

ETIP Bioenergy – Working Group 1, Biomass Availability

Webinar 15.04.2020, 14:30-15:30

Participants: 77 (formal WG 1 members and other interested stakeholders)

Summary

Prior to the Webinar all Working Group 1 Members were briefed on the agenda and overall theme of the discussion. The agenda items listed cover the latest developments and innovative solutions for the sustainable production of biomass and low-ILUC risk options in agriculture, including:

- Growing perennial crops on marginal land in Europe for bioenergy
- Results of innovative cropping schemes for integrated food-and-biomass crops
- The role of agriculture in soil carbon storage and how to empower farmers
- Discussion and short updates on challenges, policy and research trends
- Planning of the Working Group activities and publications for 2020

The webinar began with a presentation from Wibke Baumgarten, representing the FNR- Agency for Renewable Resources in Germany, and covering the first topic of the agenda. Wibke began by restating the definition of Marginal Lands (MagL) as: *land of poor quality for agriculture or susceptible to erosion or other degradation*. Wibke continued that these technical definitions and terms are one of the biggest challenges in terms of MagL utilisation, including the vast amount of various land categories as well as the potential of these land types - in producing biofuels in a sustainable and cost-efficient manner.

Q&A directed at Wibke's topic:

- Q- *Will the life cycle assessment be used to grow energy crops for bioenergy on MagL? What is the status of ILUC analysis on MagL?*
- A- *A life cycle assessment was conducted in [SEEMLA](#), and it really depends on what system you are looking at, and what value chain you want to look into. It is on a per case basis. However, SEEMLA focused on the use of biomass for pellet production.*
- Q- *For the yield projections that were shown, as MagL are mostly dry lands, are irrigation needs also taken into account?*
- A (from both Wibke and Popi)- *Irrigation needs have been met in the countries that require them-* The presented data include irrigation requirements in countries that have low rainfall during the annual crop cycle.

Andrea Parenti, DISTAL (Department of Agricultural and Food Sciences), University of Bologna- presented the next agenda item. He introduced his project [BECOOOL](#), an experimental study identifying integrated cropping systems including lignocellulosic

as well as food crops. Andrea stated that the challenges of this innovative system include identifying the crops, updating farming equipment and farmers having to grow unfamiliar crops. The advantages Andrea listed consisted of: Enhanced soil fertility, reduced soil erosion, sustainable cropping systems due to low input requirements such as fertiliser, market opportunities and decreased economic risk for farmers, as well as the production of feedstock without competing with food and feed production.

Q&A directed at Andrea's topic:

- Q- *Is there a risk of introducing invasive species to the perennial crops by utilising this approach?*
- A- *As the crops are for energy, we can harvest the crops before they come to seed which avoids this issue*
- Q- *Are Nordic countries applicable to the integrated cropping system model?*
- A- *In BECOOL the crops were chosen for Southern Europe. Hemp is cultivated in Northern countries, however for such crops like biomass sorghum, they will need a warmer climate.*

The third agenda item was addressed by Calliope Panoutsou, Imperial College, London. She began by stating that solid organic carbon can be seen as the common denominator in regard to combating climate change. In regard to empowering farmers, Popi suggests a policy reformation including suitable policy interventions such as ecosystem service payments, certification schemes, carbon credits from soil organic carbon projects on degraded land, etc. Specific policy interventions set in place by REDII and mentioned by Popi: Payments for natural constraints and other region specific constraints (ANC) Payments for management commitments (environment, climate, genetic resources, animal welfare). The following result indicators can measure these: carbon storage in soils and biomass, and green energy produced from agriculture and forestry. This will lead to the following impact indicators: Enhancing carbon sequestration by increasing the soil organic carbon, and increasing the sustainable energy in agriculture, by the production of renewable energy from agriculture and forestry.

- Q- *Are there evaluations of economic viability in terms of a break-even point?*
- A- *We do have an economic viability break-even yield: <https://www.mdpi.com/1996-1073/13/5/1222>*
- Q- *What case studies have you done in regard to increasing the carbon content in the soil from MagL by growing energy crops.*
- A- *Popi is aware of many specific case studies that she will forward to address this question: The work done from SEEMLA and FORBIO in specific case study reports; e.g. <https://www.seemla.eu/germany/>, etc.*

End of the telephone conference