

# The use of local knowledge in land use planning in Enontekiö region, Finland

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How to listen to Locals in land use planning?  
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# Background - Definitions

**Traditional knowledge:** “knowledge, innovations and practices of indigenous and local communities around the world. Developed from experience gained over the centuries and adapted to the local culture and environment, traditional knowledge is transmitted orally from generation to generation. It tends to be collectively owned and takes the form of stories, songs, folklore, proverbs, cultural values, beliefs, rituals, community laws, local language, and agricultural practices, including the development of plant species and animal breeds.” **(CBD 1992)**

**Local knowledge:** “The knowledge that people in a given community have developed over time and continue to develop. It is based on experience, often tested over centuries of use, adapted to the local culture and environment, embedded in community practices, institutions, relationships and rituals, held by individuals or communities, dynamic and changing.” **(FAO 2004)**



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# Background

- **Convention on Biological Diversity (CBD 1992), Article 8(j)** requires its parties to “respect, preserve and maintain knowledge, innovations and practices of Indigenous and local communities embodying traditional lifestyles”.
- In Finland, these requirements are, to some extent, fulfilled through application of the **Akwé: Kon Voluntary Guidelines**.



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# Akwé: Kon Voluntary Guidelines

- The Guidelines are a protocol “for the conduct of cultural, environmental and social impact assessments of developments proposed to take place on, or which are likely to impact on, sacred sites and on lands and waters traditionally occupied or used by Indigenous and local communities” **(Secretariat of the CBD 2004).**
- Tested first time in 2013 in the Land Use and Management Plan of Hammastunturi Wilderness Area, and are now a permanent planning tool of Metsähallitus in land use planning in Sápmi
- Guidelines require representatives of Indigenous people to participate in all stages of the management and land use planning process, from planning to implementation and monitoring



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# Background

- Despite the international acknowledgement, traditional, local and Indigenous ways of knowing are often given less attention than scientific knowledge in land use planning and governance.
- The reason for this is that authorities consider scientific knowledge to be more objective and rational (e.g. Peters 2003, Turi and Keskitalo 2014, Johnsen et al. 2015)



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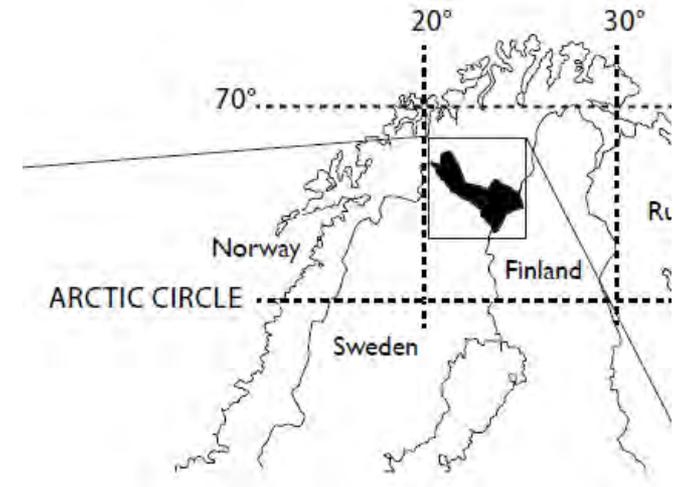
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# Aim

- 1) To study how traditional and local knowledge (TLK) is included in land use planning in Eanodat /Enontekiö in Finnish Sápmi;
- 2) To study how Akwé: Kon Guidelines are applied in land use planning; and
- 3) To study what are the related challenges and improvements in land use planning identified by local Sámi experts and land use planning officials



# Methods

## (1) Interviews of local planning officials and Sámi experts involved in land use planning in Enontekiö, 2016-2017 (n=13)

- interview questions (next slide)
- qualitative content analysis

## (2) Analysis of recent Land Use and Management Plans of Metsähallitus

- Land Use and Managem. Plan for the Käsivarsi Wilderness Area (2017)
- Land Use and Managem. Plan for the Saana Area (2017)
- Land Use and Managem. Plan for the Pulju Wilderness Natura Area (2018)
- evaluation of how TLK of diff. categories (I-IV) was included in these plans:

**I:** Knowledge about the environment

**II:** Knowledge about the past and current use of the environment

**III:** Management systems

**IV:** Values associated with the environment.

(Usher 2000, Houde 2007)



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# Interview questions

- What kind of knowledge is collected to support land use planning in your area?
- What kind of knowledge is the most relevant in land use planning?
- What kind of knowledge has the greatest impact in decision making?
- Is there knowledge that is not taken into account at all?
- Are views of local people and their knowledge taken into account in land use planning? If not, how this could be improved?
- How well locals are heard in land-use planning today, in comparison to earlier years?
- Has the role of TLK in land-use planning changed (during your career/ time when participating in land use planning processes & negotiations)?
- What are the impacts of CBD, Akwé: Kon guidelines and other international conventions in incorporating TLK into land use planning?
- What kind of benefits and challenges you see in integration of TLK in land use planning?



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# Results

## What kind of knowledge is collected to support land use planning?

- Knowledge regarding the current use of areas is the type of TLK predominantly collected in public hearings & stakeholder meetings **(Category II: Knowledge about the past & current use of the environment)**
- Relevant for land use management and planning

## What kind of knowledge should be collected more?

- More information regarding **historical and cultural values** of different areas is needed **(Category IV: Values associated with the environment)**
- Agrees earlier research: values associated with the environment are not often included e.g. in EIAs & climate change studies
- This kind of knowledge, in particular when connected to sacred sites, can be sensitive and is not to be shared in public.

(Markkula et al. 2019, in print)



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# Results

What are the challenges related to inclusion of TLK in land use planning?

Land use planning officials paid attention to practical & technical challenges:

- “Mismatch” of TLK of narrative structure with currently used planning systems  
-- the knowledge collected in land use planning processes often has to be reworked to fit into a database → part of data may be lost
- Difficult to use TLK in land use planning if it does not have an exact geographical location



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# Results

## What are the challenges related to inclusion of TLK in land use planning?

Sámi informants reported that legislation is one of the biggest challenges in relation to the inclusion of TLK into land use planning

- Sámi informants were unanimous regarding the need to amend the Reindeer Husbandry Act (848/1990), which in its current form does not recognize the distinct form of Sámi reindeer herding (*Siida* system).
- These demands are not new, and have been brought up also in earlier studies (e.g. Sillanpää 1994, Magga 2003, Heikkilä 2006a, Müller-Wille et al. 2006, Heinämäki et al. 2017, Olsen et al. 2017).

(Markkula et al. 2019, in print)



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# Results

What are the improvements related to inclusion of TLK in land use planning? → The application of Akwé: Kon Guidelines

- The Guidelines were seen as **an important and useful new element** in planning by some of the informants, while others felt it is **too early to assess the effects of rather new protocol**
- Akwé: Kon protocol has **improved the knowledge base and knowledge-gathering processes of land use plans**
  - local Sámi can participate throughout the process
  - different age and gender groups are represented
  - a greater diversity of issues is taken into consideration
- There is **a need to broaden the application of the Akwé: Kon Guidelines**, to be applied e.g. in construction projects carried out under Land Use and Building Act and for EIA (Saami parliament, e.g. Olsen et al. 2017)

(Markkula et al. 2019, in print)



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# Table 1. Summary of the challenges and possible solutions

Challenge	Interviews	Literature	Possible solution
Lack of knowledge: Sámi herding system	Local Sámi	Olsen et al. (2017)	More knowledge sharing
Lack of knowledge: cultural heritage	Officials	Metsähallitus (2016)	More documentation of TLK
Sámi herding system not recognized	Local Sámi	Heinämäki et al. (2017)	Amending of Reindeer Husbandry Act
TLK is not spatially explicit	Officials		Use of locally governed PGIS systems to document TLK
Mismatch of TLK with planning systems	Officials	Dallman et al. (2011)	Application of collaborative learning processes
Power imbalance	Local Sámi	Metsähallitus (2016)	Broader negotiation rights for Sámi siidas

(Markkula et al. 2019, in print)

# Conclusions

Application of the Akwé: Kon guidelines is a much welcome development. However, due to the voluntary nature of the Guidelines, their power may be limited in a region with increasing land use pressure, industrial developments and challenges arising from climate change.



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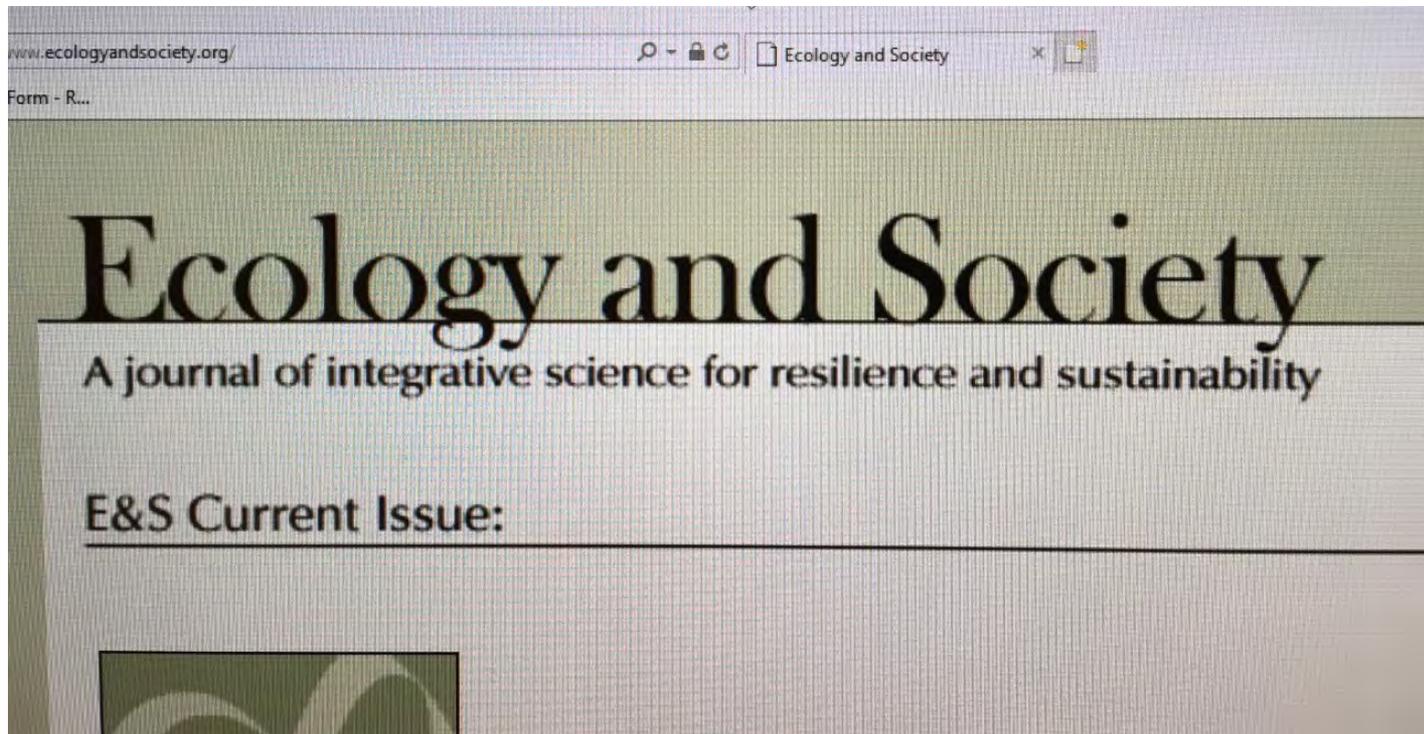


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# Thank you!



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