Uncertainty and local knowledge in Greenlandic EIA practice
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Research objectives

Point of departure:
• Uncertainty as a major challenge in the Arctic – also for EIA
• Local knowledge as a source of knowledge and values

○ Is uncertainty handled in IA processes in Greenland? How?
○ Is local knowledge included in IA processes in Greenland? How?
Pilot study

- Killavaat Alannguat (Kringlerne)
- Mining for Zirconium, Niobium, Yttrium, Hafnium, Tantalum and rare earth elements
- Status: Studies completed, awaiting white paper and decision from the Inatsisartut (Greenlandic parliament)
Results: Uncertainty

Direct statements of uncertainty/lack of knowledge in the baseline
“Little specific knowledge is available about most groups of animals in the project area” (EIA report)

Indirect statements of uncertainty/lack of knowledge
“Ringed seal seems to be the only marine mammal that regularly occurs in the Kangerluarsuk Fjord. Other species of seals, such as hooded seal and harp seal might also occur” (EIA report)

Likewise both direct and indirect statements of uncertainty/lack of knowledge in assessments
“To what extent the low water flow in Lakseelv during mid-winter will cause the concentration of lead to exceed the GWQG value after 3-5 years of operation is unknown” (EIA report)

Impact during phases of the life of mine

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<th>Construction</th>
<th>Operation</th>
<th>Closure</th>
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<td><strong>Spatial extent</strong></td>
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Mitigation measures
- Limited mitigation is possible other than planning the equipment at the tailings pond to blend as far as practical with the surrounding landscape;
- Remove buildings and other equipment next to the lake at the end of mine life.

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Assessment summary of landscape changes if Fostersø is used for tailings pond and waste rock deposition
**Results: Local knowledge**

- **In EIA report indirectly:**
  “A large number of fish species occur in South Greenland fjords but generally little is known about the species that are not utilized commercially or in connection with local subsistence fishery”.

- **In written hearing: No local knowledge**

- **At public meetings:**
  “It is said that there are no fish in the place mentioned. But this is not true – it is breeding location for lumpfish, and there are other fish”
  “There are many reindeer and musk oxes there”
Preliminary thoughts

- Indirectly acknowledges uncertainty on data, but not handled?
- Local knowledge offered which might match uncertain data – recognition and use?
- Written hearing as a method? A game for authorities and well-organised NGOs

Next steps

- Your comments and good advice
- Three cases from Greenland, one from Canada and one from Alaska
- Interviews