ISCC Update

Andreas Feige, Dr Jan Henke, ISCC System GmbH
What has been achieved in the last year? ISCC facts and figures

- **System users in 100+ countries**
- **11,000+ certificates**
- **3,000+ system users**
- **32 certification bodies**
- **630+ ISCC trained auditors**
- **44 Trainings**
  - (Basic, PLUS, GHG, LUC, Waste)
- **Stakeholder dialogue:**
  - 83 ISCC Association members
- **Innovative fuels**
  - (low iLUC, non-bio renewable, etc.)
- **Integrity Program**
  - 3 auditors
- **New procedures**
  - (e.g. due to GHG quota)
- **Strong regional stakeholder dialogue:**
  - 5 TCs
- **250+ ISCC PLUS certificates**
ISCC is governed by an association with 83 members. Several new members have joined ISCC e.V. in the past twelve months.
ISCC puts major emphasis on stakeholder dialogue on global and regional level

Global Events
- Six ISCC Global Sustainability Conferences
- Six annual General Assemblies for ISCC Association

TC Europe
Eight meetings since 2010

TC Southeast Asia
Five meetings since 2013
Working groups:
- Land use change
- Smallholders
- Social issues
- Methane reduction/ avoidance
- Australia/ Canola

TC North America
Four meetings since 2012
Working groups:
- National adaptations
- ISCC PLUS

TC Solid Biomass
Seven meetings since 2011

TC South America
Eight meetings since 2010
Working groups:
- National and biomass specific adaptations
- Biodiverse grassland
- ISCC PLUS
ISCC 6th Global Sustainability Conference in Brussels - Impressions
ISCC reacts to substantiated criticism of certification by implementing concrete measures

During ISCC Integrity audits, the ISCC integrity auditor verify and analyze the quality of the audits conducted by the independent certification bodies.
Southeast Asia is second most important region for ISCC after Europe

- European Union: 72%
- Asia: 19%
- Americas: 4%
- Africa: 0.8%
- Europe (outside EU): 4%
- Other Asian Countries: 209 Certificates
- Malaysia: 143 Certificates
- Indonesia: 156 Certificates

Numbers as of 30 March 2016
ISCC in Indonesia: 209 certificates are valid, palm is the dominating raw material

*Numbers as of 30 March 2016. Each certificate may be issued for more than one product and type of operation.
** Palm includes all materials based on palm, e.g. FFB, CPO Pome, Palm Sludge Oil, PFAD etc.
ISCC in Malaysia: 143 certificates are valid, palm is the dominating raw material, and more than 10% ISCC PLUS certificates

<table>
<thead>
<tr>
<th>Type of operation</th>
<th>Certificates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Office</td>
<td>4</td>
</tr>
<tr>
<td>First Gathering Point</td>
<td>72</td>
</tr>
<tr>
<td>Collecting Point</td>
<td>13</td>
</tr>
<tr>
<td>Oil Mill</td>
<td>84</td>
</tr>
<tr>
<td>Refinery</td>
<td>19</td>
</tr>
<tr>
<td>Biodiesel Plant</td>
<td>17</td>
</tr>
<tr>
<td>Trader, Storage</td>
<td>30</td>
</tr>
</tbody>
</table>

*Numbers as of 30 March 2016. Each certificate may be issued for more than one product and type of operation.

** Palm includes all materials based on palm, e.g. FFB, CPO Pome, Palm Sludge Oil, PFAD etc.
According to ITC Standardsmap ISCC is in good shape
After many years of institutional debate, the amended RED directive entered into force on 5 October 2015.
The new amendment affects the biofuel policy until 2020 and has an impact on biofuel markets

- **7% cap** on food/feed crop biofuels
- **Provisional iLUC factors**, only for reporting
- **Reference value for national targets**: 0.5% for **advanced biofuels**
- **New obligations for voluntary schemes**:
  - Regular reporting to the Commission
  - Increased transparency
- **Review clause for**:
  - ILUC factors
  - Options to certify low iLUC biofuels
  - Annex V
- **Annex IX**: feedstocks and fuels, the contribution of which towards the 10% target for renewable energies in transport shall be considered to be **twice their energy** content
- **New requirements** need to be incorporated for re-recognition of voluntary schemes
Biofuel consumption in the transport sector in EU Member States (kilo tons of oil equivalents)

**Old RED Directive, Art. 3 Par. 4:**
For each Member States: Share of energy from renewable sources in all forms of transport in 2020 is at least 10%

**Amended RED Directive:**
Share of energy from biofuels produced from food/feed crops shall be no more than 7% of the final consumption of energy in transport in the Member States in 2020
New GHG emission saving requirements for old and new installations

% GHG saving compared to fossil fuel

Amended RED GHG saving requirements:

- Today: 35% (existing installations)
- 60% for new installations starting operations after October 5, 2015
- 50% for installations operational before October 5, 2015 from January 1, 2018 onwards
Biofuel consumption in the transport sector in EU Member States – 90% of the market is certified

(kilo tons of oil equivalents)

Mandatory sustainability requirements in the US/Californian biofuels market

**Renewable Fuels Standard 2 Overview**

<table>
<thead>
<tr>
<th>Fuel</th>
<th>RIN Code</th>
<th>% Reduction from displaced gasoline/diesel (2009 baseline)</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renewable fuel</td>
<td>D6</td>
<td>20%</td>
<td>Fuel produced from renewable biomass and that is used to replace or reduce the quantity of fossil fuel present in a transportation fuel.</td>
</tr>
<tr>
<td>Advanced biofuel</td>
<td>D5</td>
<td>50%</td>
<td>Renewable fuel other than ethanol derived from corn starch.</td>
</tr>
<tr>
<td>Biomass-based diesel</td>
<td>D4</td>
<td>60%</td>
<td>Includes both biodiesel (renewable diesel) and renewable diesel (including in low oleic acid or high isooctane diesel fuel made from biomass feedstocks).</td>
</tr>
<tr>
<td>Cellulosic biofuel</td>
<td>D3</td>
<td>60%</td>
<td>Renewable fuel derived from any cellulose, hemicelluloses, or lignin, each of which must originate from renewable biomass.</td>
</tr>
</tbody>
</table>

The Governor issued an Executive Order which will require additional reductions:

- GHG emissions reductions to 40% below 1990 levels by 2030 (interim step toward existing 80% by 2050 goal).
- All state agencies to implement appropriate measures.
- ARB to update its climate change program scoping plan.
- ARB has stated that the LCFS will play a major role in meeting the Governor’s targets.
- Strong internal commitment to incorporate sustainability into the LCFS—and other programs.

**Certification & Quality Assurance Programs; Business and buyers want verification RIN & LCFS credits**

Source: EPA, Genscape; CARB, June 2015
Since 1 October 2015 the Regulation of the EC regarding highly biodiverse grassland applies. Guidance developed by ISCC

- In the past, ISCC did not allow any conversion of grassland
- This has been a major competitive disadvantage for ISCC
- With approval of the ISCC Guidance on highly biodiverse grassland by the EU COM in December 2015, the situation has changed
- Non-highly biodiverse grassland can now be used for the sustainable production of biomass
- Highly biodiverse grassland remains protected
- Independent, external experts have to be consulted
- ISCC guidance available for system users on ISCC website
More and more companies make voluntary commitments regarding sustainable supply chains and zero-(net)-deforestation (I)

<table>
<thead>
<tr>
<th>Company</th>
<th>Commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>P&amp;G</td>
<td>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.</td>
</tr>
<tr>
<td>Unilever</td>
<td>Working with governments and other partners to embed no-deforestation objectives into national and international policies.</td>
</tr>
<tr>
<td>McDonald’s</td>
<td>McDonald’s is committed to eliminating deforestation from its global supply chains.</td>
</tr>
<tr>
<td>Starbucks</td>
<td>Support a zero-tolerance approach to deforestation.</td>
</tr>
<tr>
<td>MARS</td>
<td>Deforestation policy targets our 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.</td>
</tr>
</tbody>
</table>
More and more companies make voluntary commitments regarding sustainable supply chains and zero-(net)-deforestation (II)

<table>
<thead>
<tr>
<th>Company</th>
<th>Commitment Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nestlé</td>
<td>Ensure that products have not led to deforestation and that its suppliers are responsible stewards of forests and forested areas from which they are sourcing materials.</td>
</tr>
<tr>
<td>Danone</td>
<td>Committed to a forest footprint policy in 2012 to eliminate deforestation impacts from its supply chain by the year 2020.</td>
</tr>
<tr>
<td>Neste Oil</td>
<td>No-Deforestation and Responsible Sourcing Policy in place in 2013.</td>
</tr>
<tr>
<td>Groupe Rocher</td>
<td>Committed to its promise to conserve nature and its resources, Groupe Rocher has decided to reinforce its commitments with a policy for palm oil supplies free of deforestation or exploitation.</td>
</tr>
<tr>
<td>ADM</td>
<td>No Deforestation of High Carbon Stock (HCS) Forests or High Conservation Value (HCV) Areas.</td>
</tr>
</tbody>
</table>
Deforestation (I): In its recent study Greenpeace concluded that the “progress towards deforestation-free supply chains is slow”

- Only two out of 14 consumer goods companies were evaluated positively in the study
- Many have not yet implemented their commitments, reached their goals or kept their promises
- Companies still often rely on buying palm oil only certified on a book & claim basis
- This does not allow traceability back to oil mills and plantation
- No control over supply chains to implement deforestation-free strategies

Source: www.greenpeace.org
Deforestation (II): Investors and funds drop companies with connections to deforestation

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.

It is a huge step forward that one of the world’s biggest investors demands that companies must stop contributing to deforestation.

Lars Løvold, Director of Rainforest Foundation Norway

- Norway’s Government Pension Fund Global (GPFG) dropped 15 companies from its portfolio due to deforestation
- Since 2012, 50 companies have been excluded from the fund over connections to forest destruction

Source: www.eco-business.com
Palm oil is still being criticized by European policy makers. France implemented a palm oil tax

**France adopts watered-down palm oil tax**

By Cécile Barbière | EurActiv.fr | Translated By Samuel White


- In March 2016, French MPs approved to increase the tax on palm oil (also known as “Nutella Tax”)

- Tax was proposed in the framework of the “biodiversity bill” and is linked to deforestation and loss of biodiversity due to the growth of palm plantations

- An exemption for sustainable palm oil producers shall be available

- In France, palm oil will now be taxed as highly as olive and other vegetable oils

- The initially planned tax would have been 300 €/t instead of now 90€/t

Source: www.euractiv.com
Examples of companies, parties and civic society to demand ban on import and implement palm oil free products

www.theguardian.com, 9 December 2015

This Ingredient Is Why a French Minister Wants to Boycott Nutella

www.time.com, 17 June 2015

www.fr-online.de, 3 March 2016
Call of the German Green Party to ban the import of palm oil from unsustainable sources

www.misura.it – “Misura says no to Palm Oil"
The Italian food producer is part of the Colussi Group
ISCC does not allow the conversion of areas with high carbon stocks or high conservation value

- Definition of forests and deforestation critical (no, zero, zero-net deforestation commitments)
- ISCC protects high carbon stocks and high conservation value
- Within ISCC, compensation for new plantings not possible
- ISCC supports measures and tools for land use change analysis

Source: www.greenpeace.org
A clear definition of no / zero deforestation commitments is missing

- **Zero Deforestation**
  - Total prohibition of forest clearing

- **Zero Net Deforestation**
  - Some forest loss could be offset by forest restoration
  - Leaves room for change in the configuration of land-use mosaic
  - Conversion of forests in one site may contribute to a sustainable development, if compensating measures in other areas are installed

- **No Deforestation**
  - Allows conversion of areas with a low carbon stock to a certain extent (e.g. shrubland, bushland)
  - Thus allows legal deforestation if not affected by the definition

Problem of how to define and how to assess a forest!
Forests are clearly defined under ISCC. No HCS determination or threshold discussions needed

Primary forests and other wooded land, namely forest and other wooded land of native species without clearly visible indication of human activity and ecological processes being not significantly disturbed

Continuously forested areas, namely land spanning more than one hectare with trees higher than five metres and a canopy cover of more than 30%, or trees able to reach those thresholds in situ

Land spanning more than one hectare with trees higher than five metres and a canopy cover of between 10% and 30%, or trees able to reach those thresholds in situ, unless evidence is provided that the carbon stock of the area before and after conversion is such that, when the methodology laid down in part C of Annex V is applied, the conditions laid down in paragraph 2 of this Article would be fulfilled (appropriate threshold for the GHG savings criterion is met)

Source: RED
Innovative risk assessment tools can be used to indicate *where* and *when* land use change took place over time.
GRAS can identify land use change over time and can analyze the type of land use change in detail.
Based on a study conducted by Meo, a market potential of more than 400,000 t sustainable palm oil in Germany was identified.

- Meo Carbon Solutions conducted the study „Analysis of the palm oil sector in Germany“ for FONAP – the German Network for Sustainable Palm Oil.
- First market analysis focusing on the demand and consumption of sustainable palm oil and palm kernel oil in Germany.
- In-depth analysis of five sectors with 22 segments in which palm oil and palm kernel oil are consumed.
- In 2013, more than 1.4 mil t palm oil and palm kernel oil were consumed in Germany. More than 50% were used in the energy sector.
- Only about 40% of the palm oil and palm kernel oil consumed in the non-energy sector was sustainable.
- A market potential for sustainable palm oil of more than 400,000 t and for sustainable palm kernel oil of nearly 80,000 t were identified.
- The complete study is available on the website of the FONAP (in German only, www.forumpalmoel.org).

### Consumption of certified palm oil (PO) and palmkernel oil (PKO) in different sectors in Germany 2013

<table>
<thead>
<tr>
<th>Sector</th>
<th>Consumption PO (t)</th>
<th>Therefrom sustainable (t)</th>
<th>Ratio (%)</th>
<th>Consumption PKO (t)</th>
<th>Therefrom sustainable (t)</th>
<th>Ratio (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food</td>
<td>315.700</td>
<td>164.420</td>
<td>52</td>
<td>54.940</td>
<td>21.750</td>
<td>40</td>
</tr>
<tr>
<td>Feed</td>
<td>140.000</td>
<td>1.600</td>
<td>1</td>
<td>0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Energy</td>
<td>753.500</td>
<td>753.500</td>
<td>100</td>
<td>0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>LDHP</td>
<td>24.500</td>
<td>11.600</td>
<td>47</td>
<td>62.800</td>
<td>29.000</td>
<td>46</td>
</tr>
<tr>
<td>Chemistry/Pharmacy</td>
<td>131.000</td>
<td>17.710</td>
<td>14</td>
<td>14.200</td>
<td>1.200</td>
<td>8</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1,364.700</strong></td>
<td><strong>948.830</strong></td>
<td><strong>69.3</strong></td>
<td><strong>131.940</strong></td>
<td><strong>10.3</strong></td>
<td><strong>7.7</strong></td>
</tr>
</tbody>
</table>

### Proportion of trading systems' sustainable palm oil by (non-energy) sectors (%)

<table>
<thead>
<tr>
<th>Total</th>
<th>Food</th>
<th>Feed</th>
<th>LDHP**</th>
<th>Chemistry/Pharmacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>33 %</td>
<td>35 %</td>
<td>32 %</td>
<td>35 %</td>
<td>99 %</td>
</tr>
<tr>
<td>25 %</td>
<td></td>
<td></td>
<td></td>
<td>MB</td>
</tr>
<tr>
<td>100 %</td>
<td></td>
<td></td>
<td></td>
<td>B&amp;C</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>MB</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SG</td>
</tr>
<tr>
<td>19 %</td>
<td>19 %</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>62 %</td>
<td>19 %</td>
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</tr>
</tbody>
</table>

### Consumption of palm oil and palmkernel oil in Germany 2013 (non-energy sectors)

- Market potential for sustainable palm oil of more than 400,000 t and for sustainable palm kernel oil of nearly 80,000 t were identified.
Currently, Meo Carbon Solutions is carrying out a follow up study on the palm oil sector in Germany in 2015

- Meo Carbon Solutions currently conducts the study “Analysis of the palm oil sector in Germany in 2015” on behalf of the FONAP (German Network for Sustainable Palm Oil)
- Meo will ensure that the same methodology will be used as in the previous study
- Analysis of sustainable palm oil and palm kernel oil consumption in Germany in 2015
- One focus of the study is analysing the development of sustainable palm oil and palm kernel oil consumption in Germany till 2013
- Market participant will also be asked for a market outlook till 2020
- Results of the study are planned to be presented Q3/2016
ISCC as solution provider for sustainable and deforestation free supply chains for companies supporting SDGs and Paris Cop21

ISCC PRINCIPLE 1 & 2: Protection of land with high biodiversity value or high carbon stock. Production in an environmentally responsible way including the protection of soil, water and air:

ISCC PRINCIPLE 3: Safe working conditions:

ISCC PRINCIPLE 4: Human rights, labour rights and land rights:

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 supports the United Nations Global Compact

- World’s leading corporate sustainability initiative with more than 12,000 corporate participants and other stakeholders based in more than 160 countries
- Participants agreed on two objectives:
  - Integrate ten UN universal principles in the areas of human rights, labour, environment and anti-corruption in business activity around the world, and
  - Catalyse actions in support of broader UN goals, such as the Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs)
- ISCC offers knowledge and support to platforms and special workstreams; promotes partnerships projects; engages with stakeholders and support companies in engaging and implementing the UN Global Compact sustainability efforts
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