BioEconomy 2017 Plenary IV: Catalyzing a Global Advanced Bioeconomy

Biomass Feedstocks for Energy – IEA Bioenergy Task 43

12 July 2017

Presented on behalf of Task 43 Lead, Ioannis Dimitriou, Swedish University of Agricultural Sciences (SLU) Uppsala, Sweden

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Task 43 Biomass Feedstocks for Energy

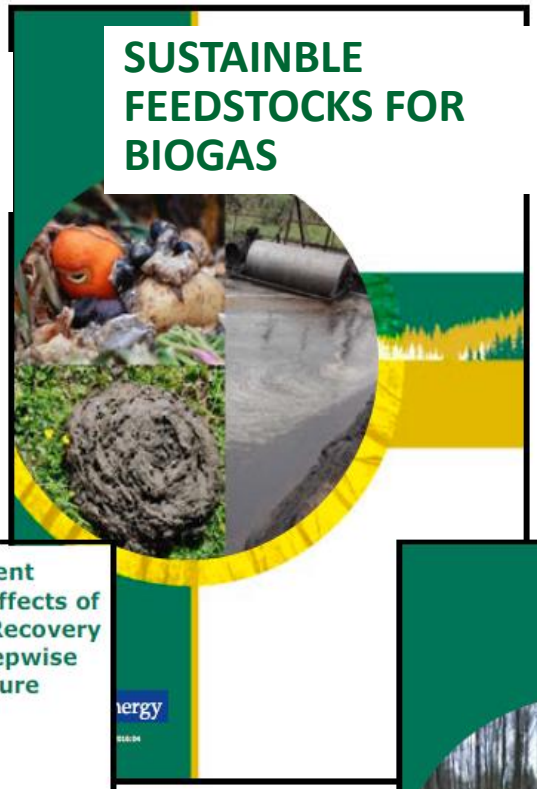
- Objective:
  - Promote sound bioenergy development driven by well-informed decisions of land owners, businesses, governments & other stakeholders.
  - Investigate & communicate best practices, engage with stakeholders to build trust, & make a difference on-the-ground
- Global Scope:
  - Commercial, near-commercial & promising feedstock systems
  - Agriculture & forestry
- Countries:
  - Australia
  - Canada
  - Croatia
  - Denmark
  - Finland
  - European Commission
  - Germany
  - Ireland
  - The Netherlands
  - Norway
  - Sweden
  - USA

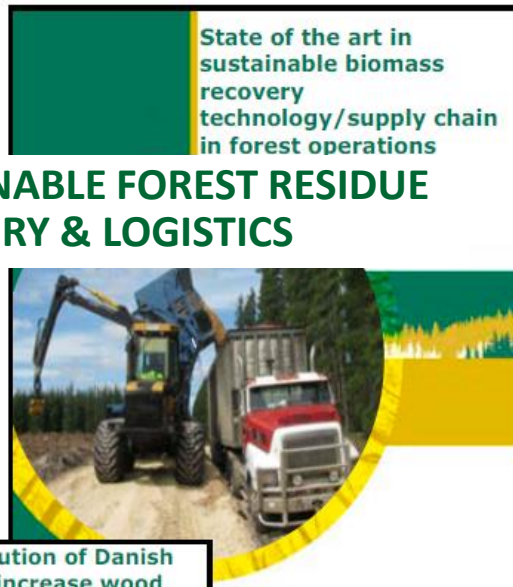
Source: Gustaf Egnell, Swedish University of Agricultural Science, Uppsala; Task 43 presentation in 'Generating Renewable Energy Business Enterprise' (GREBE) workshop, Joensuu, Finland; February 2017.

More information

- Task 43 biomass feedstocks: http://www.ieabioenergytask43.org/
- Sustainability Inter-task including workshop presentations: http://itp-sustainable.ieabioenergy.com/iea-publications

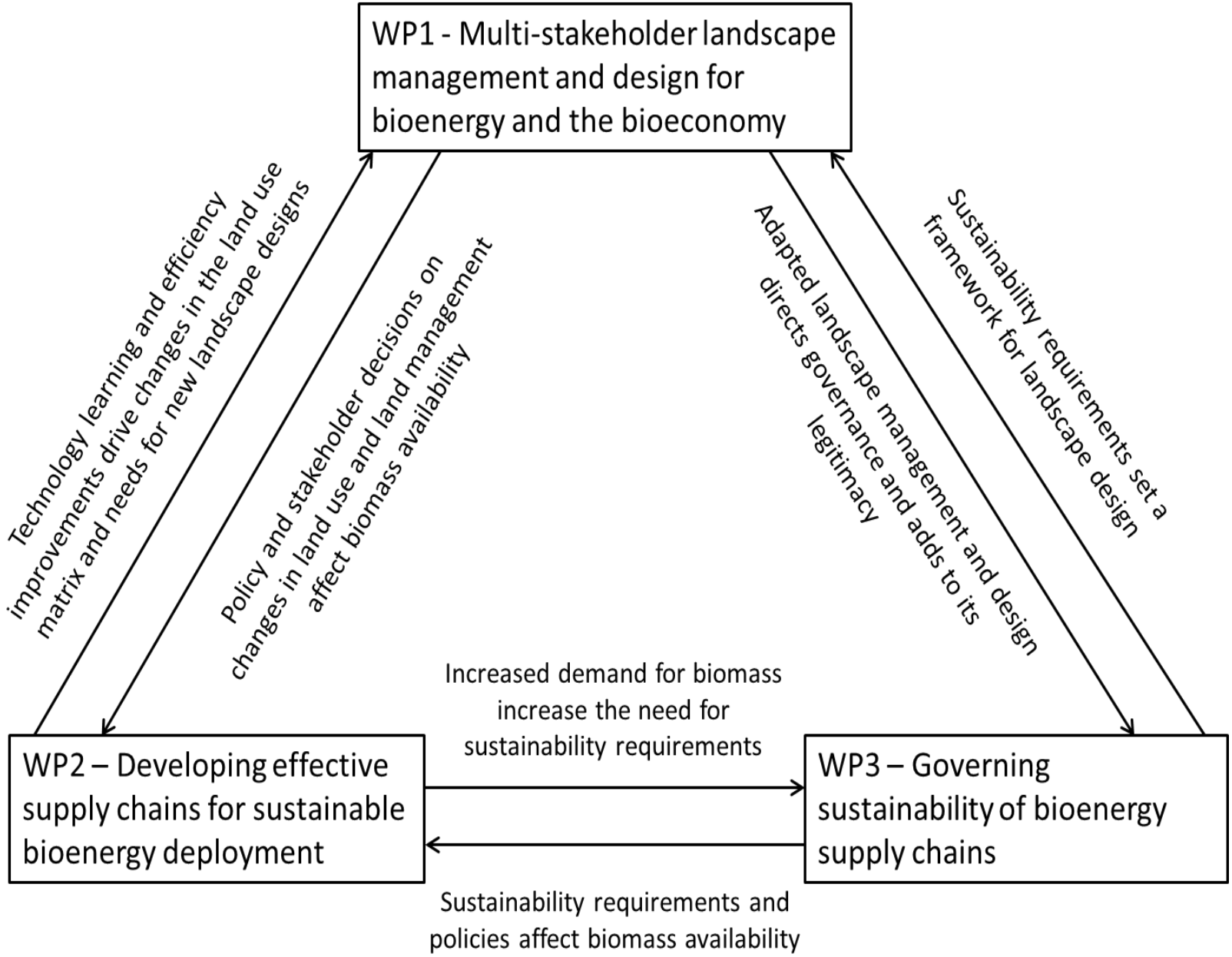
Biomass Feedstocks – example publications





NEW: FAO, IRENA & IEA Bioenergy position paper, June 2017

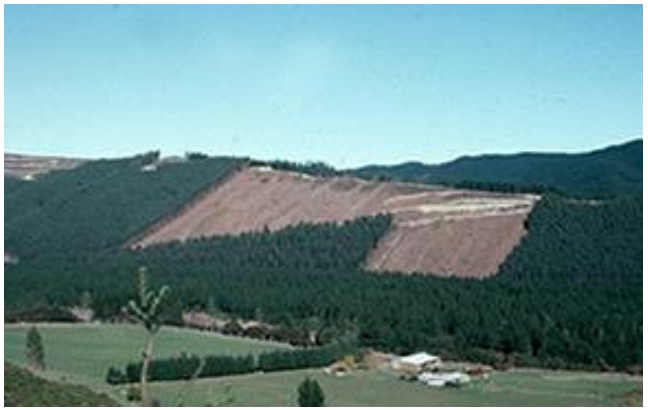
Biomass Feedstocks – 3 Work Packages (WP)



Biomass Feedstocks - Research Collaborations

Work Package 1:

- Improve landscape design & management for the bio-economy
- Share new knowledge for increased biomass production that also supports biodiversity & generates ecosystem services
- Current & planned activities include:
  - Case studies for landscape management approach (forest & agriculture)
  - Land-use scenarios to achieve regional ecosystem-service goals & illustrate implications of alternative land-use management choices
  - Practical approaches for implementing landscape indicators
  - Compilation: “Attractive systems for bioenergy feedstock production in sustainably managed landscapes” (contact bkulisic@eihp.hr if interested)



Biomass Feedstocks - Research Collaborations

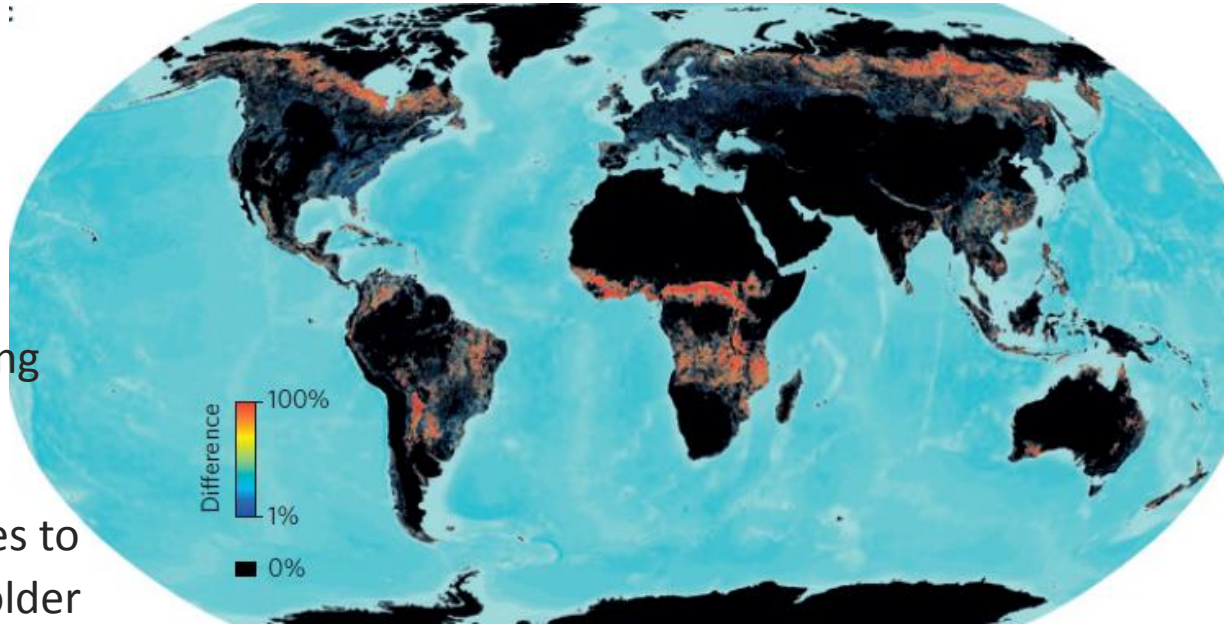
Work Package 2:

- Identify opportunities, strategies & practices for improved supply chains & supply chain technology to support large-scale bioenergy deployment
- Current & planned activities include:
  - EU influence on international biomass supply chains
  - Challenges & benefits of supply chain integration
  - Depots & integration for improved supply chains & flexibility
  - Efficient woody biomass supply within multi-forest product supply chains
  - The role of financing bioenergy projects in effective supply chains
  - Lessons learned from best supply chains

Biomass Feedstocks - Research Collaborations

Work Package 3

- How can regulatory **systems governing land use & bioenergy supply chains** be improved?
- Current & planned activities include:
  - LUC/ILUC analysis inventory
  - Assessment of governance addressing LUC impacts
  - Develop more consistent approaches to
    - consider stakeholder perspectives
    - monitor, assess & promote beneficial LUC
  - Improvement of LUCUCF methodologies & implications for carbon dynamics of forest-based bioenergy systems (with Task 38)



Sexton et al., 2015. Conservation policy & the [challenges in] measurement of forests

Biomass Feedstocks – Future Work & Inter-task

Upcoming conference: "***Governing sustainability*** of bioenergy, biomaterial, & bioproduct supply chains from forest & agricultural landscapes"

- 17-19 April 2018 in Copenhagen, Denmark
- Contact: Inge Stupak (University of Copenhagen, Denmark, ism@ign.ku.dk

Photos: Johannes Ravn Jørgensen, Aarhus University and Inge Stupak, University of Copenhagen

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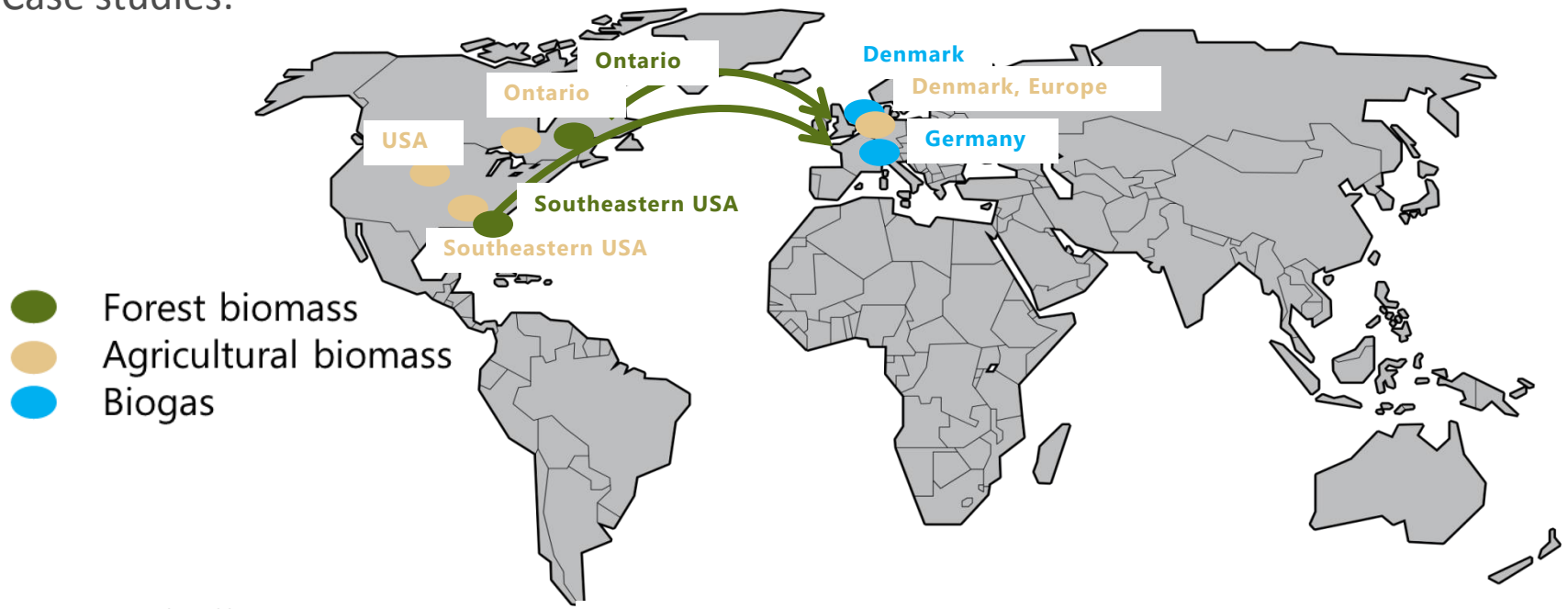
Biomass Feedstocks – WP3 and Inter-task

Case studies:



Future challenges:

- Risk-based approaches for sustainability assessment & management of high-conservation-value areas
- Creating incentives for continual improvement & adaptive management
- How & where to assign accountability?
- Jurisdictions for defining sustainability priorities & goals?
- Building trust with stakeholders & making a difference on the ground

Interfaces with BETO and USDA

IEA Bioenergy Task 43

- Case studies, landscape approach
- Communication

US Dept. Agriculture

- Monitoring
- Information

US Dept. of Energy

- Landscape design
- Indicators

Thank you!

CBES
Center for BioEnergy Sustainability

http://www.ornl.gov/sci/ees/cbes/

OAK RIDGE National Laboratory

More information: Task 43 biomass feedstocks: http://www.ieabioenergytask43.org/

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Biomass Feedstocks - Objectives

- Promote sound bioenergy development driven by well-informed decisions of land owners, businesses, governments & others.
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