



Forest development and management

Under changing climatic conditions
and social expectations

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Rome/at home

22 November 2021



Climate change will affect forestry in various ways

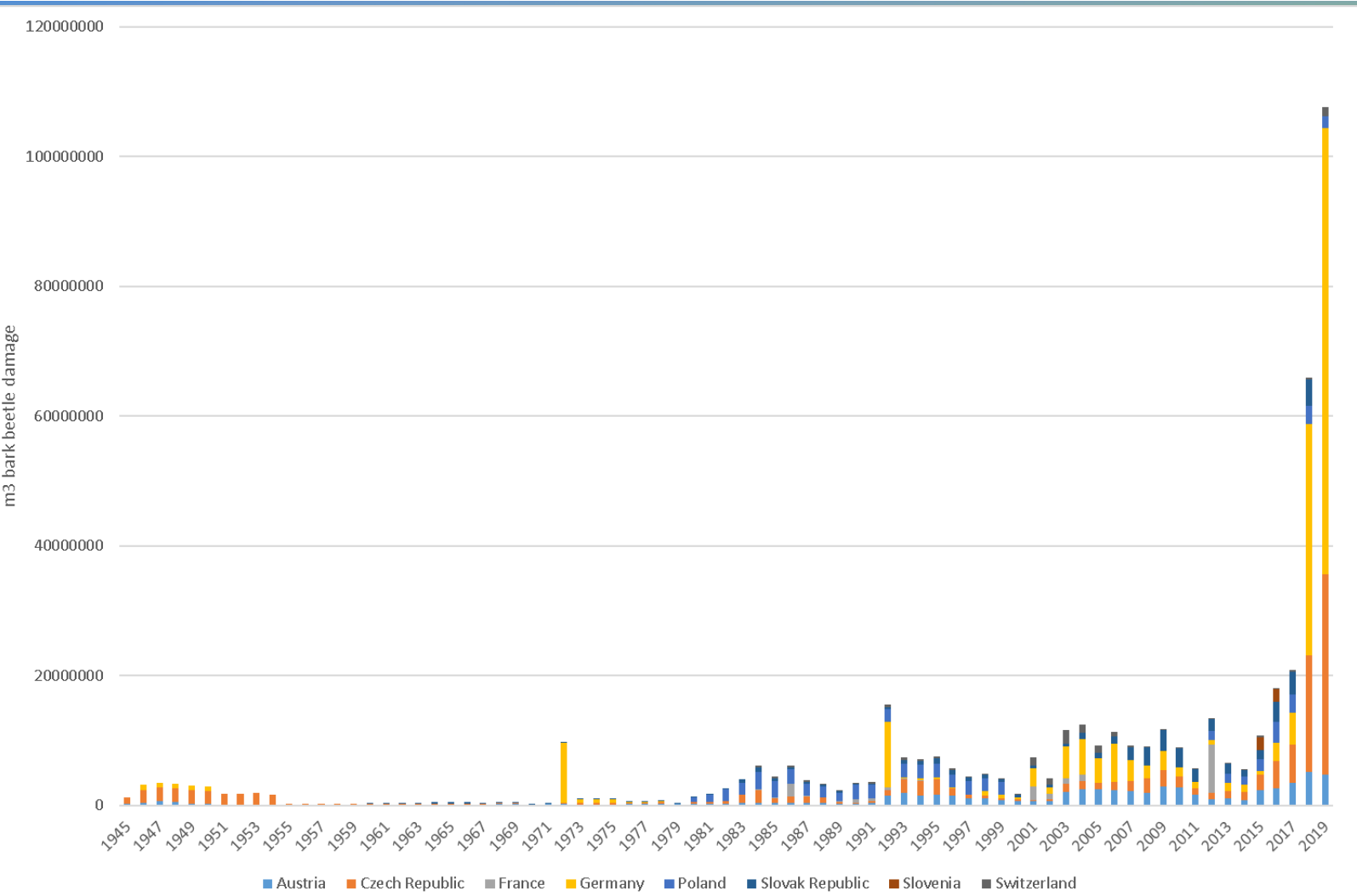
Positive

- Increased productivity in colder climates
- Possibility to grow new tree species

Negative

- Increased disturbances (storms, fires, droughts)
- Reduced harvest possibilities (wet terrain, no frozen soil)
- Loss of some tree species
- Risk of new pest species

Bark beetle damage in Central Europe



Adaptive forest management

- Increase resilience
 - Use more species mixtures
 - Continuous cover forestry
 - Soil protection
 - Diversify income (payment for ecosystem services)
- Take advantage of developments
 - Introduction of new species or provenances (assisted migration)
 - Disturbances may also be an opportunity to change
- Protection of specific habitats/forest types
- Monitor what is happening, be flexible

But forests are also seen as part of the solution



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REPORT



The global tree restoration potential

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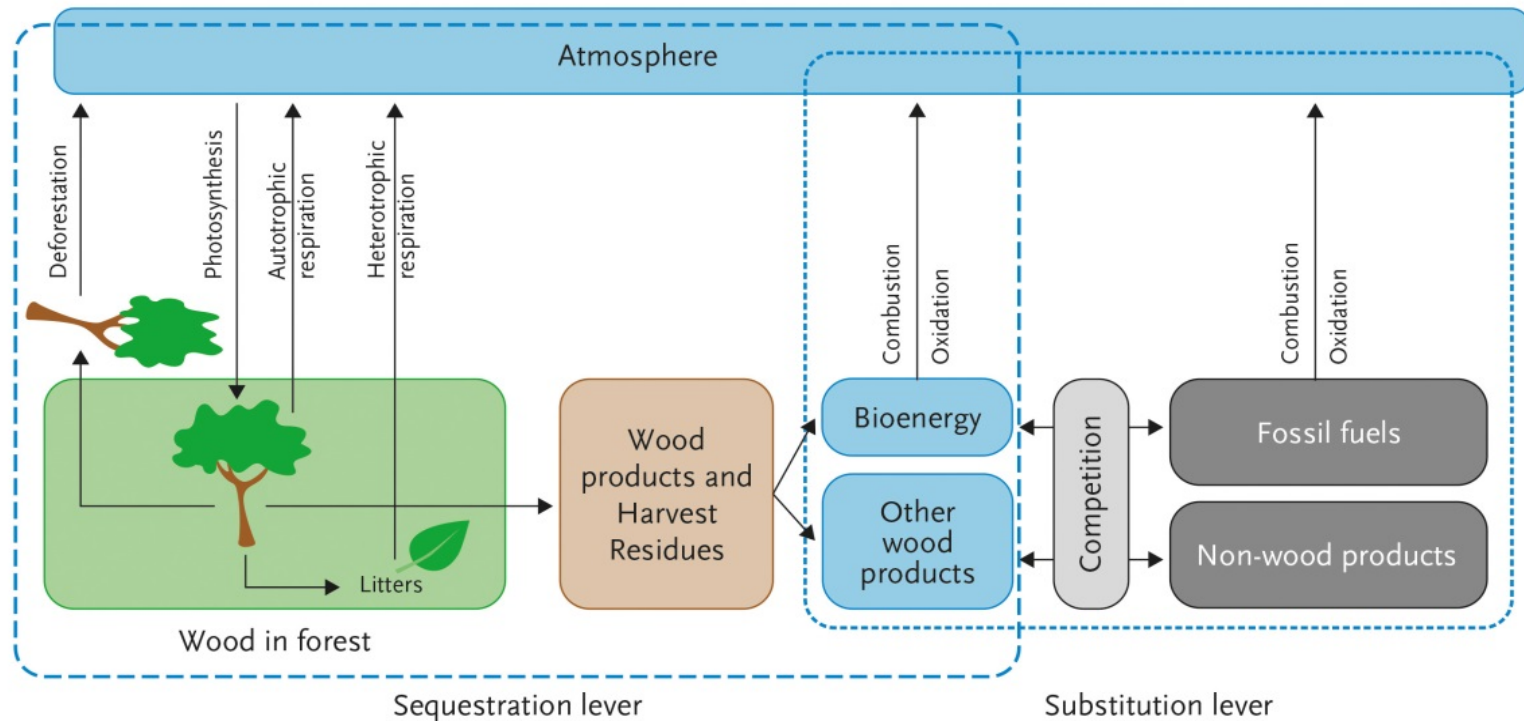


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Present role of the European forest

- Sink 450 Mt CO₂, or 10% of emissions
- Wood products sink of 44 Mt CO₂ + substituting aluminium, steel and plastics.
- Biomass for bioenergy provides 7-9% of total EU energy need



Potential ways to increase mitigation by forests

- Protection of carbon currently stored in forests
- Increased storage in existing forests
- Reforesting degraded lands and afforesting new lands
- Increased use of wood products
 - Increased carbon storage in wood
 - Avoided emissions when substituting energy intensive materials (steel, concrete, aluminium)
 - Avoided emissions when substituting fossil fuels
- But trade-offs exist between different strategies, and the time horizon plays an important role
- Key is the efficient use of wood

So what to do?

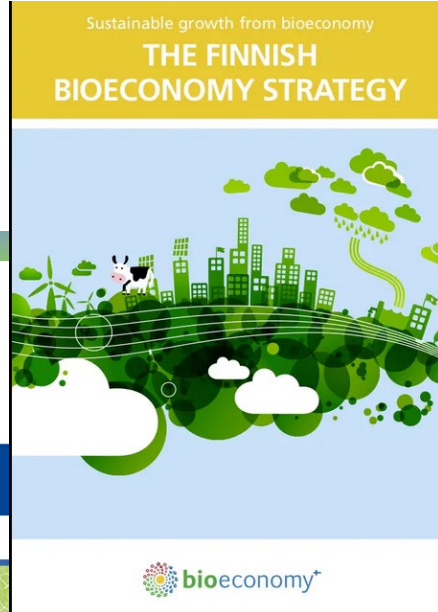
- Find smart combinations, adapted to local circumstances: **Climate Smart Forestry!**

	Carbon protection/ increased storage	Re/Afforestation	Wood product use
Increased productivity			
New tree species			
Increased disturbances			
Reduced harvest possibilities			
Loss of tree species			
New pests			

To complicate things more:

The European Green Deal

AFOLU sector should reach net zero in 2035



EU BIODIVERSITY STRATEGY

Bringing nature back into our lives

10% strict reserve
30% protected

New EU Forest Strategy for 2030



No big machines
No clearcuts

- In **France**, new policy dictates that all public buildings must be made from at least 50% timber or other natural materials



The general public as a (critical?) consumer

- Demanding nice forests for recreation
- Critical towards cutting of trees, use of machines in the forest
- At the same demanding (cheap) products like furniture and paper

In summary

- The pressure on the forest resources is increasing
 - Climate change affects growing conditions
 - Increased and conflicting demands for goods and services
 - Sometimes strong public opinion
- Forest management will need to cope with these challenges
 - Adapt to climate change
 - Fulfill demands by society
 - Maintain a good financial balance
- Expected effects on the industry
 - Supply will be less predictable due to disturbances
 - Supply will be more diverse (increased share of broadleaves, more species)



THANK YOU

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