



# Impacts of current and future climate change

## socio-economic impacts / LULUCF

Johann Heinrich von Thünen Institut (vTI)  
Bundesforschungsinstitut für Ländliche Räume, Wald und Fischerei

Universität Hamburg, Zentrum Holzwirtschaft

Institut für Weltforstwirtschaft  
Hamburg

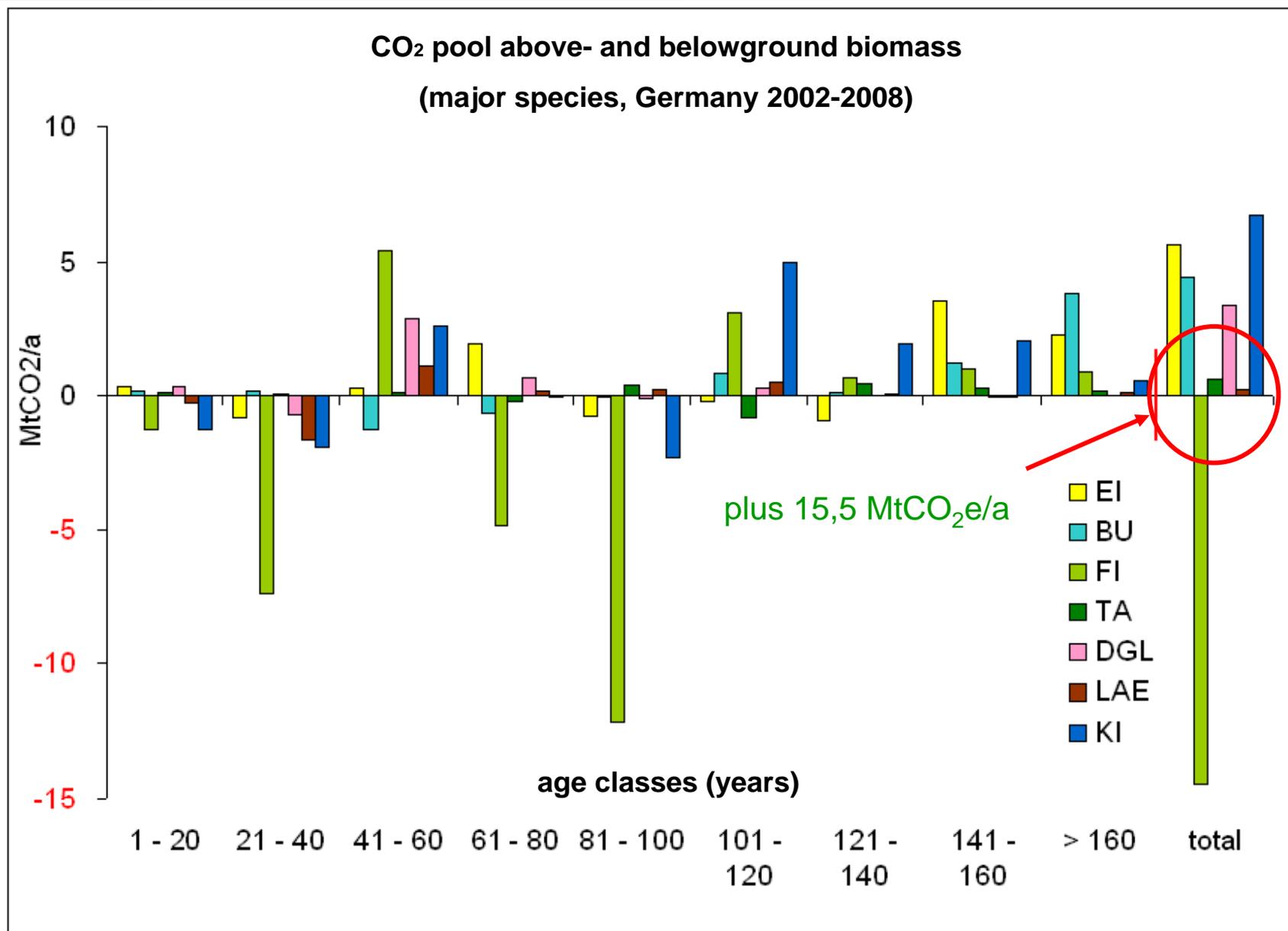
[www.worldforestry.de](http://www.worldforestry.de)



# Impacts of current and future climate change – socio-economic impacts (LULUCF)



- ➔ Impact on the resource base
  - site-suitability and adaptation-potential of (tree) species
  - resource availability will change accordingly (e.g. industrial timber supply)
  - consequences on carbon sequestration and GHG accounting
  
- ➔ Adaptation and mitigation activities
  - substitution effect (Forst-Holz Kette)
  - required planning horizons
  
- ➔ Greater impact of forest management than climate change



## Increased C-stock by reduced utilisation?

+ Short-termed increased stocks

- Long-termed reduction of the sequestration
- Increased risk of stands (age / density)
- Competition with further goals (resource supply, substitution effect)

## Adaptation by species choice and stand structures?

+ Precondition of any mitigation activity

- Market influence?

## Changes in Forest management?

+ Significant impact of „climate-optimised“ forest management

- Dominating impact of market demand / resource supply?

## Increased afforestation / reduced deforestation?

+ Large short term impact by reduced deforestation  
+ Large long term impact by afforestation

- Dominating impact of further interests / competition on space

## Utilisation of the “power plant”/ substitution effect?

+ Significant meaning of material and energetic substitution (cascade utilisation of long-living wood products)  
+ Supporting sustainable forest management

- Political support / incentives required
- Natural limits on the resource base, potentially conflicting goals

**Socio-economic impacts of climate change *or* on climate change changes?**

Danke

Joachim Krug

[joachim.krug@vti.bund.de](mailto:joachim.krug@vti.bund.de)

# Kohlenstoffspeicher durch Forstwirtschaft

