

Key Messages from recent IEA Bioenergy Activities on Indirect Land Use Change

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and Perspectives on Science-Based Policies**
New York, May 15, 2009

IEA Bioenergy Tasks

- **Biomass resources:** Forestry and agricultural products, municipal solid waste,
- **Biomass conversion:** Combustion, thermochemical and biochemical processes, biorefineries
- **Bioenergy utilization:** Heat and power, transportation fuels
- **Integrating research themes:** socio-economic drivers, greenhouse gas balances, biomass trade, 2nd generation biofuels

IEA Bioenergy Workshops on ILUC

- **IEA Bioenergy Task 38 Land Use Changes due to Bioenergy: Quantifying and Managing Climate Change and Other Environmental Impacts**
Helsinki, March 30-April 1, 2009
- **IEA Bioenergy ExCo Workshop The Impact of Indirect Land Use Change (ILUC)**
Rotterdam, May 12, 2009

IEA Bioenergy T38 Workshop (1)

- **LUC occurs as a result of policies that promote biofuels; loss of soil C stocks reduces/negates GHG benefits of bioenergy**
- **Increased productivity of agriculture will reduce incidence of LUC; considerable potential in Africa and South America**
- **Expand system boundaries of any analysis to encompass all LUC impacts**
- **Many interconnected drivers of LUC – difficult to distinguish effects of bioenergy policy**
- **Ideally, policy measures should seek to manage the whole land use system**

IEA Bioenergy T38 Workshop (2)

- Full estimation and accounting is complex, with high transaction costs – but policy-makers look for generalisation.
- Analysts and researchers want greater accuracy but need to produce methods/tools that policy people can use. Perhaps focus should be on minimizing risk rather than being accurate
- Top-down models may not fit with the reality of bottom-up experiences
- iLUC approach attractive, but insufficient data to distinguish drivers and to assess impacts unless there is comprehensive monitoring to obtain accurate information on LUC

IEA Bioenergy T38 Workshop (3)

- Global cap on LUC as long-term solution, though practicability and effectiveness questioned by some participants
- Proposal to link REDD with bioenergy considered to have potential merit
- Consider more than just energy and greenhouse gas mitigation
 - ➔ Social implications
 - ➔ Multiple services (biodiversity, soil, water)
- Sharing of impacts of LUC amongst agriculture, bioenergy, energy, forestry and other sectors
- Improved research and data collection

IEA Bioenergy ExCo Workshop (1)

- **ILUC new area of research**: many questions, very few answers. *Work in progress*
- **Many models do exist**: different levels of purpose (geographical, sectors, users). *Need for harmonization*
- **Data availability and reliability** must be improved. *National bioenergy “observatories”*
- **Complexity**: need to integrate different sectors (agri, energy, finance), different policies (climate, biodiversity, social), different stakeholders. *Need for integration*
- **“Usability”** : For who? To do what ? *Dialogue*

IEA Bioenergy ExCo Workshop (2)

- **Perennial energy crops on marginal/degraded (tbd) land may offer good opportunities for minimizing ILUC**
- **iLUC factor: one approach to translate ILUC into policy measures, but still questions open**
- **Discussion of models can deliver ILUC results with sufficient accuracy**
- **Accompanying policy measures crucial to address e.g deforestation**
- **Long term solution: comprehensive global GHG regime**

IEA Bioenergy ExCo Workshop (3)

- **RSB Approach: voluntary global principles; to avoid ILUC reward producers through codes of conduct to increase yield**
- **RES-D (EU): Report on ILUC by March 2010 and minimise impact; regulations to be based on proper modelling and factoring in ILUC in GHG calculation or other measures**
- **CARB: Low Carbon Fuel Standard, GHG measure includes iLUC (+ further work)**
- **REDD (post-COP15 Copenhagen!)**
- **More exchange on science: data, models**

Task38/40: Objectives 2010–2012

- 1. Promote sustainable trade and use of biomass and bioenergy systems by increasing the understanding of (net) GHG benefits**
- 2. Improve “standard methodology” for calculating LCA GHG balances, incorporating new issues and technologies**
- 3. Work in cooperation with other IEA Bioenergy Tasks to assess GHG mitigation benefits of new technologies**
- 4. Assess and report on best practices for biomass and bioenergy use in participating countries**
- 5. Aid decision makers in developing sustainable bioenergy strategies by disseminating results of Task activities**

More information:

www.ieabioenergy-task38.org

www.bioenergytrade.org

www.ieabioenergy.com

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