



<b>Title</b>	<b>Acronym</b>	<b>Topic</b>	<b>Starting Date</b>	<b>Coordinator</b>
Forests and extreme weather events: Solutions for risk resilient management in a changing climate	FOREXCLIM	Risk resilient forest management - Adapting forest management regimes which incorporate risk assessment related to potential climate change impacts to inform policy decisions.	1/03/2017	Technical University of Munich (Germany): Anja Rammig; Anja.Rammig@tum.de

<b>Project Partner</b>
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#### Project Abstract:

Climate change and in particular extreme weather events require the development of risk-resilient forest management strategies across Europe. In the proposed project, we investigate the interactions between extreme weather (heat waves, drought, storm), subsequent forest susceptibility to fire and pathogens, market developments, forest management and related uncertainties to determine on how current forest management strategies should be adapted to sustain risk-resilient multifunctional forest landscapes. In close collaboration with stakeholders, we develop a model-based strategy for identifying and operationalizing risk resilient forest management regimes. We evaluate the risk of extreme events-induced forest damage and impacts on forest ecosystem services (ES) for the most important European tree species/stand types. We derive alternative climate change-robust management strategies by means of advanced coupled modelling approaches.

The core of our methodological approach is a process-based forest ecosystem model coupled with a multi-objective, risk-sensitive optimization for robust forest functioning and ES provisioning. The goal is to derive the optimal forest management under changing climate and timber markets. For model evaluation, we mainly rely on data from national forest inventories. Our assessment will provide optimal silvicultural management regimes for integrated management of forests, i.e. fulfilling multiple ES provision goals. These results will serve as a basis for the development of guidelines for alternative, adapted management strategies at a local and regional scale. Based on modelling results, relevant policy areas will be identified. Through strong stakeholder involvement in all stages from co-designing of the methodological approach to discussion of findings, the project will enhance the science-policy-practice interface.