

The EU forestry wood chain in a globalised world

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The EU wood chain in a globalised world

- Trade and policy factors potentially affecting sustainability of wood chains between the EU and developing countries
 - Increasing population and demand for wood and agricultural products and declining resource availability
 - Increasing wood demand from competing markets (e.g. China and India)
 - Climate change mitigation policies (bio-fuel, REDD)
 - Illegal logging / FLEGT
 - Stricter timber procurement in EU countries (demand for forest certification)
 - Increasing private requests for certified timber

Example: Certification

- Potential effects of certification on biodiversity and carbon in selected developing countries
 - Stricter public timber procurement (i.e. UK, Netherlands, Germany, Denmark, France, Belgium)
 - Increasing demand from private sector (e.g. Netherlands Timber Trade Association)



Certification

- Scenarios elaborated using EFI-GTM and the IMAGE-GLOBIO modelling framework
 - EFI-GTM: Global Forest Sector Model – Future demand for wood based products
 - IMAGE-GLOBIO: Global integrated assessment models (Applied in IPCC; MEA; GBO2; OECD EO) – Forest growth, carbon and biodiversity
- Evaluated: MSA, indicator for intactness of original biodiversity and C losses

Biodiversity indicator: MSA

Certification

Primary forest



Selective logging



Secondary vegetation



Plantation



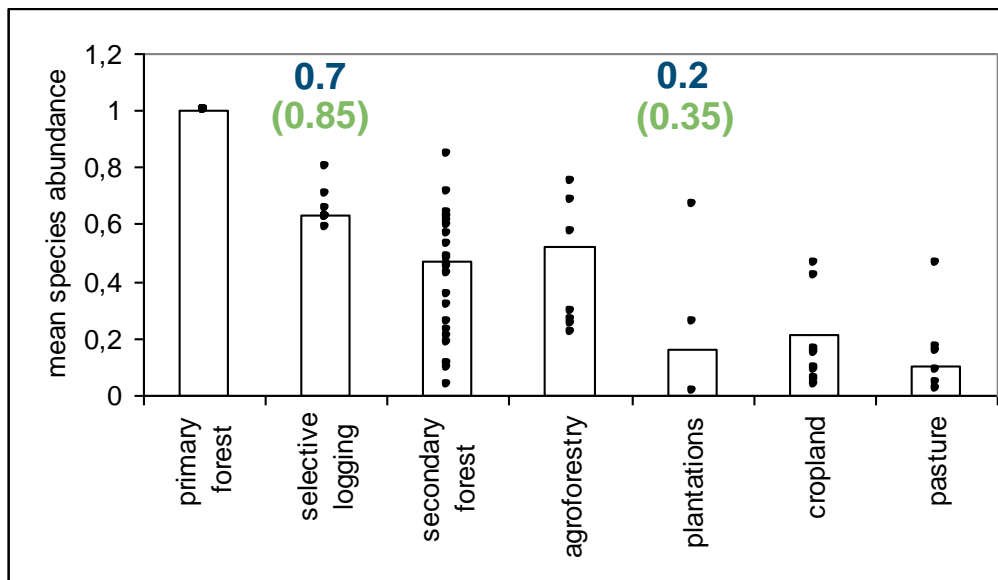
Degraded



100% MSA

50%

0%



Reference futures

- Based on the IPCC SRES A1 and B2 reference futures to account for uncertainty
- A1 – Rapid economic growth
 - Rapid population growth
 - Rapid technological innovation
- B2 – Moderate economic growth
 - Moderate population growth
 - Slow technological innovation

Scenarios

■ Current

- Based on current level of certification
- Potential annual production from certification remains the same

■ Target

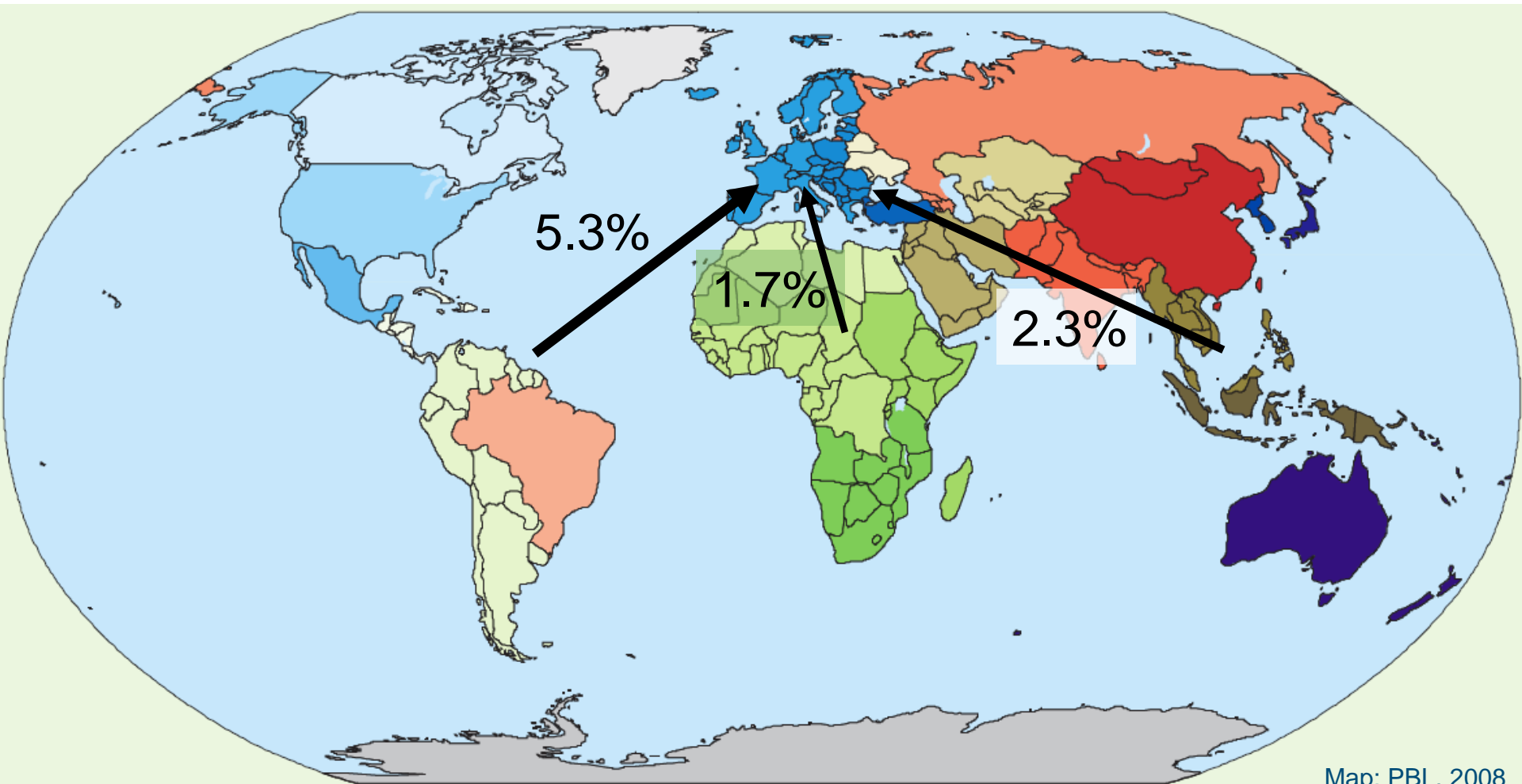
- 100% of wood from plantations exported to EU is certified
- 50% of wood from (semi-) natural forests exported to EU is certified

Scenario assumptions

- Round wood, sawn wood and panels are from (semi-) natural forests
- Pulpwood and paper are from plantation forests
- Certified natural forests are logged according Reduced Impact Logging (RIL)
- Certified plantations are only established on abandoned land (checked afterwards)

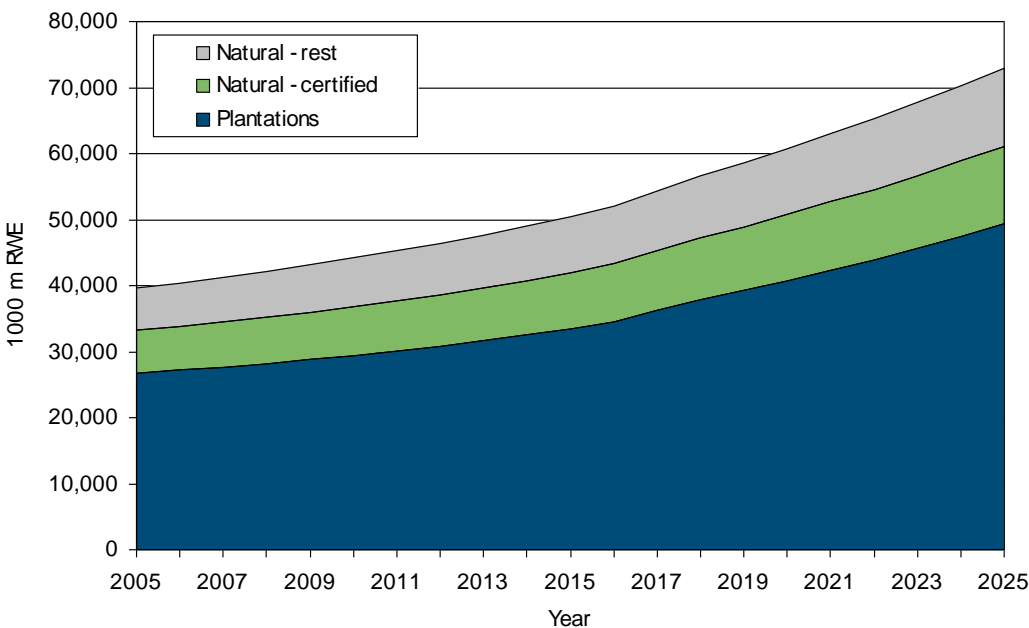
Importance of tropical regions

- Import of wood & wood based products into the EU (m³ r.w.e.) (2005 data adapted from the EFI/WFSE Forest Products Trade Flow Database)

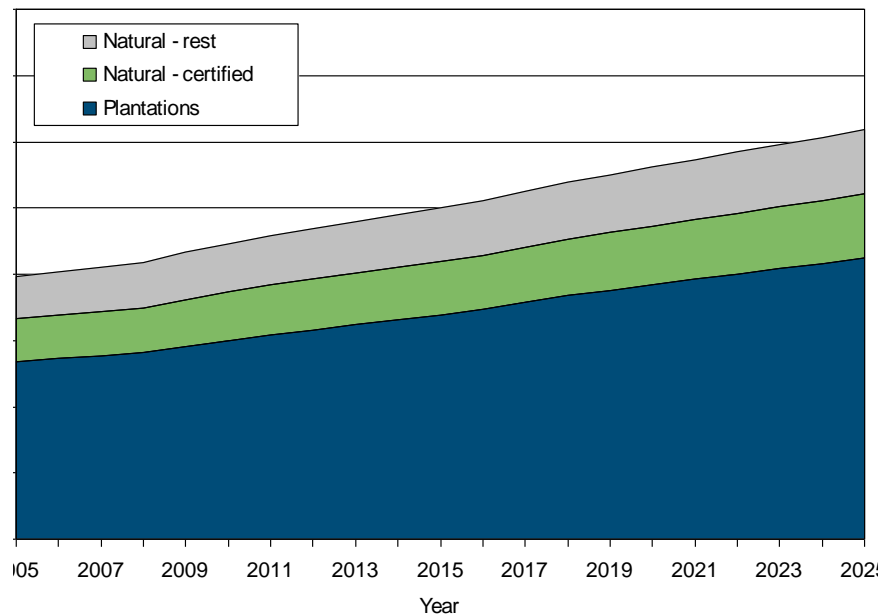


Increasing demand for certified wood

A1 - Increasing demand for certified wood from tropical regions



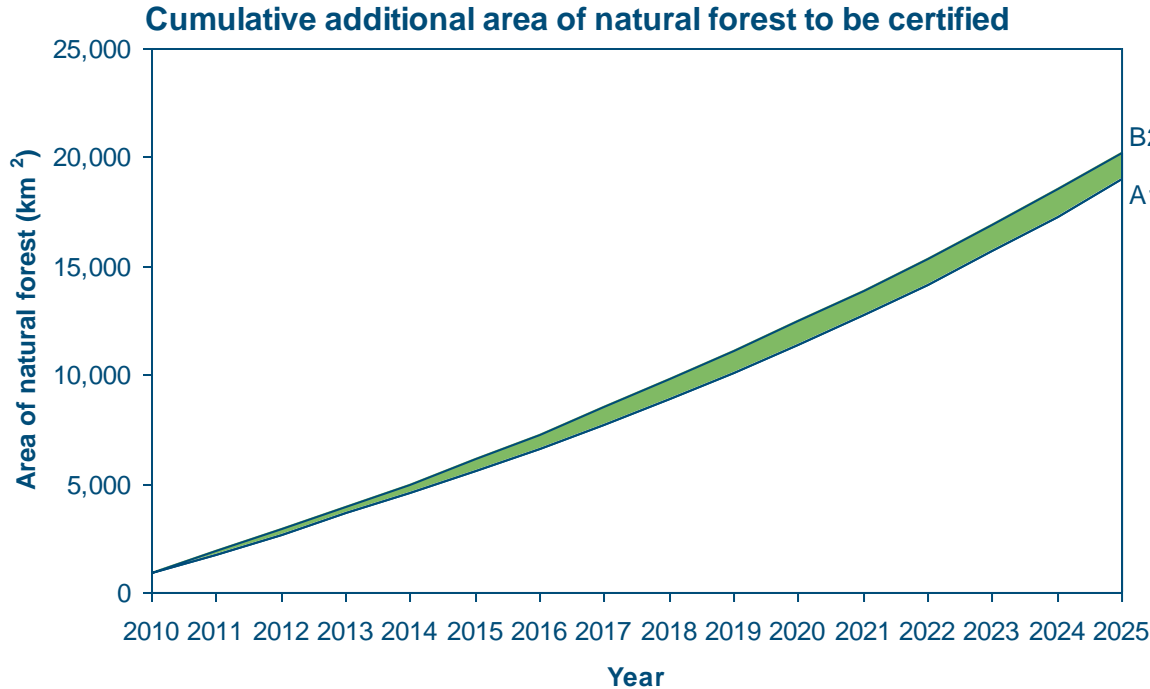
B2 - Increasing demand for certified wood from tropical regions



- Current potential tropical plantations: ± 116 million $\text{m}^3 \text{yr}^{-1}$ (8.6 M ha)
- Current potential tropical natural forests: ± 10 million $\text{m}^3 \text{yr}^{-1}$ (13.5 M ha)

Additional area certified when meeting target

Natural forest



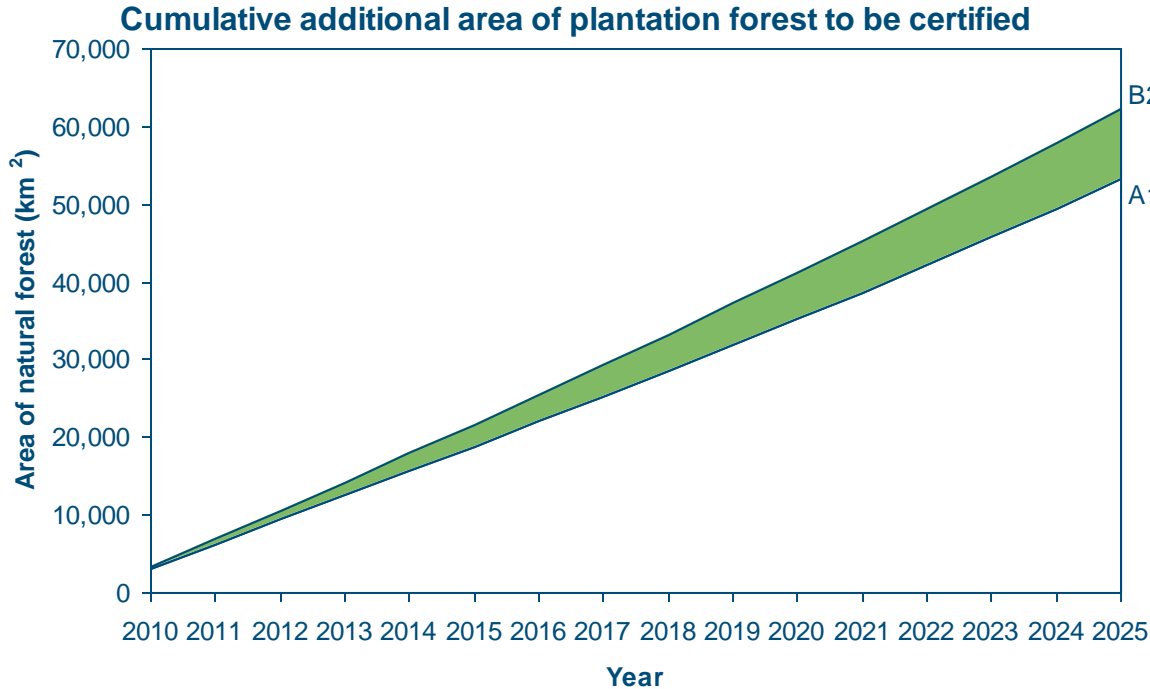
Regional differences cumulative in 2025

	A1	B2
Rest South America	3,928	3,512
Northern Africa	1,155	1,172
Western Africa	7,635	9,876
Eastern Africa	1,728	1,948
India +	3,766	3,393
China +	769	307

- Regions that currently already could meet the target: Mexico, Rest Central America, Brazil, South East Asia and Indonesia

Additional area certified when meeting target

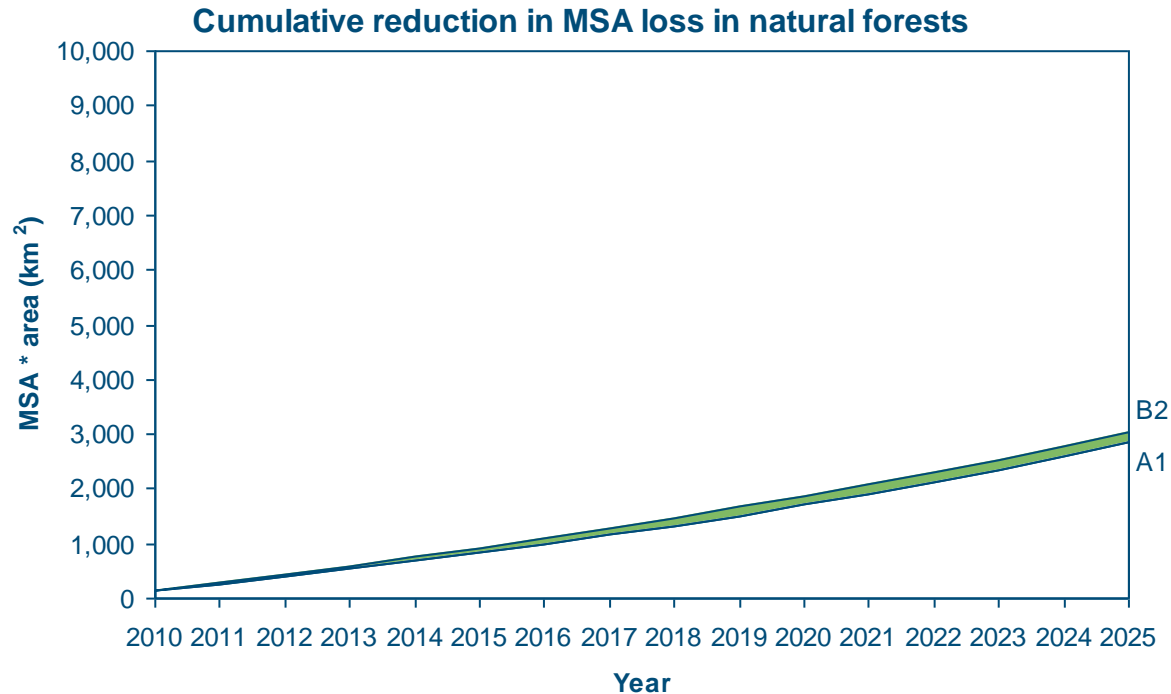
Plantation forest



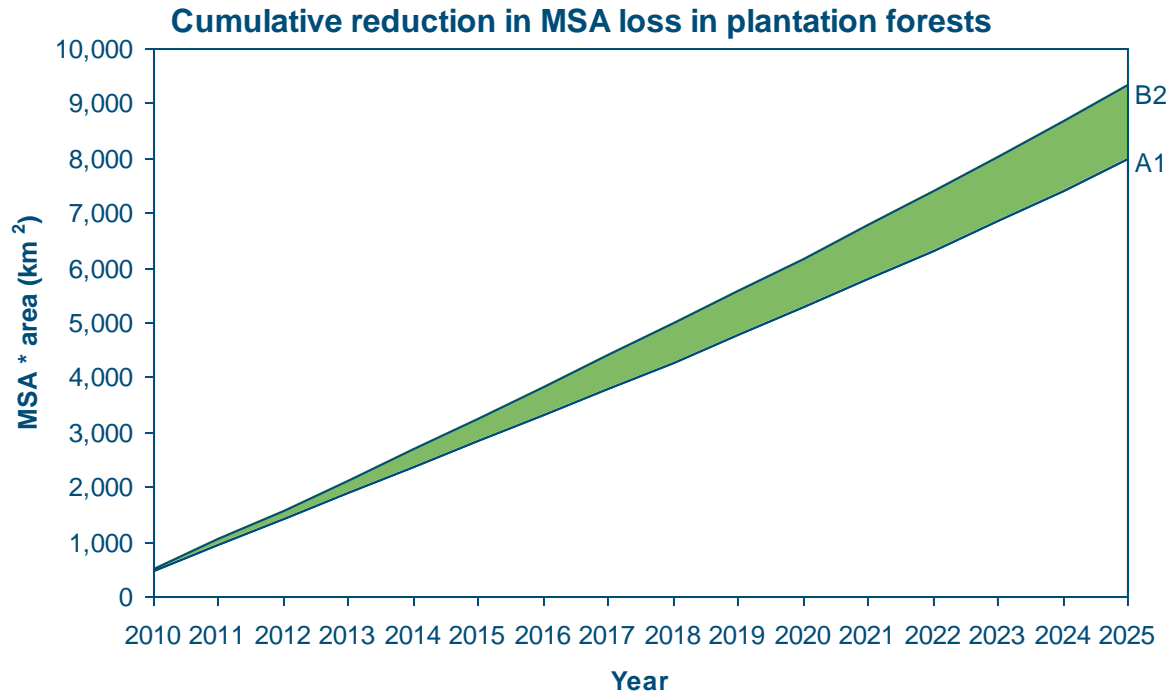
Regional differences cumulative 2010-2025

	A1	B2
Mexico	21	23
Rest Central America	16,556	22,703
Northern Africa	1,883	1,909
Western Africa	16,330	19,555
Eastern Africa	3,317	3,633
India +	7,959	7,213
Indonesia +	3,390	2,804

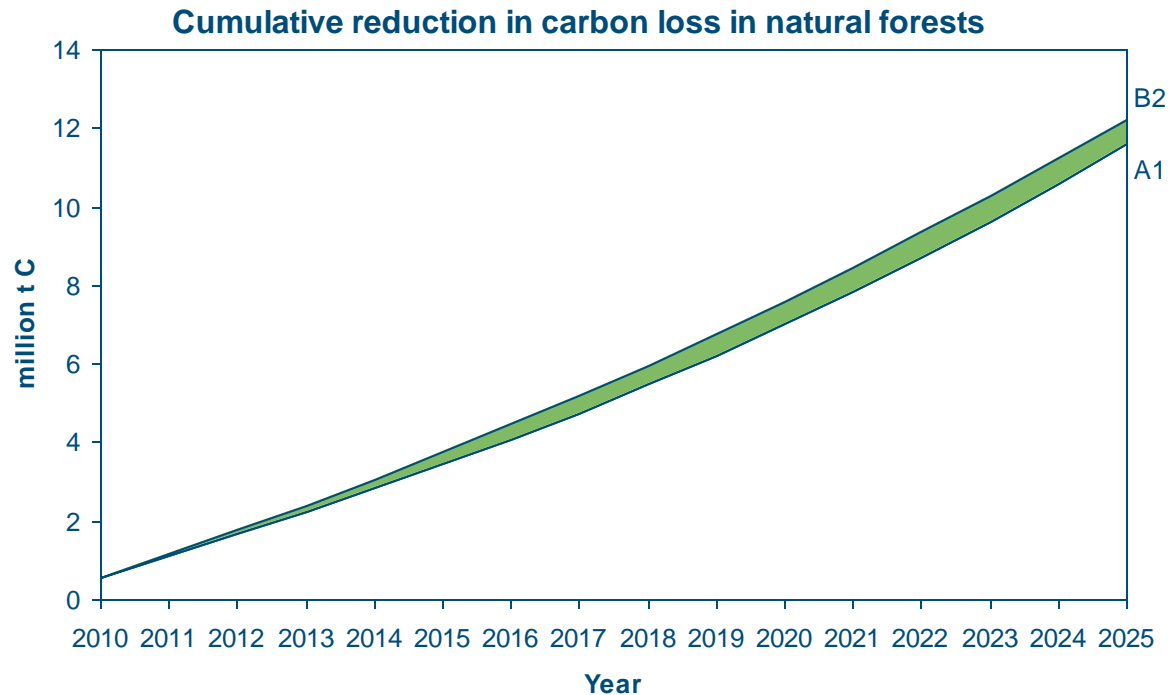
Cumulative reduction in biodiversity loss in natural forest (Δ MSA * area)



Cumulative reduction in biodiversity loss in natural forest (Δ MSA * area)



Cumulative reduction in carbon loss



Discussion

- Global assessment based on average values for the various regions. In reality there are however differences between plantations and forest types and management types!
- We didn't consider specific conservation and management guidelines already in place in different countries/regions.

Discussion

- Only total amount of certified wood considered, but in reality also (mis)-matching demand and supply of different assortments and products are important obstacles
- Secondary effects of increasing demand for certified wood products from the EU
 - Also demand in other regions increases
 - Local institutional context improves to facilitate companies access to certification
 - Management in non-certified companies improves as a result of increasing capacity

Extension of assessment

- Further integration IMAGE <> EFI-GTM
- Include potentially growing demand for certified wood from other regions
- Assessing the impact of extensification of wood production in EU on forests in other regions
- Include climate change effects on productivity and trade in reference futures

- Monitoring of effects of certification on biodiversity!

Thank you for your attention

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