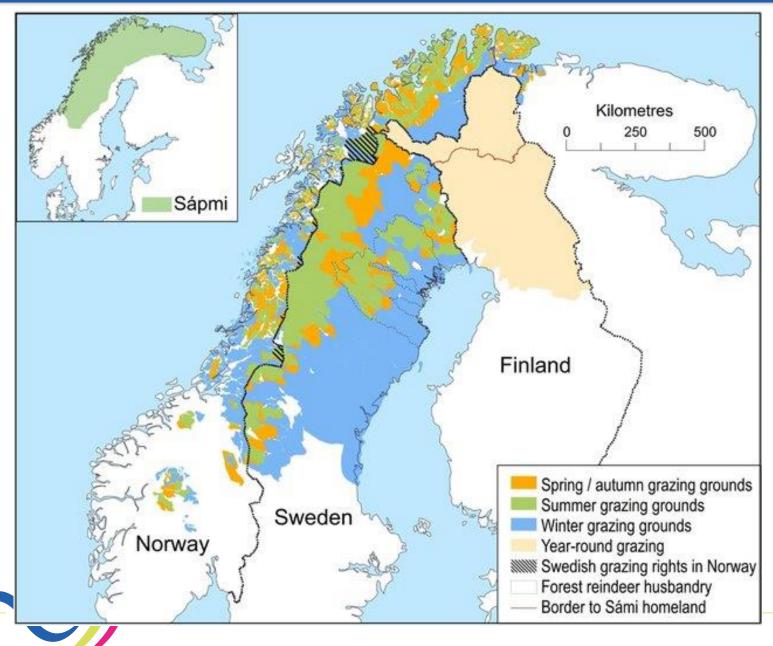


Project meeting SEQUAL, Stockholm 3-5 June, 2019

Camilla Risvoll

Nordlandsforskning





Source: Käyhkö & Horstkotte 2017



#### Salten in Nordland





# The outfields/commons provide many possibilities





# Outfields – large potential for food production

- Reindeer husbandry, sheep- and goat farmers can utilize this resource
- But depend on large continuing pastures





# Traditional migration routes — cross border husbandry

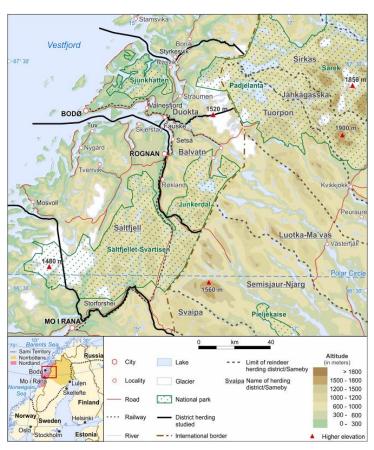
Karesuando Svolvær 67" Skellefteå Sami Territory Altitude --- International (in meters) border Stationary reindeer nerding 1200 - 1500 Lake 1000 - 1200 Glacier 300 - 600 O City 0 - 300

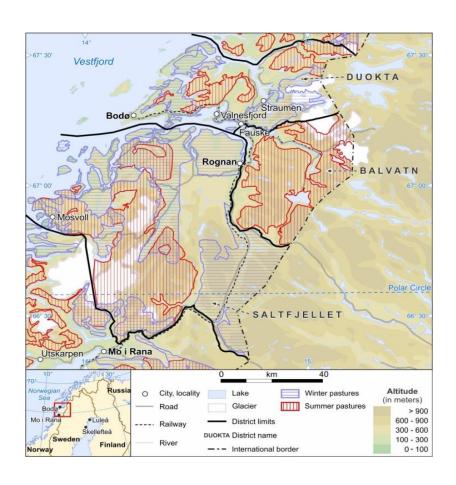
East-west migrations prior to 1905 (source: Reindeer Pasture Commission 1997)





# Reindeer herding districts – Salten









Reindeer husbandry governance in Norway –

cross border herding

- Under agricultural department since 1970s
- Ongoing rationalization and modernization
- Customary rights
  - There is no land ownership connected to reindeer husbandry, but since the 18th century, reindeer herders have kept official user rights to herding districts.
  - This practice is regulated through a system of licenses referred to as 'siida shares' (siida-andeler)
  - Must be Sami to practice herding in northern Norway. Siida shares stays within families







# Reindeer husbandry in Norway

- Family –livelihood, culture, way of life
- The animals –reindeer is the cultural bearer –
- Traditional and experience based knowledge – on herding, reindeer, doudji, passed down from generation to generation









#### Reindeer herding in Nordland. Can they make it?





#### Interlinked processes of change – cumulative effects

- Multiple challenges across scale that pastoralists must deal with locally
  - Climate change
  - Carnivores
  - Pasture access (coastal, inland)
  - Roads/railway
  - Cabins, tourism
  - Mining
  - Institutional barriers, Border to Sweden, policies
    - diseases (e.g. CWD, ticks)

Create fragmented pastures AND impacts herders adaptive capacity



#### Climate change- consequences for reindeer husbandry?

Locked pastures

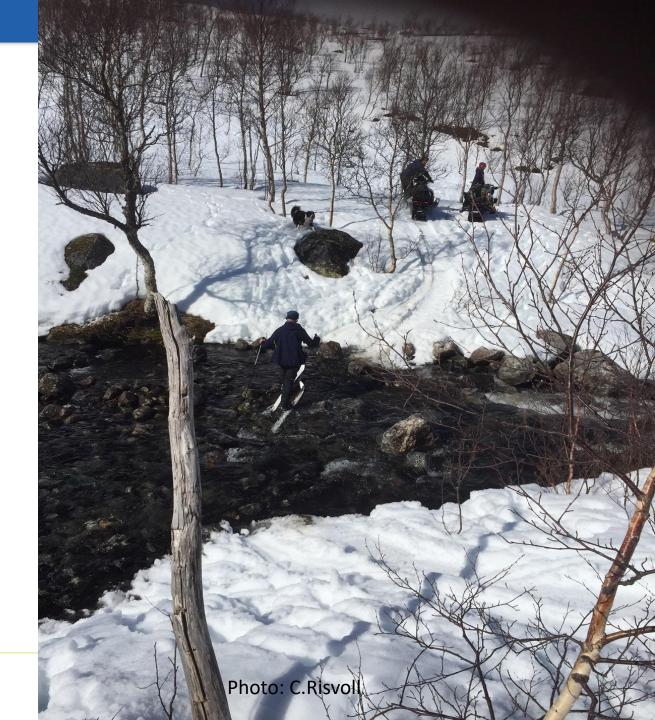


Kilde: Landbruksdirektoratet

# Locked pastures

When I grew up; the inland mountains towards the border were as far east as we went for inland pastures. We rarely had locked pastures in winter then. We got cold weather in autumn, and it lasted until spring. My grandparents didn't have access to coastal pastures, but they managed without. Today, we cannot even go as far east as we are allowed to.. I feel sorry for the herder in Nordland who does not have coastal pastures in 50 years' time (From Risvoll & Hovelsrud 2016).







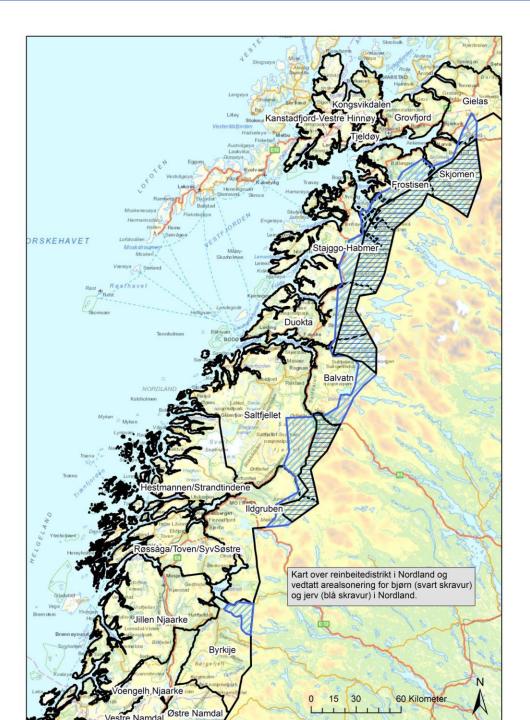
### Carnivore management

- Twofold goal of coexistence carnivore agreement
- Zoning areas prioritized for carnivores, pasturing animals (reindeer, sheep)
  - Co-existende? Land use conflict
  - Whose knowledge counts?
    - Ecological /biological knowledge base
    - Social impact assessment bears?

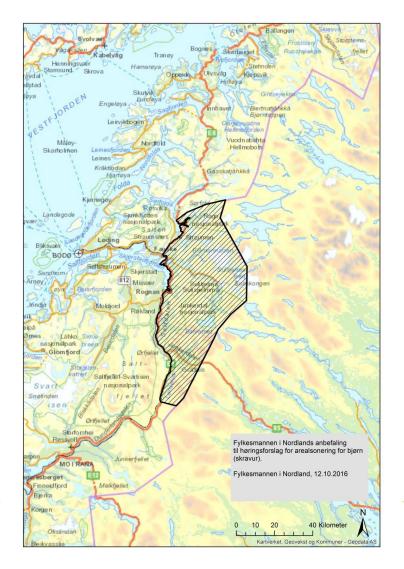












# Local differences

- Access to coastal pastures
- Access to pastures in Sweden
- Topography
- Level and type of encroachment
- Carnivore pressure
- Degree and frequency of locked pastures





### Adaptation strategies

- Supplementary feeding
- Alternative grazing patterns
- Increased mobility
- Calm animals
- Help from volunteers





#### Challenges with adaptation

#### Flexibility

- Alternative pastures: Using coastal pastures in winter as adaptive strategy to handle locked pastures and pressure from carnivores
   →also a dilemma because:
  - May eventually restrict adaptive capacity as it can further increase land-use conflict (farmers, cabins, tourists)
  - Threat of 'overgrazing'
- Supplement feeding
  - Risk of disease in yards and at the coast
  - Loss of traditional/experiencebased knowledge









#### • Needs:

- See processes of change as coupled and integrated
- Increased awareness of local context
- Increased acknowledgement of local knowledge
- The ongoing puzzle of how to include/connect different knowledge systems







# Sami herders participation in governance

 2005: The Norwegian Sami people's right to participate in decision making processes

Procedures for Consultation between State
 Authorities and Sami Parliement –
 follow-up of ILO Convention 169









#### Experience-based knowledge in mapping

- Collaboration between herders and researchers on land use maps why?
- Herders and government officials express a great need for updated maps that capture more of the diversity, dynamics and cumulative effects that imoact on the pastures and herders adaptive capacity
- Focus on concepts in maps and how they can better reflect herders knowledge and experience in the landscape

