Event Covered: The Roundtable for Sustainable Biomaterials 3rd Annual Meeting of the General Assembly held in Geneva, Switzerland from June 1-3, 2015

State of ustainability Initiatives

The Standards Reporter

June 2015 - Report 3

Roundtable for Sustainable Biomaterials Annual Meeting of the General Assembly



This report documents the latest developments of the Roundtable for Sustainable Biomaterials (RSB) by covering

its most recent annual meeting of the General Assembly held in Geneva, June 1-3, 2015. The RSB continues to grow its membership and expand its role in shaping the biomaterial sector's sustainable development potential by increasing its efforts into new markets such as bioplastics. The RSB delegates and members focussed on exploring a new business strategy and advancing the development of a standard for low indirect landuse change (iLUC) associated with displacing food for biomass production. The new strategy will set a course for the RSB to pursue important business opportunities. The adoption of an iLUC standard is an important evolution within the RSB system, establishing it as the first Voluntary Sustainability Standard (VSS) to address low iLUC within the biomaterials sector.

Official Session Summary

Day 1 consisted of presenting the 2014 activity report, electing nominated directors and auditors, discussing the proposed RSB strategy and adopting iLUC criteria and compliance indicators. Rolf Hogan, RSB's Executive Director, presented the 2014 activity report, which was approved. The RSB underwent a year of consolidation

as its certified operators and members increased and its operations expanded in the bioplastics and aviation sectors. Important progress has been made in applying the smallholder standard introduced in 2014, through field projects and assessment of the need for capacity building. The smallholder standard will be revised in late 2015 or early 2016 based on this initial phase.

The directors discharged their duties effectively over the previous year; the audited accounts were reviewed and approved; and chamber board of directors' nominations were elected unanimously. The assembly completed its administrative procedures as prescribed by the Articles of Association.

New Business Strategy

Rolf Hogan, RSB's Executive Director, and Matt Rudolf, RSB's Business Development Director, presented the draft RSB business strategy. A workshop followed that built on previous consultations with the RSB chambers, delegates' views were summarized, and risks and opportunities were outlined. There was consensus that the RSB should maintain its position as a "gold" standard and should focus on increasing market penetration. The need for developing a strong value proposition conveying the commercial advantages of applying the RSB standard was expressed. As a "gold" standard, it was suggested that the focus should remain on developing "pull" markets driven by organizations actively seeking leadership in sustainability and on catering to "push" markets in which the need for a standard is driven by regulatory factors. The final version of the strategy will



The Challenge of iLUC

A key objection to the rising use of biomaterials is the risk that increasing demand for biomass for biomaterials will create pressure to convert land away from current uses and into the production of biomass feedstocks. Direct land-use change—for example, the felling of forests to make way for agricultural production—can be managed by a standard requiring production to take place on land that has not been converted (when compared to a reference year). iLUC, however, is caused by supply and demand, so it is more difficult to address through standards.

To tackle this challenge, the RSB has proposed a set of criteria attempting to define how additional biomaterial can be produced without affecting land use, effectively reducing the demand for land conversion and iLUC risk. The indicators outline the following three categories, under which the impacts may be expected to be low:

- 1. Yield increase biomass yields have increased compared to a reference scenario without any additional land conversion.
- 2. Unused or degraded land biomass has been produced on land that was not previously used for production, compared to a reference year.
- 3. Waste and residues biomass is derived from existing supply chains without requiring additional production from arable lands.

The criteria and compliance indicators define a series of requirements and how they are to be measured by providing guidance and example calculations for determining whether operators fit into one of the three proposed categories. The indicators do not provide a method for estimating the iLUC impacts, but instead focus on defining categories that are considered to have low impacts. The indicators are designed to be applied in combination to the RSB certification process and would result in the operator being permitted to make a "low iLUC risk" on-product claim.

incorporate the feedback collected during the workshop and is scheduled to be adopted by the Board of Directors in July 2015.

iLUC Standard

iLUC is a key issue for the production of sustainable biomaterials. It refers to the possibility that agricultural land may be diverted to biomass production, which can displace food cultivation to other areas, where it can result in natural habitat losses. Elena Schmidt, RSB's Standards Director, presented the RSB Low iLUC Risk Biomass Criteria and Compliance Indicators, explaining that they define practices that reduce the risk of iLUC as opposed to quantifying iLUC. The RSB is the first organization to deploy a standard for certifying low iLUC risk biomaterials. The assembly adopted the Low iLUC Risk Biomass Criteria and Compliance Indicators, which are to be reviewed after three certifications have been issued, to ensure their viability based on data availability.

Public Session Summary

Rodney Taylor, WWF Global Director of Forests, opened the public session by highlighting that, based on 20 years of experience, VSSs are excellent forums for exchanging new ideas on sustainability. Four panel discussions followed, addressing aviation supply chains, second-generation feedstocks, transatlantic approaches to bioplastics and promoting an informed debate on the bioeconomy.



Panel 1: Aviation Supply Chains: The Case for Mutual Support

Darrin Morgan, Boeing's Director of Sustainable Fuels Strategy, noted that the RSB standard is used to define and develop sustainable aviation fuels. Neil Mendenhall, SCS Global Services, introduced the RSB's vision for a "book-and-claim" system allowing certified producers to generate a premium by selling sustainable biofuel certificates. Ian Cruickshank, Group Environmental Affairs, South African Airlines, cautioned that biofuel impacts on food production must be considered, and recounted the role of the RSB in developing a high oil yielding nicotine-free tobacco variety. Maarten van Dijk, CEO of SkyNRG, explained how sustainable aviation biofuels are being incorporated into airline supply chains via the demonstration of fuel sustainability. James Beard shared WWF's vision for 100 per cent renewable energy by 2050,¹ noting that biomass energy should be prioritized for sectors without other viable options.

Panel 2: Second-Generation Feedstocks

The session was moderated by Henrique Pacini, Economic Affairs Officer, UNCTAD, and focussed on the development of new biomaterials. Sergio Tommasini, Sunchem, and Valentina Predazzi, Societa Italiana Brevetti (SIB), presented on the commercialization of a variety of nicotine-free tobacco that has been developed to maximize oil production for the production of biofuels and animal feed. Tetyana Payasova, a law lecturer at the World Trade Institute, presented on the implications of EU trade policy proposals and whether they can be obstructive. Payasova stated that VSSs, such as the RSB, have a role in addressing some trade concerns. Paul Pereira, CEO of Meredian Holdings Group, described the potential for using canola oil and soil bacteria to produce a range of plastic products.

Panel 3: Transatlantic Approaches to Bioplastics

Jack Huttner, Huttner Strategies, observed that some public perceptions about biofuels have shifted from an environmental "good" to an environmental "bad." Similar reputational risks are present for biomaterials, and adopting the lessons learned from biofuels represents an opportunity to avoid replicating mistakes. Irene Gedeon, Sustainability Communications Director at Tetra Pak, presented on the role of sustainability in the production of Tetra Pak products, which introduced packaging made with bio-based² plastic in 2014. Miki Knutzen, Global Program Director, PlantBottle, The Coca-Cola Company, described the PlantBottle program in which part of the inputs into the plastic are derived from plant materials. They explained that they are working towards having a 100 per cent bio-based plastic bottle in the not-too-distant future. Lars Lundquist, Senior R&D Expert, Nestle Research Centre, explained that food waste remains a problem that packaging is mitigating. Biodegradable packaging initiatives must ensure that waste reprocessing infrastructure is available, whereas bio-based reusable or recyclable materials can fit directly into recycling infrastructure. Alex Grabowski, Program Officer for Packaging and Material Science, WWF, elaborated on the importance of using an evidence-based process to evaluate the social and environmental impacts of biomaterials. Grabowski noted that biomaterials are predominantly produced from first-generation feedstocks such as corn and sugarcane, which may raise concerns about competition with food crops. Grabowski highlighted that the circular use of materials is a key part of sustainability. The ensuing panel discussion focussed on the value of certification schemes for large consumerfacing companies like Coca-Cola, Nestlé and Tetra Pak.

¹http://wwf.panda.org/what_we_do/footprint/climate_carbon_energy/energy_solutions22/renewable_energy/sustainable_energy_report/ ² "Bio-based" means that the feedstocks for the material are derived from plant sources as opposed to fossil sources.





It was mentioned that the brands use a number of tools to address problems they face, and that they consider environmental certification to be one such tool that can be used to address certain types of risks.

Panel 4: Promoting an Informed Debate on the Bioeconomy

Meghan Sapp, Secretary General, Pangea, and senior editor of *Biofuels Digest*, introduced a short video outlining the potential for the bioeconomy to improve African energy independence and socioeconomic conditions. Hafeez Rehman, Director of Social Transformation, TERI, shared that the promise of a financially successful biomaterials sector in India has only led to the establishment of large plantations. Gerard Ostheimer, Global Lead for Sustainable Bioenergy, UN Sustainable Energy for All,³ highlighted the importance of effectively using resources via sustainable practices such as growing rainfed rather than mechanically irrigated crops, and cautioned that policies leading to mass imports have led to sustainability challenges. Hasso von Pogrell, MD European Bioplastics, presented on biodegradable products made from renewable resources. He maintained that evidence is needed to show that second generation technologies are more sustainable. Since agricultural land is primarily for livestock production rather than arable farming, declining meat production could enable the bioeconomy. Jorgen Sandstrom, Executive Officer, Addax Bioenergy, described the difficulties they surmounted in the process of developing and constructing an RSB-certified ethanol-production and power-generation facility in Sierra Leone. Sandstrom stated that 18 certified operators are not enough and that more RSB-certified operators are needed.

³ The high-level objectives of the UN Sustainable Energy for All program includes universal access to energy, a doubling of renewable energy capacity and improved energy efficiency.

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Acknowledgements: The SSI extends its sincere gratitude to the Roundtable for Sustainable Biomaterials Secretariat for providing access to their Annual Meeting of the General Assembly and ensuring that the contents of the report is accurate.

The **Standards Reporter** communicates and contextualizes the latest developments within voluntary sustainability initiatives and is published by the State of Sustainability Initiatives (SSI). The objective of the SSI is to enhance global understanding and learning about the role and potential of market-based voluntary sustainability initiatives such as eco-labels, sustainability standards and roundtables. The SSI is a collaborative effort funded by the State Secretariat for Economic Affairs (SECO) and led by the International Institute for Sustainable Development (IISD), the International Institute for Environment and Development (IIED) and the Finance Alliance for Sustainable Trade (FAST)



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