



Fostering sustainable feedstock production for advanced biofuels on underutilised land in Europe

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Background

In context of growing competition between land uses, bioenergy development is often seen as one of possible contributors to such competition. However, the potential of underutilized land (contaminated, abandoned, marginal, fallow land etc.) which is not used or cannot be used for productive activities is not exhausted and offers an attractive alternative for sustainable production of different biomass feedstocks in Europe. Depending on biomass feedstocks, different remediation activities can be carried out in addition. Bioenergy crops have the potential to be grown profitably on underutilized land and can therefore offer an attractive source of income on the local level contributing to achieving the targets of the Renewable Energy Directive (EC/2009).

The FORBIO project

The FORBIO project demonstrates the viability of using underutilised land in EU Member States for sustainable bioenergy feedstock production that does not affect the supply of food, feed and land currently used for recreational or conservation purposes. Project activities will serve to build up and strengthen local bioenergy value chains that are competitive and that meet the highest sustainability standards, thus contributing to the market uptake of sustainable bioenergy in the EU.

Presented results

The FORBIO project will develop a methodology to assess the sustainable bioenergy production potential on available underutilized lands in Europe at local, site-specific level. Based on this methodology, the project will produce multiple feasibility studies in three selected case study locations: Germany (lignite mining and sewage irrigation fields in the metropolis region of Berlin and Brandenburg), Italy (contaminated land from industrial activities in Sulcis, Portoscuso) and Ukraine (underutilised marginal agricultural land in the North of Kiev).

The focus of the presentation will be on the agronomic and techno-economic feasibility studies in Germany, Italy and Ukraine. Agronomic feasibility studies consider agronomic performances in different climatic zones, soil conditions, land morphology, availability of irrigation infrastructures and limitations due to anthropic soil contamination. The outcomes of the techno-economic feasibility studies for the biomasses selected as potentially feasible for underutilized lands in the selected case study locations will be presented.