



Forest management transitions in Europe

IMPORTANCE OF LOCAL CONTEXT FOR POLICY
AND PAYMENT FOR ECOSYSTEM SERVICES

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CLIMB-FOREST

European forests are expected to deliver a wide range of forest ecosystem services (FES), including provisioning services such as:



timber and non-timber forest products



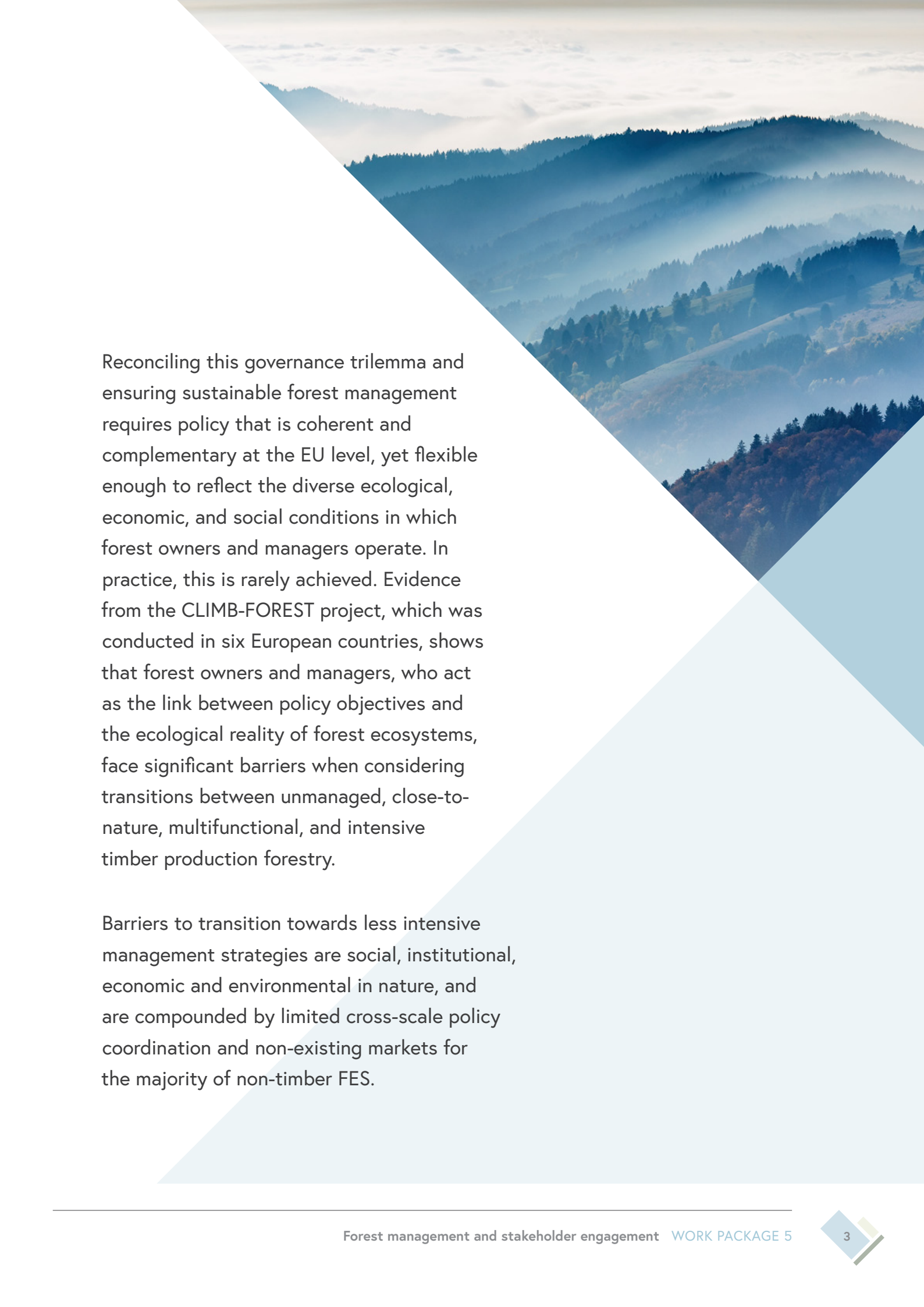
regulating and maintenance services such as carbon sequestration and hazard mitigation



cultural services including recreation and public access

The types of ecosystem services that a forest provides are strongly influenced by how it is managed.

Intensively managed forests, for instance, deliver high timber yields but can reduce biodiversity and hazard protection, demonstrating the trade-offs inherent to forest management intensity. Securing the full range of FES often depends on transitioning to less intensive management. However, striking the right balance between management pathways is not straightforward: policymakers must consider increasing wood demand for the bioeconomy, enhancing forest carbon storage for climate mitigation and safeguarding biodiversity alongside other FES.



Reconciling this governance trilemma and ensuring sustainable forest management requires policy that is coherent and complementary at the EU level, yet flexible enough to reflect the diverse ecological, economic, and social conditions in which forest owners and managers operate. In practice, this is rarely achieved. Evidence from the CLIMB-FOREST project, which was conducted in six European countries, shows that forest owners and managers, who act as the link between policy objectives and the ecological reality of forest ecosystems, face significant barriers when considering transitions between unmanaged, close-to-nature, multifunctional, and intensive timber production forestry.

Barriers to transition towards less intensive management strategies are social, institutional, economic and environmental in nature, and are compounded by limited cross-scale policy coordination and non-existing markets for the majority of non-timber FES.

One approach to overcoming the barriers to adopting less intensive management strategies is to implement Payment for Ecosystem Services (PES) schemes.

Focusing on three case study regions - Flanders (Belgium), Norway, and Spain - the findings show that the feasibility of PES schemes depends strongly on local conditions, including population density, the maturity of regional timber sectors, access to forests, and the experiences of forest owners and managers with such schemes.

Rather than pointing to a one-size-fits-all approach, our findings demonstrate that transitions towards alternative forest management strategies presents as many governance and behavioural challenges as economic ones. Where economically feasible, PES schemes should be tailored to regional contexts and combined with other instruments, such as vertical and horizontal knowledge exchange, advisory services, and practical guidance on climate adaptation. These instruments should address the wide range of interconnected barriers to adopting less intensive management practices.





KEY FINDINGS

Forest owners and managers' preferences and perceptions favour multi-purpose forestry.

Forest owners' preferences, established management traditions and social norms all suggest stronger support for close-to-nature and multifunctional forestry than for either highly intensive production systems or fully unmanaged forests, indicating a broad preference for delivering multiple ecosystem services rather than maximising any single objective. This is reinforced by how forest owners and managers perceive current policy and regulatory frameworks, which they see as more supportive of transitions towards close-to-nature and multifunctional forestry than of shifts towards fully unmanaged or strictly protected regimes. Forest owners and managers' preference and perceived institutional support therefore appear to converge around management approaches that maintain some active intervention while delivering multiple forest functions. However, these preferences do not consistently translate into actual transitions towards less intensive management owing to a range of interconnected constraints, which are addressed in this section.

Economic incentives remain central to management transitions.

Across all management systems, the lack of financial incentives for conservation emerged as an important barrier to adopting less intensive forest management. Forest owners and managers consistently highlighted the difficulty of generating income from FES such as biodiversity conservation, recreation, and climate regulation compared with timber production.



Climate change increases uncertainty and limits decision-making.

Forest owners and managers increasingly view climate change as a major source of uncertainty. Concerns about droughts, pests, storms, wildfires and changing growing conditions discourage substantial departures from existing management practices. This challenge is compounded by limited practical guidance: many stakeholders reported uncertainty about species selection and resilience measures, pointing to a need for stronger advisory support.



The feasibility of PES schemes depends strongly on local conditions.

The analysis shows that PES schemes are not equally feasible across Europe. In Flanders, high population density and limited forest availability create strong demand for PES, resulting in substantial willingness to pay and favourable conditions for PES implementation. In Spain, PES schemes appear feasible in more specific circumstances and remain sensitive to changes in management costs and benefits. In Norway, however, high forest availability and existing public access rights result in very limited willingness to pay, making citizen-financed PES schemes largely unfeasible. These findings demonstrate that successful PES schemes must be tailored to regional economic, social and institutional contexts rather than designed as universal instruments.

Experiential barriers can limit participation in PES schemes.

Even where PES is economically viable, participation is not guaranteed. Administrative burden, complex procedures, uncertainty about long-term continuity, limited flexibility, and low awareness of available schemes are frequently cited obstacles, particularly for smaller forest owners.

WHAT THIS MEANS FOR IMPLEMENTATION

Taken together, these findings underscore that EU-wide or one-size-fits-all instruments are unlikely to be effective to achieve EU policy ambitions. Instead, policy design should allow for a diversity of forest management strategies across regions, informed by ecological, economic and social contexts.

Turning to policy instruments to transition towards less intensive management strategies, financial incentives remain important, particularly for rewarding the provision of FES which currently lack market remuneration. Where PES schemes are pursued, they are most likely to succeed when designed around local conditions and when administrative requirements remain proportionate to the capacities of participating forest owners and managers. Simplifying procedures, improving awareness, and ensuring long-term policy stability will be critical to increasing participation.



However, economic support alone is unlikely to be sufficient to support these transitions.

Successful implementation will also depend on strengthening advisory services, consolidating vertical and horizontal communication between policymakers, scientists and forest managers, and improving access to practical knowledge on climate adaptation and alternative management approaches. The transition towards alternative forest management strategies presents as many governance and behavioural challenges as economic ones. Rather than steering all of Europe's forests towards a single preferred management model, supporting forest owners and managers through a combination of context-specific incentives, knowledge exchange and institutional support will therefore be essential for translating policy ambitions into resilient, locally appropriate forest management.

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Working closely with the forestry sector and policy makers, CLIMB-FOREST aims to ensure Europe's forests are resilient to the changing climate and support people and nature.

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