
Adaptive Challenges for European Forests

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Abstract

Even if greenhouse gas emissions are stabilised in the near future the climate will change and adaptation will be necessary. In Europe, the forest resource which covers 38% of total land area in EU-28 countries must form part of any adaptation strategy. Forests not only provide wood products but also a range of ecosystem goods and services such as water catchment protection, biodiversity, carbon sequestration, erosion protection, recreation and tourism. Climate change impacts on forests are already noticeable with increases in productivity in some areas, and increased mortality or changes in species distributions at other locations. Natural disturbance regimes are also changing with significant implications for forest dynamics. Despite a significant body of research, a knowledge and communication gap exists as to how climate change impact scenarios can be interpreted and what they imply for European forests. It is a challenge to advise forest decision makers on how best to plan for climate change as many uncertainties and unknowns remain and it is difficult to communicate these, while retaining emphasis on the importance of planning for adaptation now. Even if many adverse impacts are expected to happen later this century, the long lifespan of trees necessitates that adaptation in management is not further delayed.

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