



IEA Bioenergy Roadmap Workshop - Sustainability Governance, Paris, 25 April 2017

Note on Sustainability Workshop, 25 April 2017, Paris

Background

The IEA is updating its roadmaps on biofuels and bioenergy, produced in 2011 and 2012 with the aim of producing a single roadmap covering the whole of bioenergy. The key findings from the roadmap will be made available in June and the full document published in September 2017.

Recent IEA analysis within the framework of its Energy Technology Perspectives modelling confirms that a significant contribution from sustainable bioenergy is an essential component of a low carbon economy as represented by the IEA's 2DS scenario and others which are consistent with more ambitious climate goal.

In order to contribute to these low carbon scenarios, bioenergy must lead unambiguously to carbon reductions and avoid unacceptable negative social, environmental or economic impacts. One key to the significant expansion of sustainable bioenergy therefore is a robust and practical sustainability governance framework in the context of the wider bioeconomy.

In order to help identify the key elements of such a framework, the IEA held a one-day workshop on biomass sustainability governance for invited participants on 25 April in Paris.

Workshop Aims and Agenda

This workshop was closely coordinated with work on bioenergy sustainability under the IEA's Bioenergy Technology Cooperation Programme, especially IEA Bioenergy Tasks 38, 40 and 43, and was a precursor to a further workshop being organized under their auspices in Gothenburg, May 18-19, 2017.

The **aim of the Paris workshop was** to review the criteria which "sustainable biomass" needs to meet - not only for bioenergy but also for other components of the bioeconomy - and to identify what principles need to underpin an appropriate sustainability governance framework, building on work already carried out by international organisations, national and regional and industry-based initiatives. The more specific objectives of the workshop were to consider:

1. To what extent have current sustainability initiatives covered the principal issues relating to sustainability in the specific sector?
2. Are there issues which are not sufficiently controlled?
3. Do current measures provide sufficient stimulus to promote the good practice and innovation needed to deliver a large-scale supply that meet set sustainability requirements?
4. How can the key actors collaborate in the development and implementation of the framework?

Following introductory sessions the workshop reviewed the current state of the art in terms of sustainability management with presentations summarising the situation in the EU, the US and Brazil and then explaining the current status of work under the Global Bioenergy Partnership (GBEP), Sustainable Biomass Programme (SBP) and the Roundtable on Sustainable Bioproducts (RSB). (These presentations are available at <http://www.iea.org/workshops/sustainability-governance---bioenergy.html>.)

Discussion was then focussed in three break-out groups which considered issues in the forestry and agriculture sectors more specifically, along with a group which looked at cross-cutting issues.



IEA Bioenergy Roadmap Workshop - Sustainability Governance, Paris, 25 April 2017

The main points coming from these groups and the wider discussions are summarised below.

Breakout Sessions – Key Points

Forestry

- Emphasised need for integrated systems looking at whole supply chains associated with sustainable forest management, which should take carbon issues into account.
- While there is a consensus on the benefits of using residues (waste) from forestry (eg. bark, saw dust, forest residues and black liquor) this does not extend to the broader range of forestry products, particularly with respect to the timing of carbon savings achieved.

Agriculture

- There is a need to distinguish between field residues (such as corn stover or straw) and process residues (such as bagasse)
- The main issue with field residues is leaving enough to limit erosion and maintain or improve soil quality (nutrients and soil carbon). Measuring and monitoring levels of soil carbon is not easy, but an approach combining some measurements, modelling and the use of best practice provides a way forward, coupled to remote sensing.
- Opportunities to integrate energy and agriculture were highlighted including agroforestry, using suitable crops to help reclaim degraded land, flexible food/energy crops.
- There is now the opportunity to back up theoretical assumptions with data from large-scale deployment (e.g. on LUC and soil carbon measurements) using satellite information where appropriate.

Cross-cutting issues

- Emphasised need for a holistic approach broader than just bioenergy considerations – i.e. need to look at sustainable forest management or sustainable agricultural practices as a whole and then bioenergy's role in that.
- There are sustainability governance approaches for non-energy products of the bioeconomy, especially initiatives such as zero deforestation or secure land tenure value chains, which should be considered in future discussions, and collaboration with respective stakeholders should be sought.
- Need to balance rigour and complexity in sustainability governance systems with a pragmatic approach focussing on key risk areas.
- The situation and opportunities are different in different countries and locations so management systems need to be adapted to reflect specific risks and opportunities.
- Capacity building is essential to enable any sustainability framework to work in practice.

Conclusions

1. To what extent have current sustainability initiatives covered the principal issues relating to sustainability in the specific sector?
 - The current initiatives are comprehensive but some areas are difficult to manage given practical difficulties (e.g. food security; soil carbon retention; secure land tenure) or continuing lack of consensus (e.g. use of some forestry products).
 - Balancing comprehensive approach with operability is a challenge.



IEA Bioenergy Roadmap Workshop - Sustainability Governance, Paris, 25 April 2017

2. Are there issues which are not sufficiently controlled within current sustainability frameworks?
 - Full inclusion of carbon aspects within whole supply chains associated with forest management systems
 - Improve LULUCF accounting based on transparent assumptions
 - For food security and secure land tenure, risk-based approaches may be appropriate
3. Do current measures provide sufficient stimulus to promote the good practice and innovation needed to deliver a large scale sustainable supply?
 - Sustainability certification schemes often promote best practice but approaches differ among countries.
 - Current systems focus on prevention and don't generally incentivise innovation.
4. How can the key actors collaborate in the development and implementation of the framework?
 - A continuing dialogue backed up with efforts to reduce areas of uncertainty
 - Joint learning on (global) supply-chain sustainability approaches including those outside the bioenergy sector
 - Further considerations of risk-based approaches for key commodities (e.g. forest products), and sustainability aspects (e.g. food security, land tenure)
 - This should be backed by regulation based on real life data of impacts of large-scale implementation.