

ALTERNATIVE MODELS AND ROBUST DECISION-MAKING FOR FUTURE FOREST MANAGEMENT

The ALTERFOR project in Ireland focused on assessing future impacts of climate change and dynamic timber prices on western peatland forests, and on developing adaptive, alternative forest management models for these forests. The case study area (CSA), located in country Galway, is dominated by Sitka spruce (*Picea sitchensis* (Bong.) Carr.) plantations on blanket peat. The forest is mainly owned by Coillte (the Irish state forestry board) and is surrounded by land with protected status. These designations restrict the use of fertiliser, resulting in lodgepole pine (*Pinus contorta* Douglas) now being the only option for reforestation of blanket peats. Climate change will impact the growth of most commercially valuable species negatively, but it will increase lodgepole pine growth on peatlands. The impact of higher wood prices, resulting from an expanding bioeconomy to limit climate change, will make low-productivity sites marginally profitable, leading to intensified forest management. Stakeholders consulted in the CSA are Coillte, the Forest Service, private forest owners, ECC sawmill, National Parks and Wildlife Services, the Environmental Protection Agency, local angling clubs, Irish Peatland Conservation Council, and Teagasc (the state agency for research and advisory for agriculture and forestry). The new management models were developed with Coillte after stakeholder consultations and focus on planting lower densities of lodgepole pine. Some lower densities will facilitate biomass production on marginal sites and even lower densities will establish semi-open open forests on poor sites, allowing native species to regenerate naturally. Reducing stockings result in more profitable forestry and less adverse impacts on water quality as harvesting intensity is reduced. The project has facilitated discussion between stakeholders about what the future western peatland forest landscape may look like, what their preferences are, and what is feasible with regards to forest policy, economics and the biophysical site conditions.

IRELAND



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