BioFuel for Thought

Newsletter of the Roundtable on Sustainable Biofuels

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Welcome to the new RSB newsletter, BioFuel for Thought!

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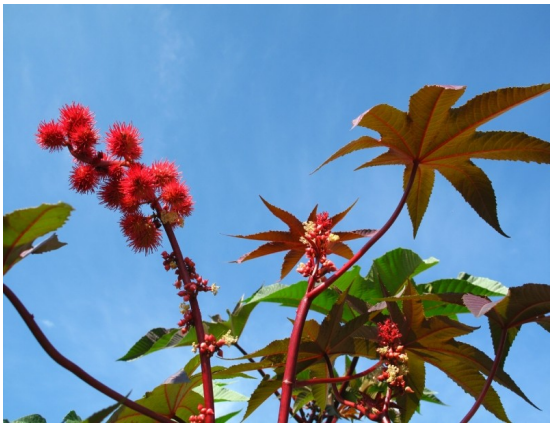
Roundtable on Sustainable Biofuels

ÉCOLE POLYTECHNIQUE FÉDÉRALE DE LAUSANNE

Welcome

Welcome to the first issue of the new incarnation of the RSB newsletter, "BioFuel for Thought." As the name implies, we hope that it will not only bring you up to date on the activities of the RSB, but also provide you with a chance to reflect on the dynamic developments related to biofuel sustainability and the challenging road ahead as we work together to ensure robust markets for certified sustainable biofuels.



Castor plant.© istockphoto.com/Photolinchen

2010 has been an exciting year so far, and we have been busy, setting up a new governance structure, conducting pilot projects, and determining key issues such as the target threshold for greenhouse gas emissions for RSB-compliant biofuels. Information on these and other issues, such as our ongoing collaborations with other organizations, can be found in these pages.

We invite you to be a part of the RSB's work, in particular by joining other interested stakeholders for our public consultation on the RSB Principles & Criteria, Guidance, Indicators and other Guidelines, which will take place over the 30-day period starting 8 September 2010. More information will follow on http://www.rsb.org.

Regards,

Alwin Kopse
Executive Secretary, RSB

The Roundtable on Sustainable Biofuels Moves Forward on Greenhouse Gas Accounting and Reduction Requirements

Adopts ambitious target of 50% improvement for biofuel blends over fossil fuels

The RSB is pleased to announce the approval of the RSB greenhouse gas (GHG) accounting methodology and establishment of a GHG reduction threshold for our biofuel certification standard. It is important that the use of biofuels significantly reduces the contribution to global warming – and because of this concern, the RSB has focused on creating a certification standard that ensure biofuels have lower GHG emissions than fossil fuels.

Although many possible targets were considered, the RSB Steering Board agreed in June 2010 to a 50% reduction in GHG emissions of

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"The setting of this ambitious GHG target is an exciting step forward in creating a meaningful biofuel standard."

Sugarcane. © RSB

"This focus on the blend allows for flexibility with feedstocks and operations, while still ensuring that the overall blend is significantly less-polluting than fossil fuels."

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a biofuel blend compared to the fossil fuel baseline. The setting of this ambitious target is an exciting step forward in creating a meaningful biofuel standard.

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The Roundtable on Sustainable Biofuels Steering Board approved a preliminary decision on a GHG threshold in its June 2010 in-person meeting; this decision was confirmed by all Chambers during chamber calls in July. The Chamber calls resulted, however, in recommendations for specifications of some of the new language of Criterion 3c (which deals with the GHG threshold). This criterion is subject to an 18-month evaluation period, after which the Secretariat will submit a findings report to the Steering Board and Chambers.

The official language

It is important for the GHG reductions to be ambitious — and yet we do not want to exclude operations from certification based solely on their GHG emissions performance. No biofuel will be categorically excluded on the basis of GHG emissions, as long as its lifecycle GHG performance is lower than that of the fossil fuel baseline. The new criterion 3c reads:

> *"Biofuel blends shall have on average 50% lower lifecycle greenhouse gas emissions relative to the fossil fuel baseline. Each biofuel in the blend shall have lower lifecycle GHG emissions than the fossil fuel baseline.*
>
> *Minimum requirements:*
> *Lifecycle greenhouse gas emissions of a biofuel blend, calculated following the methodology in Criterion 3b, shall be on average 50% lower than the applicable fossil fuel baseline.*
>
> *Each biofuel in the blend shall have lower lifecycle GHG emissions, calculated following the methodology in Criterion 3b, than the applicable fossil fuel baseline.*
>
> *Progress requirements:*
> *The minimum lifecycle GHG reduction of the biofuel blend, starting at 50%, shall increase over time."*

As long as each individual biofuel has lower GHG emissions than the fossil fuel baseline, and the combined emissions reduction of the blend is greater than 50%, it meets the criterion. This focus on the blend allows for flexibility with feedstocks and operations, while still ensuring that the overall blend is significantly less polluting than fossil fuels.

RSB certification will verify both an operator's compliance with the Criteria of the RSB and the carbon emissions of each operator throughout the supply chain. The certificate that follows the feedstock/biofuel through the supply chain will come with a cumulative carbon emission value. Blenders/distributors will then be responsible for assuring that their biofuel blend achieves the GHG reduction threshold. The blending approach incentivizes carbon re-

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The RSB Tool "will allow operators to conduct an assessment of their GHG emissions and allow the user to do a self-assessment against the RSB principles, as well as a self-risk assessment. "

E-85 pump.
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Jim Parkin

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duction across all pathways, wherever possible and pragmatic, and provides blenders the market flexibility to purchase and market RSB-compliant biofuels that achieve significant overall GHG reductions.

How did we come up with this goal?

To further understand the issue of GHG emissions and how to address it within the Standard, the RSB Secretariat worked with the GHG Expert Group. The Group provided valuable input into the development of the RSB GHG calculation methodology.

The Secretariat worked with EMPA, the Swiss Federal Institute of Technology , to conduct two scientific studies on the GHG performance of existing biofuel "pathways." The term pathway is used to encompass more than just the most common feedstocks used, it also includes details such as means of production, type of fuel produced, etc. The information from these two studies was presented to the Steering Board at the June in-person meeting and formed the basis for the agreed-upon threshold.

"Study One" calculated lifecycle GHG emissions for the most important biofuel pathways currently in production. Based on the results of Study One, the 50% average blend GHG reduction threshold was determined to be "ambitious" but feasible.

"Study Two" compared information obtained in Study One with real data from four pilot projects, allowing for changes in management practices in order to assess their effect on GHG emissions (for more information on RSB pilot projects, see the article on pilot projects on page 4). This information is critical to understanding the impact that management practices have on GHG emissions and the extent to which operations will be able to reduce their impacts. The study found that emissions from agriculture dominate the GHG balance; in particular, fertilizer use had a large impact on emissions. In addition, it appears that conversion of forests, even annualized over 20 years, can result in sizable GHG emissions.

Calculation methodology

The studies used the RSB GHG methodology, developed with EMPA, with the help of the GHG expert group, and data from the Ecoinvent database, to calculate global GHG emission averages for these different pathways. The calculation is from "well-to-wheel" (not including the efficiency of the engine where the fuel is burned) and includes land use change emission calculations based on IPCC 2006. All biofuel operators must enter chemical and energy usage data for their operations; hence, the methodology does not incorporate default usage values for materials and energy.

Making it accessible

In order to enhance the service that the RSB offers and to provide an easy method of understanding the Standard, as well as to provide a user-friendly interface for the GHG methodology, the Secretariat is working with EMPA to create the "RSB Tool," an online and freely accessible tool. This will allow operators to conduct an assessment of their GHG emissions and allow the user to do a self-evaluation against the RSB criteria, as well as a self-risk assessment.

In the initial stages of the development of the RSB Tool, the EU RED market access standard will be included, and in the future other lifecycle analysis accounting methodologies will also be integrated into the tool. This will allow for easy comparison of RSB standards to local requirements. The beta version of the tool is expected to be ready by November 2010.

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What's next?

We are pleased to have established an ambitious threshold and robust methodology for GHG emissions and we are working to establish the fossil fuel baselines. The calculation methodology for the fossil fuel baseline is under discussion and will be a main focus during the second half of 2010. The discussion concerns whether regional fossil fuel baselines or a global average should be established; whether the baseline should be recalculated over time or be static; and whether the baseline should be based on average crude oil mixes or on the crude oil type that is likely to be displaced by biofuels.

A word on indirect impacts

The RSB is making progress on the issue of how to address indirect impacts within the RSB Standard. An expert group on indirect impacts was formed and continues to discuss the issue; however no criteria have been proposed for implementation in the Standard at this point. A Workshop on Biofuels and Indirect Impacts was conducted in June in Rio de Janeiro, which provided valuable inputs. While there is agreement on the importance of this issue, there is no consensus yet how to address indirect impacts in the RSB Standard. The RSB will continue to work on the issue of indirect impacts.

"Ground-Truthing" Sustainability: RSB's Pilot Projects

Sunflower. © Rachel Kramer

"The goal of these pilot projects is to learn from and improve the usability of the RSB Standard, by having operators apply and evaluate it in a real-life test setting."

For the fuel in your tank to ultimately be sustainable, the Standard developed by the RSB (or indeed any certification group) must be proven in practice "on the ground," actually influencing how feedstocks are grown and processed.

Rapeseed plant. © istockphoto.com/PeterAustin

A variety of pilot projects are currently bringing the vision of the RSB into far-flung fields and facilities, from Australia to Mozambique, translating the RSB's vision into a system that will evolve and thrive in the real world.

From vision to reality

The RSB felt that it was important to test the RSB Standard prior to initiating any certification efforts. In November 2009, after "Version One" of the RSB Standards was approved, the Secretariat issued a call to potential collaborators across the globe – donors and companies committed to the sustainable biofuels vision – to join in partnerships to conduct projects in the field to "pilot test" the standards.

The goal of these pilot projects is to learn from and improve the usability of the RSB Standard, by having operators apply and evaluate it in a real-life test setting. Feedback received from operators during the pilot phase will be used to improve the RSB Standard and move towards a "Version

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"Four pilot projects have already been concluded, and four others should be completed soon. Additional projects are being planned for the second half of 2010 and beyond."

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Two" of the RSB Standard and supporting documents that will guide actual certification activities starting in 2011.

All pilot projects also include the participation of a certification body, which provides feedback on the usability of the Standard from an auditor's perspective; this is essential, given that such organizations will eventually be the ones that must be able to determine in an objective manner if biofuels produced by an operator meet the sustainability criteria.

Activities to implement the pilot projects are based on a terms of reference (TOR) agreed to by each pilot operator and the RSB Secretariat.[1] The TOR clearly describes the scope of the project, roles and responsibilities, important milestones, and expected deliverables and outcomes. TORs are supplemented by a glossary of terms and a variety of supporting documents, addressing matters such as compliance indicators, risk assessments, data availability and the chain of custody for products.

A key benefit of the pilot projects is that they build in feedback processes – including a mid-term project review and end-of-project debriefing – to ensure that experiences in the field will inform refinements to the Standard. Feedback from is collected using an easy-to-use standardized 'Reporting Framework' provided by the Secretariat.

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Pilot Project Highlight: Mozambique

Two pilot projects were undertaken in Mozambique, one involving sugarcane, and the other involving both sugarcane and sweet sorghum. Both projects will supply energy for local communities, and are ultimately intended for export, which will require meeting EU standards. They were started as small pilot phases (120 and 150 hectares), which will expand up to 20,000 ha and 50,000 ha, respectively.

In May, Annie Sugrue, the RSB's Senior Advisor for Social Affairs based in South Africa, visited both projects as part of an evaluation team that included an agronomist and experts from a certification agency. She was pleased to find that both the local operators and the evaluation experts found that on-the-ground implementation of the RSB Standard was feasible and practical.

According to Annie, "The owners of both projects felt they already meet most of the standards, and so the certification process would not present them with significantly more work. Their experience with the pilot projects has also led them to support an ambitious RSB Standard, since they feel that being certified by such a standard will help them gain a competitive advantage in the marketplace."

Worker cutting sugarcane.
© istockphoto.com/photosoup

[1] For the Pilot Project Generic Terms of Reference, see Annex 3 of the RSB Annual Report 2009.

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A wealth of partners

Partners were selected in order to ensure that pilot projects would test the Standard in relation to a variety of feedstocks and geographical regions. (See the box below for an overview of the pilots projects conducted so far.)

Four pilot projects have already been concluded, and four others should be completed soon. Additional projects are being planned for the second half of 2010 and beyond. (Pilot projects are covered under confidentiality agreements.)

Next steps

The feedback received from pilot projects so far has been useful in identifying areas within the RSB Standard that can benefit from clearer explanations, including the sections addressing social and environmental planning, stakeholder engagement, business planning and water management. The RSB Steering Board has established a small committee to work with the Secretariat to ensure that the feedback from the pilot projects will be integrated into Version 2.0 of the RSB Standard. Chambers and the public will be invited to share their comments on the next draft version of the RSB Standard early September.

Sugarcane. © istockphoto.com/ AndrewWood

Active or Completed RSB Pilot Projects

Feedstock	Biofuel Type	Location
Rapeseed	Biodiesel	Germany
Jatropha	Biodiesel	Guatemala
Sugarcane	Ethanol	South America
Sunflower	Biodiesel	Brazil
Sugarcane/Cassava	Ethanol	Southern Africa
Sugarcane	Ethanol	Southern Africa
Wheat	Ethanol	Australia
Palm Oil	Biodiesel	Colombia

New Governance Structure

"The new governance structure allows for more dynamic discussion within the chambers, and helps to facilitate better communication between chambers and across sectors."

Following the Steering Board meeting in November 2009, some concerns were raised in regard to the need to improve the RSB governance structure. As the organization's Terms of Reference called for an annual review, it was decided to address these concerns as part of the regular review process. A Governance Committee was established by the Steering Board on February 11, 2010, composed of an equal number of representatives from the private sector and the civil society. Through the work of a series of teleconferences and member consultations, the Governance Committee made a proposal to revise the organization's Terms of Reference based on inputs from all participants and the eleven Chambers. This proposal was then reviewed and revised by the Steering Board and submitted to the Chambers for consultation.

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The main changes made in the proposed revision to the Terms of Reference included the following:

- Chambers consolidation: The new Terms of Reference call for only 7 RSB Chambers, including one which is non-voting. Among the voting chambers, 3 represent the private sector and 3 are composed of representatives from civil society. The new chambers are:
  1. Farmers and growers of biofuel feedstocks
  2. Industrial biofuel producers
  3. Retailers/blenders, the transportation industry, banks/investors
  4. Rights-based NGOs (including land, water, human, and labor rights) & trade unions
  5. Rural development or food security organizations & smallholder farmer organizations or indigenous peoples' organizations or community-based civil society organizations
  6. Environment or conservation organizations & climate change or policy organizations
  7. Intergovernmental organizations (IGOs), governments, standard-setters, specialist advisory agencies, certification agencies, and consultant experts (non voting)
- A quorum rule was introduced for Chamber meetings to be validly constituted.
- A super-majority vote consisting of three-quarters of the chamber members may break a deadlock if consensus in a chamber is not reached by a third meeting on a particular subject.
- Interest Groups can be formed across chambers to address particular topics. To be recognized by the Steering Board, they need to have at least 20 members from two or more chambers.
- A direct consultation process was established to provide a mechanism for members to voice discontentment and/or major concerns with the RSB Executive Secretary and to the Steering Board if they feel their voice has not been heard through normal channels.
- Teleconferences will be called 7 days in advance; background information must be sent at least 5 days in advance.

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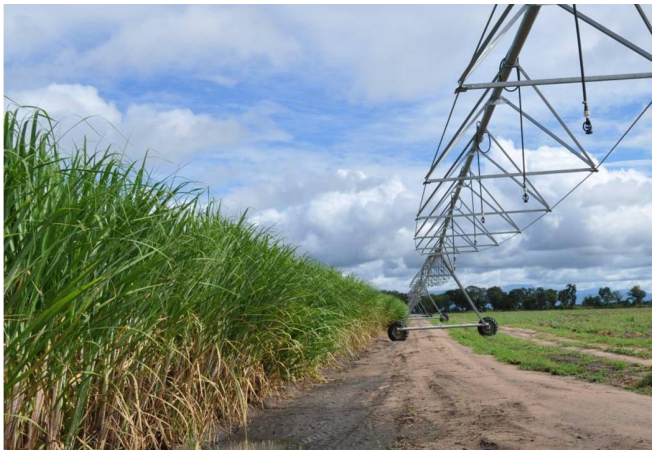
Palm fruit. © RSB



Sugarcane. © RSB

[1] Members of the Governance Committee were appointed by the Steering Board Chair and included: Khoo Hock Aun (CH 1), Damiana Serafini (Ch 2), Richard Sykes (Ch 3; temporarily replaced by Rob Cox, IPIECA), Jürgen Maier (CH 6), Roberto Smeraldi (Ch 7), and Melinda Kimble (Ch 8), with Alwin Kopse (RSB Secretariat) serving in an ex-officio capacity. The Governance Committee was facilitated by Teddy Püttgen, Director of the EPFL Energy Center.

The condensed governance structure has principally helped the RSB by making the chamber review process more efficient. Furthermore, by combining some of the smaller chambers, the new governance structure has allowed for more dynamic discussion within these chambers, and helped to facilitate better communication between chambers and across sectors.

Collaborations

RSB is working in partnership with key international organizations and initiatives; here is information on a few of these collaborations:

RSB and the ISEAL Alliance

RSB has been an Associate Member of the International Social and Environmental Labeling and Accreditation (ISEAL) Alliance since 2009. ISEAL is the global association for social and environmental standards and works with established and emerging voluntary standard systems to ensure good social and environmental standard-setting processes.

Examples of ISEAL Members are the Forest Stewardship Council (FSC), the Rainforest Alliance, Fairtrade Labeling Organizations (FLO) and Social Accountability International (SAI).

On its way towards becoming a "Full Member" in 2011, the RSB is nearing full compliance with the Codes of Conduct developed and approved by ISEAL leadership. Of particular relevance is the Code of Good Practice for Setting Social and Environmental Standards, which describes procedures for standards development through a transparent, participatory and credible process. Other Codes help to ensure that the implementation of the Standard will result in measurable progress towards the initial social and environmental objectives, without creating unnecessary hurdles to international trade.

By complying with the ISEAL Codes of Conduct, the RSB can credibly demonstrate its commitment to transparency and multi-stakeholder participation, which is one of its most important strengths.

For more information about the ISEAL Alliance, please visit http://www.isealalliance.org

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"On its way towards becoming a 'Full Member' in 2011, the RSB is nearing full compliance with the Codes of Conduct developed and approved by ISEAL leadership."

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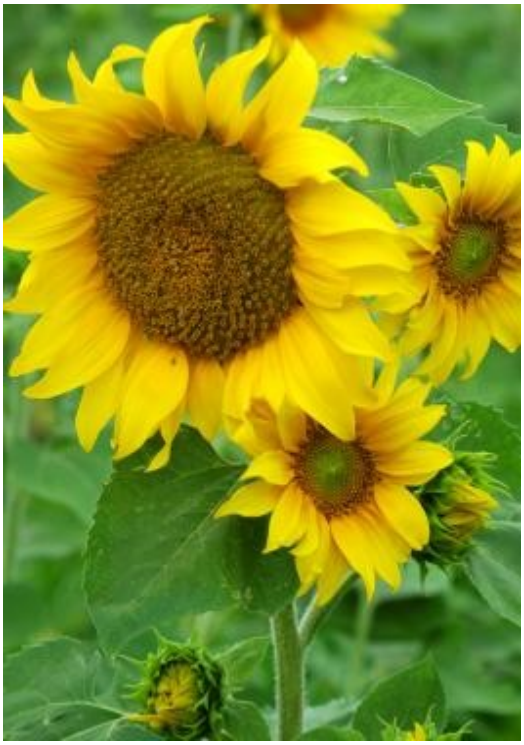

Sunflower. © Rachel Kramer

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"By complying with the ISEAL Codes of Conduct, the RSB can credibly demonstrate its commitment to transparency and multi-stakeholder participation, which is one of its most important strengths."

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RSB and the European Union

In parallel to application for recognition of the RSB Standard by the European Commission, the RSB joined two consortiums funded by the European Union under Framework Programs (FP) Seven and Six:

Cassava farm.© istockphoto.com/Pailoolom

Global Bio-Pact

"Global Bio-Pact" (FP7) aims to assess the effect of global sustainability certification systems on biomass production, conversion systems and trade, in order to prevent negative socio-economic impacts. The project includes a detailed assessment of the socio-economic impacts of raw material production and a variety of biomass conversion processes in the countries to which the partners belong (e.g. Indonesia, Argentina, Costa Rica, Mali). The impact of biomass production on global and local food security and the links between environmental and socio-economic impacts will also be analyzed through case studies. The deliverables include a set of socio-economic sustainability criteria and indicators to measure the impact of implementing certification schemes or regulations on socio-economic conditions, as well as recommendations on how to best integrate socio-economic sustainability criteria in European legislation and policies on biomass and bio-products. Website: http://www.globalbiopact.eu.

Bioenergy in Africa

"Bioenergy in Africa" (FP6) is an interdisciplinary research and capacity development project proposed by a consortium of academic, governmental and private institutions with expertise in the fields of crop production and processing, life cycle assessment, natural resources management, livelihood assessment and international politics. Jatropha was chosen as a focus crop, as it is considered to have a high potential for use in marginal areas, and because a dramatic increase in its production is expected in eastern Africa. The project aims to assess opportunities and threats of increasing jatropha production, evaluate its social and environmental impacts, and develop decision support tools for sustainable bioenergy production in Eastern Africa. Website: http://www.bioenergyinafrica.net.

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ROUNDTABLE ON SUSTAINABLE BIOFUELS

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Roundtable on Sustainable Biofuels

ÉCOLE POLYTECHNIQUE FÉDÉRALE DE LAUSANNE

Roundtable on Sustainable Biofuels

The Roundtable on Sustainable Biofuels is an international initiative coordinated by the Energy Center of the Ecole Polytechnique Fédérale de Lausanne (EPFL) in Lausanne, Switzerland. RSB brings together farmers, companies, non-governmental organizations, experts, governments, and inter-governmental agencies concerned with ensuring the sustainability of biofuels production and processing.

The RSB has developed a third-party certification system for biofuels sustainability standards, encompassing environmental, social and economic principles and criteria through an open, transparent, and multi-stakeholder process. Participation in the RSB is open to any organization working in a field relevant to biofuels sustainability.

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