



THINKFOREST

Facilitated by European Forest Institute

Implementing Closer to Nature Forest Management



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Our scientific input

Closer-to-Nature Forest Management

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Frank Krumm, Thomas Knoke, Agata Konczal, Timo Kuuluvainen, Bill Mason,
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Congratulating the Commission for the report

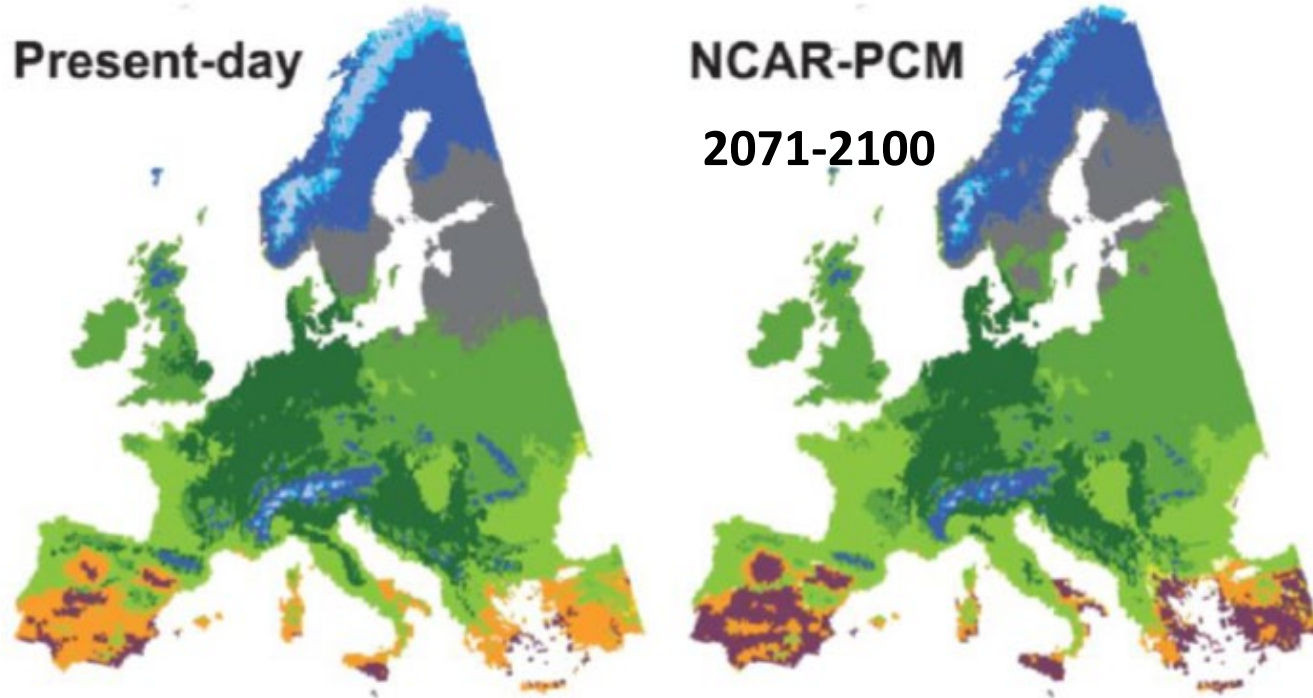
- Its science based ambition
- Its regional-, scale- and context-specific approach
- Its flexibility in terms of implementation
- Its apparent success to achieve acceptance across country representatives and stakeholder groups

An important step for the implementation of the EU forest Strategy – but it has not been an easy task!

Shortcomings

- The report gives an impression of being a compromise draft
- The cited references are often lacking scientific authority
- Lack of attention to economic aspects as foundation for the acceptance by forest owners and managers
- The amalgamation of forest management approaches with agro-forestry and silvo-pastoral systems is problematic
- Too little on CC-adaptation and the need for novel solutions
- Reflections on mitigation prospects are almost absent
- Knowledge exchange and collaboration amongst practitioners is less detectable

Is climate change sufficiently addressed?



Need for novel adaptation approaches: species, provenances etc.

Adaptation is essential for providing ecosystem services including mitigation!



Droughts and fires

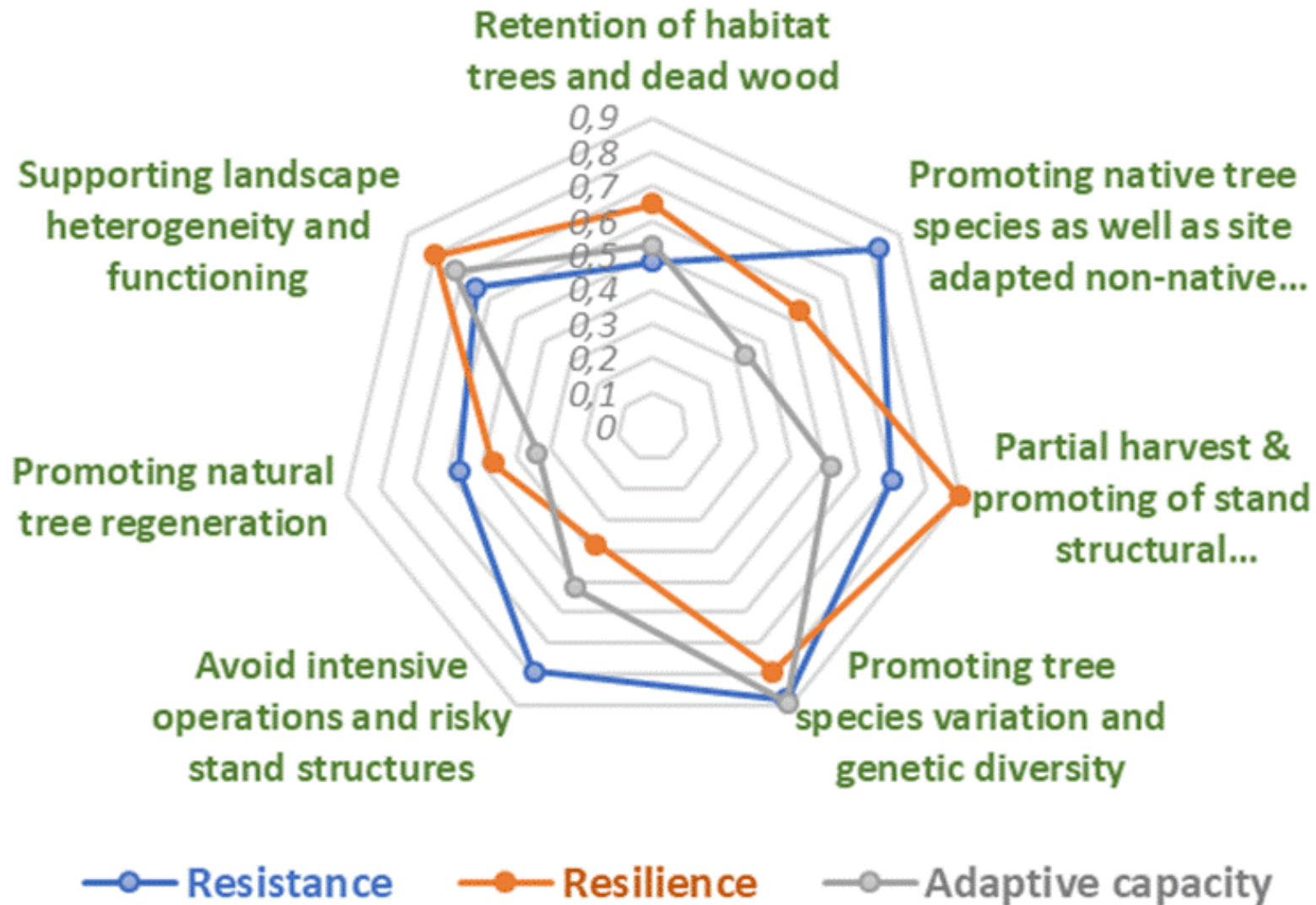
- More extreme weather events induced by climate change
- Forest fires high on the agenda since disastrous fires hit Portugal in 2017
- More fire incidents also in countries north of the Mediterranean (e.g. Germany, Ireland)
- Droughts and heat waves in various European regions (e.g. Greece, Portugal)
- Droughts have an amplifying effect on fire

Storms

- Windstorms are a major disturbance factor in European forests
- Examples like Lothar (1999) and Kyrill (2007) caused widespread damages
- Areas affected by windstorms have a much higher risk to be further damaged by insects or pests
- Windstorms can devastate confined regions (e.g. storm Gudrun in Sweden)
- Smaller events can add-up to significant amounts over multiple countries (e.g. winter 2017/18)

Biotic threats

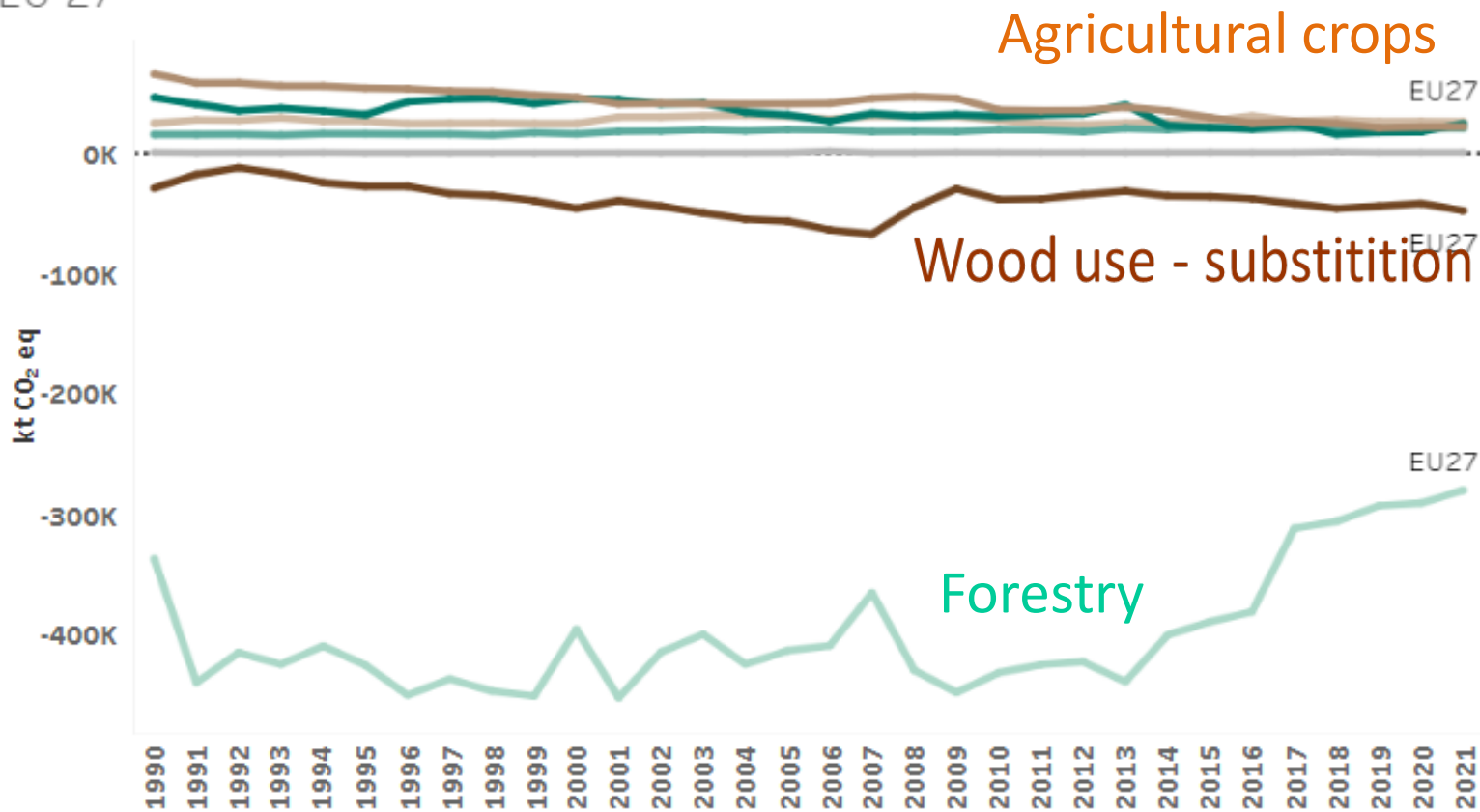
- Climate change has strong impact on biotic threats (e.g. bark beetle or pests)
- Several European countries are heavily affected by bark beetle (e.g. Poland, Czech Republic)
- Pests typically follow abiotic damages (drought or wind)
- New diseases are difficult to predict but can spread rapidly
- Damage caused by game is a major obstacle to natural forest regeneration in Europe



Land use; land-use change and Forestry

LULUCF net emissions/removals by land use categories

EU-27



Forest management options and mitigation

Natural forest



Untouched forests: high storage, high permanence but no substitution

Far from natural forest



Plantations: Lower storage, medium permanence and high substitution

Closer-to-nature forest



Intermediate storage, high permanence and high substitution

Recommendations

- Instigating a scientific peer-review of the present report
- Launching an in-depth study on economic aspect on closer to nature forest management, including the aspect of stability, mitigation potential and multiple ecosystem services
- Further developing financing mechanisms (including mitigation/carbon storage)
- Developing a plan and incentives for pan-European knowledge exchange, collaboration and demonstration forests.

Agata, Andreas, Andreas, Anna,
Bill, Dorota, Elisabeth, Frank,
João, Jürgen, Jurij, Lena, Per,
Renzo, Thomas, Timo, and Bo



Thank you!

Jørgen Bo Larsen, Per Angelstam, Jürgen Bauhus, João Fidalgo Carvalho,
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