“Sustainability Criteria for Bioenergy” ISO Project Committee 248

Transatlantic Trade in Wood for Energy: A Dialogue on Sustainability Standards and GHG Emissions
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Keith L. Kline
Oak Ridge National Laboratory

http://www.ornl.gov/sci/ees/cbes/
Outline

• Potential role, relevance of ISO standard
• Current status
• Issues
• Next steps
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• Note: ISO supports consensus-based processes to “Reach common understanding on requirements that inform buyers, consumers, and regulators of bioenergy sustainability, yet do not create trade barriers or perverse incentives on the ground” [Transatlantic Trade Workshop agenda item]
Why ISO?

- Global reach and impact
  - 163 member countries
  - 19,500 published International Standards

- Rio 1992: Series of Environmental Standards (ISO 14000)
  - 250,000 users
  - Applied in 155 countries

- Social Responsibility (ISO 26000, 2006)

- ISO 14064:2006 and ISO 14065:2007 standards to provide
  - An internationally agreed framework for measuring GHGs
  - so that “a tonne of carbon is always a tonne of carbon”

- Rio+20 ISO commitment to foster Sustainable Development
  - Economy +
  - Environment +
  - Social Responsibility +
  - Millennium Development Goals

Source: http://www.iso.org/iso/rio_20_forging_action_with_agreement.pdf
ISO 13065 “Sustainability Criteria for Bioenergy” - Status

• Proposed by Germany, Brazil (DIN/ABNT, 2008)
• Initial scope, biofuels, expanded to bioenergy (2009)
• Over 40 different entities participate on Project Committee 248 (PC-248)
• PC-248 is reviewing 830 comments received on 2nd Committee Draft
• Target publication date: mid-2015
Why invest in ISO 13065?

- Key barriers to bioenergy trade derive from concerns such as LUC and food security that cannot be effectively addressed in the absence of consensus on:
  - Definitions
  - Criteria and indicators
  - Data and methods to assess land attributes and change over time
- An effective ISO Standard could reduce transaction costs
- Even if an ISO Standard is not approved, broad stakeholder participation in the standard development process improves understanding of
  - Key concepts and relationships
  - Approaches to address contentious issues

Views expressed in this presentation are the author’s and do not represent any organization.
Status: Guidance for development of the standard (Resolution 07/2010)

1. Principles, criteria and indicators shall be relevant to all economic operators.
2. We identify, where necessary develop, criteria and methodologies, not set threshold values or limits.
3. We use a science-based approach which translates in measurable results.
4. Principles, criteria and indicators should facilitate comparison among energy options, whenever possible.
5. Showing compliance with principles, criteria and indicators shall not be an undue administrative burden for society or the economic operator.
6. The standard development process shall ensure that flexibility and transparency are built into all sections of the standard.
7. Principles, criteria and indicators should be applicable across all forms of bioenergy.
Further guidance for development of the standard (Resolution 01/2011)

“Clarification on scope of ISO/PC 248

ISO/PC 248 agrees that ISO 13065 will be a process standard that provides sustainability principles, criteria and measurable indicators.

*Compliance with ISO 13065 provides objective information for assessing sustainability but does not determine sustainability per se.*
GHG Methodology

Improvements - building on TS 14067

TECHNICAL SPECIFICATION

ISO/TS 14067

First edition 2013-05-15

Greenhouse gases — Carbon footprint of products — Requirements and guidelines for quantification and communication

Specifies principles, requirements and guidelines for the quantification of the carbon footprint of a product (CFP), based on ISO 14040 and ISO 14044, and on environmental labels and declarations ISO 14020, ISO 14024 and ISO 14025 for communications
Why so much focus on GHG emissions?

- Climate change is a valid concern
- In land management systems, GHG emissions are not the only important climate forcing factors
- Albedo, latent heat, particulates, aerosols and other effects not captured in basic GHG accounting could be more important
- And other effects in addition to climate (water, soil, productivity, biodiversity, social well being...) may be more important to stakeholders
Indirect effects

“State of the science on indirect effects” (WG 4):

Indirect land-use change and food security

- ILUC concerns; barrier to WG3 progress
- PC-248 required reports quickly

Literature review

- 80+ publications reviewed
- Lit review supported conclusions (WG4 report):
  - The science on indirect effects is nascent and evolving
  - Model results inconsistent, contradictory
  - WG report notes that state of science makes modeled ILUC incompatible with an International Standard designed for replicable results
  - Highly contentious

*The Standard considers the measurable effects that are under the control of the economic operator and caused by the process being analyzed*
Issues
US Tech Advisory Group

“WARNING: the application of this standard is likely to decrease the sustainability of the process or products by adding cost, time burden and energy expenditures without making an improvement to the sustainability of the process under consideration.”

Some Committee Draft (CD2) language considered vague, over-emphasis on documentation requirements without science-based relevance to sustainability.
Challenges and technical needs for sustainability standards

Sustainability assessment requires:

– accurate representations based on clear, consistent definitions for variables and conditions of concern: land attributes, management practices, baseline trends, change dynamics

– causal analysis that can be validated at multiple scales

– adequate empirical data to test models and hypotheses

– multi-disciplinary, multi-institutional learning and problem-solving mechanisms

– effective incentives for compliance and continual improvement

– low transaction costs and high value-added
“Can certification ensure sustainability?”

No, because nothing can ensure sustainability and...

1. There are too many opportunities for substitution in biomass markets
2. Transaction costs for certification, monitoring and verification are too high relative to value of products
3. Uncertainty: is there political will and sufficient market premium to justify certification?
4. “Setting a bar” does not necessarily improve anything (e.g., wastes)
5. Even well-designed schemes can be too easily “gamed” and it only takes a few well-publicized cases to undermine credibility

Slide adapted from Kline presentation for IEA Joint Task 38-40-43 presentation on LUC: http://ieabioenergy-task38.org/workshops/campinas2011 also available on CBES website.
Can certification support more sustainable outcomes?

Yes, *if* it –

1. Is developed with users to meet their needs
2. Provides science-based tools that promote learning
3. Creates incentives that shift production toward more sustainable paths
4. Is adaptable to changing contexts and priorities
5. Encourages all to participate
6. Can be implemented on a level playing field
7. Is transparent and easily adopted.

Photo: José Luis Gómez; Fondo Acción, Colombia
Thank you

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