

Metsä

Tieto

Osaaminen

METLA

Hyvinvointi

Spatiaalinen tieto www-kartoille – metsäekosysteemien tuhoalittiuden ja ilmastonmuutosvaikutuksien esitys netissä (Climforisk EU Life+ -hanke)

Jukka Pöntinen, Sanna Härkönen,
Petteri Muukkonen, Mikko Peltoniemi

Climforisk

- Climforisk EU Life+ project investigates climate effects on forests

Climforisk

- Climforisk merges several forest related data sources and ecosystem models to predict carbon and water balances of forests, and vulnerabilities of forests to drought, pest and pathogen damages. Project will derive maps and indicators of results that support the decisions of officials and forest managers, and disseminate them to public through Internet.

Climforisk

- Climforisk (2011-2014) is a joint project between Finnish Forest Research Institute (coord.) and Department of Forest Science, University of Helsinki.

Climforisk web tool

The screenshot shows a web browser window with the URL www.metla.fi/life/climforisk/beta/maps/beta2/. The page title is "Climforisk webtool". On the left, there is a sidebar with two main sections: "Current status of forests" and "Future development of forests". Under "Current status of forests", the options are Carbon balance, Water balance, and Insect damages. Under "Future development of forests", the options are Gross primary production of carbon (GPP), Evapotranspiration (ET), Soil water content (SW), Net ecosystem exchange (NEE), and Damage risk. Below these is a "Links" section. The main content area starts with a welcome message: "Welcome to use Climforisk web tool. You can examine effects of climate change on forests in Finland. Select the variables in the list on the left-hand-side and start the analysis". It then describes the development of environmental variables: "Development of different environmental variables, such as forest carbon balance, soil water content, evapotranspiration and drought are included in the visualisations. Maps show also current status of forests in Finland". It also mentions CO2 emissions: "The forest development is presented in the following CO2 emission scenarios". A list follows: "Low increase in CO2 emissions (B1)", "Moderate increase in CO2 emissions (A1B)", and "High increase in CO2 emissions (A2)". At the bottom, it says "The predictions are based on the latest climate change studies conducted by the Helsinki University of Technology (HUT) in the Climforisk project (<http://www.metla.fi/life/climforisk/>)". The browser's download bar at the bottom shows a file named "20110221hricas....pdf" and a link to "Show all downloads...".

Climforisk web tool

Current status of forests

- Carbon balance
- Water balance
- Insect damages

Future development of forests

- Gross primary production of carbon (GPP)
- Evapotranspiration (ET)
- Soil water content (SW)
- Net ecosystem exchange (NEE)
- Damage risk

Links

Climforisk webtool

Welcome to use Climforisk web tool. You can examine effects of climate change on forests in Finland. Select the variables in the list on the left-hand-side and start the analysis.

Development of different environmental variables, such as forest carbon balance, soil water content, evapotranspiration and drought are included in the visualisations. Maps show also current status of forests in Finland.

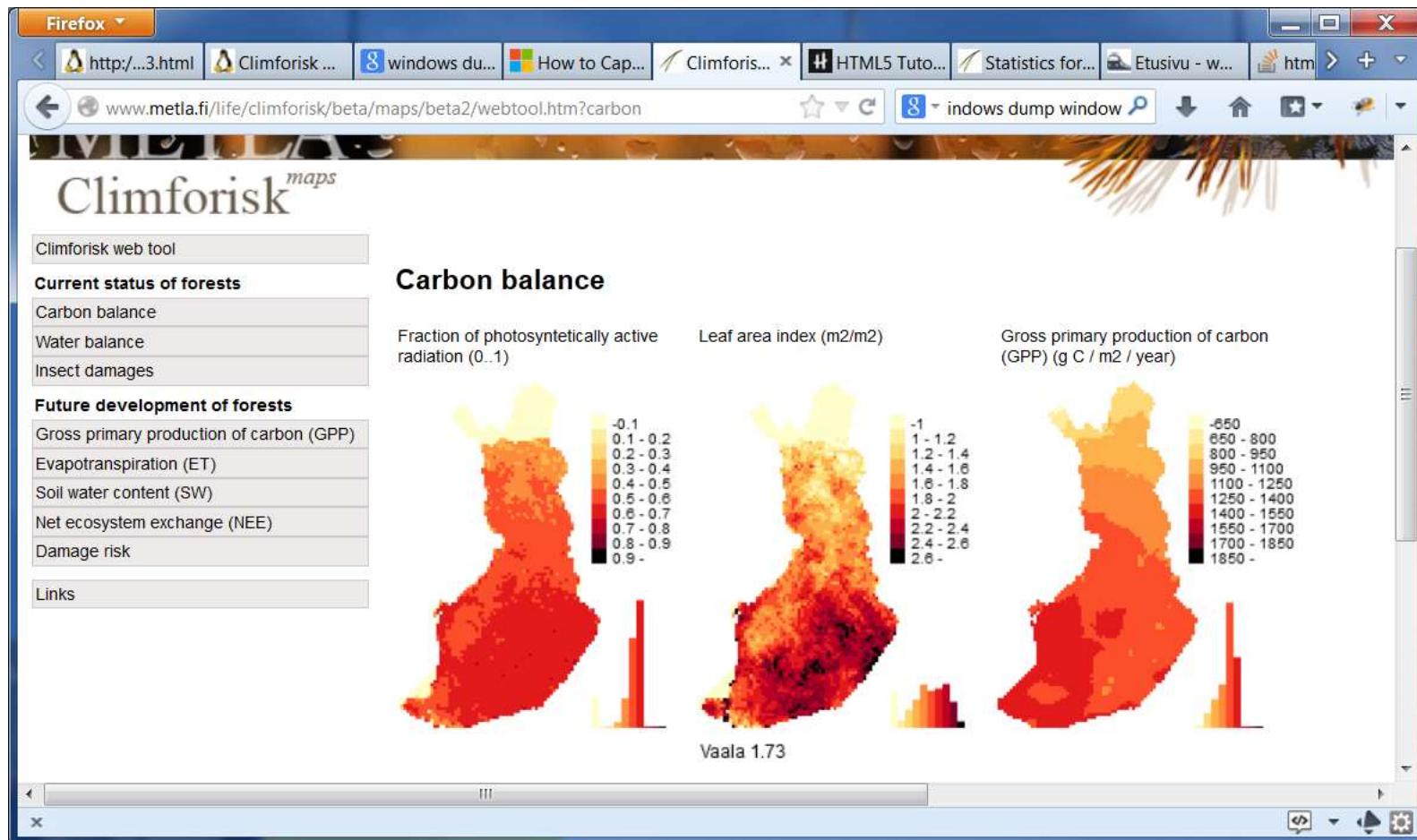
The forest development is presented in the following CO2 emission scenarios:

- Low increase in CO2 emissions (B1)
- Moderate increase in CO2 emissions (A1B)
- High increase in CO2 emissions (A2)

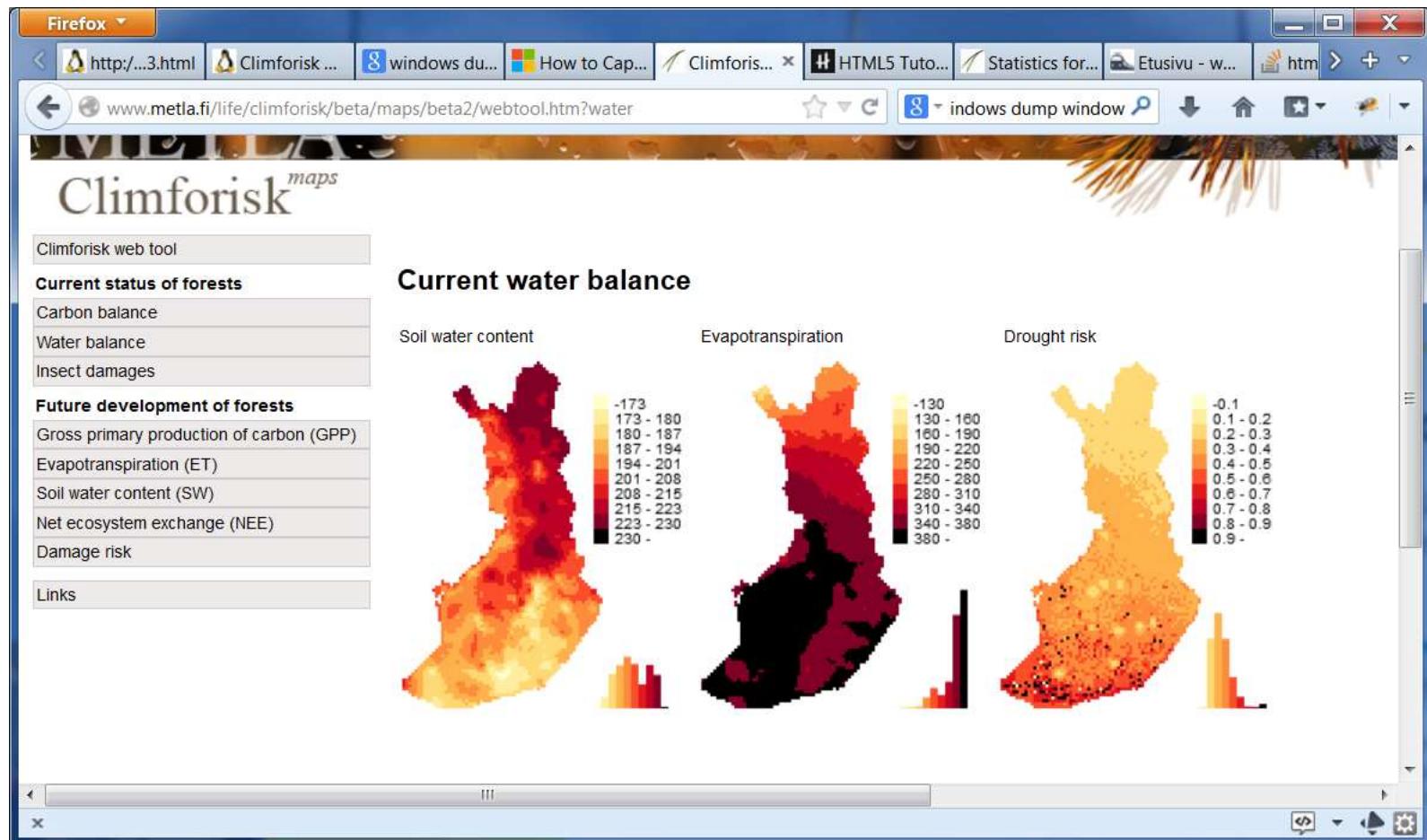
The predictions are based on the latest climate change studies conducted by the Helsinki University of Technology (HUT) in the Climforisk project (<http://www.metla.fi/life/climforisk/>)

20110221hricas....pdf Show all downloads... x

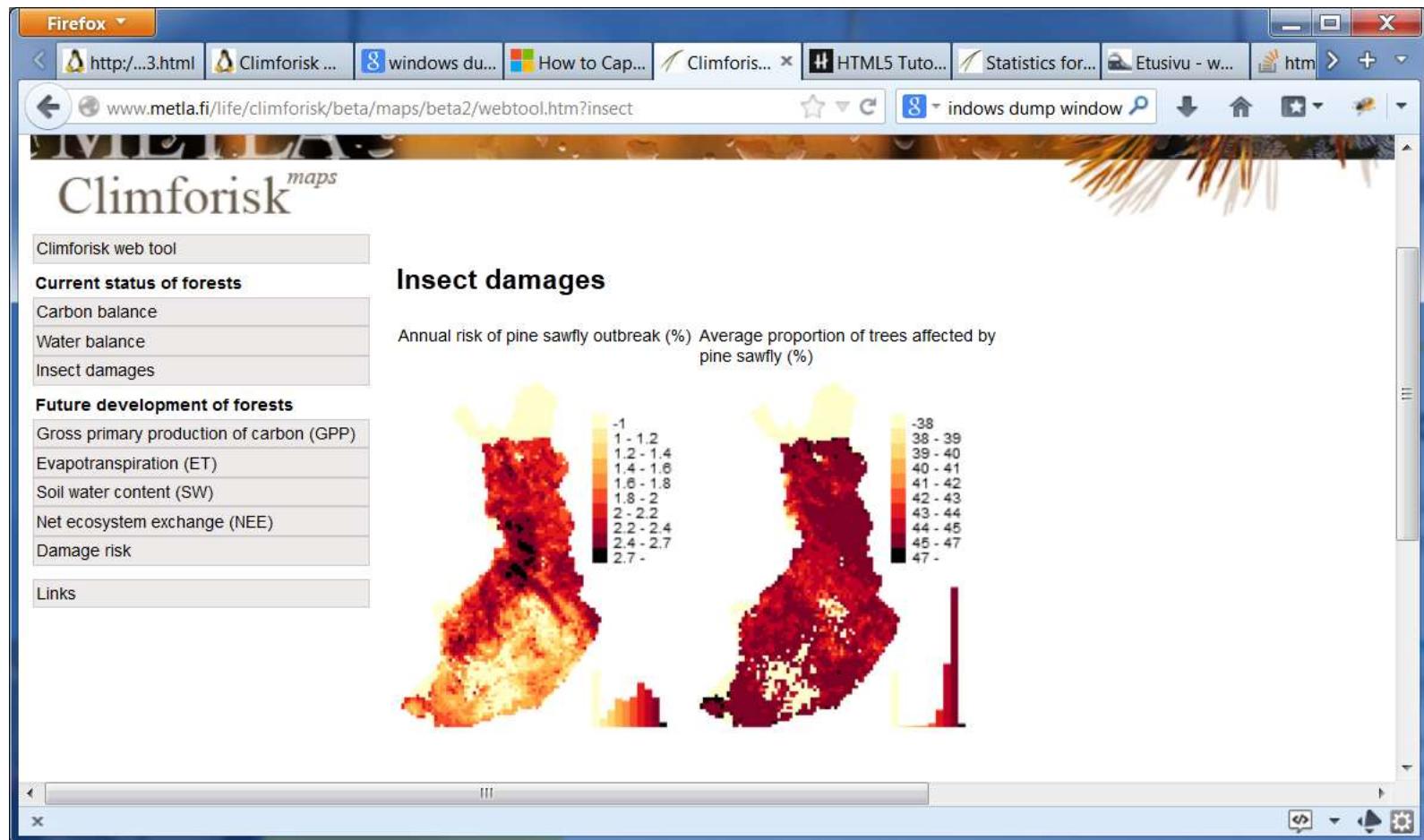
Current status of forests, 1



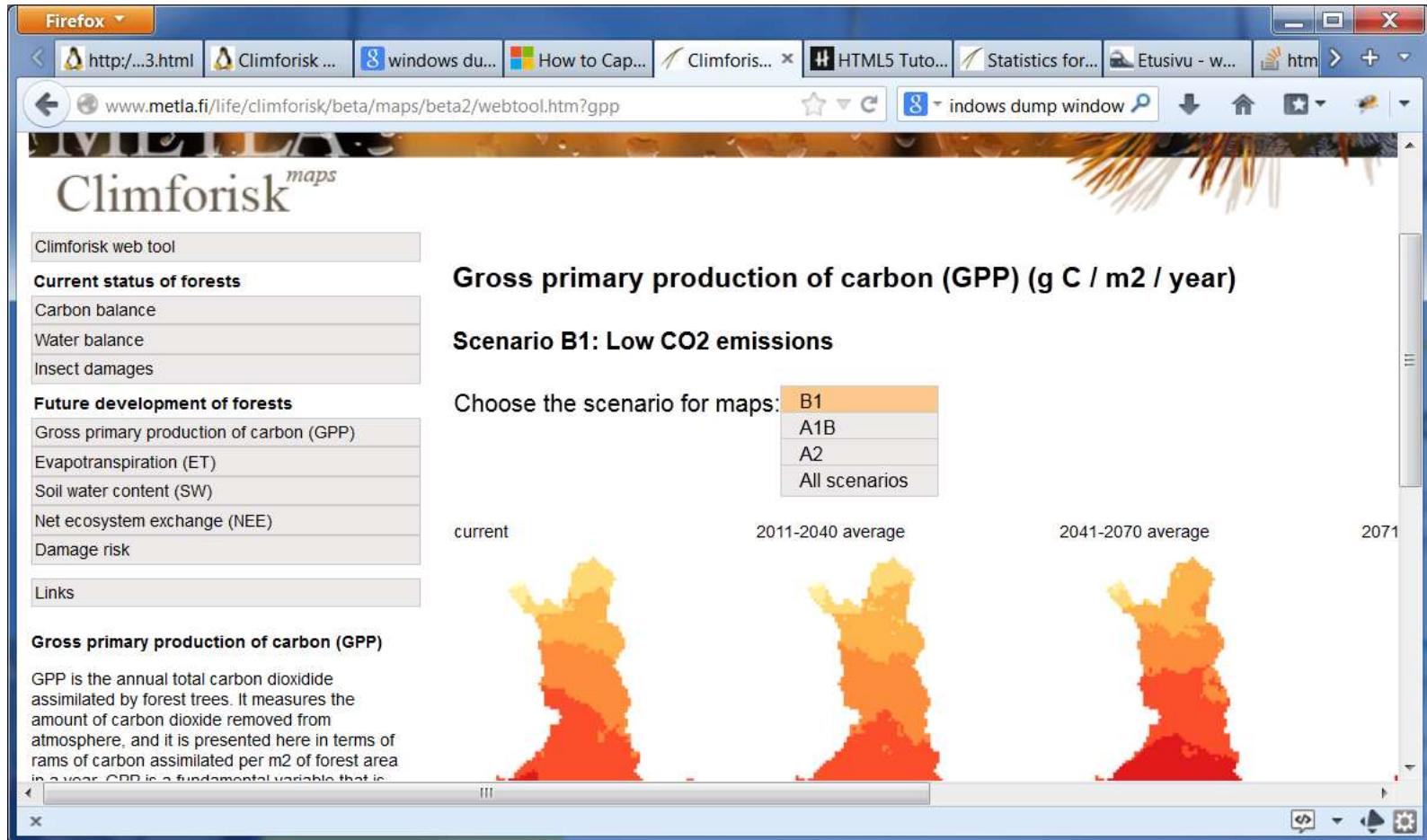
Current status of forests, 2



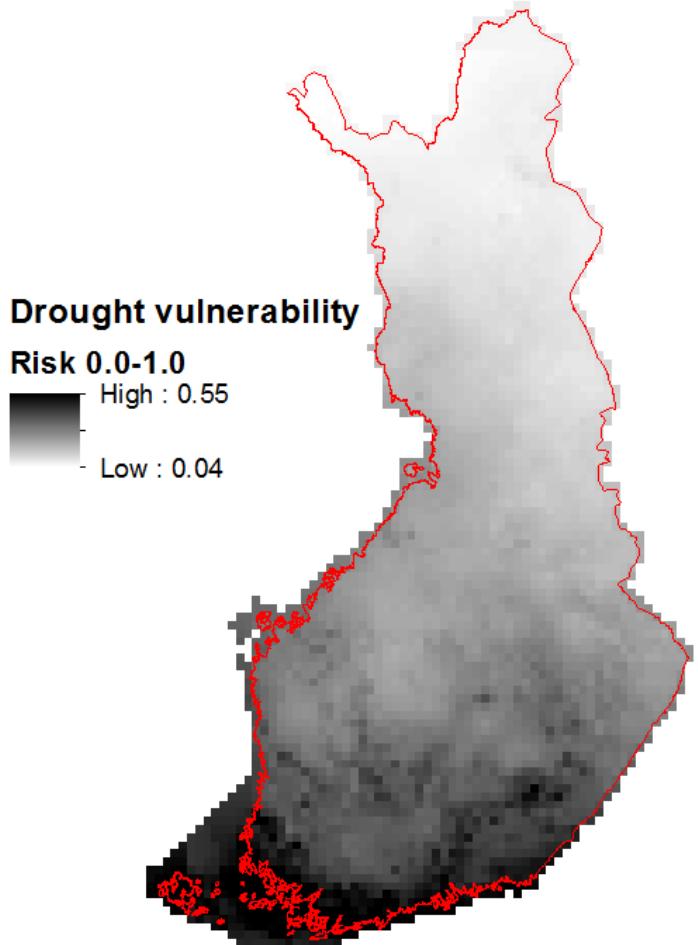
Current status of forests, 3



Future development of forests

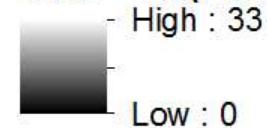


Drought risk



Topographic Wetness Index (TWI)

$$\text{TWI} = \ln(\text{Area} / \tan(\text{Slope}))$$



Demoversio

- Dataa puuttuu muutamien otsikoiden takaa
- Tilaa esittää vaikeita asioita ymmärrettävästi mutta tiiviisti on vähän. Viilaus kestää...
- Osoite:
 - <http://www.metla.fi/life/climforisk/beta/maps/beta/>

Further plans

- Develop further presentations of uncertainty
- Addition of graphs, animations?
- Differences between various models as error bars
- Pest vulnerability maps, forecasts
 - Near future section



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Kiitos