

R&D topics on biofuel feedstocks: Biomass availability and supply

Key messages from the SRA update

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Key messages from the SRA Update

Increasing the amount of biomass available under sustainable conditions was already identified as a critical challenge for biofuels in the 2008 EBTP SRA/SDD.

R&D recommendations: biomass availability and supply (1)

- Develop a common view on sustainable biomass availability across different sectors, shared with all relevant stakeholders
- Develop cost supply curves for existing and new feedstocks and given timeframes, regions, demands and plant types. Identify obstacles to mobilisation.
- Develop new plant/ tree varieties (crop/tree breeding and physiology); improve cultivation and management practices (propagation, cultivation systems, etc.) to optimise water and other inputs and increase productivity
- Optimise associated equipment to minimise logistics chain costs and to meet conversion requirements (integrated harvesting, collection and transport solutions for fibre/bio-materials and energy).

Feedstock Cost - Supply curve

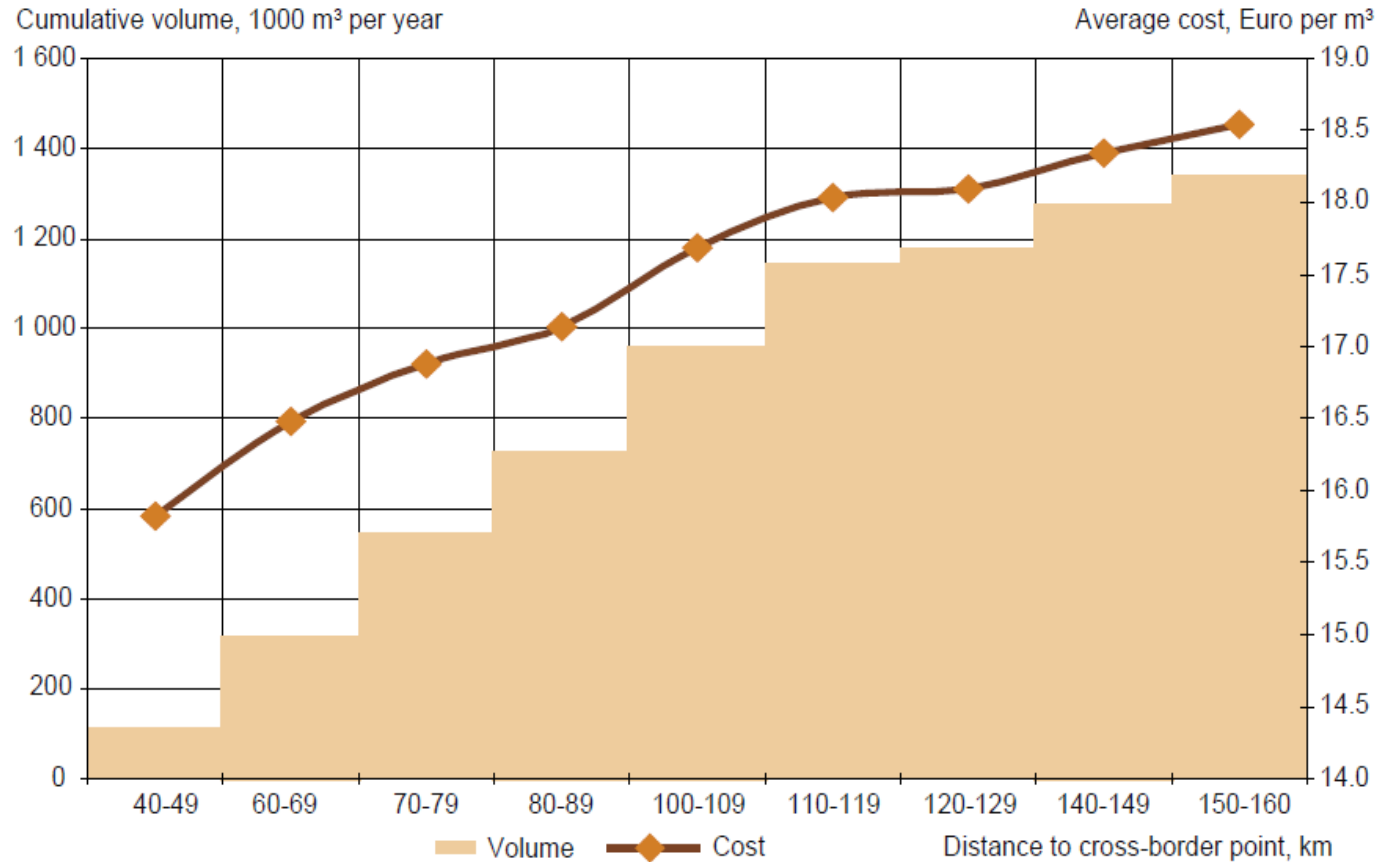


Figure 8. Cumulative average delivery cost for energy wood from harvesting to the border-crossing point by road. Note that x-axis is not linear.

Key issue: how to dimension production plants and logistic chains

Short rotation plantations have strong potential to increase energy yield per ha



Harvesting of Willow in the UK

With ~4 times the forest energy output per ha short rotation plantations could be an answer to limited forest biomass availability

R&D recommendations: biomass availability and supply (2)

- Develop large-scale logistics for new feedstocks or underutilised resources, optimise along the supply chain
- Competition in biomass use: research should focus on defining the ways and the criteria to assess which biomass can contribute to a sustainable biofuels market without directly competing with other uses (esp. food).
- Use of wastes and residues – maximising efficient closed loop cycles and biorefining

Policy recommendation: biomass availability and supply

- Future policy & implementation strategies should enhance complementarity and synergies among different sectors using arable land and/or biomass.
- In addition to biomass availability we have to analyze how many and what types and sizes of plants in each country is possible/required.