

Roundtable on Sustainable Biofuels

An initiative of the EPFL Energy Center

Ensuring that biofuels deliver on their promise of sustainability



Draft Global Principles for Sustainable Biofuels Production Discussion Document for Global Stakeholder Feedback June 5th, 2007

The Roundtable on Sustainable Biofuels is an international initiative that aims to bring together farmers, companies, non-governmental organizations, experts, governments, and inter-governmental agencies concerned with ensuring the sustainability of biofuels production and processing. Over the next twelve months, the Roundtable will host a series of meetings, teleconferences, and online discussions with the aim of achieving global, multistakeholder consensus around principles and criteria of sustainable biofuels.

The Roundtable itself is not for or against production of, use of, or trade in biofuels, and the role of the Roundtable is not to judge whether, *as a whole*, biofuels are sustainable. Rather, given that biofuels are already being produced, traded, and used, the purpose of the Roundtable is to develop principles and criteria as a tool for others to use in making decisions about ensuring the sustainability of their production.

In developing these principles and criteria, the Roundtable will look for solutions that are within the competence of farmers and companies. We will build on the experience of other assurance schemes, recognizing other standards and certification (both current and future) whenever possible. We are committed to an open and transparent standards discussion process, following the ISEAL Code of Good Practice for Standards-Setting. Our hope is to develop principles and criteria that are:

- Accessible by small producers
- As inexpensive to measure as possible
- Easy to explain, but based on and consistent with scientific knowledge
- Applicable to any crop in any country, and allowing comparisons across crops and production systems
- Easy to revise, taking into account new technologies and their impacts on relative performance of different biofuels, as well as new scientific findings

How we drafted these global principles for sustainable biofuels

The Steering Board of the Roundtable on Sustainable Biofuels met on May 14th to discuss draft principles for sustainable biofuels production and processing. They are presented at the end of this document. In drafting these principles, we drew heavily on other biomass and agricultural reporting and certification systems (some of which are still in development), for instance the Low Carbon Vehicle Partnership in the UK, the Dutch Cramer Commission work, and the Roundtable on

Sustainable Palm Oil. Such systems usually break their work down into *principles* – general tenets of sustainable production, *criteria* – conditions to be met to achieve these tenets, and *indicators* – how a farm, producer, or company could prove that a particular criterion is met. Some examples of principles, criteria, and indicators from these schemes are presented below.

Low Carbon Vehicle Partnership (UK)
Examples - Draft Principles, Criteria, and Indicators for Biofuels Production

Principle 4: SUSTAINABLE WATER USE. Biomass production does not lead to the contamination or depletion of water sources

Criterion 4.1

Compliance with national laws and regulations relevant to contamination and depletion of water sources.

Indicators:

Evidence of compliance with national and local laws and regulations with respect to: Environmental Impact Assessment; waste handling; pesticides and agro-chemicals; fertilizer; irrigation and water usage.

Dutch Cramer Commission
Examples - Draft Principles, Criteria, Indicators, and Reporting Requirements for Biofuels Production

Principle 1: The greenhouse gas balance of the production chain and application of the biomass must be positive [e.g. reduced emissions as compared to fossil fuels].

Criterion 1.1.

In the application of biomass a net emission reduction of greenhouse gases must take place along the whole chain. The reduction is calculated in relation to a reference situation with fossil fuels.

Indicator 1.1.1 (minimum requirement)

The emission reduction of greenhouse gases amounts to at least 50-70% for electricity production and at least 30% for biofuels, calculated with the method described [previously].

Principle 8: The production of biomass must contribute towards local prosperity.

Criterion 8.1:

Positive contribution of private company activities towards the local economy and activities.

Reporting 8.1.1. Description of:

- The direct economic value that is created;
- Policy, practice and the proportion of the budget spent on local supply companies;
- The procedures for appointment of local staff and the share of local senior management.

On the basis of Economic Performance Indicators EC 1, 6 & 7 of GRI: (Global Reporting Initiative).

Roundtable on Sustainable Palm Oil
Examples - Principles and Criteria for Sustainable Palm Oil Production

Principle 5: Environmental responsibility and conservation of natural resources and biodiversity

Criterion 5.1 Aspects of plantation and mill management that have environmental impacts are identified, and plans to mitigate the negative impacts and promote the positive ones are made, implemented and monitored, to demonstrate continuous improvement.

Criterion 5.2 The status of rare, threatened or endangered species and high conservation value habitats, if any, that exist in the plantation or that could be affected by plantation or mill management, shall be identified and their conservation taken into account in management plans and operations.

Roundtable on Sustainable Biofuels

Draft principles for global stakeholder feedback

The draft principles below represent a first attempt to bring together the discussions regarding biofuels' sustainability taking place all over the world. The Roundtable invites comments and feedback on the content and wording of these principles, with the goal of reaching consensus by the end of 2007. We encourage public commenting on these standards via the Bioenergy Wiki, here: http://www.bioenergywiki.net/index.php/Template:RSB_draft_principles_-_wiki_version_for_public_editing. The Roundtable will also collect comments by e-mail to: sebastien.haye@epfl.ch, or fax to: Sebastien Haye, EPFL, +41 22 693 2489.

The first commenting period will end September 15th, 2007. A revised version of the draft principles will then be published in October, with a further two-month comment period. Our hope is that the principles will be widely discussed by global stakeholders and that a consensus could be reached such that the Steering Board could endorse principles by the end of 2007.

At the same time, the criteria to measure performance against these principles will also be discussed in various Working Groups, divided by subject, over the next 12 months. While final consensus will not likely be achieved in this short time frame, we hope to have a widely discussed working draft by May 2008. These Working Groups will start to meet in June and July of this year, and are open to any interested party. Sign-up for the Working groups is via the Roundtable's website : <http://EnergyCenter.epfl.ch/Biofuels>.

Note (1): Sustainability is often described as being comprised of three pillars: social, environmental, and economic. The principles below, however, focus on social and environmental sustainability. Because biofuels are part of two of the most controlled and subsidized markets in the world (agriculture and energy), defining 'economic' at this stage seems problematic. Rather, we hope to create a list of principles and criteria that governments could use to make policy decisions affecting the economics of particular fuels.

Note (2): The principles below could apply equally to biomass used for any energy purpose (not just that used as fuel). While we hope that the principles and criteria that we develop could be applicable for any biomass production, this first phase of the Roundtable's work will focus on the typical biomass feedstocks and supply chains used in transport fuel, as this is where much political and industrial activity is currently concentrated.

National law

1. Biomass production should comply with all local and national laws, including labor laws and recognizing land and water rights. If such legislation does not exist, international norms shall be the reference.

Greenhouse gas

2. Biofuels should result in lower GHG emissions compared to fossil fuels when analyzed via a lifecycle assessment (with system boundaries from “well to wheel”). This should include direct and indirect GHG emissions, for instance from fossil energy used in growing, transporting and processing biofuels. It should also include GHG emissions resulting from land use changes as land is converted to biofuel crop production, or as production for other markets is displaced.

Environmental impacts

3. Biomass production should not lead to the destruction or damaging of areas of high biodiversity.
4. Biomass production should not degrade or damage soils.
5. Biomass production should not contaminate or deplete water resources.
6. Biomass production should not lead to air pollution.
7. The use of GMOs for biofuels production should be made transparent, so that buyers can make their own decisions.

Social impacts

8. Biomass production should contribute to the well-being of communities, workers and rural populations.
9. Biomass production should not contribute to food insecurity.