



## Scientists investigate – their results are used by decision makers and general public

The 13 Actions of VACCIA provide the general public, commercial enterprises and decision makers with literary and internet-based information, seminars and future prediction workshops on adaptation to climate and ecosystem changes with reference to

- local and regional climate change
- altered patterns of transport of airborne pollutants to northern latitudes
- changes in forest, agricultural, lake and coastal ecosystems
- effects on city environments
- altered possibilities for forestry, agriculture, fishing and recreational travel services
- the vulnerability of ecosystem services
- minimization of regional and local risks due to climate change
- adaptation to changing ecosystems
- improved generation and dissemination of regional and local scale awareness of climate change

## The VACCIA Actions – contact persons

**Project leadership:** Finnish Environment Institute SYKE  
Martin Forsius, [martin.forsius@ymparisto.fi](mailto:martin.forsius@ymparisto.fi)

- 1. Project Management**  
Finnish Environment Institute SYKE, Jussi Vuorenmaa  
[jussi.vuorenmaa@ymparisto.fi](mailto:jussi.vuorenmaa@ymparisto.fi)
- 2. Remote Sensing**  
Finnish Environment Institute SYKE, Saku Anttila  
[saku.anttila@ymparisto.fi](mailto:saku.anttila@ymparisto.fi)
- 3. Climate Scenarios**  
Finnish Meteorological Institute, Kirsti Jylhä  
[kirsti.jylha@fmi.fi](mailto:kirsti.jylha@fmi.fi)
- 4. Synthesis and Dissemination**  
Finnish Environment Institute SYKE, Irina Bergström  
[irina.bergstrom@ymparisto.fi](mailto:irina.bergstrom@ymparisto.fi)
- 5. Coastal Ecosystems – Western Gulf of Finland LTER**  
University of Helsinki, Marko Reinikainen  
[marko.j.reinikainen@helsinki.fi](mailto:marko.j.reinikainen@helsinki.fi)
- 6. Urban Environments – Helsinki Metropolitan Area LTSE**  
University of Helsinki, Kimmo Kurunmäki  
[kimmo.kurunmaki@helsinki.fi](mailto:kimmo.kurunmaki@helsinki.fi)
- 7. Agricultural Production – Lepsämäenjoki LTSE**  
University of Helsinki, Juha Helenius  
[juha.helenius@helsinki.fi](mailto:juha.helenius@helsinki.fi)
- 8. Catchments and Lakes – Lammi LTER**  
University of Helsinki, Lauri Arvola, [lauri.arvola.helsinki.fi](mailto:lauri.arvola.helsinki.fi)
- 9. Forest Production – Northern Häme LTER, Northern LTSE**  
University of Helsinki, Eero Nikinmaa,  
[eero.nikinmaa@helsinki.fi](mailto:eero.nikinmaa@helsinki.fi)
- 10. Fisheries Production – Päijänne LTER**  
University of Jyväskylä, Juha Karjalainen, [juhakar@byti.jyu.fi](mailto:juhakar@byti.jyu.fi)
- 11. Biodiversity – Bothnian Bay LTSE**  
University of Oulu, Marko Hyvärinen, [marko.hyvarinen@oulu.fi](mailto:marko.hyvarinen@oulu.fi)
- 12. Tourism – Northern LTSE**  
University of Oulu, Pirkko Siikamäki, [pirkko.siikamaki@oulu.fi](mailto:pirkko.siikamaki@oulu.fi)
- 13. Pollution Transport – Pallas-Sodankylä LTER**  
Finnish Meteorological Institute, Hannele Hakola  
[hannele.hakola@fmi.fi](mailto:hannele.hakola@fmi.fi)



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**Climate change is here already. Will ecosystem services be disrupted, will we adapt to change?**



# VACCIA

[www.environment.fi/syke/vaccia](http://www.environment.fi/syke/vaccia)



**Vulnerability Assessment of Ecosystem Services for Climate Change Impacts and Adaptation**

## Nature changes when climate changes, adaptation is essential

Climate change will be one of mankind's greatest challenges in the years to come. The important resources and services provided by our natural environment, e.g. diverse ecosystems and sufficient good-quality water, are threatened by global warming. The effects will be seen in agriculture, forestry and fishing, in nature tourism and even in land use in and around our major cities. The vulnerability of ecosystem services provided by Finland's natural resources, and the possibilities for adaptation by human society, are the subject of investigation in the VACCIA project of the European Union Life+ programme, to be realized during the period 2009–2011. Contributors to this extensive project include the Finnish Environment Institute, the Finnish Meteorological Institute and the universities of Helsinki, Jyväskylä and Oulu.

### The aims are

- to gather information about how global warming is changing ecosystem services
- to identify means by which society can adapt to changing conditions
- to estimate how climate change will affect the transport of airborne pollutants to northern latitudes
- to convey the information obtained to decision makers and the general public
- to support local and regional scale planning and decision making

The key components of the VACCIA project are nine geographical areas forming a Finnish Long-Term Socio-Ecological Research Network as part of the Finnish National-level Research Infrastructure. Ecological and environmental research is the main focus in the LTER areas, whereas socioeconomic research is strongly represented in the LTSER areas.

## Ecosystems react differently in different parts of the country and in varying environments

The effects of climate change on ecosystem services are investigated in diverse environments ranging from large cities (Helsinki, Lahti) and recreational centres (Kuusamo, Sotkamo) to different types of forest, agricultural and watercourse environments from north to south and from inland regions to the coastal zone.

