Reindeer husbandry’s contribution to rural socio-economics

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Reindeer husbandry’s (RH) contribution to rural socio-economics (RSE)

• A challenging topic
  – «What’s the cost of a reindeer?» (Ds 1998:8, Johansson & Lundgren, 1998)
    • The authors calculated that reindeer husbandry’s contribution to society is negative due all costs it inflicts on its surroundings (compensations, subsidies, culture support etc.)
    • This work show that economics is not a neutral science, your answers depend on your questions, i.e. your perspective
    • Probably welcomed in e.g. Västerbotten municipalities with high unemployment and possibilities of mining establishment
  – Karlsøy municipality (near Tromsø): Land use plan report
    • An assessment of the life conditions of reindeer husbandry, Not only as a primary industry, ......but also as a cultural vehicle

• Requires an open mind

04.12.2012 "Reindeer husbandry as a resource for the society"
Reindeer management = reindeer herding + reindeer husbandry

(Hugh Beach, 1981 Robert Paine, 1964)

• Basic relations (Ruong, 1964):
  – Reindeer/landscape
  – Human/reindeer
  – Human/landscape
<table>
<thead>
<tr>
<th>RELATION</th>
<th>NEED</th>
<th>REQUIREMENT</th>
<th>INSTITUTION</th>
<th>ACTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reindeer-landscape</td>
<td>Nutrition &amp; life functions</td>
<td>Pasture &amp; function areas</td>
<td>Reindeer knowing the area Natural borders</td>
<td>Grazing/moving calving, rutting, airing (insect avoidance)</td>
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<td>Annual cyclus Pasture Balance/-utilization</td>
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<tr>
<td>Human-reindeer</td>
<td>Knowledge &amp; technology Tameness degree</td>
<td>Siida (managing group)</td>
<td></td>
<td>Herding, moving</td>
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<td></td>
<td>Knowledge &amp; control</td>
<td>Baiki (household)</td>
<td></td>
<td>Marking, slaughtering</td>
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<tr>
<td>Human-landscape</td>
<td>Knowing</td>
<td>Knowing</td>
<td>Pasture &amp; mgmt rights.</td>
<td>Policymaking</td>
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<td>Access</td>
<td>Access</td>
<td>Protection against encroachments &amp; disturbance</td>
<td></td>
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<td></td>
<td>Freedom of disturbance</td>
<td>Freedom of disturbance</td>
<td></td>
<td>Social relations Verde (guest friendship)</td>
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<td>Litigation</td>
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What is «rural socio-economics»?

• “the study of the interrelation between economics and social behavior”

• MY INTERPRETATION: ALL POSITIVE IMPACTS FROM REINDEER HUSBANDRY CONTRIBUTES TO IMPROVING HUMAN LIFE-CONDITIONS IN RURAL AREAS, INCLUDING BOTH:
  – REINDEER HUSBANDRY HOUSEHOLDS &
  – RURAL SOCIETIES AS A WHOLE
    • INDIRECT EFFECTS, SPIN-OFFS ARE IMPORTANT
Contents of RSH

• Monetary values:
  – Production value
  – Direct spin-off values
    • Slaughter houses
  – Indirect spinoff values
    • Administraton, schools etc.

• Anchor-value

• Existence value of a culture
A Small industry in Fennoscandia

<table>
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<th></th>
<th>Norway</th>
<th>Sweden</th>
<th>Finland</th>
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<tbody>
<tr>
<td>Total area of reindeer management (km²)</td>
<td>145,000</td>
<td>160,000</td>
<td>123,000</td>
</tr>
<tr>
<td>Percent of country total area (%)</td>
<td>40</td>
<td>34</td>
<td>33</td>
</tr>
<tr>
<td>Numbers of reindeer</td>
<td>227,000</td>
<td>220,000</td>
<td>185,000</td>
</tr>
<tr>
<td>Numbers of districts/villages/co-ops</td>
<td>76</td>
<td>51</td>
<td>56</td>
</tr>
<tr>
<td>Number of owners</td>
<td>2,794</td>
<td>4,525</td>
<td>5,682</td>
</tr>
<tr>
<td>Total slaughter quantum (tons)</td>
<td>1,414</td>
<td>1,300</td>
<td>2,020</td>
</tr>
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Total köttproduktion i 1 000 Kg

"Reindeer husbandry as a resource for the society"
Regulated & non-regulated
Flexibility
A household economical perspective

Summary of Norwegian tax data

• The tax register data provide basis for stating that other income have a considerable role in reindeer based households.

• The limitation lays in that we do not know the connections between the formalized units and the real households. However, it seems as usually reindeer management regularly is one of several sources of income in reindeer-based households.

• Reindeer management also seem to have a clearly greater role in the households of Trøndelag/ Hedmark, Nordland and Varanger than in Karasjok, Vest-Finnmark and Troms.
Large value-added at local sites/communities

- Reindeer slaughterhouses
  - A difficult branch
    - Industrial logic vs. Unpredictability/flexibility in nature/pastoralism
    - Big slaughterhouses in Kautokeino/Karasjok; bankruptcies/drain of public money
- Successful long-time family firms:
  - Stensaas, Brekken
    - History back to the 1850s, slaughterhouse since 1960s
    - 35 workers,
  - Aage Pedersen, Tana & Karasjok
    - History back to 1865, slaughterhouse from 1959
    - 20 manyears, 45 workers at peak season
  - Latest decade: a number of small mostly herder family-based/partly herding district-based firms, also doing some processing seem to manage well
Røros area 1600s-1800s

• First registered complaints about Sami killing wild reindeer: probably last phase of transmission hunting to herding

• Intensive reindeer herding with milking
  – Fertilized the pens => very good grass growth

• Røros Cupper mines 1644-1972
  – => great population increase

• Agricultural expansion
  – Livestock (too elevated for grain production)
  – => Increasing competition for summer farm lands
  – => in 1800s: several incidents of farmers physically attacking Sámi to chase them away, partly they succeeded
Røros area late 1800s

• The Common Lap Law (1884)
• Professor Yngvar Nielsen (1889)
  – Farmers first in time and right
• The Lap commission (from 1889)
  – strict control system in favour of the farmers, reindeer herding became tolerated when not in conflict with agriculture, when conflict: GIVE WAY FOR BETTER INTERESTS

• Market-driven agricultural expansion; livestock needed outfields for fodder production
• Litigations
  – Payment compensation for damage, many herders ruined and fell into poverty
Røros early 1900s

Extensivation of reindeer herding in South Sámi areas closest to the Swedish border because of

- Changes in Sweden
- Market orientation
  - Great internal debate between Sámi leaders
  - =>milking ceased, meat production for sale

Some herder families bought farms themselves

In spite of the conflicts many local farmers had established cooperative relations

Brekken near Røros 1920s.
Photo: Lars Danielsen. Owned by Røros Museum

"Reindeer husbandry as a resource for the society"
Røros after WW2

• South Sámi were organization pioneers due to the external pressure; however NRL was not established before after the war (1947)

• Reindeer herding was at a low level after the war but was reestablished
  – Snowmobiles provided new control
  – Cooperation with agronomists provided high productivity
  – Through NRL cooperation with the government provided influence of sector policy

• New litigations, from 1980s-2000s; same areas and arguments as a century back, but now recreation house at old summer farm sites
  – Selbudommen (2001)
Reindeer husbandry is a surviver!

• Røros: Mining is ended
• It is not much left of agriculture
• Verde-relations are kept through all hardships
• Reindeer husbandry provide basis for slaughters
• Peter Jull (Australia): The indigenous are the last to leave an area

• Snåsa:
• From late 1960s:
  – Sámi school
  – Sámi cultural center
  – Administration of reindeer herding
• In the 2000s:
  – The municipal leaders applied to get Snåsa included in the Sámi management area
Standard economics is too narrowminded and has a too short time perspective.

The problem of incommensurability

Monetary value as the single measure rod

04.12.2012
"Reindeer husbandry as a resource for the society"

2 OR 5 % discount rate?

Discounted Income 5 %

Discounted Income 2%

Years

Value

2 OR 5 % discount rate?
TEK demonstration.

Gustav Labba (age 79) demonstrates late fall snow conditions having uncovered accessible pasture using *goaivo-soabbi*, the herder stick with a big spoon at one end.

Elina Helander-Renvall listens.

Saarivuoma pine forest winter pastures, Vittangi.

Photo: Hans Tømmervik
Ash snow, new soft snow, ”coffe-snow”, packed snow, very packed snow, not bearing vet snow, crust
Upper layers induced by climatic events like wind and heavy snow falls (=> “Ceavvi”) and “rain on snow” events leading to development of “Gaska geardni”, while the lower layers of profile 1 are compacted and icy snow (Čiegargovi and Čuohki/Jiekŋa) with high densities (< 450 g/dm³) compared with profile 2 dominated by looser snow (Seaŋaš) which show lowered densities (<350 g/dm³).
Loose snow types such as *vahca* with a bottom layer of *seanjaš*: high permeability, occurrence of *gaska geardni* (‘mid-crust’) within the snow pack clearly reduces penetrability.
Riseth, Jan Åge, et al. (2011). Sámi traditional ecological knowledge as a guide to science: snow, ice and reindeer pasture facing climate change. Polar Record, 47:
Observation & focus

• The herders observed that a long term change in the wind direction (obs.11) changed the snow conditions from fairly loose snow (vahca) to hard packed snow (ceavvi) difficult for the reindeer to penetrate.

• The explanation for this awareness seems to be that observations made by herders of the wind direction are integrated in their knowledge of how to orientate themselves in their surroundings (Nutti 2007).

• We found that the majority of the herders’ observations are changes that are still little focused upon by scientists requires a shift in the attention of scientists working in Sápmi to emphasise analysing data that are relevant to the Sámi.
observation & interpretation in research (Johannes 1993)

• While scientific measurements may be perceived as very **objective & accurate**, their interpretation in research can be **subjective**.

• Herders’ observation of weather pattern changes made Abisko researchers reconsider the analysis of existing temperature data and led them to discover previously unidentified patterns; thus, **herders’ observations changed the focus of the scientists thereby advancing data analysis**.

• In parallel; Boulder (USA) researchers working in Nunavut revealed changes in weather persistence taking Inuit observations as their point of departure (Huntington et al. 2004; Gearheard et al. 2009, Weatherhead et al. 2010).
Bridging the gap

A challenge for scientists as ‘outsiders’ is to interpret the meaning of reality as indigenous groups perceive it. In our case, several factors contributed to bridge the gap between different knowledge systems.

1) our group of researchers included persons with dual competence.
2) the Abisko research station has a century long history as a serious neighbour,
3) all participating researchers had at least some knowledge of Sámi culture.
4) we met in the field, that is within the herders’ home range, and
5) our encounters were repeated allowing for the growth of mutual trust.

One thing is to realise in theory the imperative of including local and/or indigenous people in the overall design and conduct of research related to their ecological views and subsistence activities.

To practice it, requires care and sensitivity, and perhaps foremost; the time required for the exercise.
Access to knowledge?

- Together with a colleague I was rejected access to the field
  - In a local community where we both had worked for several years, and where we had established good relation with Sámi reindeer herders
  - We had worked with right’s questions and wanted to document the case better by exploring Sámi TEK
  - We wanted to have a collective meeting by the involved to discuss how to proceed.
  - Several times, there was conditions related to the reindeer that made it necessary to postpone the meeting. The meeting never took place. Finally, one of us received an e-mail:
    - "When did the defence of our rights become a knowledge competition?"

- Afterwards we still could meet with families and households and discuss rights questions.

- Interpretation: We were stopped from crossing a borderline. The Sámi did not want to have TEK taken out of its context and their control and "scientificated". As researchers we had learned a lesson.