

Governments role in the adaptation

Norrköping

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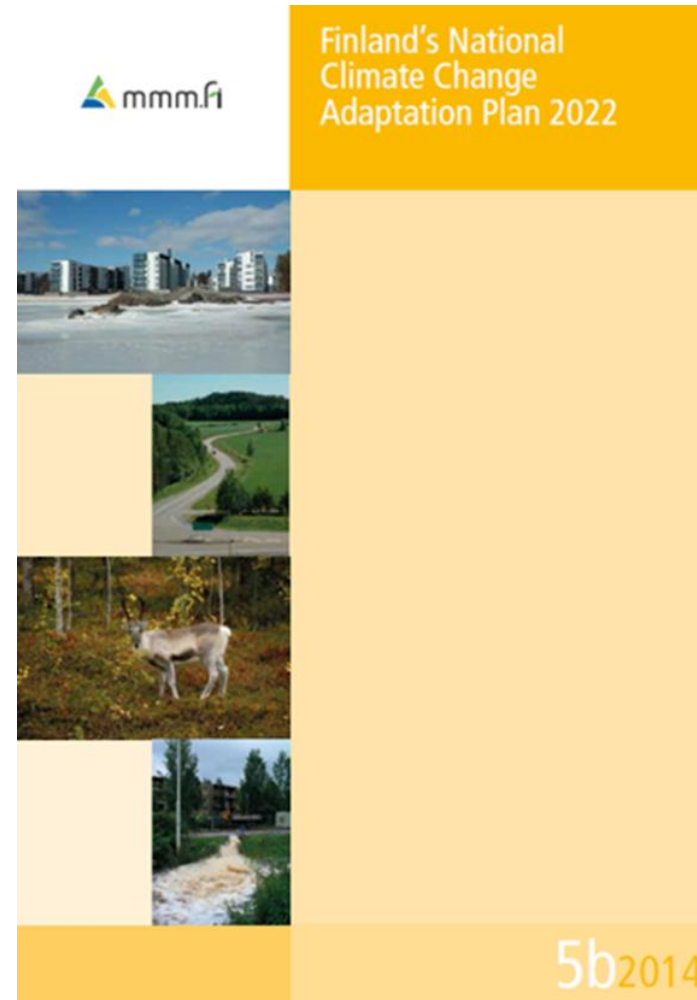
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The Aim of Climate Change Adaptation in Finland: The society has the capacity to manage the risks associated with climate change and adapt to changes in the climate.

Objectives 2022:

- A. Adaptation has been **integrated** into the planning and activities of both the various sectors and their actors.
- B. The **actors** have access to the necessary climate change assessment and management methods.
- C. Research and development work, communication and education and training have enhanced the adaptive capacity of society, developed innovative solutions and improved citizens' **awareness** on climate change adaptation.



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The coordination group for NAP follows the implementation

- The Ministry of Agriculture and Forestry (coordination)
- The Prime Minister's Office, Ministry of Environment, Ministry of the Interior, Ministry of Education and Culture, Ministry of Economy and Employment, Ministry of Social Affairs and Health, Ministry of Foreign Affairs, Ministry of Defence
- **Research institutes:** Finnish Meteorological Institute; Finnish Environmental Institute and the Natural Resources Institutes
- **Regional actors:** Centre for Economic Development, Transport and the Environment; the Association of Finnish Local and Regional Authorities; HSY - the Helsinki Metropolitan Region
- **Other experts:** SPEK (expert organization in fire and rescue services), FF Finance Finland.

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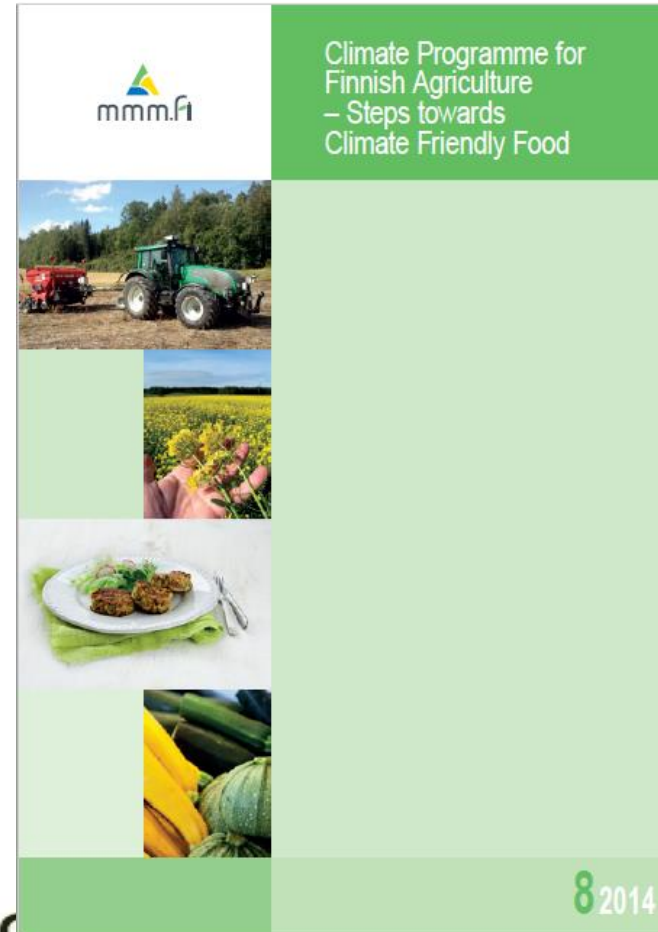
Finland's National Climate Change Adaptation Plan 2022

- Each ministry has the responsibility to promote adaptation in their administrative sectors.
- The implementation of adaptation actions/measures are integrated (mainstreamed) to everyday planning, developing and decision making of different sectors.
- Adaptation has been a part of the national energy and climate strategies (2005, 2008, 2013 and 2016).
- Assessment of The National Adaptation Plan for Climate Change 2022 now 2018



The NAP aims for adaptation incorporated into regular planning and activities of all sectors and actors - examples

- The Action Plan for the Adaptation to Climate Change of the Environmental Administration
- The action Plan for the Adaptation to Climate Change of the Ministry of Agriculture and Forestry
- The Climate Programme for Finnish Agriculture – Steps towards Climate Friendly Food
- The Climate Policy Programme for the Ministry of Transport and Communications
- Energy and Climate Programme of the Finnish Defence Forces - objectives and measures



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Adaptation and Climate Change Act

- The National Climate Change Adaptation Plan is part of the planning system for climate change policy under the Climate Change Act.
- The Government adopts the adaptation plan at least once every ten years. The plan contains a risk and vulnerability assessment and sector-specific action programmes for adaptation, as considered necessary.
- A report on the implementation, adequacy and effectiveness of the adaptation measures is to be submitted at least once in every electoral term as part of the climate change report.

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Agriculture and climate change

- Climate change is projected to improve crop productivity in Finland **if** the rise in temperature is moderate and **if** the adaptation measures are implemented in a timely manner.
- Longer thermal growing season, higher accumulated temperature sum and milder overwintering conditions → current main field crops might be cultivated further north and many novel crops might be introduced into cultivation.
- However, possible increases in the variability of climatic conditions within and between seasons, more frequent extreme weather events and increased risks for disease and pest outbreaks might cause more uncertainties for agricultural production.
→ All of these possible changes call for early and powerful adaptation measures to reduce risks induced by climate so that society can benefit from the opportunities.

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Agriculture and adaptation

- The recent adaptation measures include:
 - Risk profiles and emergency plans for various existing and emerging pests and diseases (Finnish Food Safety Authority Evira)
 - Monitoring and alarm systems to better cope with increased plant disease and pest risks (Natural Resources Institute Finland (Luke))
 - Finnish plant breeding has expanded the breeding strategies to cover novel crops that will most likely be introduced to diversify Finnish crop rotations in the future; improved disease resistance and resilience through plant breeding (Boreal Plant Breeding Ltd.)

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Agriculture and adaptation

- sustaining the soil structure and conditions
 - diversifying crop rotations and developing soil cultivation methods, favoring crops that provide soil cover for winters that are projected to get wetter;
- developing year-round water management systems to
 - increase nutrient use efficiency and reduce drought-induced yield variability, especially for environmentally vulnerable regions;
- in the energy sector to
 - improve and increase farms' energy self-sufficiency and security of supply

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Tools

- CAP: Rural Development Programme for Mainland Finland 2014-2020

- environmental compensation payments - about 86 per cent of farms in Finland
- promotes climate change mitigation and adaptation, decreasing nutrient load, preserving plant and animal biodiversity and the rural landscape, improving the productive capacity of agricultural land
- measures: environment management of grassland, riparian zones, perennial environment grasslands, nature management field grasslands, controlled subsurface drainage investments and management measures for them, biogas investments
- advisory services – Neuvo 2020

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Tools

- Research
 - a comprehensive range of methods that will enable the natural resources sector to adapt to climate change (State of Adaptation in Finland 2017)
 - changes in cultivated areas of crop species, introduction of novel crops for cultivation and changes in crop rotations at regional and national level (PeltoOptimi and OPAL-Life projects)
 - means to improve resilience to climate change and variation induced risks in agriculture (ILMAPUSKURI).
- Projects and Training
 - Climate-wise solutions for the countryside (VILMA)
 - Preparing for Climate Change in Agriculture (VILLE)
- Insurance
 - Crop insurance

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Thank you!

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