



<http://www.syke.fi/en>

# Finnish Environment Institute (SYKE)

## WHO WE ARE

The Finnish Environment Institute (SYKE) is the only governmental research and development institute of the Finnish Ministry of Environment. SYKE's research assesses environmental problems from a multi-disciplinary perspective, by integrating socio-economic considerations into biophysical research. Research focuses both on global environmental issues, such as climate change and declining biodiversity, as well as on regional and local issues. SYKE also provides expert assistance on a wide range of environmental issues for administrators, local authorities, industries, firms and other organisations. SYKE closely monitors environmental trends and the state of the Finnish environment in co-operation with the regional environmental administration, serving as the national centre for environmental data in Finland. These data are widely used for environmental monitoring, modelling, forecasting and impact analysis. The research team are all members of SYKE's Climate Change Research Programme, which undertakes research and assessment in support of Finnish climate policy.

## WHAT OUR EXPERIENCE IS

### Research:

- Co-ordination of FINADAPT, a national multi-sectoral project, which contributed to the National Climate Change Adaptation Strategy in 2005, the first in the world
- Co-ordination of A-LA-CARTE, an ongoing project focusing on limits to adaptation and methods of enhancing resilience for agrifood systems and biodiversity in Finland
- Climate change vulnerability assessment, mapping and demographic modelling – Finnish focus (health and recreation sectors) and Nordic region (health, and agriculture)
- Involved in the international group developing the RCP/SSP scenario framework (ICONICS)

### Assessment:

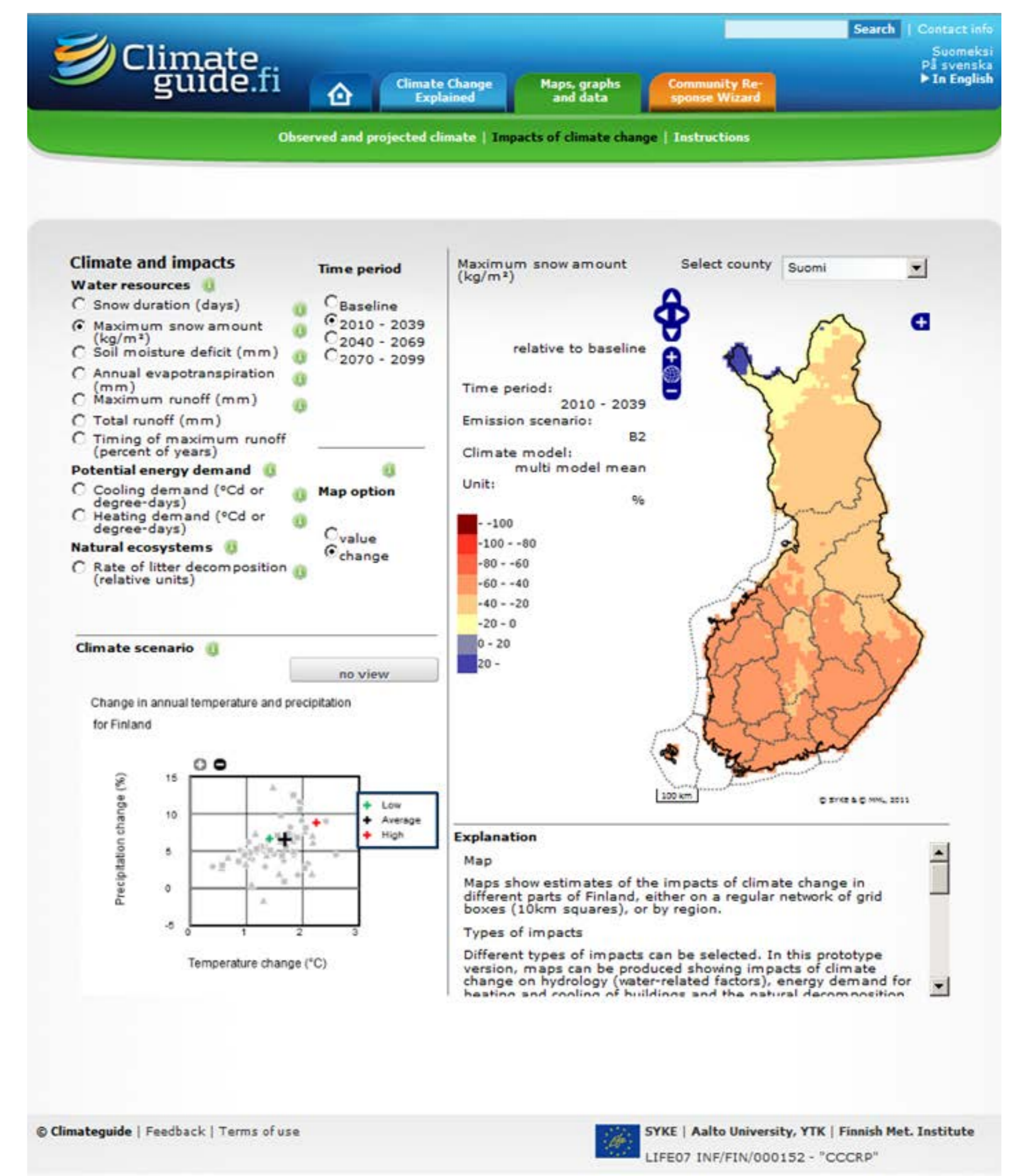
- Contribution to the IPCC through Lead Authorship, review, and support for the Finnish government review process and dissemination activities for Working Group II
- Part of the European Topic Centre on climate change impacts, vulnerability and adaptation
- Contributed to the PROVIA Guidance on Assessing Vulnerability, Impacts and Adaptation

### Networking and Dissemination:

- One of three partners responsible for a national climate change portal: Climateguide.fi
- Co-organised the 2012 2nd Nordic International Conference on Climate Change Adaptation

## WHAT WE DO IN IMPRESSIONS

- Co-leader: WP3 on Advancing Climate Change Impact, Adaptation and Vulnerability methods and models
- Leader: Global case study
- Responsible for devising protocols for the development of impact response surfaces (IRs) at different scales and combining them with probabilistic projections of climate and socio-economic drivers (WP3)
- Contribute to the design of climate projections and specification of RCP/SSP scenarios framework at global and continental scales (WP2)
- Probabilistic analysis of demographic projections (WP2 and WP3)
- Contribute to all other Work Packages (WP1, 4, 5, 6 and 7)



Screen shot of an impacts map on the Finnish Climate Change web portal: Climateguide.fi

## WE ARE ALSO INVOLVED IN

- Related *past/ongoing* European Commission projects: **ALARM, ATEAM, BASE, CIRCLE, CLIP-C, ENSEMBLES, MEDIATION, PRUDENCE**
- European Joint Programming Initiative: **MACSUR**
- Nordic projects: **CARAVAN, PALSALARM**
- National projects: **A-LA-CARTE, FINADAPT, FINSKEN, MAVERIC**

### Timothy Carter



- Research Professor, based at SYKE since 1999
- Training: Geography
- Over 30 years experience of climate change research in UK, Austria and Finland
- IPCC: Lead Author in five Assessments; Co-chair of Task Group on scenarios
- Research interests include: climate change impacts, scenario analysis and assessment methods
- 3 books; over 110 refereed articles and reports

### Stefan Fronzek



- Senior Researcher, based at SYKE since 2001
- Training: Systems Science and Environmental Science
- PhD thesis: *Climate change and the future distribution of palsa mires* (University of Helsinki, 2013)
- Experience: Research in Finland, Germany and UK
- Research interests include: scenario development, permafrost, impacts and adaptation modelling, GIS
- Over 30 refereed articles and reports

### Nina Pirrtioja



- Researcher, based at SYKE since 2009
- Training: Geography and Information Technology
- PhD student in the Faculty of Agriculture and Forestry, University of Helsinki
- Research interests include: climate change impact modelling, uncertainty analysis, grid-based mapping.

### Emma Terämä



- Senior Researcher at SYKE and Visiting Researcher at University College London
- Training: Physics, Chemistry and Biology
- DSc from Helsinki University of Technology (2007)
- Experience: Research in Finland, Austria, Germany, Netherlands, UK and USA
- Research interests include: population-environment interactions and policy impact, demographic modelling, socio-economic scenario analysis