

# Climate change and European forests

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A recent study in the *Journal of Environmental Management* carried out by researchers at the European Forest Institute and their partners in the FP7 funded MOTIVE project (Models for Adaptive Forest Management) discusses how forest managers and decision makers can cope with climate uncertainties. The authors review general trends in climate, with particular emphasis on biologically meaningful parameters such as continuous dry days and changes in climate extremes and forest disturbance patterns. They also compare observed changes with those predicted by climate change studies and examine the reasons for discrepancies where they exist. The sources of uncertainty along a 'cascade of uncertainty' are also discussed.

Research on the changing climate and impacts on forest ecosystems has already been carried out for over two decades. However, there is still a knowledge and communication gap as to how the various [climate change](#) scenarios can be interpreted, and what they really mean for European forests. Many uncertainties and unknowns remain and it is difficult to communicate these to non-scientists while retaining emphasis on the importance of planning for adaptation.

A recent study in the *Journal of Environmental Management* carried out by researchers at the European Forest Institute and their partners in the FP7 funded MOTIVE project (Models for Adaptive Forest Management) examines these issues and discusses how [forest managers](#) and decision makers can cope with climate uncertainties. The authors review general trends in climate, with particular emphasis on biologically meaningful parameters such as continuous dry days and changes in

climate extremes and forest disturbance patterns. They also compare observed changes with those predicted by climate change studies and examine the reasons for discrepancies where they exist. The sources of uncertainty along a 'cascade of uncertainty' are also discussed.

Marcus Lindner, the lead author of the study, points out that forest [decision makers](#) are no strangers to evaluating alternatives in the long term and making decisions for decades in advance. Climate change adds another dimension to this decision making, and the uncertainties can be difficult to cope with, however, with the best science based information these decisions can be assisted. The study recommends that forest managers look for strategies that enhance [forest](#) ecosystem resilience and increase flexibility to make future management changes as required by realized climate change trends.

**More information:** "Climate change and European forests: What do we know, what are the uncertainties, and what are the implications for forest management?", Marcus Lindnera, Joanne B. Fitzgeralda, Niklaus E. Zimmermannb, Christopher Reyer, Sylvain Delzone, Ernst van der Maateng, Mart-Jan Schelhaasi, Petra Laschc, Jeannette Eggersa, Marieke van der Maaten-Theunisseng, Felicitas Suckowc, Achilleas Psomasb, Benjamin Poulterb, Marc Hanewinkelb, *Journal of Environmental Management*, Volume 146, 15 December 2014, Pages 69–83 [DOI: 10.1016/j.jenvman.2014.07.030](#)

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