

European Climate Smart Forestry (CSF) in the Green Deal

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When we need to reduce our fossil carbon consumption:

'Land' is the only place where we (7.5 billion people) can get our resources from

Thus we will for sure rely far more on renewable resources in the future!

Forest revitalisation pilot under CSF
(photo Dennis Lindenberg)



What does the Green Deal contain on forests ?



Green Deal text: Biodiversity

Biodiversity Strategy by March 2020, ..with global targets to protect biodiversity, causes of biodiversity loss in the EU.

...will identify specific measures ... increasing the coverage of protected biodiversity-rich land areas.

....improve and restore damaged ecosystems to good ecological status, including carbon-rich ecosystems...
drafting a nature restoration plan.. provide funding to help Member States.

Green Deal (2)

Forest ecosystems are under increasing pressure, as a result of climate change.

The EU's forested area needs to improve, both in quality and quantity.

Sustainable re- and afforestation and the restoration of degraded forests can increase **absorption** of CO₂ while improving the **resilience** of forests and promoting the circular **bio-economy**.

Building on the 2030 biodiversity strategy, the Commission will prepare a new EU forest strategy covering the **whole forest cycle** and promoting the many **services** that forests provide.

Green Deal (3)

The new EU forest strategy ...

key objectives effective afforestation, and forest preservation and restoration in Europe,

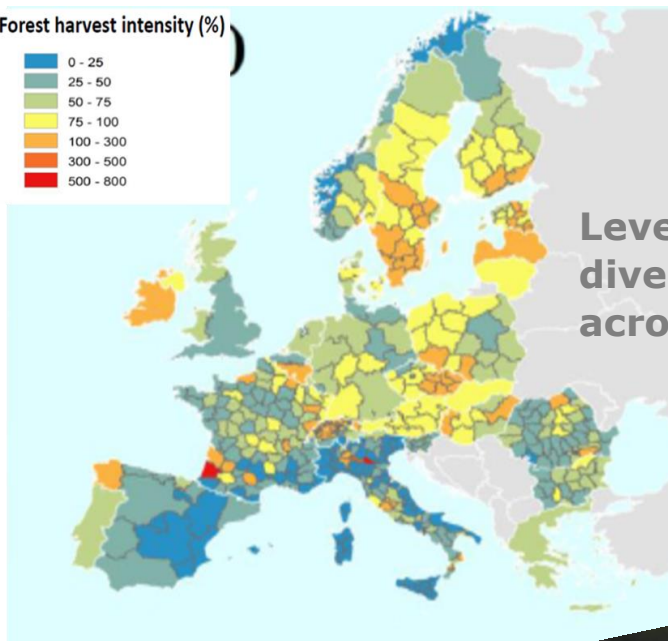
to help to increase the absorption of CO₂,

reduce the incidence and extent of forest fires, and promote the bio-economy,

in full respect for ecological principles favourable to biodiversity.

...national strategic plans...

Can climate smart forestry be an answer in some of the challenges?



Levers et al. Very diverse management across Europe

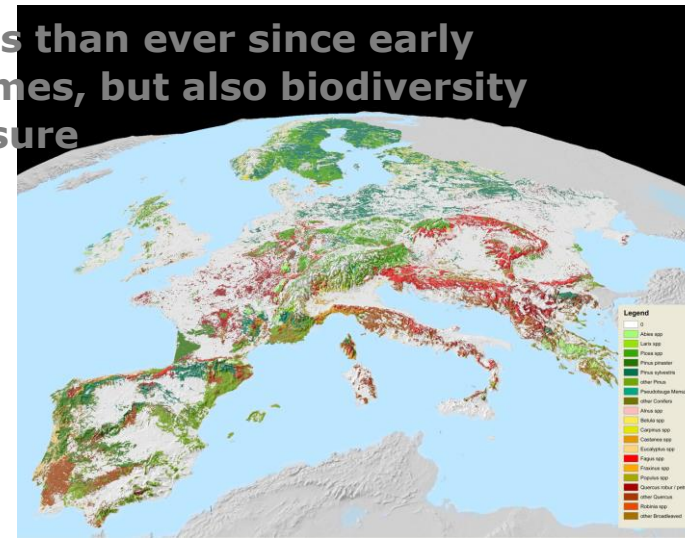


Inefficient use of 129 Mm3 of EU harvested wood/y



Spruce mortality > 200 million m³. Now an overflow of cheap resources

More forests than ever since early Medieval times, but also biodiversity under pressure

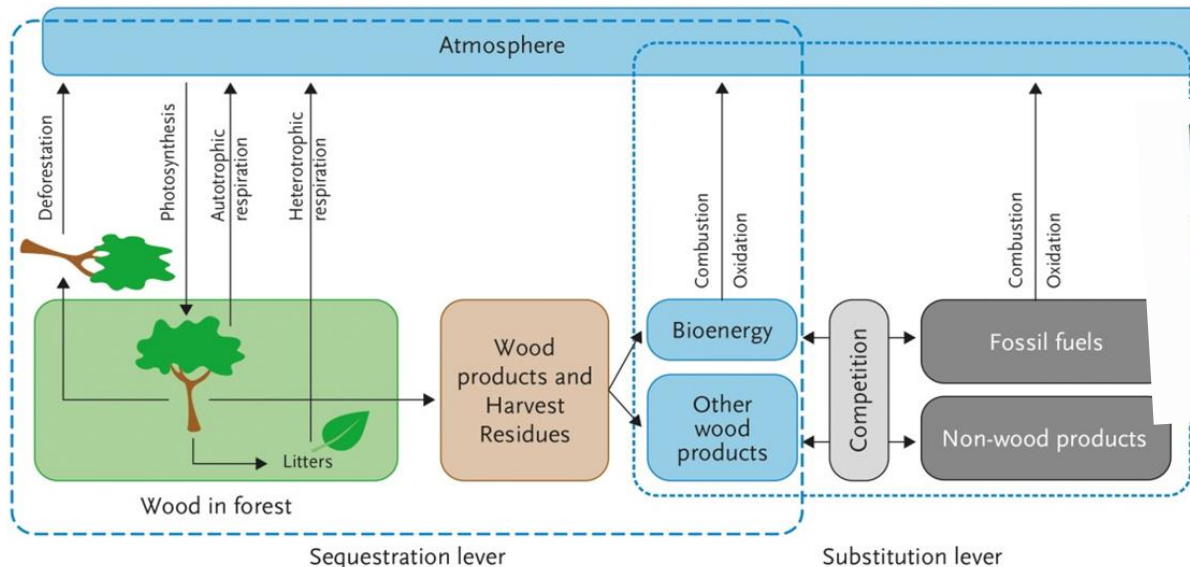


Climate mitigation:

- can climate smart forestry help?

European forests currently mitigate 11-13% of total European emissions

Through a set of measures this can almost be doubled. (Mitigate, Adapt & Maintain productivity)



forests

Article

By 2050 the Mitigation Effects of EU Forests Could Nearly Double through Climate Smart Forestry

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Additional potential of Climate Smart Forestry.

Forests, HWP and energy can compensate 20% of EU emissions.

Variety of measures

Main category of forest management measure	Sub measure	Mitigation effect (Mt CO ₂ a ⁻¹)
1. Improved forest management		170
	1a. fullgrown coppice	57
	1b. enhanced productivity & improved management	37
	1c. reduced disturbances, deforestation, drainage	35
	1d. material substitution wood products	40
2. Forest area expansion		70
3. Energy substitution		144
4. Establish forest reserves		64
Total		448

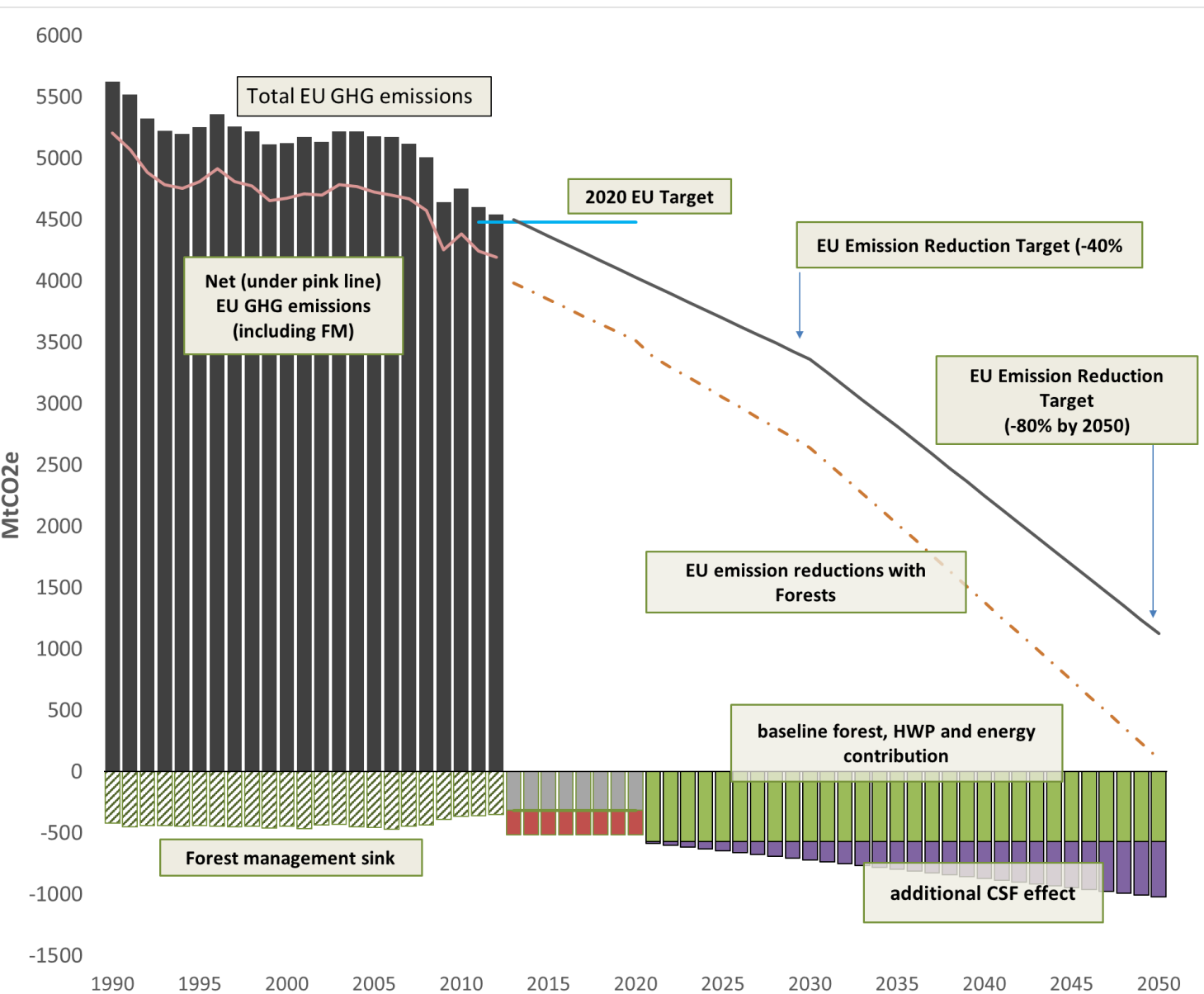
Climate smart forestry: take account of local circumstances and 16 million owners

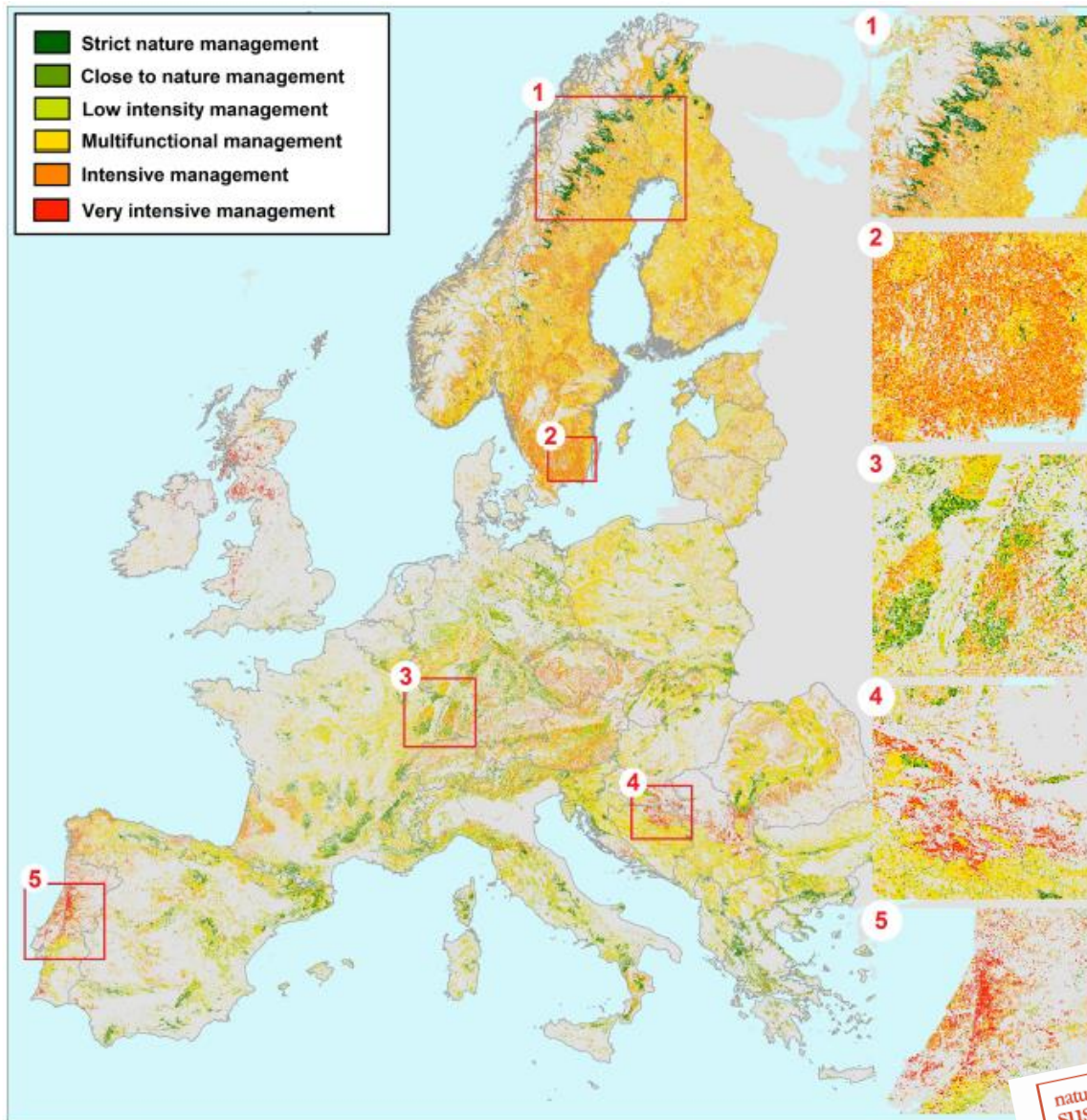
- ✓ Storm prone areas: bring down the stock + invest in new wood based products
- ✓ Drained peatlands: reduce drainage
- ✓ Remote areas: strict reserves
- ✓ Former coppice: regenerate with climate adapted species; increase growth
- ✓ Drought prone spruce: regenerate with adapted species (better genetic material)
- ✓ Use wood optimally: build with wood
- ✓ Relate to Bio-economy



Degraded forest; not fulfilling any function very well

The additional CSF effect over time (in purple)





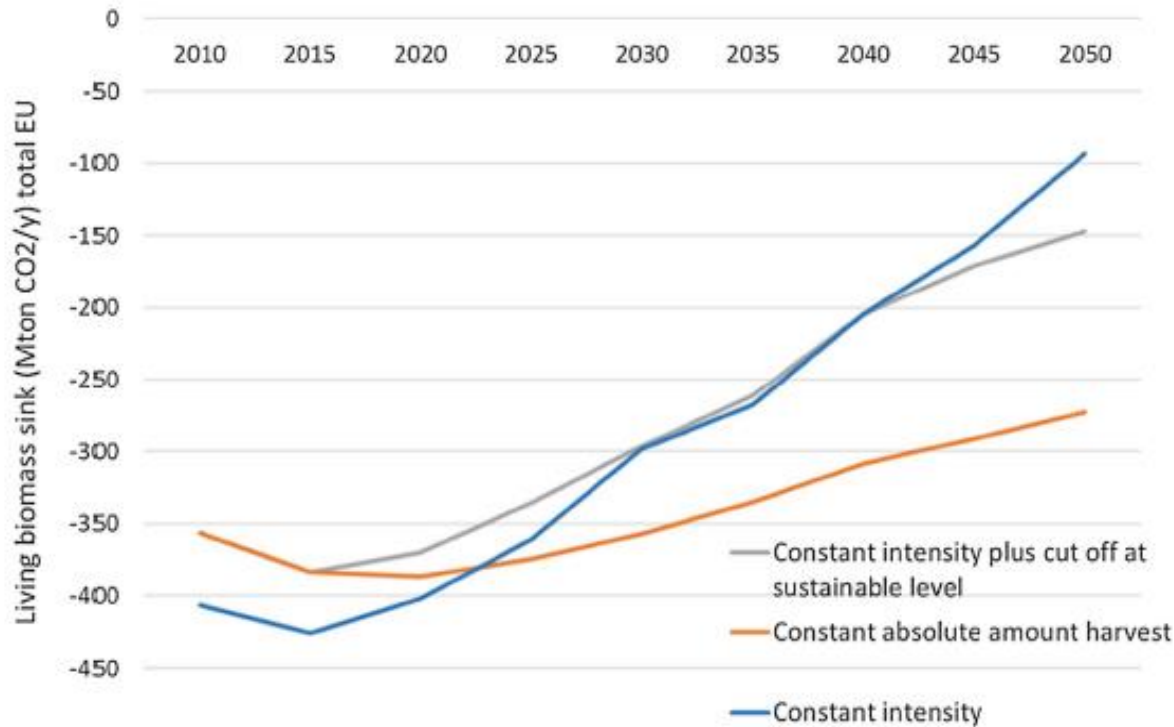
Management strategies can be spatially optimised

The Green Deal lays a basis, but balancing the functions will be a challenge.

E.g. a set-aside of 7 Mha is no problem for wood production.

We need an EU vision, and a strong EU Forest Strategy. MS & Commission need to work together on this

If we do not invest in this, the sink will saturate



EFISCEN model projection for EU26 forests.

Under various assumptions of the LULUCF regulation.

Neg = sink

Nabuurs et al. *Carbon Balance Manage* (2018) 13:18
<https://doi.org/10.1186/s13021-018-0107-3>

Carbon Balance and Management

RESEARCH

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Understanding the implications of the EU-LULUCF regulation for the wood supply from EU forests to the EU

Gert-Jan Nabuurs^{1,2*}, Eric J. M. M. Arets¹ and Mart-Jan Schelhaas¹

When even the Dutch can do this...

- Dutch Government Climate Accord.
- Out of this, 2 M Euro/y is allocated to forestry pilots in climate smart forestry. A wide variety of measures is being implemented now to fill a climate measures toolbox.
- We now start to set up a CSF network across Europe.

<https://www.vbne.nl/klimaatslimbosennatuurbeheer/>



Concluding

- CSF is key to understanding potential trade-offs between mitigation, adaptation, bio-economy and biodiversity.
- With reduced use of fossil fuels, we will need to invest in renewable resources.
- CSF can mitigate 20% of the (current) EU emissions and can lead to net-zero
- Green deal has to express and enable this very strongly in follow up Regulations and Strategies fulfilling all functions of forests

Thank you !

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Climate pilots with walnut hybrid

