

# Effects of Climate Change on forest and the need for adaption in forestry

## Swedish Forest Agency's Climate Policy

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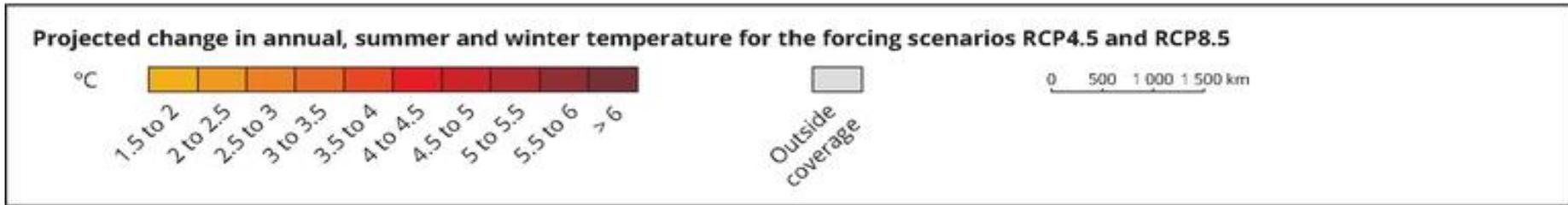
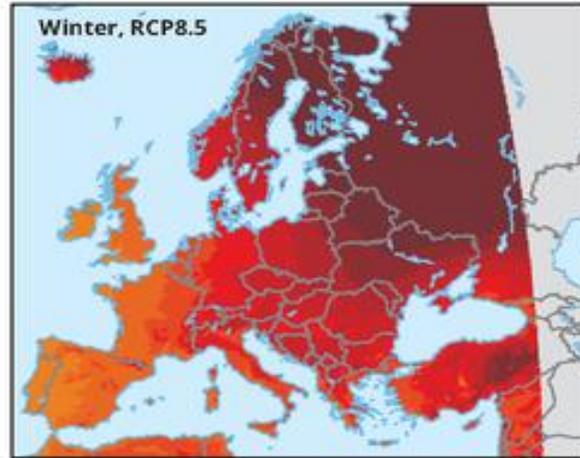
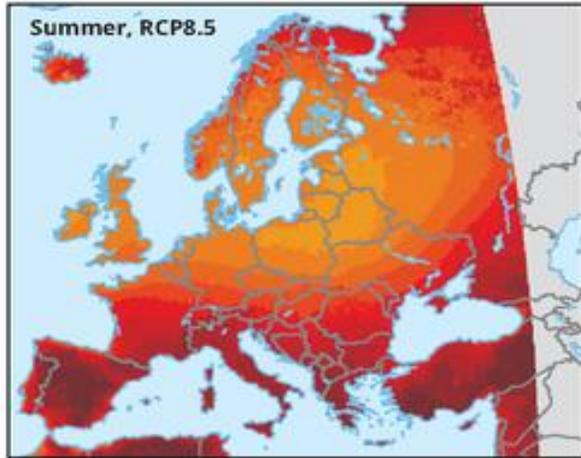
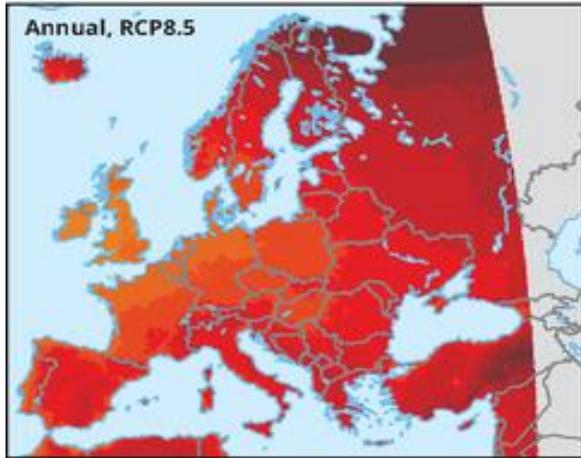
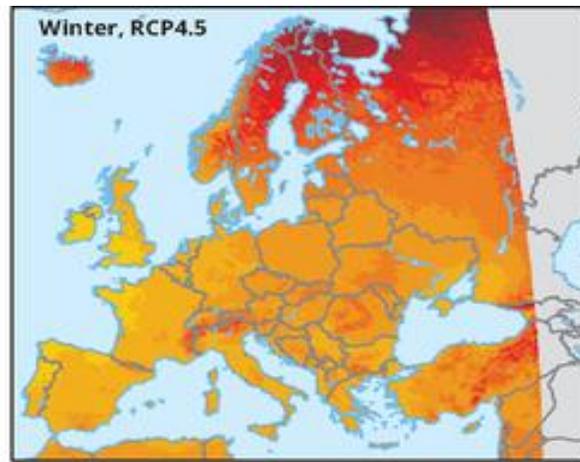
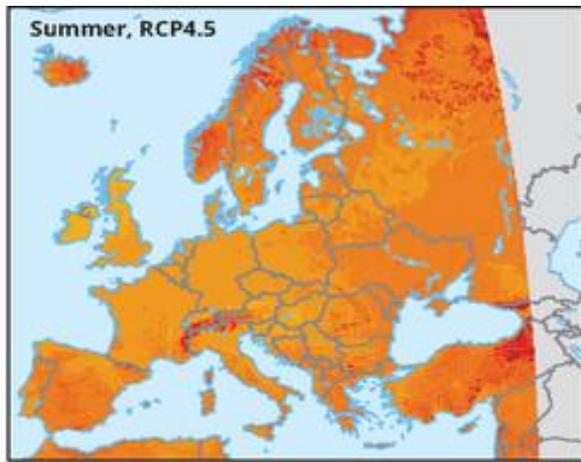
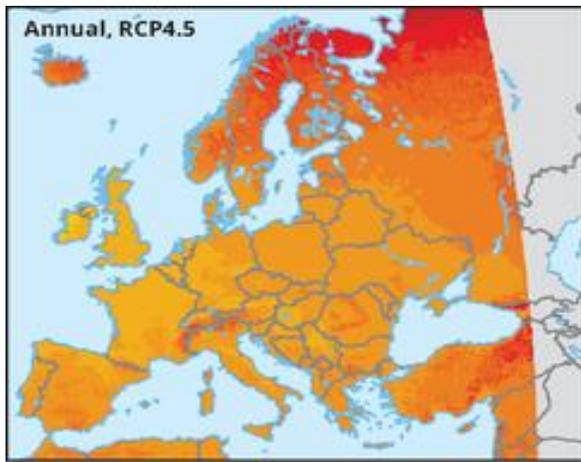
## Effects of Climate Change on forest and the need of adaption in forestry

The state-of-the-art report **Effects of Climate Change on forest and the need of adaption in forestry** has been recently updated with recent research and analysis.

For Sweden, a global warming of two degrees will likely mean:

- annual average temperature increases by about three degrees - more in the north than in the south and more in winter than in summer,
- growth season will be 1-2 months longer,
- The precipitation increases by 15-20 percent to the next turn of the century
- winds are most likely affected only marginally, however with a slight increase in the south,

as compared to “normal climate” (1960-90).



# Climate change impact on forests

The following consequences for the forest are particularly serious and should be managed and prevented by forest managers:

- The risk of storm felling increases as a result of less frozen ground and higher water table during the winter months.
- The risk of damage by forest pest insects and pathogens may increase as a result of windfalls, increased temperature and dryer summers. New species may arrive (and has already done so).
- When the growth period begins earlier, the risk of spring frost damage increases. In northern Sweden it is likely to be more common with snow damages on tree tops while the risk of forest fires increases in the south and east.
- With warmer and shorter winters, the challenge of conducting forest transportation without damaging soil and water increases. The risk of severe erosion increases.

# Adaptations of forestry

Forest management needs to be adapted to reduce the risk of damage and increase the resilience of forests in a changing climate.

Further measures are needed to increase forest production and growth for sustainable and varied forestry.

Forest biomass delivery and other forest ecosystem services support the development towards a sustainable society and a circular and biobased economy.

# Adaptations of forestry

The water regulating capacity of forests and wetlands should be considered.

Climate change's adverse effects on the reindeer herding reinforce the need for forestry considerations regarding access to coherent grazing areas and accessibility.

# Application of the policy

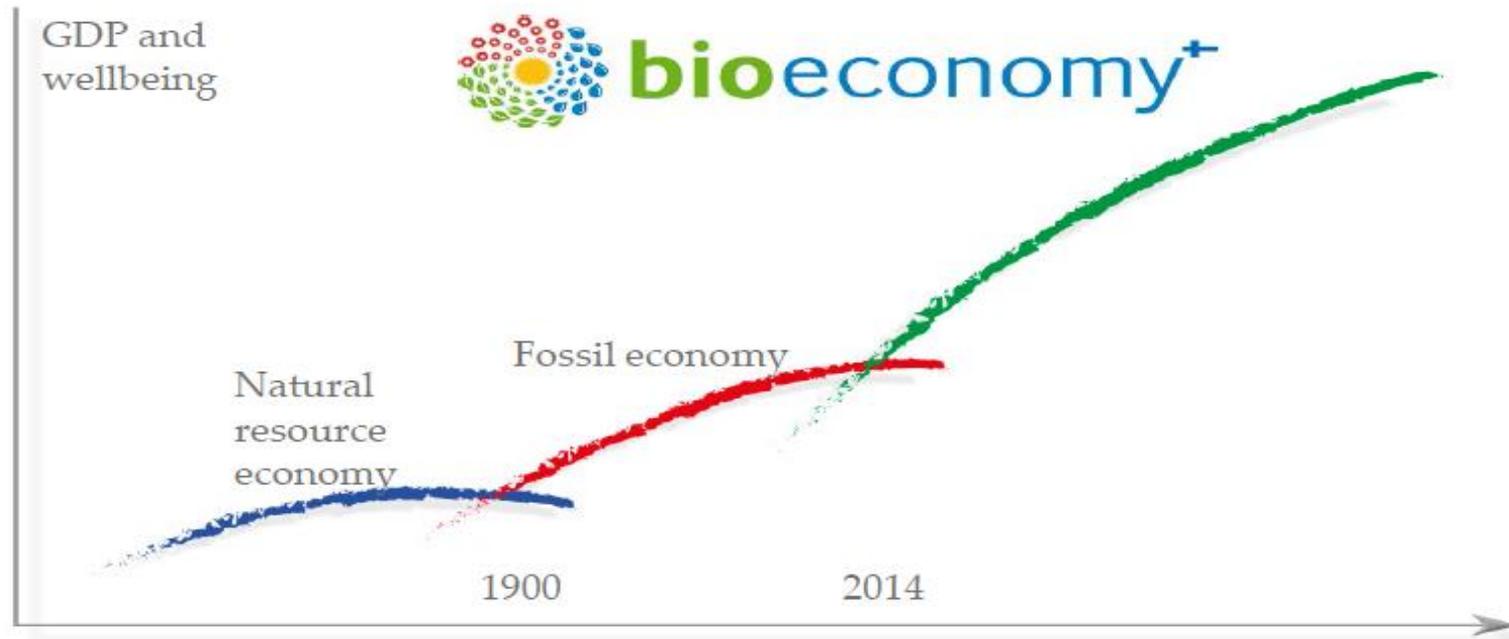
**The Swedish Forest Agency's work on climate issues in the forest is aimed primarily at:**

- Raising awareness and knowledge of the public, especially the forest sector, about the importance of forests on climate issues and how forests are affected by climate change.
- Working for the development of geo-databased knowledge and decision making on forests and climate work.
- Promoting the use of forests to counteract climate change, and that this is well balanced against other environmental objectives and ecosystem services.
- Ensuring that forestry is increasingly adapted to climate change.

Climate change adaption will be essential to optimize the forestry contribution to emission reductions and the development of an Bioeconomy.



## Bioeconomy: The next wave of economy; renaissance of the natural resource economy (saving the mankind)



Thank you for your attention!