



Ministry of Agriculture
Republic of Latvia

Introducing site visit



- Forest productivity: tree breeding, thinning, water management
- Contribution of forest sector to climate change mitigation
- Methods to enhance forest adaptation
- Biodiversity considerations in integrated management of forest landscapes

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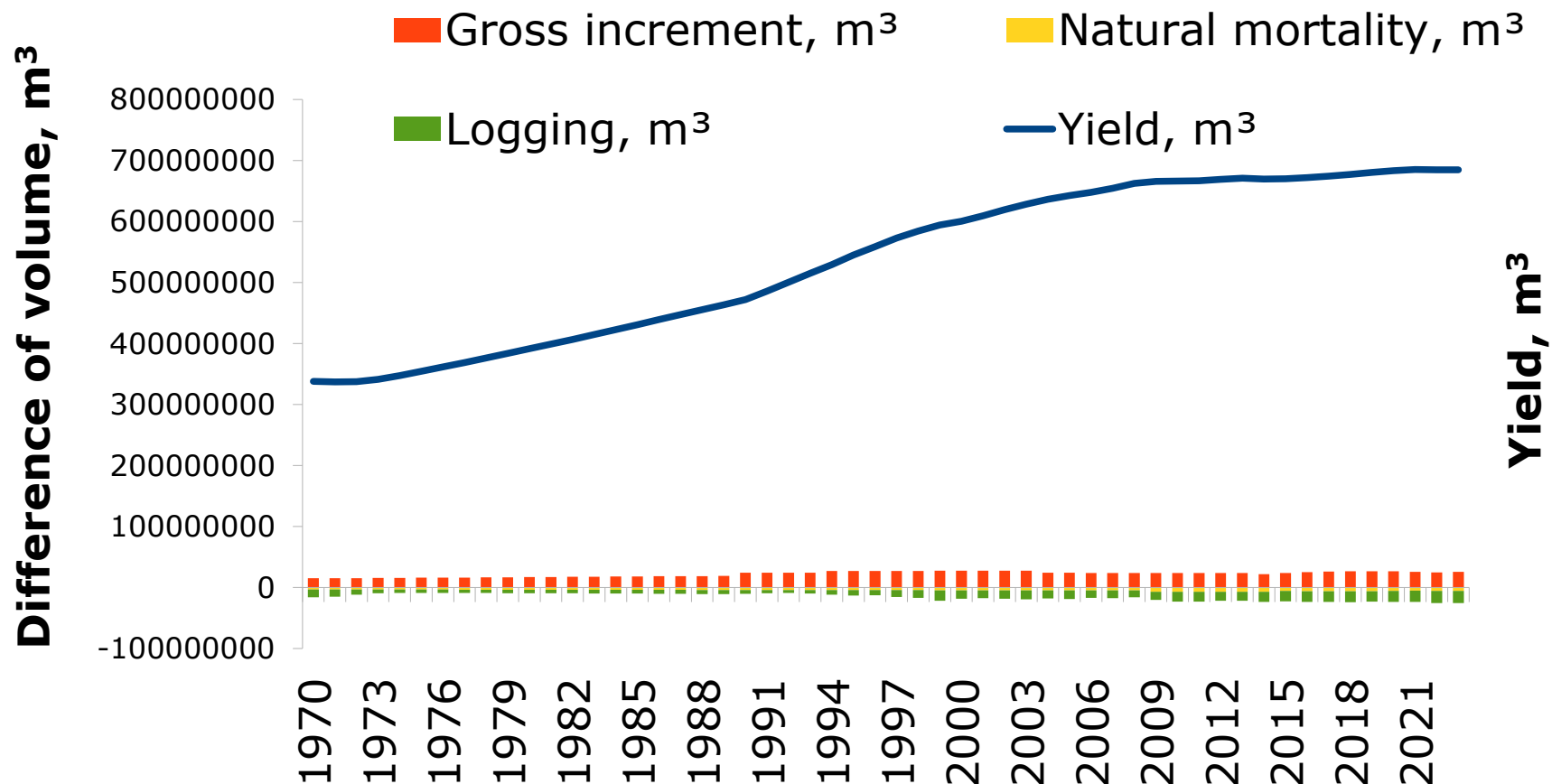




Zemkopības ministrija



Cumulative effect of forest management

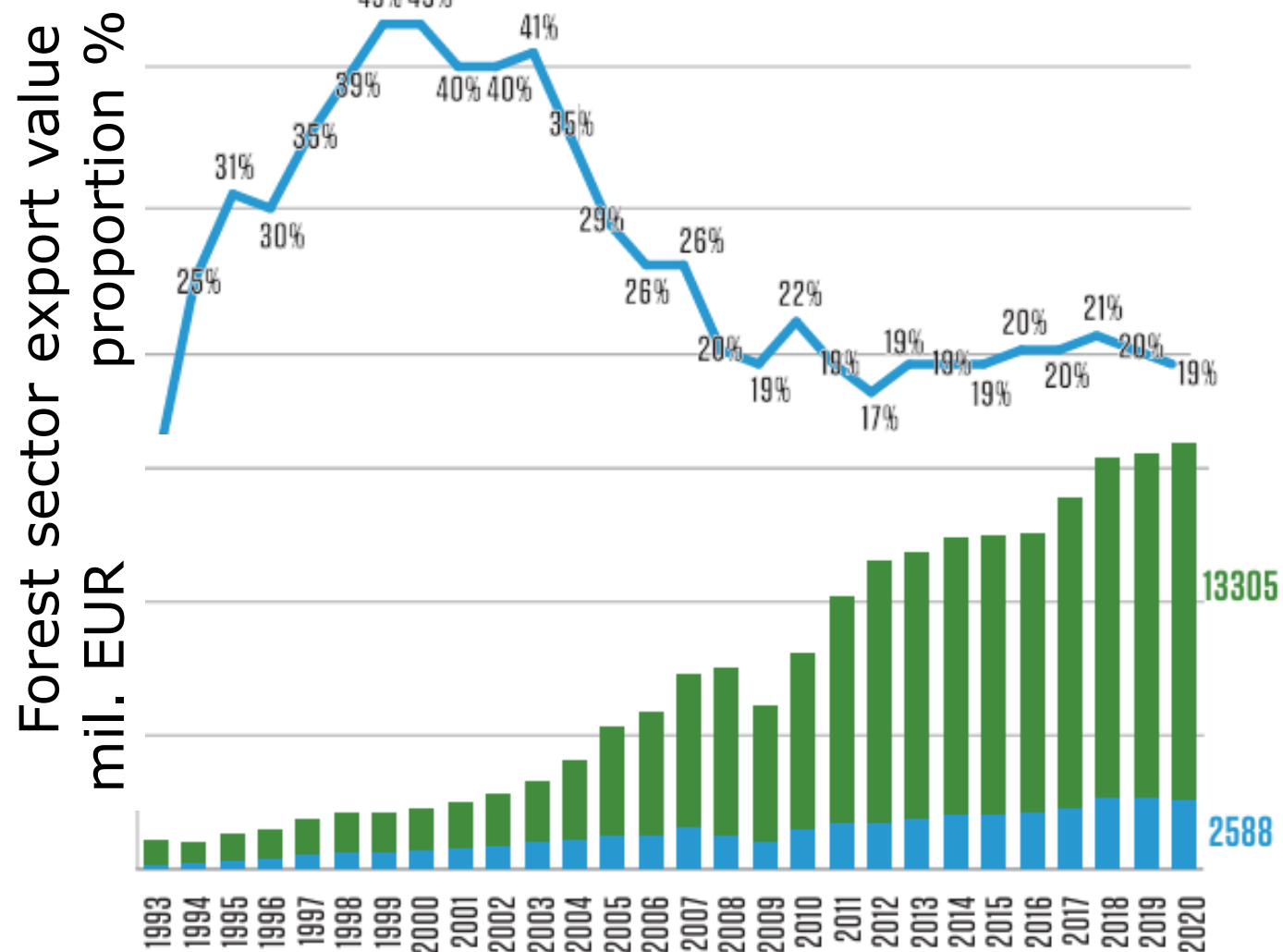


- Standing volume and the ecosystem services associated with it has more than doubled since 1970th due to targeted forest regeneration (tree breeding), management, amelioration



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Forests and forestry has been crucial to resilience of our country, as well as numerous other countries



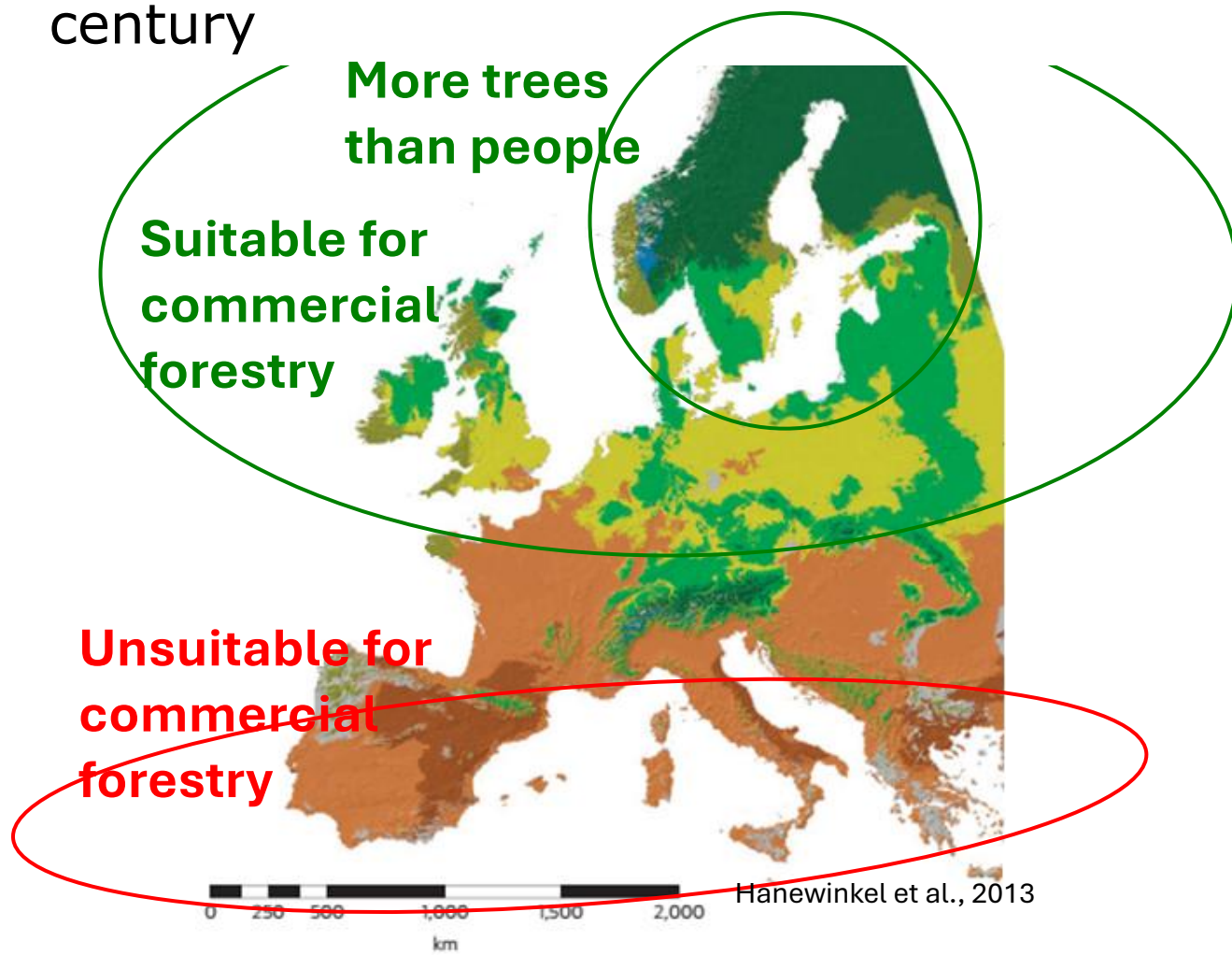
- Core of the bioeconomy is biomass production. Preferably woody biomass
- Thus, any bioeconomy strategy shall include roadmap for increased biomass production
- Policy-driven loss of primary productivity is not acceptable



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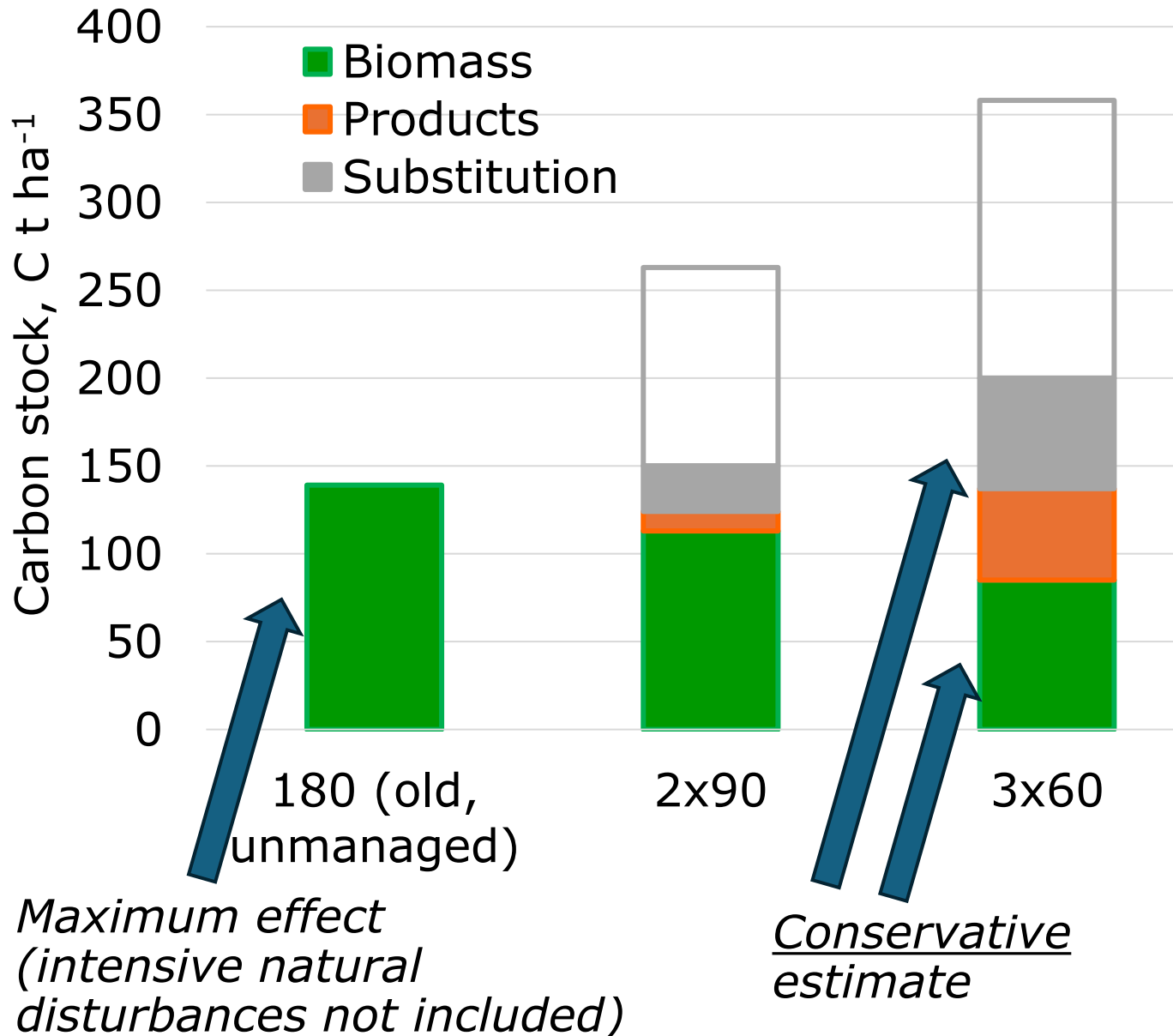
Embracing the regional differences and working in synergy with nature

Effect of climate change at the end of the century



- Optimal balance between various ecosystem services is and will be region-specific.
- It is essential to identify and recognize the regions, where increased wood production have to be ensured

Forestry can ensure socioeconomic gain and increased climate change mitigation effect



- Doubling the stand age increased the carbon storage in tree biomass and deadwood by 27% to 47% (*intensive natural disturbances not considered*)
- To achieve and ensure climate-neutrality:
 - 1) carbon sequestered per unit of time is the unit of measurement;
 - 2) increased sequestration rate (C t ha⁻¹ year⁻¹) depends on effective forest management;
 - 3) locking carbon in wood products, ensuring and acknowledging the substitution effect is crucial.

Assessing, maintaining and, where necessary, increasing biodiversity is essential



Integrated forest management at a landscape scale includes:

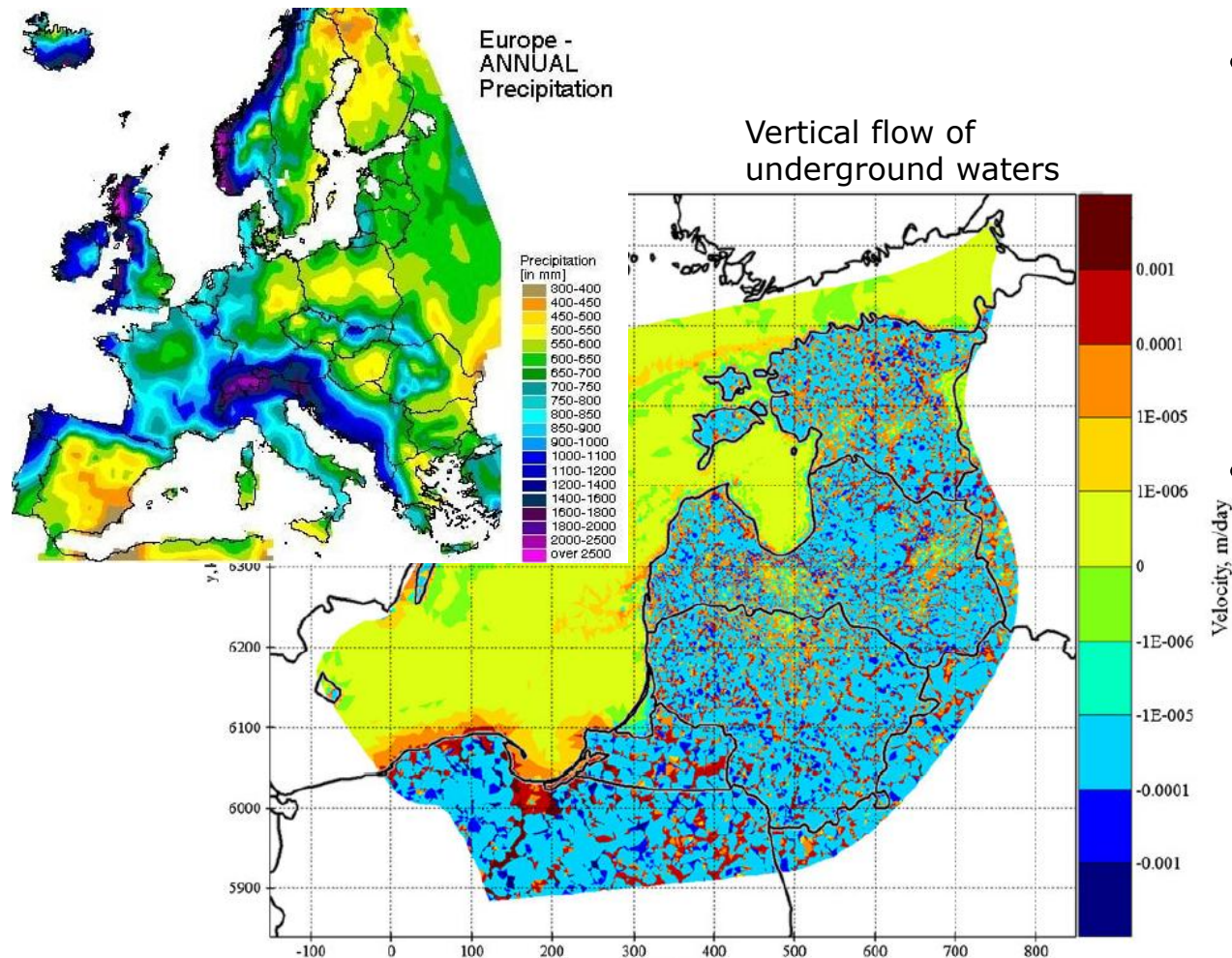
- set proportion of forest, where biodiversity enhancement is primary goal, consisting of strictly protected core areas and a flexible(dynamic) network of additional areas, selected to deliver the highest current contribution to biodiversity;
- consideration of climate change effect, while setting the protection targets;
- working with forest owners, recognizing voluntary contributions and ensuring fair compensation for foregone income.

Most of landscape diversity metrics in managed forests are within the boundaries found in unmanaged (semi natural) forests

Embracing the regional differences and working in synergy with nature



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- Forests are affecting and are affected by water
- Use of forests for water management and water management in forests (like amelioration or rewetting) must be customized for local conditions to ensure desired outcome
- For increased climate change benefits, under appropriate conditions, rewetting and afforestation can effectively complement each other, e.g. use of paludiculture like downy birch for afforestation of organic soils with elevated groundwater