

# NATIONAL STRATEGY FOR ADAPTATION TO CLIMATE CHANGE

Climate change is expected to have a significant impact in Finland on the natural environment, the economy and society. The best way to minimise the impacts of climate change is to limit and reduce greenhouse gas emissions on the global scale as early as possible. However, current climate scenarios show no significant downturn in the current global warming trend for decades, in spite of efforts to mitigate climate change. This makes it essential to adapt to climate change. The main elements of Finland's National Strategy for Adaptation to Climate Change are also included in the National Energy and Climate Strategy, which was submitted to Parliament in 2005.

### Increasing Finland's capacity to adapt

The objective of the Adaptation Strategy is to reinforce and increase the capacity of society to adapt to climate change. Adaptation may involve minimising the adverse impacts of climate change, or taking advantage of its benefits.

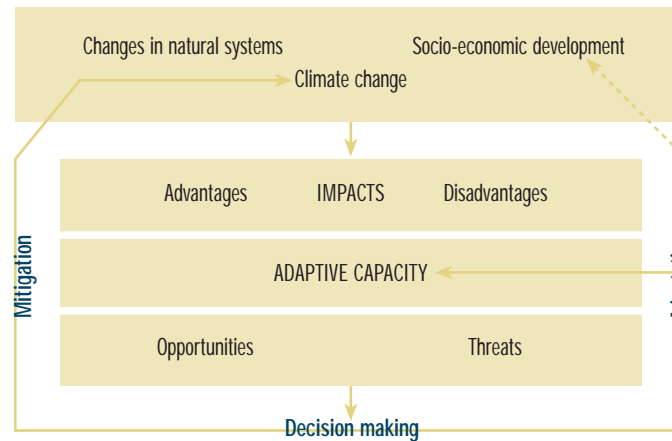
While the National Energy and Climate Strategy focuses on mitigation measures to be taken in the near future, the scope of the Adaptation Strategy extends as far as 2080. The Adaptation Strategy gives a detailed account of the expected impacts of climate change and presents adaptation measures to be taken in sectors including agriculture and food production, forestry, fisheries, reindeer husbandry, game management, water resources, biodiversity, industry, energy, transport and communication, land use and planning, building, health, tourism and recreation, and insurance.

Priorities identified for increasing adaptation capacities for the next 5 to ten years include: (i) mainstreaming climate change impacts and adaptation into sectoral policies; (ii) targeting long-term investments; (iii) coping with extreme weather events; (iv) improving monitoring systems; (v) strengthening research and development; and (vi) international cooperation.

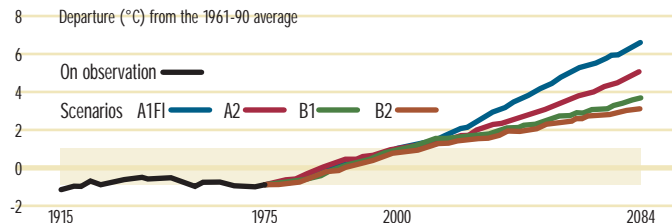
### Broad participation

The need to draft a programme for adaptation to climate change was identified in Parliamentary responses to the National Climate Strategy submitted to Parliament in March 2001. Work on the National Strategy for Adaptation to Climate Change began towards the end of 2003, and was coordinated by the Ministry of Agriculture and Forestry, with contributions from various ministries and expert organisations. Several top Finnish researchers in the field of climate change and its impacts were involved in this work together with other experts and representatives from various sectors. The draft strategy was circulated widely for comment, and Finnish stakeholders and citizens were able to contribute through the Internet. The Adaptation Strategy is based on a set of scenarios for future climatic and economic conditions in Finland.

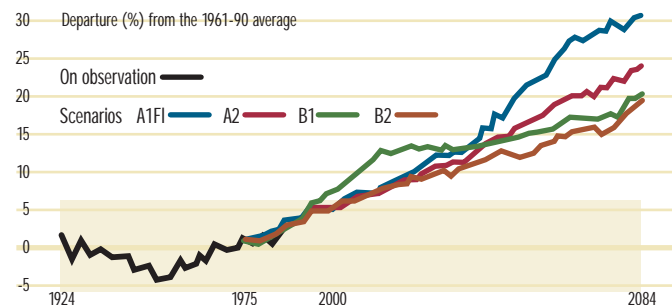
### FRAMEWORK FOR THE ADAPTATION STRATEGY



### MEAN TEMPERATURE IN FINLAND



### MEAN PRECIPITATION IN FINLAND



The graphs show observed and predicted changes in mean temperature (above) and precipitation (below). The predictions are based on four different climate scenarios. The highlighted area represents the range of natural variations. Source: Jylhä, K., Tuomenvirta, H. & Ruosteenoja, K., 2004: Climate change projections for Finland during the 21st century. Boreal Environment Research 9; p. 127-152.

### Climate change in Finland

The Earth's average temperature is expected to rise by between 1.4 and 5.8°C from 1990 until 2100, with average temperatures in Finland increasing by at least the same rate. Ice cover in the Arctic Ocean is expected to decrease considerably during this century. This will have a tremendous impact on ecosystems, seafaring and the utilisation of natural resources. Decreases in the extents of continental glaciers and snow cover in the northern hemisphere are also expected to accelerate.

The global hydrological cycle will meanwhile become more pronounced, and average precipitation should increase. However, there will be considerable variations in the magnitude of these changes between different regions. In Finland, precipitation totals are expected to increase, especially in winter.

From the point of view of the Finnish economy and society, extreme weather phenomena pose a more serious problem than gradual climatic change. Phenomena such as very warm or very cold periods, floods and storms, may be expected to increase in frequency and magnitude.

MORE: [www.mmm.fi/sopeutumisstrategia](http://www.mmm.fi/sopeutumisstrategia).