# Climate-smart forestry in North Karelia

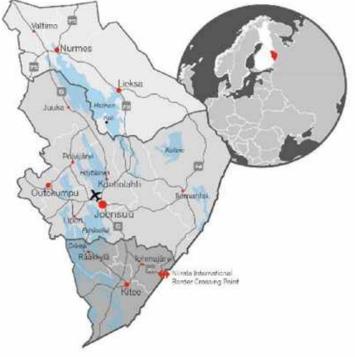
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North Karelia – perfect for forest bioeconomy

 Forerunner in smart forest bioeconomy, since the 1990s:

- Strong and dynamic forest cluster
- World-class knowledge hub in forest research and expertise



#### 163 000 inhabitants • size 21 585 km<sup>2</sup> • 89% forest • 13 municipalities



# Sustainability targets for 2030





Share of renewable energy in total consumption **100%** 

Net reduction of greenhouse gases





### Regional Council of North Karelia

Our objective is to make North Karelia an even better place to live, study, work, and operate as an entrepreneur.



# **Policy improvements**

Roadmap Towards Oil-Free and Low-Carbon North Karelia by 2040

 Bio4Eco participated in defining objectives for natural resource and bioeconomy sectors. Smart Forest Bioeconomy strategy of North Karelia

• Combines objectives of RIS3 strategy and regional climate and energy programme 2020.



# Policy improvements

## Scenario analysis of the impacts of increased harvesting volumes on biodiversity and carbon stocks

- Background data for further policy improvements.
- The aim to increase forest fellings by 1 million cubic meters/year decreases biodiversity and forest carbon sinks.

North Karelia's Regional Strategic Programme for 2018-2021 and its implementation plans

- More emphasis on sustainable use of forests and low-carbon energy production.
  - Estimated amount of funding influenced by the project: c. **1,700,000** €

## Climate-smart forestry

We need to increase the climate benefits from forests and the forest sector, in a way that creates synergies with other needs related to forests.





# Climate-smart forestry

**Inspiration**: Scenario analysis produced in the project. Experiences of Lettish, Slovenian and French partners.

**Results**: Roadmap and timeline to guide development of climate-smart forestry.

- Implemented through a project managed by Natural Resources Institute Finland (LUKE)
- Next steps: New forest management recommendations and carbon classifications of forests in North Karelia

#### **Carbon classification in forests**



#### Minor carbon storage

Understocked, low-productivity land, non-productive land, builtup land and other areas.

 The trees have no significance as carbon sinks or storages

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Developing carbon sink Young growing stands and open areas. Developing into a good carbon sink.

 Small significance as a carbon sink and storage.

#### Carbon sink to be developed Multiple-use forest where the number and/or condition of trees is not ideal.

 Need for actions to develop carbon dioxide sequestration in the growing trees.



#### Increasing carbon sink Multiple-use forest in good condition, a sufficient number of growing trees and timely forestry actions.

 The best sites for effective carbon dioxide sequestration.



#### Increasing carbon storage

Areas with young forests where forestry use is restricted for landscape, recreation or game management reasons, such as wood grouse mating displays.

 A good site for storing sequestered carbon in the tree stock. The trees in the area already contain a certain amount of carbon and their ability to sequester more is good in light of local conditions.



#### Significant carbon storage

Areas with mature forests where forestry use is restricted for landscape, recreation or game management reasons, such as wood grouse mating displays.

 The best site for storing sequestered carbon in trees. The trees already contain a lot of carbon. Their ability to sequester more carbon has decreased.



#### Stable carbon storage

Areas completely excluded from forestry operations. Mainly various nature sites and other areas outside the scope of forestry operations.

 A carbon storage that develops via natural processes, storage may also decrease due to rot. No forestry measures.



## **Other actions**

- **Skilled labour**: New possibilities and solutions to attract practical forest workers (harvesters, timer truck drivers, mechanics etc.)
- Regional bioeconomy brand: New promotional materials that emphasise our strengths and possibilities in bioeconomy:

www.pohjois-karjala.fi/bioeconomy



### **Results in North Karelia**

- Low-carbon issues, bioeconomy and bioenergy are taken into account in planning and decision-making.
- Actions to improve climate-smart forestry have been taken.
- Awareness of key development needs of the sector has increased.

Between 2016 and 2018, the use of fossil fuels in heating has dropped by 15,25%.

Share of renewables of total energy consumption: 67%



## Thank you!





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