

Roundtable on Sustainable Biofuels

An initiative of the EPFL Energy Center



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Dear friends,

Only 8 months have passed since our last newsletter in December 2007, but how rich and intense these have been! Out of the 12 current principles and subsequent criteria that are now part of the '**Version Zero**', only four of them had already been defined by this time. Thanks to the incredibly fruitful participation we received over eight months through our Steering Board, working groups, regional meetings and open consultation, this **first official draft** of the RSB Principles and Criteria has been slowly elaborated and refined.

This 'Version Zero' required weeks of consultation among all our participants to find the perfect and concomitant content and wording. Reaching a **consensus** among hundreds of participants from various sectors is not an easy task but thanks to the experience, realism and patience of participants, we could ensure that no major disagreements were opposed to this 'Version Zero'.



Yet, the road is still long to ensure that, wherever biofuels are considered a promising option to **reduce Greenhouse Gases emissions, improve energy efficiency or enhance economic development**, the production is genuinely sustainable. As biofuels face more and more criticism from media, it has become a challenge to justify the existence of a standard for biofuel production. But because **there are indeed SOME biofuels that are unsustainable**, should we waste such a potential, albeit partial, solution to the most critical challenges faced by mankind: poverty, energy security and climate change?

Among the several hundreds individuals, from 38 countries, that have chosen to join the discussion, none have been under the illusion that biofuels will solve all these issues on their own, but almost all of them believe that **there IS a way to sustainably produce a certain amount of biofuels** for the benefit of all. This 'way' is still to be defined and will likely show different requirements within regions and depending on the raw materials, but if a common basis can be defined for sustainable production, we are hopeful that the 'Version Zero' of the RSB represents a good starting point.

To consult and comment Version 0, please visit <http://cgse.epfl.ch/page70341.html>

A few weeks before the release of 'Version Zero', the RSB was recognized for its commitment to the **International Social and Environmental Labeling Alliance (ISEAL)** code of conduct by being granted the status of 'Associated Member' of ISEAL.

The following is a short summary of the discussions held over the 8 months in the course of elaborating the RSB Principles and Criteria. Enjoy reading it and comments, as always, are welcome!

1) Principles and Criteria – Toward 'Version Zero'

1.a Working Group on Environment (ENV)

The first months of 2007 were filled with discussions on **conservation and biotechnologies**.

After validating the use of the 'High Conservation Values¹' concept, the Expert Panel on Conservation and the Working Group on Environment developed a set of criteria that would ensure that no important conservation areas would be converted to produce biofuels. The cut-off date for conversion is still to be discussed. The notion of **Ecosystem Services and Functions** has been introduced, as an important feature to preserve on the production site and around. As a part of the Environmental Impact Assessment required for any new project (in addition to the continuous environmental monitoring requested for ALL projects), local ecosystem services and functions (carbon sequestration, pollination, water recharge, etc.) will need to be properly identified.

The debate on **Genetically Modified Organisms** was slowly broadened to include all biotechnologies and, finally, to address all technologies, although some criteria remain specific to the use of GMOs. Indeed, no reasons could be found to justify that one particular technology would be highlighted whereas other potentially harmful ones would not be framed so strictly. The principle and criteria on technologies require the **full transparency, right to information and free decision making** regarding all the technologies possibly used. It was agreed that any technology, including GMOs, used along the biofuel value chain should bring an improved **social and environmental performance**, in addition to the obvious requirement that they do not contradict any of the other RSB principles.

Soil and Water were discussed in parallel, but with a common concept of '**optimal health**', which refers to the realistic and sustainable level of physical, chemical and biological health to be targeted in a given location. Again, the initial

¹ <http://www.hevnetwork.org>

assessment should allow local experts and communities to define, with respect to the local climatic, geographical and social conditions, for example, **the optimal level of Organic Matter** in soil or the amount of **water that can be reasonably used** for biofuel production without depleting resources. **Soil erosion**, which appears as one of the most pressing threats over soils, should be minimized through a set of good practices, on which the RSB soil experts were in agreement: wherever possible, no or minimum tillage, use of ground cover or planting trees on field as hedges, between others.

It was a surprise that the principle and criteria on **Air** would generate so much debate! The Working Group, after discussions, finally decided to focus efforts of producers to the **identification of sources of pollution**, rather than on the monitoring of pollution, which is more complicated and costly. The eradication of **open air burning**, a frequently used technique in sugarcane harvesting, remains problematic as it requires significant capital investment and eliminates net harvest jobs. Burning can also be needed to purify the mix upstream from sugar production in a cheaper way. In order to avoid adding to the production costs or steeply increasing impacts on employment 'Version Zero' does not strictly require burning to be stopped, but rather to be progressively abandoned.



Palm fruits (Malaysia)

You can consult the whole history of discussions on Environmental Principles and Criteria, and see the draft criteria at:
[http://www.bioenergywiki.net/index.php/RSB Working Group on Environment](http://www.bioenergywiki.net/index.php/RSB_Working_Group_on_Environment)
(Wiki)
and
<http://cgse.epfl.ch/page68126.html> (EPFL Website).

1.b Working Group on Greenhouse Gases (GHG)

Following December's decision, not to develop a *new* tool or methodology, the Working Group has discussed **criteria for acceptable national Life Cycle Assessment (LCA) tool** in order to calculate GHG emissions, e.g.:

- The key points in the supply chain that must be incorporated in the tool (e.g. fertilizer use, tilling, energy used in processing, direct and indirect land use change)
- The functional unit (kgCO₂equ/MJ)
- The fossil reference system used to calculate the relative advantage from the use of biofuels.
- Transparency in the tool's methodology and assumptions;

Following the Expert Panel's recommendations, the Working Group has developed a single principle, with subsequent criteria, that require the GHG (CO₂, N₂O and CH₄; GWP values and lifetimes from **IPCC** should be used) balance to be **significantly positive** as compared to the fossil fuel reference, through a '**Well to tank**' approach, including carbon embedded in the fuel but excluding vehicle technology. In spite of intense discussions, a consensus was finally reached to keep the term 'significant', as assigning a specific reduction target was seen to be a political, not scientific decision. However, the group will investigate the idea of 'performance bands' in the RSB's scorecard approach to incent those biofuels, which significantly reduce GHG emissions as compared to fossil fuels. The minimum criteria have been defined on the basis of the **G8 Global Bioenergy Partnership** (GBEP) Methodological Framework for countries/institutions to use when developing GHG methodologies for biofuels.



Wood: the future of biofuels?

The concept of **default value** is well accepted as a way of making complex certification schemes more flexible and practical for operators. Through an adapted toolkit developed by the RSB, producers will be able to set default values that match local conditions (feedstock, region, processes, etc.); whenever possible, default values will be replaced by actual values.

The IPCC definition of **waste** (no or negligible revenue) should be used to identify a list of "real" waste (i.e. waste vegetable oil used for cooking) for which the focus of the lifecycle assessment should be only on processing, transport, and use.

Decisions on the controversial issues of *co-product allocation* ('substitution approach', allocation by energy content) and *Land Use Change* remain to be finalized, with a sensitivity analysis to compare the different methods proposed as per today. These highly complex themes are still under discussion at the moment of writing!

You can consult the whole history of discussions on GHG Principles and Criteria at:

[http://www.bioenergywiki.net/index.php/RSB Working Group on Greenhouse Gases](http://www.bioenergywiki.net/index.php/RSB_Working_Group_on_Greenhouse_Gases)

and

<http://cgse.epfl.ch/page68127.html> (EPFL Website).

1.c Working Group on Social Impacts (SOC)

From the very beginning of its work, the SOC WG proposed adding a new principle that would ensure that **comprehensive consultation** processes were

initiated with stakeholders and affected communities and indigenous peoples, as it was believed that this was critical in order to ensure that social issues were adequately addressed. In 'Version Zero', the consultation principle and criteria cover all aspects of consultation, for all impacts, social, economic and environmental; this will mean that potential projects will need to complete an integrated process of consultation and ongoing monitoring and thus prevent overlap or unnecessary duplication of work.

The social principles have grown in number, largely because SOC WG members and the Steering Board members believed that certain principles were important in their own right and therefore could not be joined with others. As a result **land rights, labor rights, rural and social upliftment, food security and consultation** all remain as separate principles. **Water rights** is included as part of the principle on water.

Most of the social principles were readily agreed upon, but it was in discussions about the criteria that the most issues were raised from stakeholders. There was a lot of discussion on trying to find the balance between ensuring sustainability in all projects and **making sure that small scale farmers and outgrowers were not excluded** from the standard through onerous requirements. In the end it was agreed that this difference would be taken into account through special implementation guidelines for smaller producers.

Again, it was noted that projects taking place in **developed countries** may differ significantly from those that take place in **developing countries**. For instance, there may not be the same need for **job creation** in a society where unemployment is not high and thus mechanization may be preferable, but in developing countries, the number of jobs (as well as quality of jobs) is an important issue and job creation need to be optimized. These differences can be seen throughout the entire standard but in particular relate to the social principles, particularly in light of the fact that **biofuels are being held up as social development program for southern countries**.



Participation is the key!

Some issues were more difficult to deal with as they are impacted upon by **macro socio-economic issues** as well as **local issues**. The principle on food security, principle 6, is based on the understanding that projects can potentially have **local food security impacts** but each project may also contribute in various ways towards a **macro and even global impact**. The Steering Board defined projects that are most desirable within the standard; i.e. those that focus on waste residues and production on land that is marginal, degraded or

underutilized land. Definitions are required to support this principle and will be developed later this year.

Rural and social development, principle 5, is an aspirational principle, with criteria that strive to ensure that benefits to local small scale land owners and farms, and communities and villages in the developing world are optimized. In order to ensure that improvements are genuinely made in the quality of life of the impacted communities, it is essential that a **baseline survey** of the conditions of the community or stakeholders is carried out and that conditions improve significantly over the life span of the project. Additionally, the standard adopts recommendations made by the **ILO Convention (no 169) concerning indigenous and tribal people** which specifically mentions the need to adopt gender-based approaches and projects for women and vulnerable sectors of society in developing countries, such as young people. 'Version Zero' highlights the need for a gradual approach to implementation, based on the capacity and needs of the producers and community in question.

For the other principles, expert groups were not formed and the issues were dealt with by the larger Working Group within which there were few disagreements on the **land, labor and water rights**. The SOC WG accepted that whilst the standard can set criteria to ensure that these rights are not abused, it will be other principles, such as the consultation principle 2 and the rural and social upliftment principle 5, which will largely ensure protection of the rights and monitoring of the situation on the ground.

You can consult the whole history of discussions on Social Principles and Criteria at:
[http://www.bioenergywiki.net/index.php/RSB Working Group on Social Impacts](http://www.bioenergywiki.net/index.php/RSB_Working_Group_on_Social_Impacts) (Wiki)
and
<http://cgse.epfl.ch/page68128.html> (EPFL Website).

1.d Working Group on Implementation (IMP)

As spring drew to a close and we neared the summer deadline of 'Version Zero' of our sustainability standard, the Implementation Working Group had some intense email and teleconference discussions about the **feasibility of the recommended criteria coming out of the other Working Groups**.

Concerns revolved around the **ability of small farmers and companies to measure and prove compliance** with the standard, the need for support from governments and experts when determining how best to implement rural and social development benefits, and the best way to balance the need for meaningful entry requirements with the **recognition that some producers**

have further to go than others in achieving sustainable production systems. As we develop **compliance indicators** over the next year, these issues will again come to the fore and the need for regional and crop-specific interpretations of the standard will no doubt be underscored.

In April the IMP WG held an interesting discussion about verification **options for the standard**, as a first step towards deciding among third-party certification, self-assessment, and other means of assessing whether or not biofuel supply chains meet the RSB standard. While the idea of a **meta-standard** (recognizing other standards within an overarching generic RSB standard) has a good deal of support, over the next months the group will have to develop metrics for what types of standard could be accepted, especially in terms of the quality of their verification systems. For the full discussion, please visit: <http://cgse.epfl.ch/page68129.html>

2) Regional Outreach Meetings

After the fascinating experiences of **Brazil and China in 2007**, the international consultation undertaken by the Roundtable on Sustainable Biofuels has led the Secretariat to South Africa and India.

- **Johannesburg's meeting** (March 08) brought together more than 60 stakeholders from various southern African countries. From gender concerns to potential market, the discussions led the participants through many topics and found some common positions, especially regarding the priority to use biofuels locally. Yet, some countries have an interesting potential to produce sufficient amounts to benefit from international trade. Many ongoing projects show that **sustainable energy production combined with food crops** is possible and profitable.
- **Delhi's meeting** (June 08) delivered on its promise to learn a little more about the new miracle plant: *jatropha*! But whereas many promising aspects were acknowledged, it seems that South-Asians have become more cautious than many Westerners in the promotion of this plant. While much more research and development is needed on this little-studied crop, a strong call was made not to forget other **local crops**. These have indeed been used for centuries and some of them, such as *Pongomia pinnata* or Sweet Sorghum, show similar potential.



South-Asian consultation (Delhi)

These fascinating gatherings would have never been possible without the fruitful partnership with the **UN Environment Programme, CURES, the Indian Institute of Technology**, and the generous support of the **Southern Africa Trust** and **Daimler**. Thanks for your support!

You can consult all the presentations and summaries from the RSB's regional meetings at: <http://cgse.epfl.ch/page69137.html>.

In July, the RSB co-organized a specific workshop focused on the **identification of HCV areas and degraded lands**, in partnership with the Öko-Institut, UNEP, Conservation International, the IUCN, the FAO and the WWF. The concrete **implementation of the HCV concept**, which is now part of many sustainability standards, was in the center of discussions, as well as the **indicators** to be developed to identify marginal, degraded or underutilized lands. This quite recent concern will certainly request further years of research.

3) Outlook for the next six months

Now that **the first phase of the Roundtable on Sustainable Biofuels is over** and 'Version zero' is at hand, the RSB Steering Board will concentrate on revising its governance structure, to take us into the implementation phase. Meanwhile, consultation meetings to discuss 'Version Zero' in **West Africa, East Asia, Europe and the Americas** will take place through February 2009. In addition, technical workshops will be organized on hot topics, such as the local and global **drivers of deforestation and land use change** (Brazil, November 2008). For more information about these events, please write to sebastien.haye@epfl.ch.

The working groups and expert panels will continue to define most technical aspects to be included whereas regional consultation meetings will keep the Secretariat and other partners busy for the next months. **For more information about the Version zero** and consultation, please visit our website: <http://energycenter.epfl.ch/biofuels>

Finally, the RSB family would like to dedicate this newsletter to the loving memory of **Dr. Alex Farrell**, one of the RSB's founding Steering Board members, who left us by far too early but will everlastingly remain in all hearts as a model of intelligence, dynamism and genuine humanity. We miss you Alex!



With best wishes,

Annie, Charlotte, Georgios, and Sebastien
Roundtable Secretariat Staff