Parallel break-out panel

Agricultural Biomass

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Note that names related to participants' statements – which were originally included in the group notes – were taken out to reflect that the discussion was under Chatham House rules.

IEA Bioenergy Roadmap Workshop - Sustainability Governance

Summary of Agriculture Discussion Sub-group

The following points were made in discussion

- Residues: are often utilized to a significant extent (e.g. 40%). Also agri-processing residues are often used as e.g. animal feed, horticulture etc. So use of residues is not a panacea.
- There is a need to differentiate between impacts on farm level. There is a need to define in a protocol how much can be taken from the ground. Monitoring of soil organic carbon in reality is difficult & costly. Is it only about good practices – can we define e.g. a maximum amount of corn stover/ha?
- Indirect impacts /diversion of residues already used for material purposes is under discussion but so far there is no conclusive result..
- Definition of residue vs co-product is important for allocation of environmental impacts
- "Risk" has been mentioned much more than "opportunity" in the discussions. A more balanced approach is needed.
- Risk-based approaches provide opportunities to simply burden of proof.
- Soil-C is important for climate. Policy on agricultural residues is missing in EU approach. Using default values is pointless, as local circumstances determine what removal rate is sustainable. Focusing on good practices' seems to be the best way
- **B**ioenergy land use tends to environmentally improve land utilisation. Bioenergy land use requires better land use management practices than e.g. for food (e.g. cattle). Feed/ meat can also be sold with bad land management practices
- The ability/opportunity to rehabilitate degraded land through other mechanism than food crops is important. Stimulation: agree on a set of good practices, create incentives and monitor
- FAO use of remote sensing to estimate availability of residues on 1 km2 square resolution, including monitoring fires. When residues on e.g. field are burnt this gives a strong indication that residues are not used. But local verification is needed.
- Residue logistics are a major barrier, but sugarcane trash collection on large-scale fields already going on today
- Ethanol demand and opportunity in Brazil helped to increase yields. Provided there's a market for it, investments in bioenergy should be seen as responsible agricultural investments
- Flexible crops which can be used as food & fuel are good - pure energy crops mean less markets. Agro-forestry systems are more resilient
- While a market for bioenergy can improve productivity, in the case of South Africa uncertain sugar markets prevented this happening with food prices are currently too low to justify investments

- Tertiary municipal organic wastes are part of the chain but logistic chains often still need to be developed. They offers potential to produce energy (using biogas) where people are with potential health benefits.
- Green cane harvesting in Fiji showed that costs and benefits of greening a supply chain can be at different places.
- Return of vinasse to avoid use of fertilizer is a good example of closing loops between ethanol producers and farmers.
- Jori: Holistic sust.criteria for all uses of biomass: how to keep it balanced?
- It is important to integrate energy and e.g. cattle production (e.g. through DDGS/ hydrolyzed bagasse as cattle fodder). But this requires cooperation with all actors involved.
- Penalties for not applying good practices are too low, so farmers do not care about doing it right.

Key messages

Residues:

- Need to differentiate between field-and process ag residues. Main issue is with field residues.
- There are issues with monitoring soil organic carbon. Having good practices as a start with indicative measurements, modelling and remote sensing can provide theoretical and actual potential for utilization.
- Good practices to maintain soil quality and ensure animal feeding/other uses should be part of good agriculture, especially in developing countries
- Developing logistic chains for agricultural residues is a challenge, but can be done for large-scale farming (straw, cane trash) if the market is there.

Agriculture in general:

- Provide market opportunities to stimulate sustainable production of bioenergy crops as a part of responsible agricultural investment.
- There is a governance frame work (Principles for Responsible Investment, PRI) for this, agreed by governments, NGO's &private sectors.
- The existing certification schemes/standards should be benchmarked against the PRI.
- Integrated systems for energy and cattle/food production should be promoted, but with supporting mechanism to make sure that benefits are shared