

Sustainable Lignocellulosic Biomass Potentials in Ukraine

Lotte Visser and
Prof. Dr. Martin Junginger



Universiteit Utrecht

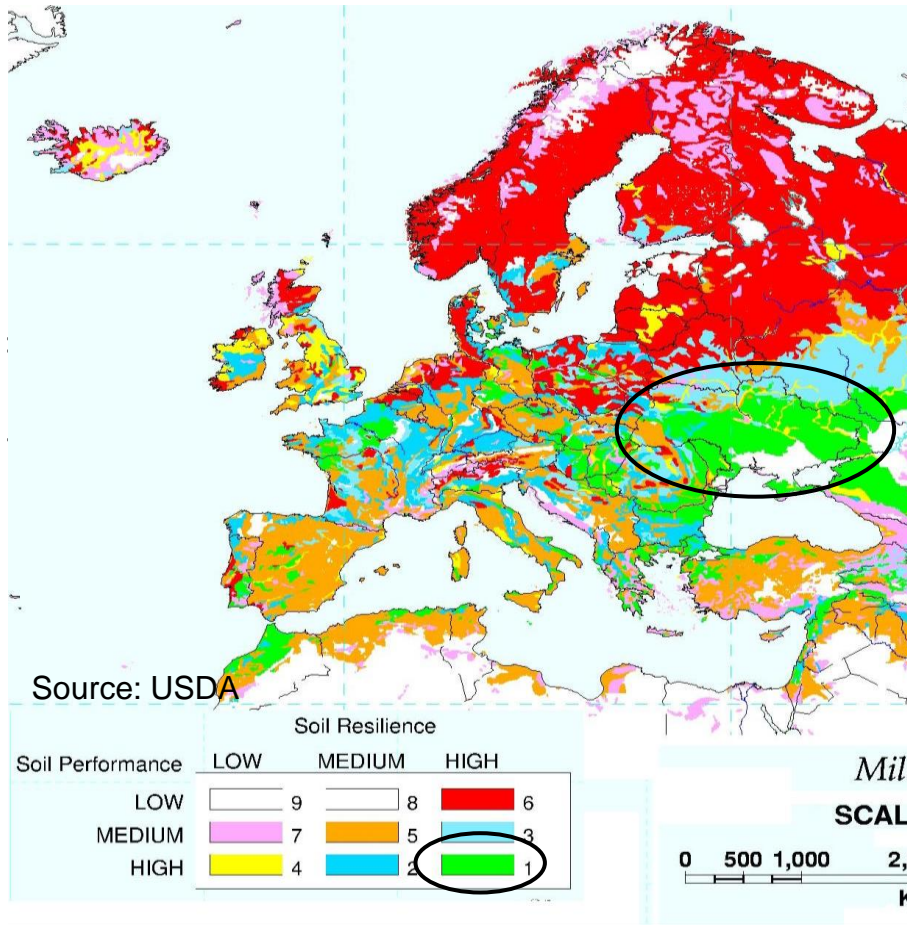
With supports of
Mathijs Weck

Sustainable Lignocellulosic Biomass Potentials in Ukraine

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



I. Country overview



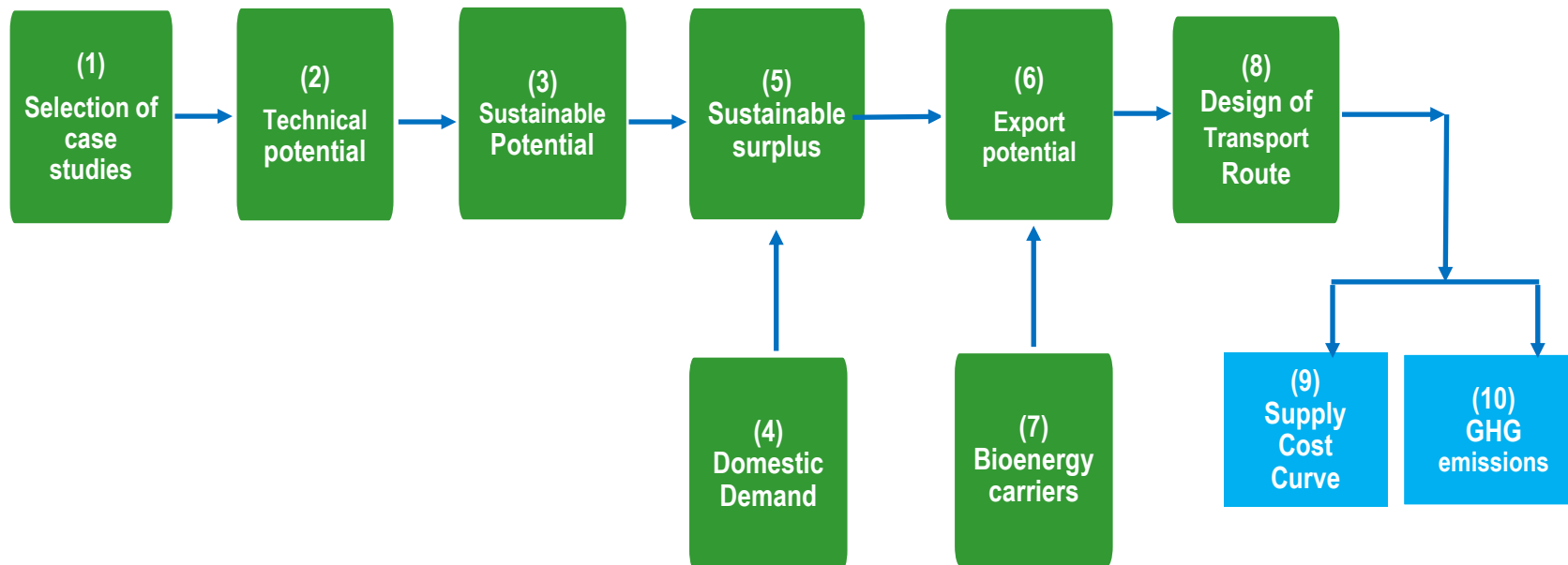
Key sustainability issues:

1. Land-use:

- Soil nutrient level
- Soil structure
- Biodiversity

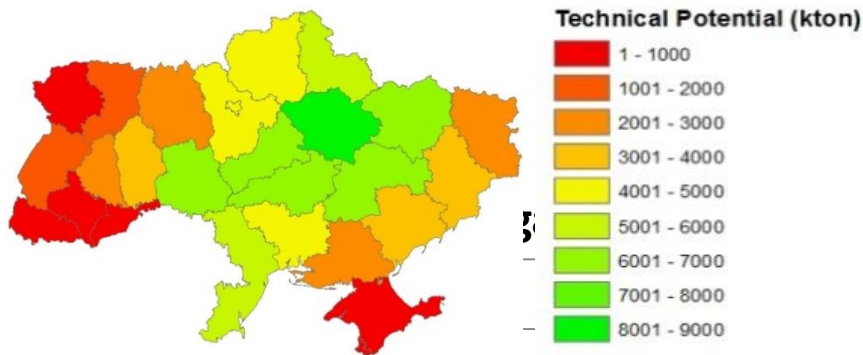
II. Methodology & Scenario approach

Scenarios Timeline	BAU			High Export		
	Current *	2020	2030	Current *	2020	2030



III. Results (1): Potentials

Agricultural residues – HE 2030



1. Agriculture:

- *Barley*
- *Maize*
- *Rapeseed*
- *Sunflower*
- *Wheat*

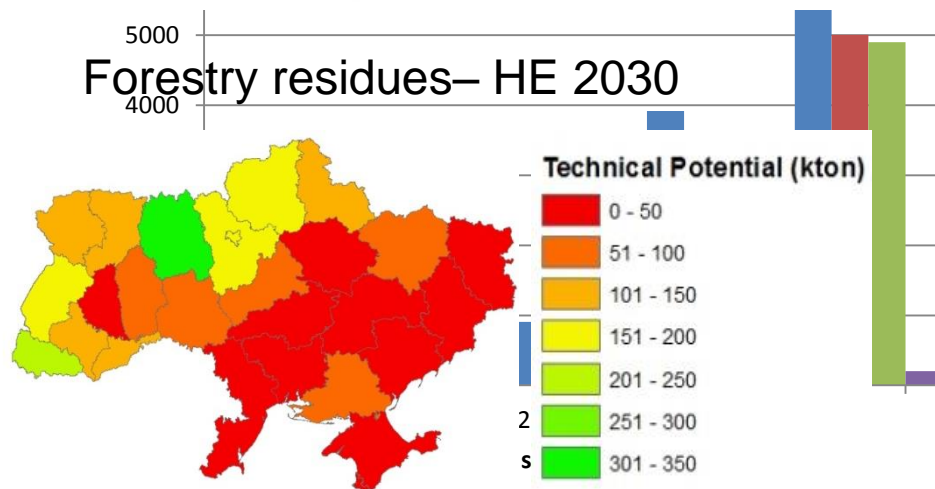
2. Forestry:

- *Primary residues*
- *Secondary residues*

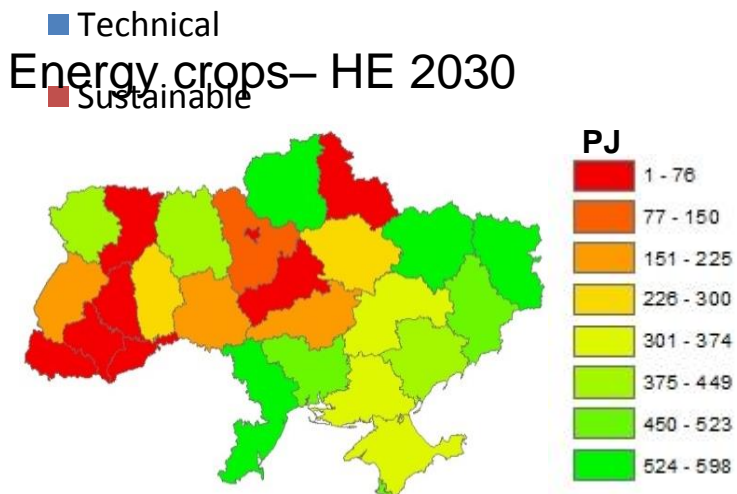
3. Energy crops

- *Wheat*

Forestry residues – HE 2030

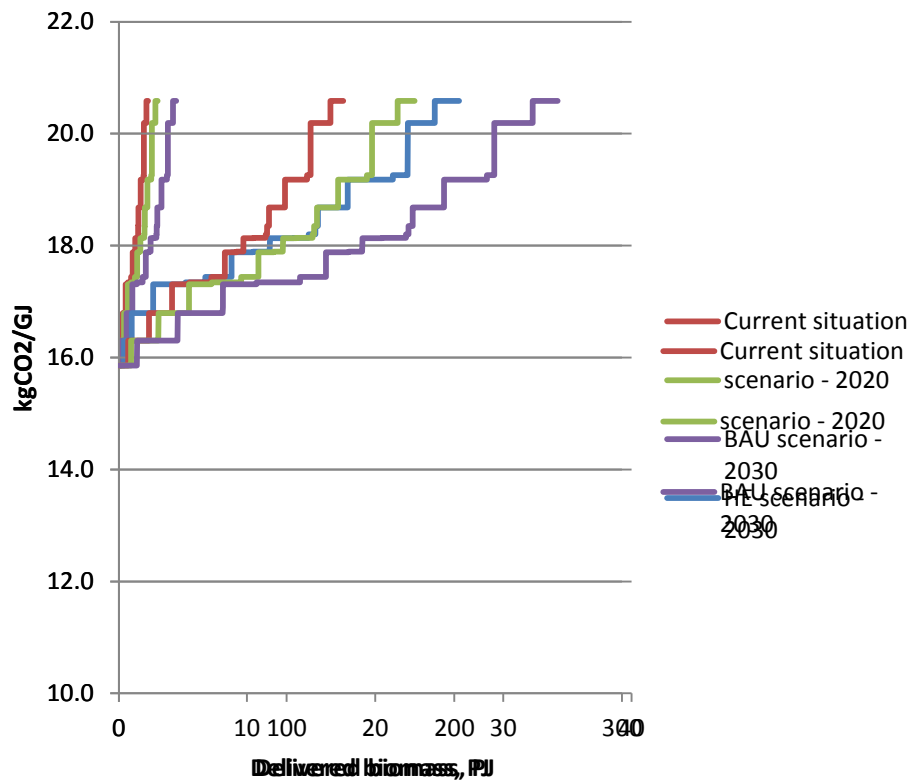


Energy crops – HE 2030

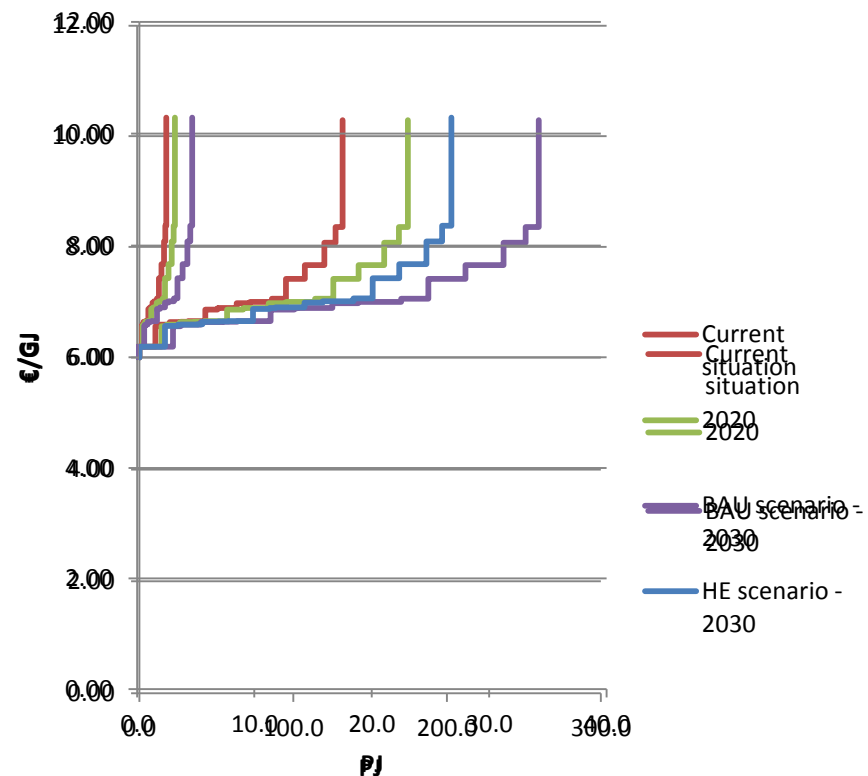


III. Results (2): Costs & GHG - sources to ports Ukraine

GHG supply curve



Cost Supply Curve



IV (A). Conclusions

1. Only slight increase of potentials towards 2020

- **Limiting factor** is pre-treatment capacity
- **Increases exponentially** towards 2030 in the HE scenario

2. Soil organic carbon content excludes some regions

3. Cost of agricultural residues are low – this will probably change if pellet production increases

IV (B) Recommendations

- 1. Research** on local logistical challenges & mobilization
- 2. Focus on developing pre-treatment plants**

Thank You!

Contact:



Universiteit Utrecht

Lotte Visser:

l.visser2@uu.nl, T. + 31 30 253 5536

Prof. Dr. Martin Junginger:

h.m.junginger@uu.nl, +31 30 253 7613

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