

# United States Southeast – BioTrade2020plus Case Study

Prof Gert-Jan Nabuurs

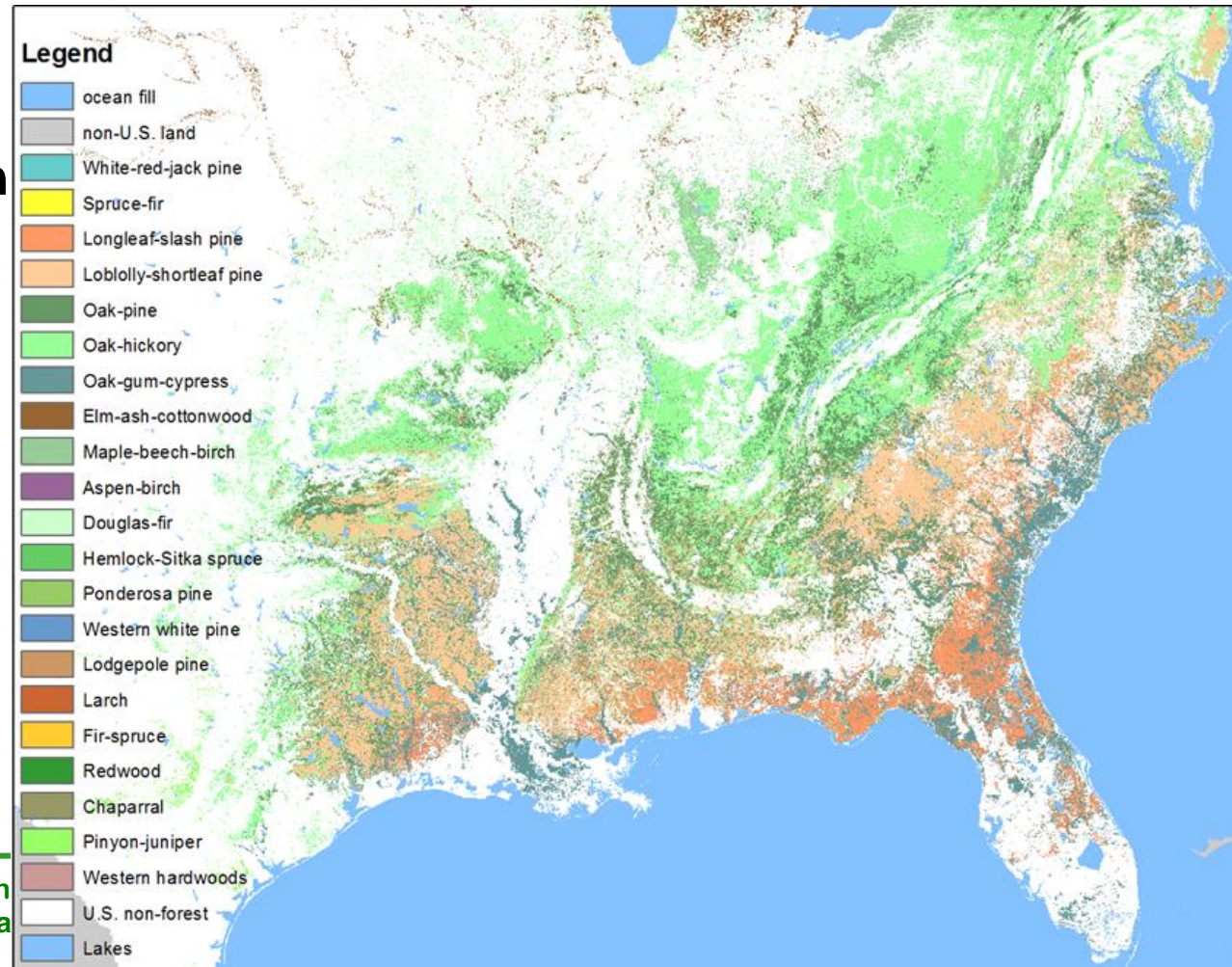
Berien Elbersen, Igor Staritsky (Wageningen UR)

IINAS: Kevin Fingerman, Leire Iriarte, Uwe R. Fritsche

Utrecht University: Martin Junginger, Lotte Visser, Thuy Mai-Moulin

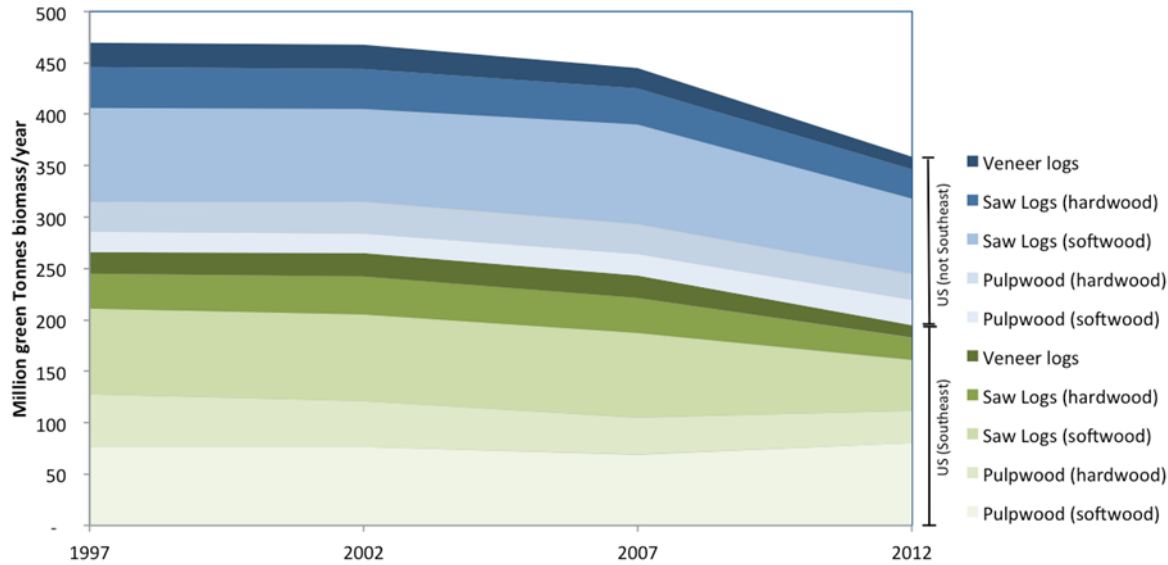
# Sustainable Lignocellulosic Biomass Potentials in SE USA

- I. Overview
- II. Methodology & Scenario Approach
- III. Results
- IV. Conclusions & Discussions



# A region which quickly developed the pellet production

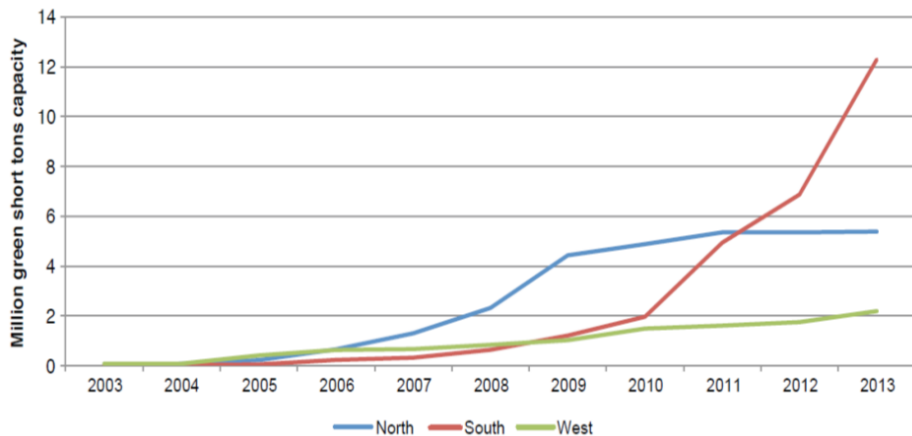
## I. Country overview



## Key sustainability issues:

*Sustainability of forest management*

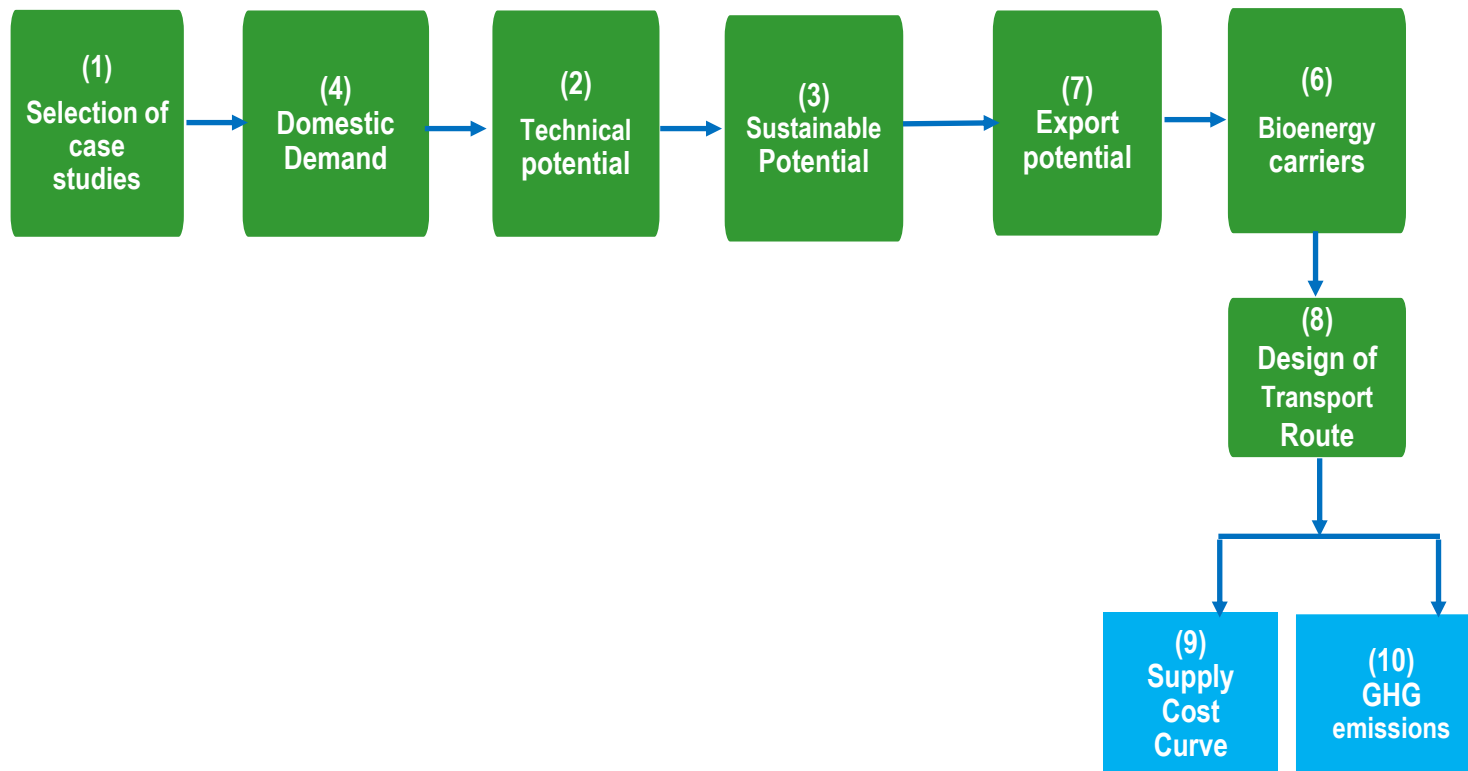
Roundwood removal



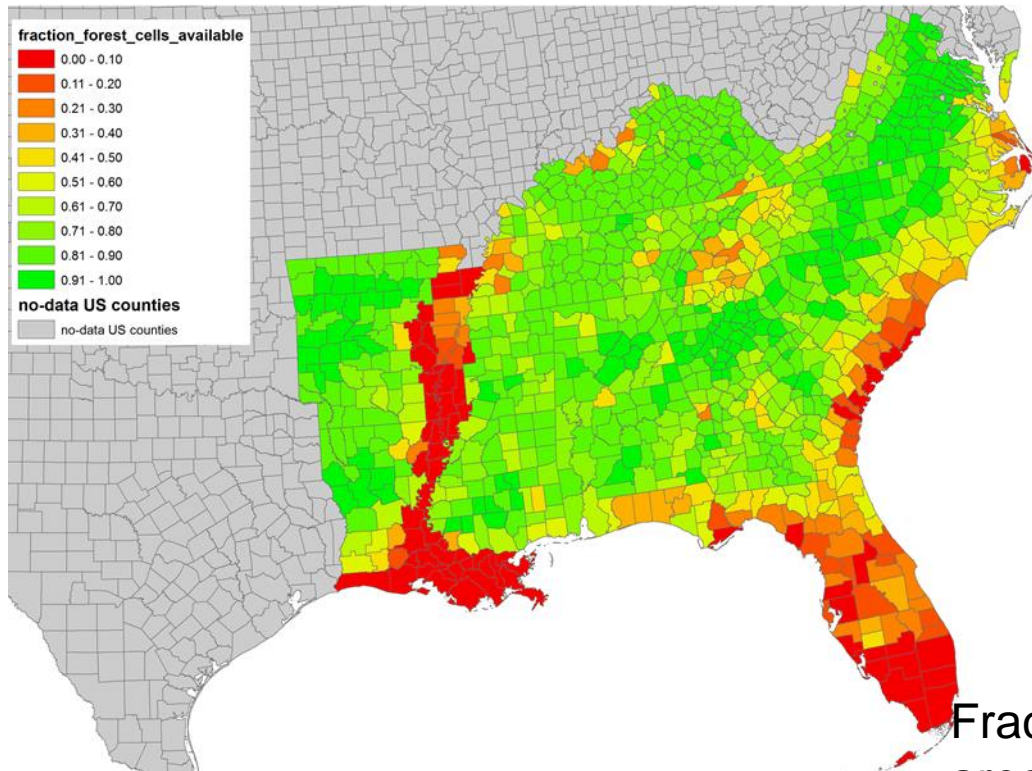
Pellet production in SE USA

## II. Methodology & Scenario approach

Scenarios Timeline	BAU			Optimistic		
	Current *	2020	2030	Current *	2020	2030

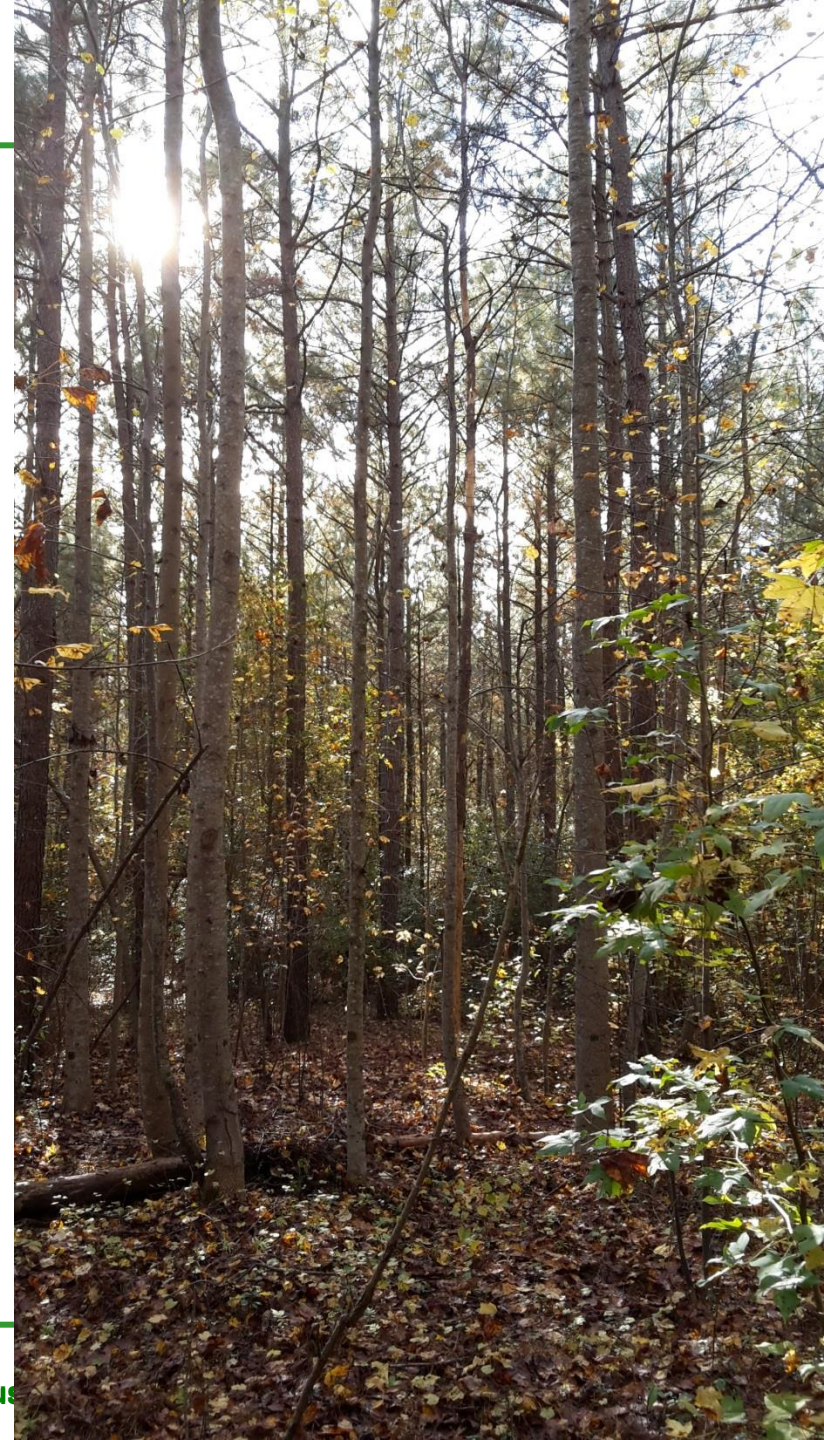


- Protected areas, Galik & Abt (2015)
- Other set-aside areas of special biodiversity concerns as per the rarity weighted richness index (NatureServe 2013)
- A partial set aside based on forest types of the US SE. In particular, the exclusion of gum-cypress, and a 10% exclusion of oak-pine forest types (IINAS, EFI & JR 2014).



Fraction of each county's forest area that remains available

- **Loblolly – shortleaf plantations**





- **Landing site with sorting for sawlogs and pulp/pellet logs and residues**



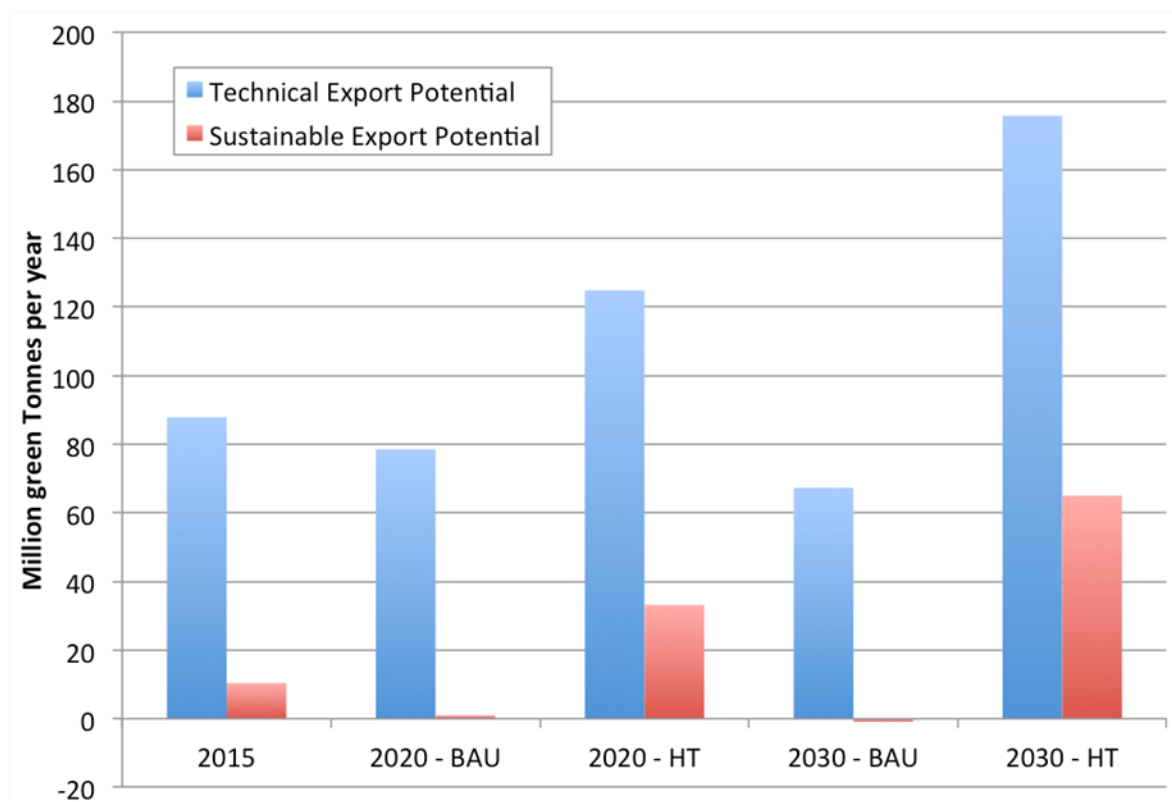


## Log yard Enviva, Southampton, Virginia

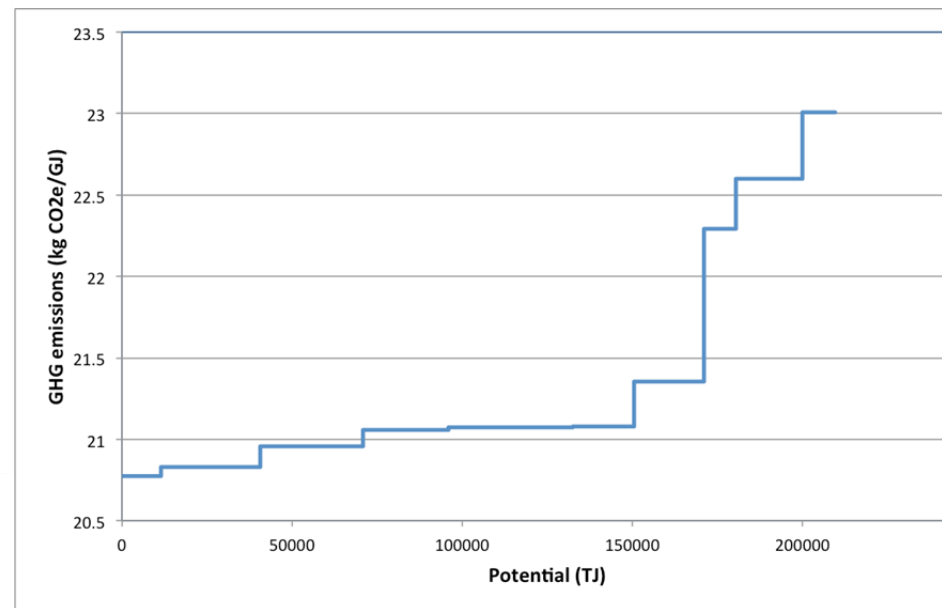
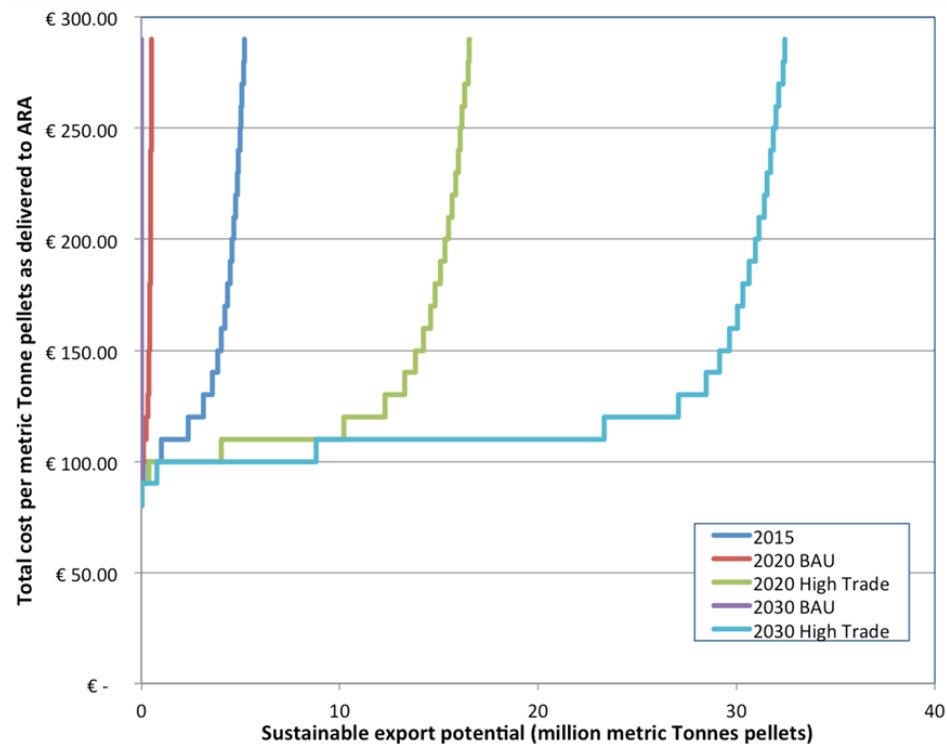


# III. Results (1): Potentials

Technical export potential and sustainable export potential



## III. Results (2): Costs & GHG - sources to port



GHG supply curve

## **IV (A). Conclusions**

1. Very promising region for woody biomass based pellets; well established sustainable management
2. Best estimate of sustainable export potential ~20-25 million ton pellets/y
3. Sensitive to assumptions on pulp production
4. Sensitive to assumptions on sustainability constraints
5. Sensitive to applying sustainability constraints to whole SE USA production, or only to the part exported to EU

## **IV (B) Recommendations**

1. EU will require certification levels
2. Further work on implementing certification of land owners

# Thank You!

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