Sustainability Certification for All Markets

Prof. Gernot Klepper, Chairman, ISCC Association
What will I cover in my presentation

- The sustainable biomass challenge
- Market requirements
- ISCC solutions for the different markets
- Certification requirements and innovative tools
- Conclusions
Land expansion is one option for increasing biomass supply, but it faces potential conflicts with sustainability goals (SDGs).

Source: Delzeit, Zabel et al. (2015) in „Regional Environmental Change“
Potential yields are much higher than expected
But unevenly distributed across the earth
Challenge is to deliver the potential in a sustainable way

Mauser, Klepper et al. 2015
Voluntary and mandatory sustainability requirements in different markets
Food market requirements: An increasing number of companies commit to social sustainability and zero-deforestation targets

Working with governments and other partners to embed no-deforestation objectives into national and international policies. Unilever considers the advancement of women’s rights and women’s economic inclusion as priority.

McDonald’s is committed to eliminating deforestation from its global supply chains and to ensure fair and ethical workplace standards in every corner of the supply chain. It promotes responsible production that benefits people, communities and the planet.

Deforestation policy targets four raw materials with the greatest impacts on forests: beef, palm oil, pulp and paper and soy. By 2020, these supply chains will be deforestation free.

Coca Cola introduced principles to establish human and workplace rights, environmental stewardship and farm management criteria – including asking suppliers to protect the rights of communities to maintain access to land and natural resources.

Starbucks supports a zero-tolerance approach to deforestation. Committed to improve ethical sourcing in coffee and throughout the supply chain, to serve their communities and engage young people.

By participating in the Consumer Goods Forum Walmart is resolved to achieve zero net deforestation by 2020. Focusing on safety, health and environmental compliance in their operations.
Violations of sustainability requirements have resulted in suspension of certifications and lost of investments

Unilever cancels contracts

The consumer goods giant will stop buying palm oil from while Greenpeace slams for refusing to reform even though its actions were contributing to the fire and haze crisis in the region.

Malaysian palm oil giant loses 7 more customers over RSPO suspension

Hershey’s, Colgate-Palmolive, Johnson & Johnson, Procter & Gamble, SC Johnson, Yum! Brands and Reckitt Benckiser are all disengaging with

World’s largest sovereign wealth fund just dropped 11 companies over deforestation

Six palm oil companies, four pulp and paper companies, and one coal company were dropped from its investment portfolio.

Norway’s Government Pension Fund Global has divested its shares in more than 100 companies between 2012 and 2015 over concerns around global warming, deforestation, and sustainability. Image: Rich Carey / Shutterstock

Source: www.eco-business.com
Chemical market requirements: More and more companies commit to zero-deforestation and social sustainability

We are committed to zero net deforestation by 2020. This means that palm and palm kernel oil that we use should not contribute to deforestation of primary or secondary forests with significant ecological value. This includes “High Carbon Stock” forests and peat lands.

No-Deforestation and Responsible Sourcing Policy in place in 2013. Committed to respect human rights and workers’ rights, and commanding the same from all suppliers.

Setting up of a zero-deforestation policy with focus on traceability across the value chain. Assessment of suppliers based on sustainability factors such as employment conditions, respect of human rights, complaint management etc.

DuPont Nutrition & Health (N&H) supports the conservation of natural resources such as the Amazon Rainforest. [...] we only buy from vendors that have signed a contractual agreement prohibiting the purchase of soy beans grown on lands deforested after July 2006 in the Amazon biome.

Ensure traceability of palm oil and palm kernel oil to our supplier mills by December 31, 2015 and to plantations by 2020 to ensure zero deforestation in our palm oil supply chain. Supplier sustainability guidelines to ensure high ethical standards.
Feed market requirements: European Feed Association (FEFAC) committed to responsibly produced soy
Market requirements bioenergy: Mandatory sustainability requirements for biofuels in the European Union

Biofuels in the European Union

- Since 2011, mandatory sustainability requirements for biofuels have been in place in the European Union
- Renewable Energy Directive (RED) and Fuel Quality Directive (FQD) build legal framework for the implementation of renewable energy targets for the transport sector in the European Union
- Certification requirements based on legal requirements cover:
  - Sustainability requirements for biomass production and cultivation
  - Requirements for traceability and chain of custody
  - Requirements for greenhouse gas emission savings calculation methodology

Solid biomass in the European Union

- Sustainability criteria for solid biomass, such as wood pellets, are under discussion
With the signature of SB 32 in September 2016, California has now a very ambitious legislation to reduce GHG emissions.

Gov. Brown signs sweeping legislation to combat climate change

California will become a petri dish for international efforts to slow global warming under legislation signed by Gov. Jerry Brown on Thursday, forcing one of the world’s largest economies to squeeze into a dramatically smaller carbon footprint.

“What we’re doing here is farsighted, as well as far-reaching,” Brown said at a signing ceremony at Vista Hermosa Natural Park in downtown Los Angeles. “California is doing something that no other state has done.”

The legislation, SB 32, requires the state to slash greenhouse gas emissions to 40% below 1990 levels by 2030, a much more ambitious target than the previous goal of hitting 1990 levels by 2020.
ISCC offers solutions to address sustainability requirements in different markets. Examples of typical users of ISCC certification.
Companies looking for sustainability standards encounter a fragmented landscape

Selection of sustainability standards*

*Including sustainability requirements requested by NGOs/institutions
ISCC is a One Stop Shop for all crops and markets in an otherwise fragmented landscape of sustainability standards.
ISCC is working to harmonise new or emerging sustainability requirements – modular Add-ons allow perfect fit

Platform of the global food & drink industry. ISCC fulfils SAI Silver level. With the Add-on SAI Gold, compliance with the SAI Gold level is fulfilled

Organisation to promote sustainable and Non-GMO soybean cultivation in Europe. ISCC certification has been accepted as compliant

The European Feed Manufacturers’ Federation (FEFAC) has benchmarked ISCC. ISCC products can be sold as “in line with FEFAC Soy Sourcing Guidelines”

Compliance with the Unilever Sustainable Agricultural code is achieved with Add-ons „Environmental Management and Biodiversity“ and „Classified chemicals“

ISCC has adapted the Add-on „Non GMO“ in order to comply with supply chain requirements of „Ohne Gentechnik“
Examples of ISCC certifications in the food and packaging industries

- ISCC certified vegetable oil*
- ISCC certified sugar
- Packaging solution contributing to responsible sourcing

* Market entry to come shortly
ISCC is a leading certification system for all types of agricultural, forestry and alternative raw materials and products
ISCC is being used by companies in more than 100 countries

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
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<tbody>
<tr>
<td>System users in 100+ countries</td>
<td>12,700+ certificates, 3,000+ system users</td>
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<tr>
<td>33 certification bodies</td>
<td>660+ ISCC trained auditors</td>
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<tr>
<td>52 Trainings</td>
<td>(Basic, GHG, LUC, Waste)</td>
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<td>Stakeholder dialogue:</td>
<td>84 ISCC Association members</td>
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<tr>
<td>Integrity Program</td>
<td>3 auditors</td>
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<td>Innovative fuels</td>
<td>low iLUC, non-bio renewable, etc.</td>
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<td>New procedures</td>
<td>(e.g. due to GHG quota)</td>
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<td>Strong regional stakeholder</td>
<td>5 TCs</td>
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<tr>
<td>dialogue:</td>
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<td>300+ ISCC PLUS certificates</td>
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ISCC is a multistakeholder initiative. It is governed by an association with 80+ members. New members are welcome.
The entire ISCC system is designed to ensure sustainability, traceability and GHG emission reduction along supply chains.

On farm and plantation level:
- Protection of biodiversity
- Preservation of carbon sinks
- Good agricultural practice
- Human and social rights

In the supply chain:
- Traceability and GHG emissions*

*Mandatory controls

For ISCC PLUS GHG emissions requirements are voluntary.
ISCC defines six principles for the sustainable cultivation of biomass

<table>
<thead>
<tr>
<th>Principle 1</th>
<th>Principle 2</th>
<th>Principle 3</th>
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<tbody>
<tr>
<td><strong>Zero deforestation</strong></td>
<td><strong>Good agricultural practice</strong></td>
<td><strong>Safe working conditions</strong></td>
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<td>Protection of primary forests,</td>
<td>Agricultural and forestry production shall protect soil, water and air and ensure a sustainable use of land</td>
<td>Ensure workers health and safety during work. Improve competence and knowledge via training</td>
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<td>high carbon stock areas, peat-</td>
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<td>and wetlands, protected areas</td>
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<td>and highly biodiverse areas</td>
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<tr>
<td>Principle 4</td>
<td>Principle 5</td>
<td>Principle 6</td>
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<td><strong>Social conditions</strong></td>
<td><strong>Compliance with laws</strong></td>
<td><strong>Good management practices</strong></td>
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<tr>
<td>Ensure good labor conditions and</td>
<td>Comply with all regional and national laws and international treaties</td>
<td>Recording system and compliance of subcontractors</td>
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<td>limit impacts to surrounding</td>
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<td>communities</td>
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Voluntary add-ons provide to further customise certification solutions

**Farms and plantations**
- **Mandatory sustainability requirements**
  - Zero deforestation, Good agricultural practice, Human and social rights

**In the supply chain**
- **Mandatory requirements**
  - Management system, Traceability, Chain of custody

**Voluntary Add-ons**
- Environmental Management & Biodiversity
- Classified Chemicals
- Non GMO
- GHG Emissions
- Consumables
- SAI GOLD

**Voluntary Add-ons**
- GHG Emissions
- Consumables
- Non GMO
ISCC requirements comply with high sustainability demands – Impartial assessment available at WWF and the ITC Standards Map

The WWF Benchmarking Study November 2013 evaluates ISCC as one of the best sustainability certification systems.

“According to the WWF analysis the best performing certification system was RSB (Round Table on Sustainable Biomaterials), closely followed by ISCC and the Round Tables on Sustainable Palm (RSPO) and Soy (RTRS)“

The International Trade Centre (ITC) is the joint agency of the World Trade Organization and the United Nations. Standards Map provides comprehensive, verified and transparent information on voluntary sustainability standards
ISCC supports the Sustainable Development Goals and Paris Cop21

Governments agreed:

- A long-term goal of keeping the increase in global average temperature to **well below 2°C** above pre-industrial levels
- To aim to limit the increase to **1.5°C**, since this would significantly reduce risks and the impacts of climate change
- On the need for **global emissions to peak as soon as possible**, recognising that this will take longer for developing countries
- To undertake **rapid reductions thereafter** in accordance with the best available science

GHG requirements already implemented in ISCC. Detailed methodology for international supply chains in place
ISCC uses GRAS: Remote sensing tool to implement site- and region-specific sustainability risk analysis & land use verification

With GRAS sustainability can be checked from your desktop

The development of GRAS has been supported by:
GRAS helps to verify that supply chains of agricultural products are not linked to deforestation

Linked to deforestation?

And many more...

Land Use Change verification with

Soy
Sugar cane
Corn
Oranges
Palm Oil
Summary

• The world-wide increase in the demand for biomass needs certification that ensures a sustainable production and sourcing

• Voluntary and mandatory sustainability requirements for food, feed, chemical and bioenergy markets exist in parallel

• Deforestation and social sustainability is increasingly important for companies, investors and NGOs

• ISCC is a One-Stop-Shop to address sustainability requirements in the various markets

• ISCC is a comprehensive and high quality system. ISCC is recognized by major market standards, sustainability initiatives and individual companies

• ISCC is a multi-stakeholder scheme with strong global and regional dialogue

• ISCC performs well in benchmarking studies

• ISCC supports GRAS as an innovative tool to identify deforestation and other land use change