCSI - Use of Traditional knowledge (TK) and science in a comparatively perspective* held on 24. September 2019 was live-streamed in Norwegian and Russian: <https://www.niku.no/2019/09/reincsi-seminar-ved-fram-senteret/> and <https://www.niku.no/2019/09/c%b5%bc%b8%bd%b0%80/>

The seminar is still available online through the project web page: <https://www.niku.no/prosjekter/reincsi/>

The seminar was presented through forskning.no: <https://forskning.no/niku-norsk-institutt-for-kulturminneforskning/permafrost-melter-forskere-tar-grep-etter-miltbrannutbruddet-i-russland/1579048>

##### **Newspaper article:**

Article in The Moscow Times about how climate change affects the livelihoods of Saami indigenous communities in Norway and Russia (including reindeer herding). The main question of the article: What are the differences and similarities between the challenges faced by the communities in Norway and Russia?

Moscow Times is published in English (<https://www.themoscowtimes.com/>).

##### **Stakeholders:**

Inge Anders Andersen Svonni, Kanstadvjord/Vestre Hinnøy reindeer herding district, Per Kitt, Kvaløy reindeer herding district, Ellen Sara Sparrok Larsen, Byrkije reindeer herding district and Saami Reindeer Herders' Association of Norway. Niklas Labba Saarivuoma sameby, Sweden.

#### Interdisciplinary Cooperation

The project is based on cooperation between a range of disciplines involving natural and social sciences as well as stakeholders involved in reindeer husbandry. The involved disciplines include social anthropology, history, biology, ecology, economy, social science, and veterinary medicine.

#### Budget in accordance to results

The funding from the Fram Centre has been crucial as this has allowed the project group to invite stakeholders and researchers from Russia, Sweden and Norway to meet in Tromsø. The seminar and workshop functioned as the main arena for presenting and discussing the Identify and discuss main issues and, not least, similarities and differences between the different areas.

#### Could results from the project be subject for any commercial utilization

No

If Yes

No, that is not the intention of the project.

#### Conclusions

The funding from the Fram Centre has contributed to provide a basis and a framework for cooperation between researchers and stakeholders which we intend to and hope will result in further project development, knowledge production and dissemination. An important focus will be on the comparative perspective, on further exploring the similarities and differences between how reindeer herders cope with climate sensitive infections and climate changes throughout the study area. There are plans to expand the geographical focus to encompass the Yamal-Nenets Autonomous Okrug (Siberian Tundra Nenets), The Nenets Autonomous Okrug (European Tundra Nenets) and Sápmi. Our aim is to analyze the impact of climate changes on socio-ecological systems, based on the knowledge of culture bearers – stake holders (Nenets and Sámi reindeer herders) and using tools and methodology provided by science. In order to get a holistic picture, we will investigate reindeer herders' adaptability (including high level of mobility) of Siberian and European Tundra Nenets and Sámi people of the Fennoscandia. The knowledge of different adaptation techniques and experience -based knowledge of these indigenous groups will help decision-makers and the human community to understand and raise the level of awareness.