



DANUBIOM project proposal

*9th Steering Group Meeting of the Priority Area 2
Budapest, 4th December, 2014*

Norbert Kohlheb

Institute for Nature Conservation and Landscape Management

Background

- ▶ Danube Region Biomass Action Plan (ÉMI)
 - Problem areas are identified
 - Joint declaration: no need for additional sustainability criteria
- ▶ European Commission worries about bioenergy
 - GHG and energy efficiency
 - Sustainable use of resources
 - Strategy development is promoted
 - Legislation is adjusted



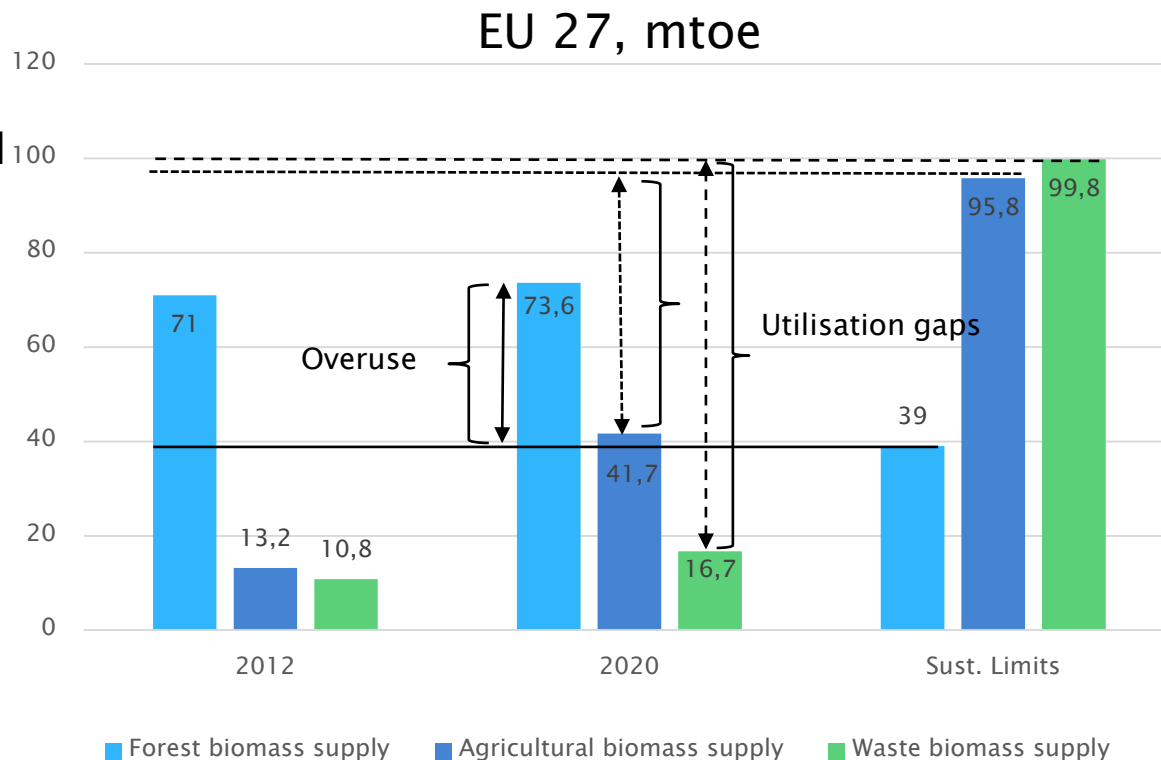
Challenges

- ▶ Woody resources
 - Increasing demand
 - Decreasing availability



Overuse

- ▶ Waste&agric. res.
 - Utilisation gap



Sources: SWD(2014) 259 final; EEA 7/2006

Problem areas – DRBAP

- Information deficit on RE technologies and environmental aspects;
- Fragmented bioenergy market and energy infrastructure;
- Contradictory/not relevant national and EU level policies;
 - inefficient energy utilisation;
- Inappropriate technologies:
 - missing holistic technology application: lack of knowledge related to complex decentralised energy systems;
 - problem of fit of investments and technologies

Sustainability risks (SWD(2014) 259 final)

▶ Resource depletion

- Soil erosion
- Reduction of SOC
- Decreasing water table



Shrinking
cultivation
area



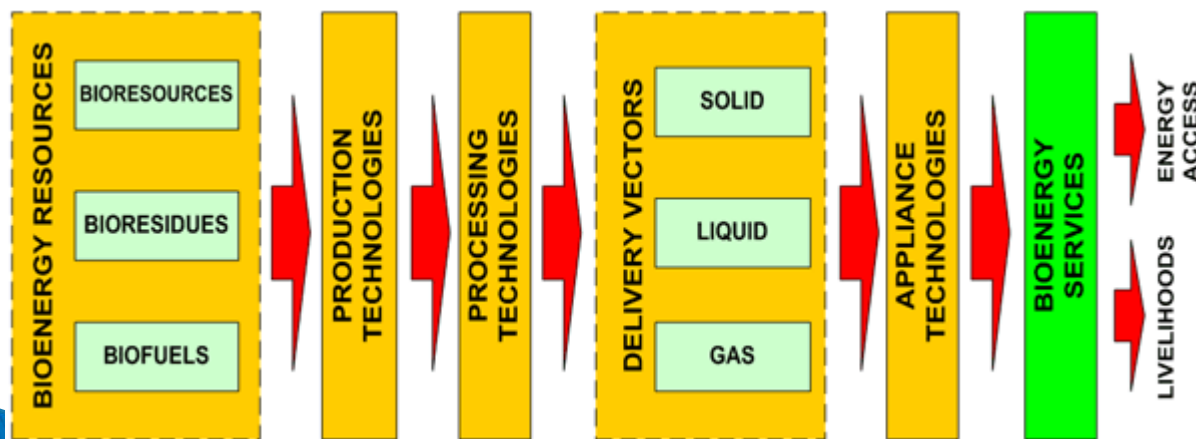
Forrás: EEA 37/2004, Centeri Cs.

▶ Inefficient bioenergy generation

- Increasing emissions from land use land use change and forestry (LULUCF);
- Deteriorating life cycle GHG emission performance;
- Indirect impacts, e.g. indirect land use change;
- Airborne emissions.

Solutions – current developments

- ▶ Analysis of bioenergy pathways
 - Main aspect: GHG, energy efficiency
- ▶ Adjustment of legal framework
- ▶ Support for community based utilisation
- ▶ Setting environmental standards



<http://practicalaction.org/images/bioenergy-pathways.gif>

Project ends and means

Improve environmentally sustainable and energy efficient bioenergy utilisation

Increase awareness of sustainable bioenergy practices

Assist the development of a sustainable bioenergy infrastructure

Enable a well-functioning bioenergy market

Propose necessary harmonization of policies in line with the sustainability requirements

BIOMSAT

DANUBIOMSTANDARD

Training and demonstration sites

Community based planning practices

Rank most common technologies according to their performance in sustainability

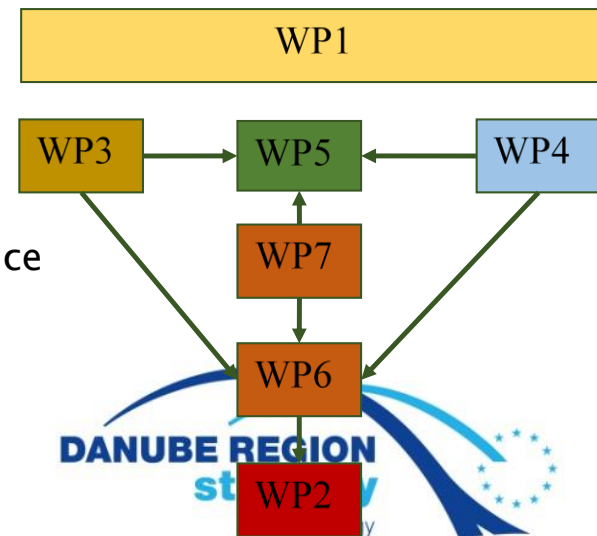
DANUBIOMSTAT

Provide financial models

Set environmental criteria for sustainable bioenergy utilisation

Structure of the project

- ▶ WP1. Project management and coordination
- ▶ WP2. Communication, knowledge management and dissemination
- ▶ WP3. Developments of relevant bioenergy pathways in the DR
 - Stakeholder analysis
 - Market development – On-line platform, ESCO
 - Financing model
- ▶ WP4. Creation of the common data base
 - Screening of data sources
 - Development of a data management scheme – DANUBIOMSTAT
- ▶ WP5. Danube Region BioEnergyStandard
 - BIOMSAT
 - Setting Sustainability Criteria
 - Develop a Standard – DANUBIOMSTANDARD
- ▶ WP6. Technology and knowledge transfer
 - Planning methodology – social aspects, stakeholders
 - Technology development and adjustment
 - Demonstration sites – innovation network of excellence
- ▶ WP7. Bioenergy policy



Current status of the project development

- ▶ Draft project concept has been developed
- ▶ Workshop organised with more than 40 participants from 7 countries
- ▶ WP leader institutions have been nominated
- ▶ Elaboration of WPs in detail by the WP leaders – 15.12.2014
- ▶ Final selection of partners – Middle January 2014
- ▶ Letter of intent – End of January



DANUBIOM Project Workshop,
Budapest 13. November 2014

Team

- ▶ **Csaba GYURICZA**, PhD in Agricultural Sciences, Assoc. Prof., Dean of the Faculty of Agricultural and Environmental Sciences, Director of Institute of Crop Production.
 - *Areas of expertise*: land use, energy crop production systems, biomass utilisation.
- ▶ **Norbert KOHLHEB**, PhD in Social Sciences, Assoc. Prof. of the Institute of Environmental and Landscape Management.
 - *Areas of expertise*: environmentally sustainable bioenergy utilisation, social assessment of renewable energy sources.
- ▶ **Gergő Péter KOVÁCS**, PhD in Agricultural Sciences, Assist. Prof. of the Institute of Crop Production, Director of SZIU Pilot Farm for Crop Production and Biomass Utilisation.
 - *Areas of expertise*: biomass utilisation techniques, energy crop production systems.
- ▶ **Péter TÓVÁRI**, MSc in Agricultural Engineering, Assist. Prof. of the Institute of Crop Production.
 - *Areas of expertise*: biomass utilisation methods, complex decentralised energy systems.

Thank you for your kind attention!



<http://www.guarden.eu/>

<http://www.coach-bioenergy.eu/>

<http://www.mkk.szie.hu/>

Szent István University

Address: 2103 Gödöllő, Páter K. u. 1

Tel.: +36 28 522 000

