Management for Multifunctionality in European Forests in the Era of Bioeconomy / MultiForest

A large set of European and national sector policies guide forest use, often with competing objectives and management paradigms. However, sectoral policy implementation is often not coordinated, and the impacts are not monitored across the policies and the scales (EU, national). The inconsistency between policies may negatively impact the sustainability and multifunctionality of forests. By combining environmental modelling and policy research, this project will provide novel insights to forest land-use planning. Aim is to envision new policies and management practices that account better for the potential trade-offs between national- and EU-policies and their quantitative impacts on multiple forest ecosystem services.

Policy research was one of the central milestones within the first twelve months of this project. The MultiForest consortium organised a round of stakeholder workshops focusing on the role of different forest policies and how they affect forest ecosystem services (FES) and forest management practices in Finland, Germany, Norway and Sweden. In total, 26 forest specialists with diverse backgrounds were involved. Each of the workshops focused on the national biodiversity, bioeconomy and forest policies and questioned what forest policy goals they define, and what management is recommended for their fulfilment, as well as what policy instruments support the transfer into real forest management.

The workshops showed that national policies in the four counties follow similar logics in policy goal settings. The *national forest strategies* are aligned with the forest acts and aim to balance between different FES but are designed from the perspective of ensuring continuous provisioning of the forest material to the markets. The *national biodiversity strategies* are designed as safeguards and are aligned with the EU level biodiversity goals. The policy goals are often ambitious but lack strong support in the implementation. The *national bioeconomy strategies* approach forests from the perspective of developing markets and are more related

to the added value of the forest products and potentials to replace fossil-based products on the markets. An overall conclusion of the workshops is that currently these policy targets are not well coordinated, and they create imbalances for the implementation and incoherence in the policy mix.

The stakeholder discussions revealed particularly a need for climate smart forest management practices that increase forest resilience against future uncertainties, integrative silvicultural approaches that promote several FES simultaneously and ultra-intensified bioeconomy regimes that cover the expected increase in wood demand.

The results of first two workshop objectives are right now implemented in the currently ongoing environmental modelling task (forest simulation under different management and climate aspects), as well as the drafting of the policy scenarios (Figure 1). Those results establish the main basis for the second year of the MultiForest project, were we will optimize management for policy scenarios. The implications for future policy instrument mixes are an open question that will be tackled later in the project, when impact pathways are designed to increase the coherence between different sectoral policies.

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