More than food and fuel

Stakeholder perceptions of anaerobic digestion and land use; a case study from the United Kingdom

Mirjam Röder, Tyndall Centre for Climate Change Research, The University of Manchester, United Kingdom

Challenges
- Biogas/biomethane sector in the UK is relatively small but fast growing
- Is there a risk of replacing food crops for energy crops?
- Limited understanding of the context and wider impacts of land use in relation to the UK’s biogas sector

Objectives
- What is the stakeholders’ perception of land use and the role of agricultural land in the context of anaerobic digestion (AD)?
- What are the drivers, benefits and challenges for supply chain actors and stakeholders operating AD facilities and providing feedstocks?

Methods
- Stakeholder engagement activities including interviews with AD operators, trade organisations, farmers and site visits to AD facilities
- Stakeholder workshop with ranking exercise to quantify the preliminary results in an order of importance

Perceived drivers and benefits

Perceived challenges

Main perception of stakeholders
- AD operators:
  - AD is part of agricultural system
  - AD provides agronomic benefit
  - AD is local, importing feedstocks is uneconomic
  - Fit into/improve existing system
- Farmers:
  - Fit into/improve existing system
  - Must have low economic risk
  - Markets have big influence on production

Conclusions
- Drivers and benefits of AD are not necessarily related to the production of biogas or energy
- Stakeholders perceive policy uncertainties as major challenge
- Land use conflicts are currently not a cause for concern as long as AD provides agricultural solutions.
- But land use and related challenges need to be considered as the demand for AD feedstock is increasing with the growth of the sector
- Policies should consider synergies between energy generation and agricultural systems
- Motivations of and benefits for stakeholders will have an impact on sustainability and environmental targets and should therefore be considered in policy design
- Land use should not be oversimplified to a “single system”; AD and related land use need to be considered within its wider context of market development, social, institutional and policy framework, specific scale and location of the given agricultural system