

# Continuous cover forestry – why and how?

## The climate benefits

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Continuous cover forest



Forest  
after logging



Wood  
can be produced  
by various methods



Clearcut forest

# Continuous Cover Forestry (CCF)

Set of proven methods for wood production mainly without clearcuttings

- ✓ Single tree selection / Thinning from above
  - ✓ Group selection / Patch cuttings
- 
- Leave dead wood in the forest
  - Ditching not needed
  - The soil preparation is light if needed at all





PUBLICATIONS OF THE DEPARTMENT  
OF SOCIAL RESEARCH 2014:20



**VALUES, FAIRNESS AND LEGITIMACY**  
IN THE CONTEXT OF FINNISH FOREST AND NATURE  
CONSERVATION POLICY

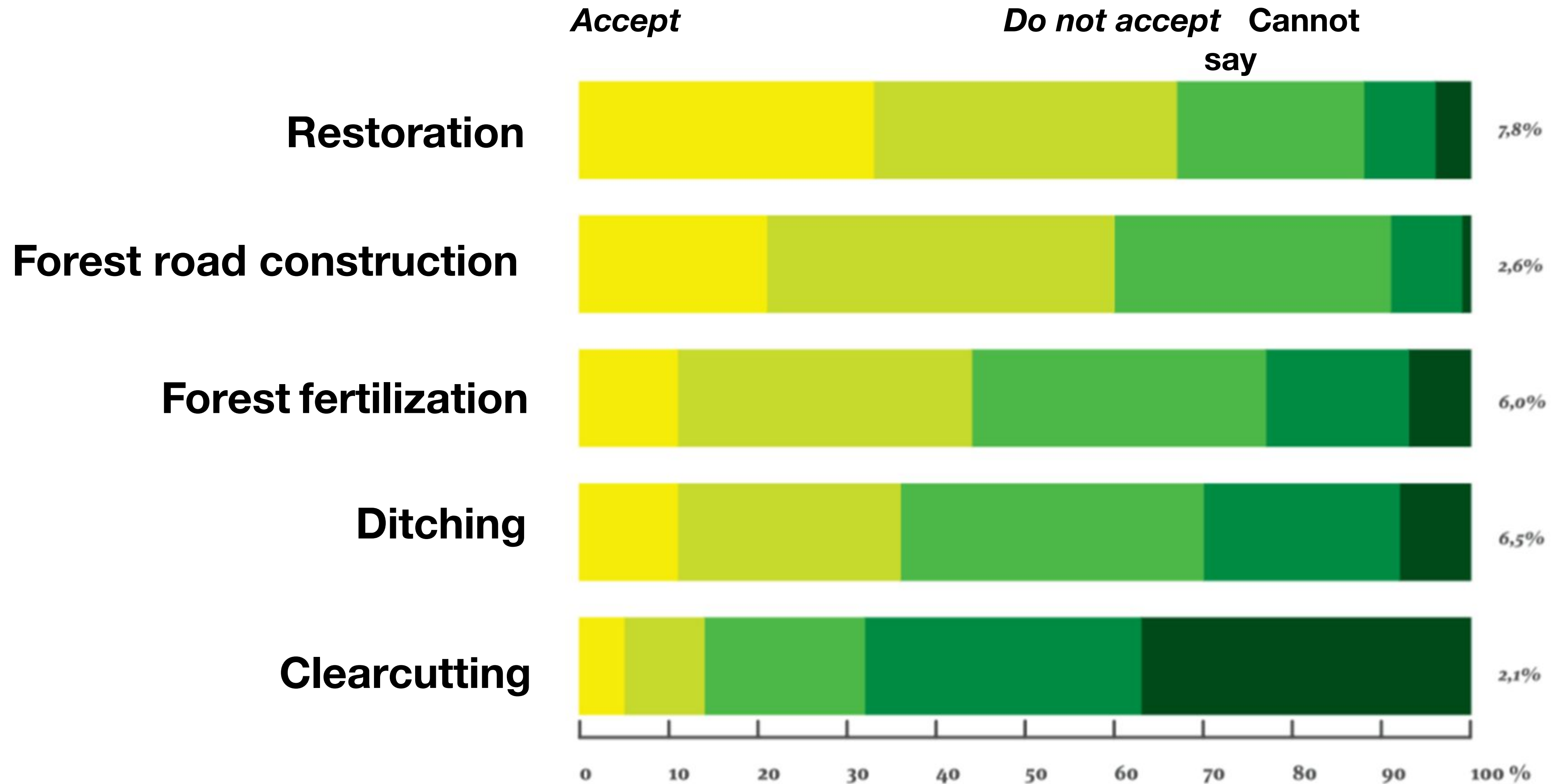
ANNUKKA VALKEAPÄÄ

# Values, Fairness and Legitimacy In the Context of Finnish Forest and Nature Conservation Policy

VALKEAPÄÄ ANNUKKA

What should be done with forests, should they be logged or conserved? The aims of Finnish forest policy have been questioned by various stakeholder groups, including environmentalists, reindeer herders, and even forest owners. In any situation involving many interests, conflict is inevitable. However, conflicts serve vital democratic functions; without them, progress rarely occurs. This dissertation research focuses on the values, fairness, and legitimacy of forest-related decision-making in Finland and brings out citizen values and opinions on the issue. An examination of forest values held by citizens, Ministers of Parliament (MPs) and forest professionals revealed that citizens emphasized biodiversity conservation value more than economic value, while these values were almost equal in importance for MPs, and economic value was the most emphasized among forest professionals.

# Do you accept the following forestry operations?



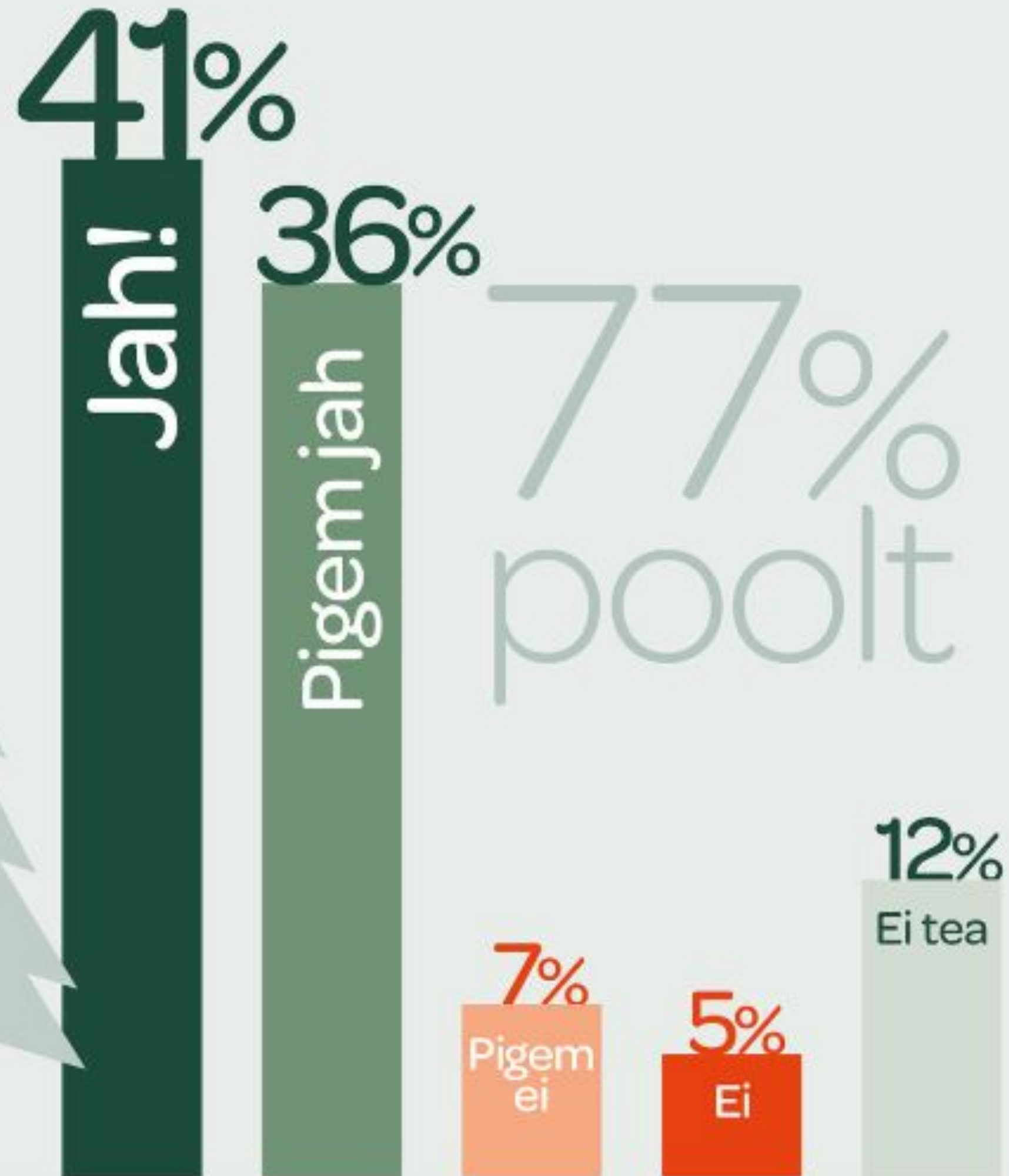


70% of Finns don't accept  
clearcuttings

data collected 2008

# Kogu Eesti riigile kuuluvat tulundusmetsa\* tuleb majandada **PÜSIMETSANA**

\* riigimets, mis ei ole kaitse all



Graafikul toodud arvud on ümardatud, mistõttu moodustub summa 101%  
ALLIKAS: TURU-UURINGUTE AS UURING. NOVEMBER 2022. KUJUNDUS: MUDU.

**Open question:** *“Where would you focus on in the decision-making concerning forest use?”*





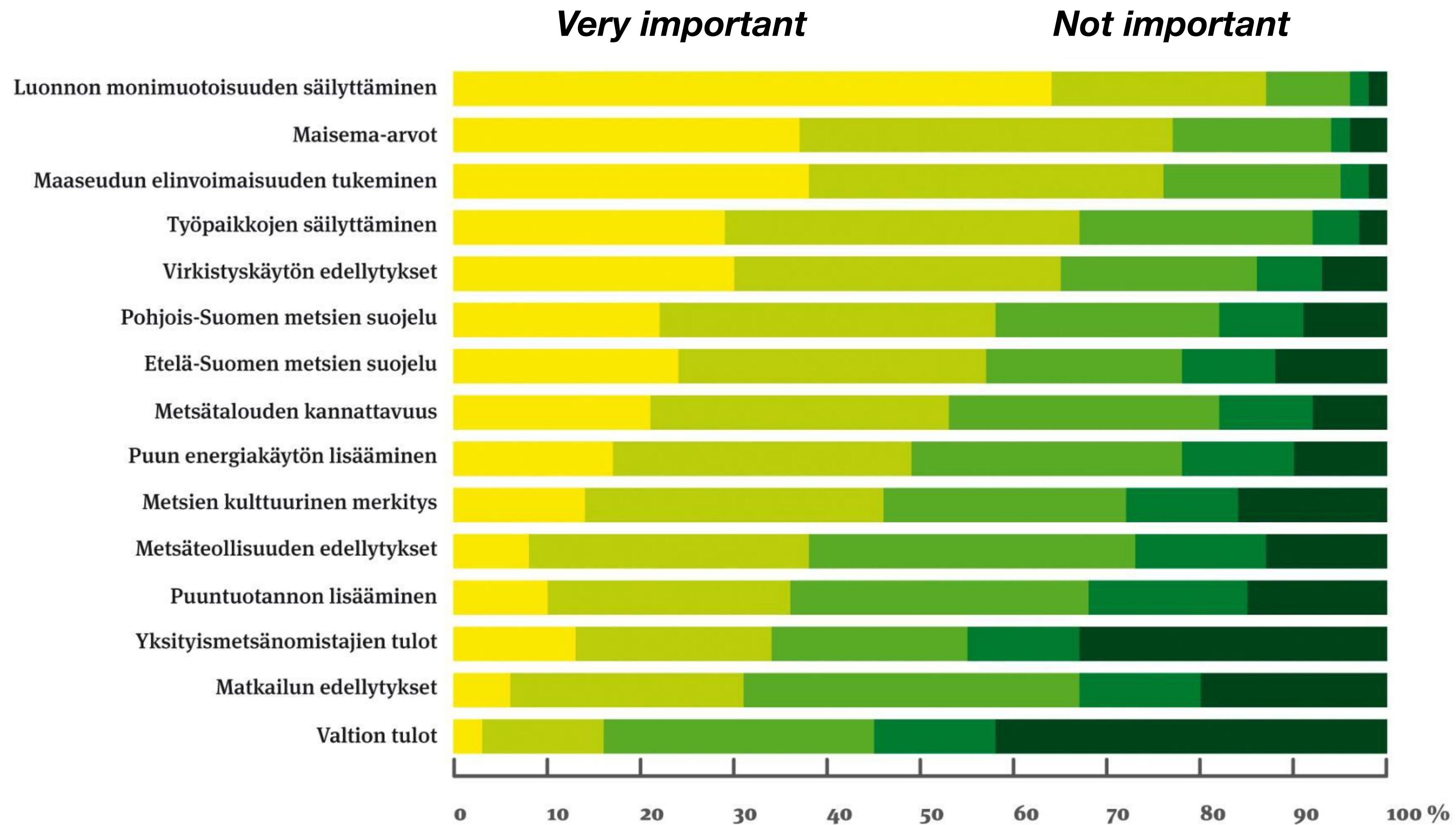


- Objection of clear cuttings was the most frequent topic in the data
- Thinnings and uneven-age management were suggested instead

Outi Hytönen's Master's Thesis 2013.

<https://helda.helsinki.fi/bitstream/handle/10138/41005/Hyt%C3%B6nen.pdf?sequence=1&isAllowed=y>

# Citizens' forest values



**Maintaining biodiversity** was the most important goal in forest related decision-making.



*Challenge for designing  
more legitimate forest policy:*

**Widen the perspective on  
forest benefits.**



# Why Continuous Cover Forestry?

- Social licence for forestry
- Forest owners profit
- More added value from forestry
- Resilience
- Climate Change mitigation
- Climate Change adaptation
- Less nutrient leakages to waters
- Biodiversity



# Climate change mitigation

- CCF forest is always a net sink
- Clear-cut forest is source of carbon for the first 10-30 years


CCF forestry provides more logs

- Wood products store carbon for decades

Substitution effect in construction

- Wood replace steel & concrete



An aerial photograph of a clearcut logging site. A dirt road winds through the landscape, which is covered in cut logs and debris. In the background, a dense forest of tall, thin trees stands on a hillside. The text "Clearcutting is a carbon source for 10-30 years" is overlaid in white on the left side of the image.

**Clearcutting is a carbon source for 10-30 years**

# Climate change adaptation

CCF forests are more resilient towards forest damages.

Natural regeneration provides genetic variety for natural selection in changing circumstances.

*Nevalainen S. (2017). Comparison of damage risks in even- and uneven-aged forestry in Finland. Silva Fennica vol. 51 no. 3 article id 1741. 28 p. <https://doi.org/10.14214/sf.1741>*





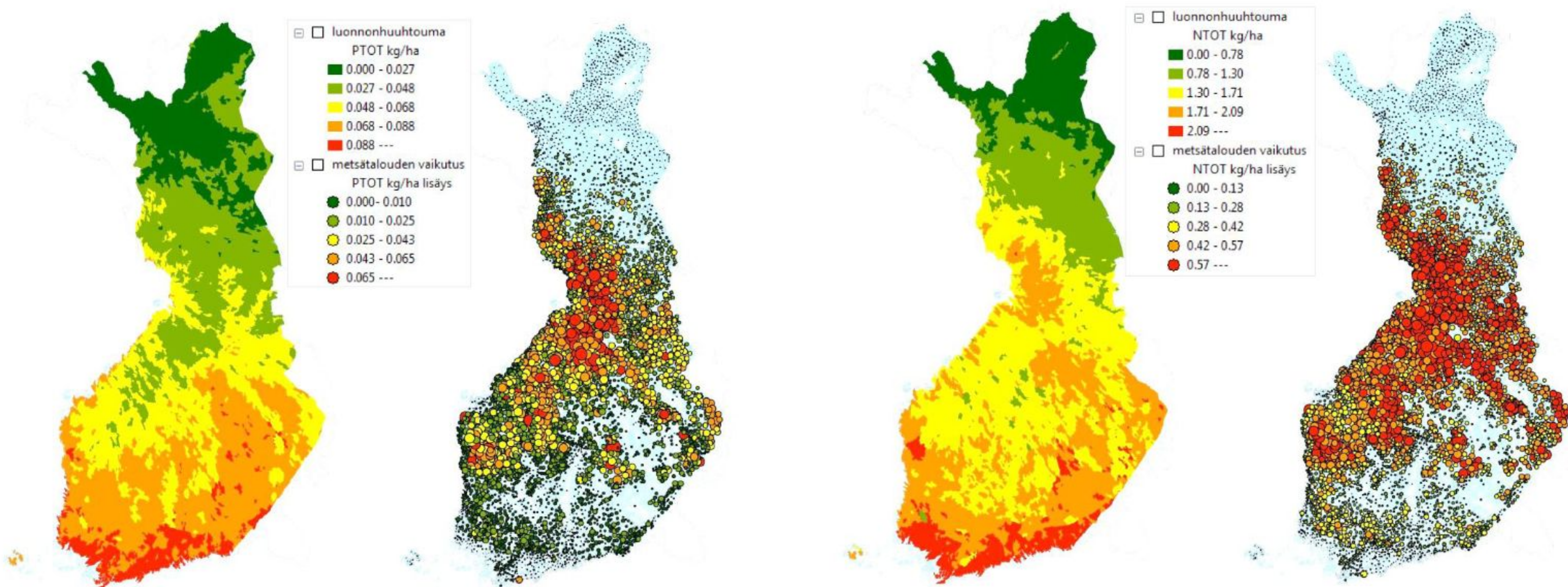
A photograph of a person swimming in a pond. The water is dark blue, and the surface is covered with ripples. In the foreground, there are reflections of trees and grass, creating a shimmering effect. The text "Nutrients from forestry to waters" is overlaid on the left side of the image.

Nutrients  
from forestry  
to waters

# Natural nutrient load & nutrients derived from forestry

## Phosphorous

## Nitrogen

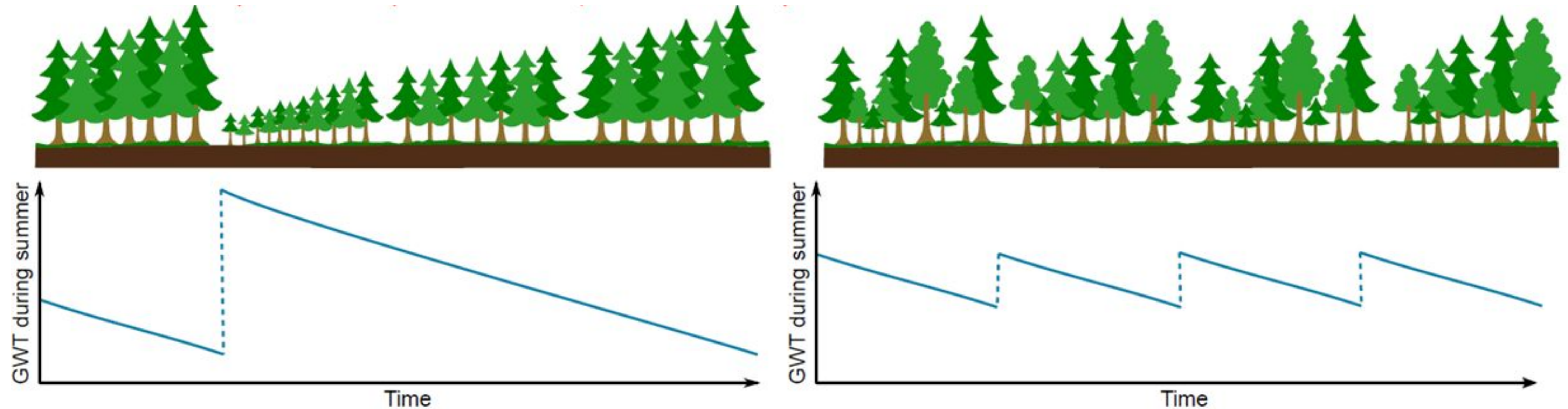


[https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/162009/VNTEAS\\_2020\\_6.pdf](https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/162009/VNTEAS_2020_6.pdf)

*f*



# Water level more stable in CCF



# Biodiversity

Recent meta-analysis used data from 854 studies

- CCF more favourable to forest species than even-aged forestry
- The effect is strong



*Savilaakso, S., Johansson, A., Häkkilä, M. et al. What are the effects of even-aged and uneven-aged forest management on boreal forest biodiversity in Fennoscandia and European Russia? A systematic review. Environ Evid 10, 1 (2021).*

<https://doi.org/10.1186/s13750-020-00215-7>

<https://environmentalevidencejournal.biomedcentral.com/articles/10.1186/s13750-020-00215-7>



# Silva's activities 2023

- CCF Guide - book will be published April 2023
- Teaching material to Universities of Applied Sciences / Forestry.  Finnish, Swedish, Norwegian
- Calculator to compare CCF & Even-aged forestry  Nutrient leakage, climate impact, economic profit
- Webinars on CCF <https://www.jatkuvakasvatus.fi/>



Thank you!



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