

Technology assessment in forestry sector under climate change

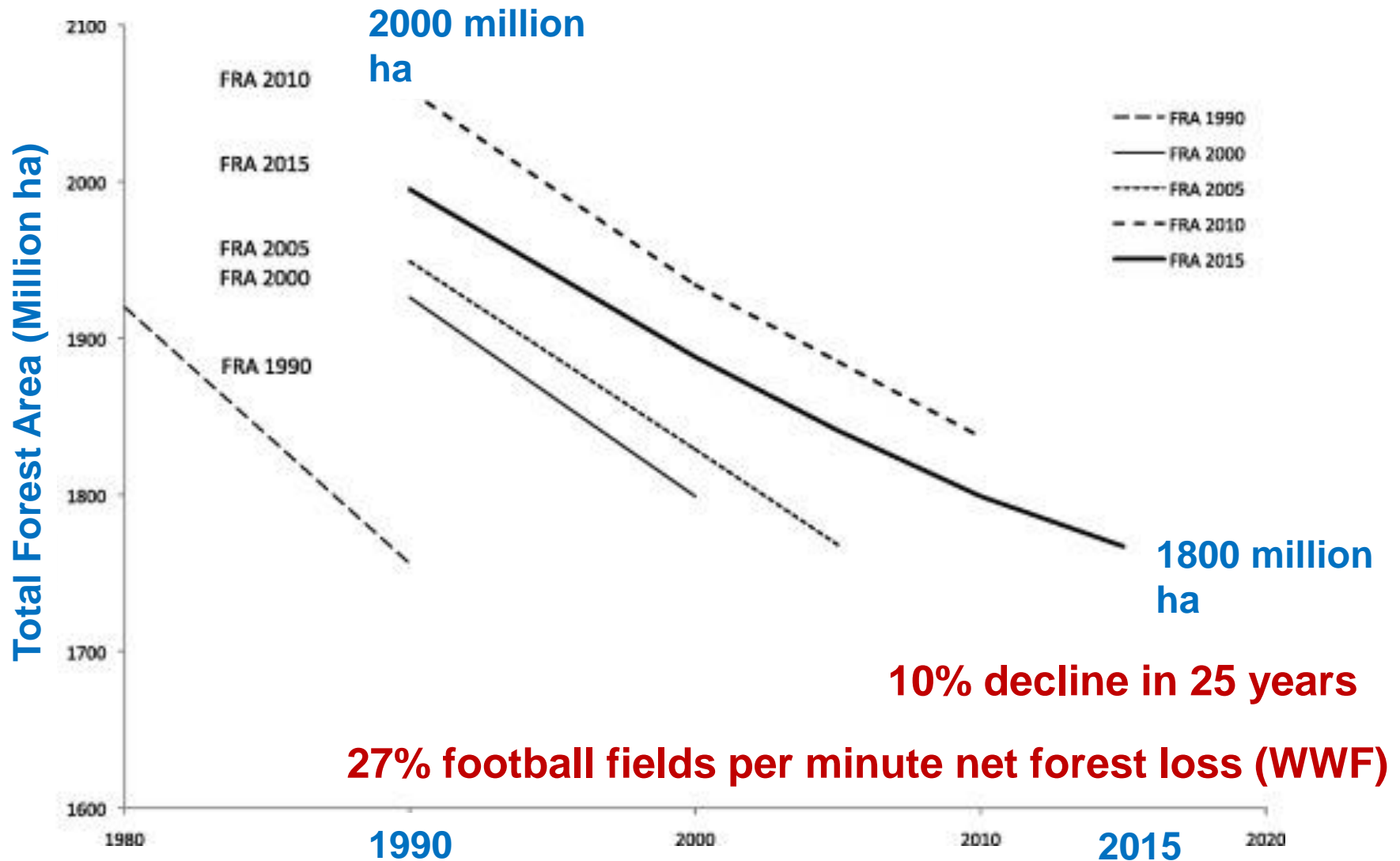
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Global forest decline: a grand challenge



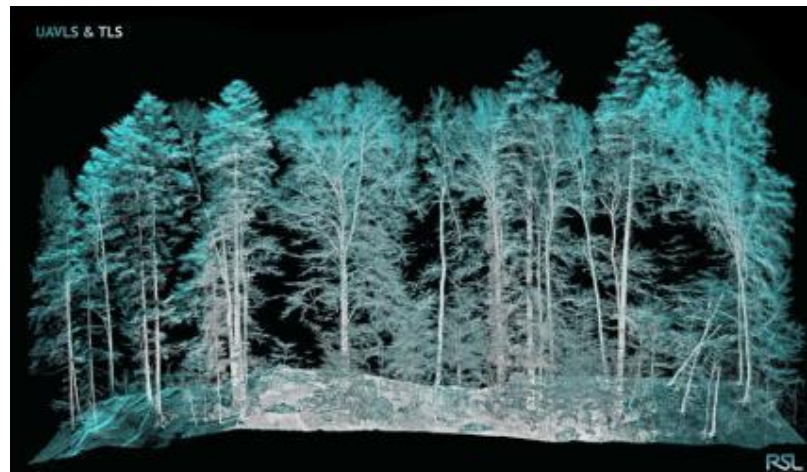
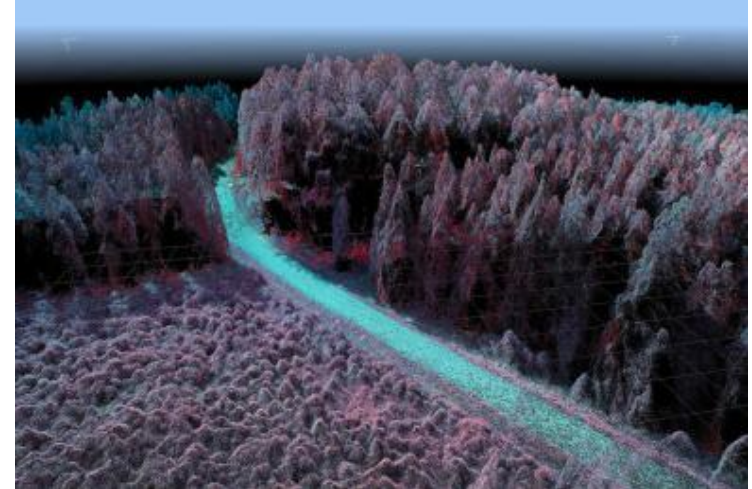
How technology can help to conserve and nurture our forests?

Technological development (e.g. in forest survey)



Forest survey
Bavaria, 1598

Technological development (e.g. in forest survey)



Forest survey
Bavaria, 2019



Bayeux Tapestry- Felling trees for William's invasion. Norman Invasion to England in 1066.

Technological development (e.g. in tree harvesting)



Technologies involved in forestry sector

1. Nursery technologies
2. Forest site preparation and planting technologies
3. Geospatial technologies
4. Wood processing technologies
5. Wood product technologies (timber, veneer, composite wood, particle boards, pulp etc.)
6. Woodbased energy technologies (e.g. pallet)
7. Wood construction and furniture technologies

Why we need TA in forestry sector?

How you see a forest?

Mono-functionality (monoculture)



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Multi-functionality (mixed forest)



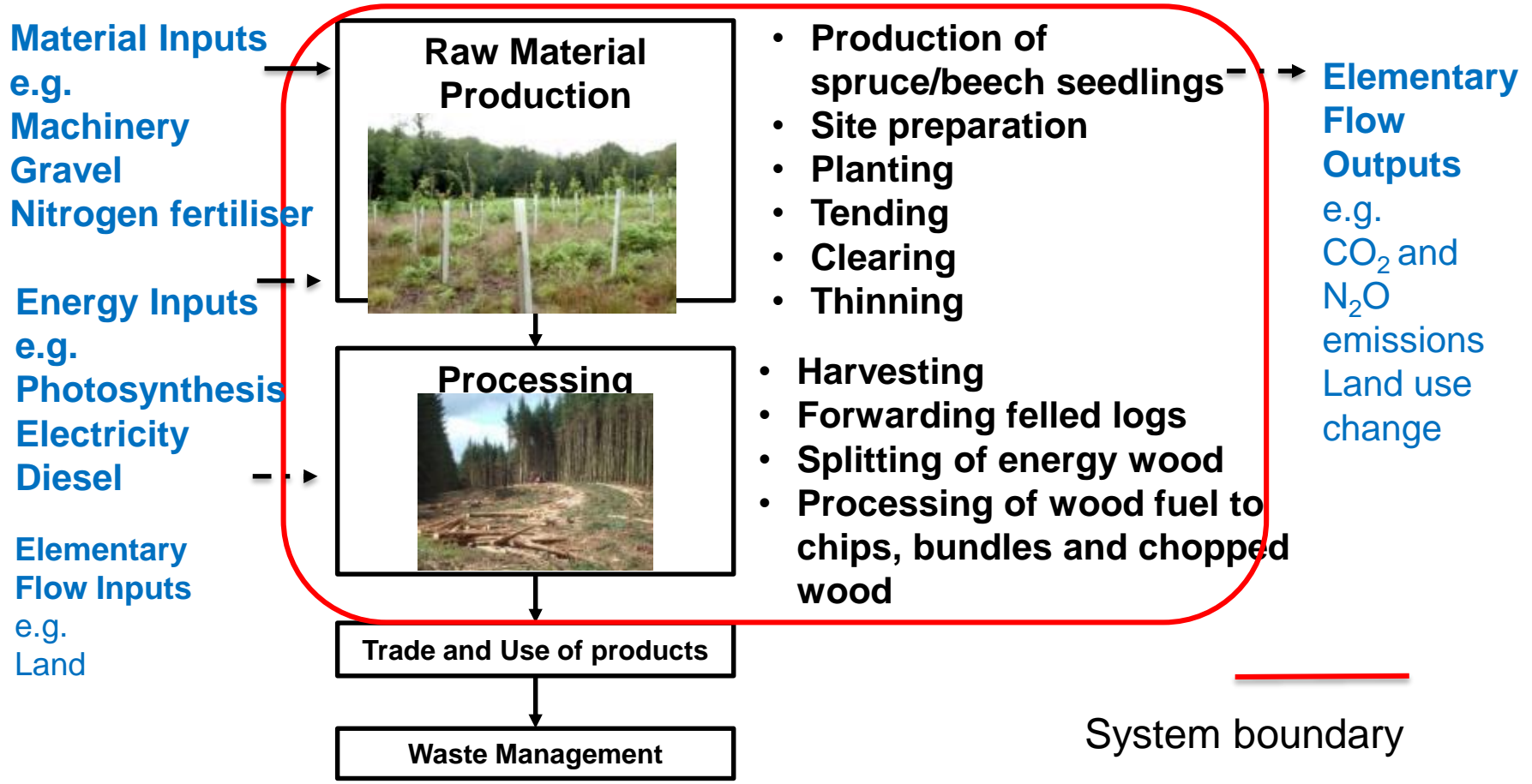
A morally corrupt economic system (case of Brazilian Eucalyptus plantations)



This plantation timber will then be sold in IKEA, EU as certified product!!!

Where is our Values of Environmental Ethics?

Need for a new system boundary for future LCAs



What we should do in future?

1. We need an integrated approach for TA assessment for forest sector
2. We need to develop a standard framework for combining different assessments (e.g. Sustainability Assessment, Environmental Impact Assessment, Life Cycle Assessment, Forest Certification etc.) under one umbrella
3. We need more data (so more research) to improve future LCAs in forestry sector
4. Involve more stakeholders than depending on commissions set up by specific experts with specific views: [participatory environmental governance](#)
5. Globally, we need to advocate for GlobalTA in forestry sector for different countries

Thank you



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