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Sustainability as a Success Factor for the Palm Oil Industry

ISCC System Dr. Norbert Schmitz, Managing Director







1	ISCC – Who we are and what we do
2	ISCC requirements and solutions for sustainable palm oil
3	GRAS tool for land use change assessment and deforestation-free supply chains
4	Conclusions





ISCC is a leading certification system for all types of agricultural, forestry and alternative raw materials and products









ISCC has more than 340 valid certificates in Indonesia and Malaysia. All major palm oil groups are successfully using ISCC





ISCC is a multistakeholder initiative. It is governed by an association with 80+ members. ISCC is open to new members







ISCC is being used by more than 3,000 companies in more than 100 countries



System users in 100+ countries	12,000+ certificates 3,000+ system users	33 certification bodies 630+ ISCC trained auditors	47 Trainings (Basic, PLUS, GHG, LUC, Waste)
Stakeholder dialogue: 84 ISCC Association members	Internation for Car	SCC onal Sustainability arbon Certification	Strong regional stakeholder dialogue: 5 TCs
Integrity Program 3 auditors	Innovative fuels (low iLUC, non-bio renewable, etc.)	New procedures (e.g. due to GHG quota)	280+ ISCC PLUS certificates



ISCC supports the Sustainable Development Goals and Paris COP21. ISCC is also member of the UN Global Compact







ISCC PRINCIPLE 1 & 2: Protection of land with high biodiversity, value andr high carbon stock. Protection of soil, water and air:



ISCC PRINCIPLE 3: Safe working conditions:



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





Governments agreed:

- to aim to limit the increase to 1.5°C, since this would significantly reduce risks and the impacts of climate change
- to undertake **rapid reductions thereafter** in accordance with the best available science.

GHG requirements already implemented in ISCC.



- Integrate UN universal principles in the areas of human rights, labour, environment and anti-corruption.
- Catalyse actions in support of Millennium Development Goals and Sustainable Development Goals



ISCC requirements comply with high sustainability demands **GREPALMA** - 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 is a one stop shop for all markets. ISCC is **GREPALM** recognized by SAI, EU COM, FEFAC and by the chemical industry





Example SAI compliance: ISCC certified companies fulfill requirements of important customers in the food sector



SAI Sustainable Agriculture Initiative Platform The global food value chain initiative for sustainable agriculture							THE COMP	
Sustainable Agriculture	About us	Join SAI Platform	Activities	News & Events	Library	Contact us	Enter Search	Q
Performance Levels	Thre (see	shold also SAI FSA	Guidance	on www.saip	olatform	.org)		
Bronze	Com ques	pliance to 1009 tions.	% 'Essent	ial' questions	and a r	minimum c	of 75% 'Ba	isic'
Silver	Com than	Compliance to 100% 'Essential' questions, 80% 'Basic' questions and less than 50% 'Advanced' questions.						
Gold	Com minin	Compliance to 100% 'Essential' questions, 100% 'Basic' questions and a minimum of 75% 'Advanced' questions.						
Not yet Bronze	Indica yet.	Indicates that the level of performance does not meet the bronze threshold yet.						

ISCC fulfills SAI SILVER and SAI GOLD*

or ISCC compliant material. For SAI Gold the respective add-on has to be applied

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AGROTEBAA	0 Ahold	-	Arla	Avixo	BACARDI
ann feanairte	Фессетницт	a	Cargill	Mergen.	(¢CIO
Calita	EXAMPLE 1	Dente service	MASTER	DIAGEO	COONLER
Ebro		Timmenich	Fonterra	**	3
glanbia Hottokwa	*HEINEKEN	Hero	Hotland-Mate	illy	(NALCA)
angredion	Helloggis	KERRY	(and it street	In LANDOLAND	Louis Dreyfus Convessition
MARS	APCal.	m	McKey	MIGROS	March Blance
Mondeläz,	Muntons	N		差 Nørdzucker	055
· PEPSICO	SAB	SODIAL	mighter	SVZ	Wheeler-
C Tereos	Transa	U	659	WALTER RAU	
iate Members			-		6



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International Sustainability Et Carbon Certification

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ISCC certified biomass producers comply with ecological and social criteria. Traceability is secured along the supply chain





Mandatory controls

Traceability (mandatory), GHG emissions (voluntary)



ISCC defines six principles for the sustainable cultivation of biomass



PRINCIPLE 1	PRINCIPLE 2	PRINCIPLE 3		
Zero deforestation Protection of primary forests, high carbon stock areas, peat- and wetlands, protected areas and highly biodiverse areas	Good agricultural practice Agricultural and forestry production shall protect soil, water and air and ensure a sustainable use of land	Safe working conditions Ensure workers health and safety during work. Improve competence and knowledge via training		
PRINCIPLE 4	PRINCIPLE 5	PRINCIPLE 6		



Moreover, voluntary requirements for customised solutions can be added





In the supply chain

Mandatory requirements





Management system, traceability

Voluntary Add-ons







Simplified supply chain: Site-specific ISCC certificates are issued by independent certification bodies upon successful audit



Advantage of site-specific certification:

Instead of auditing an entire value chain each player can source sustainable material from any certificate holder

*Voluntary individual certification possible





Sustainable products can be traced back step by step



Traceability means:

- To track sustainable material back and forth throughout the supply chain
- To assign product specific information to batches of sustainable materials and products

ISCC Sustainability declarations have to contain certain information, including:

- · Amount and type of sustainable material
- Country of origin of the feedstock
- · Information on certified supplier and receiver of sustainable materials
- Type of chain of custody
- GHG information of sustainable material (voluntary)



Chain of custody options possible under ISCC (I) - Physical segregation





Unsustainable Material - No ISCC certification



Chain of custody options possible under ISCC (II) - Mass balance. Book & Claim is not allowed under ISCC





Supply BaseGatheringTransportProcessingTradingEnd user





GHG emissions are an important aspect of sustainability certification



Relevant GHG emissions are produced in the palm oil extraction phase





GHG emissions reduction at palm oil mill (I)





Palm oil mill and POME treatment

- At a palm oil mill the most relevant emission source is methane emissions from palm oil mill effluent (POME)
- These can be reduced tremendously if **methane capture devices** are applied
- It must be **verified** if the following requirements are fulfilled:
 - Absorption of total wastewater in a closed system (only short-term storage of fresh wastewater) and supply to a methane capture device
 - Use of biogas for energy purposes or flaring of the biogas
 - Methane capture device is in good condition, leakages are non-existent, and the producer provides a guarantee that the maximum methane leakage does not exceed the current state of the technology



GHG emissions reduction at palm oil mill (II)





GHG emission reduction







Many GHG reduction and avoidance options exist at POME **GREPALME** ponds. In some cases emission measurements will be required





Examples of floating chambers for emission measurements

Methane analyzer, attached to chamber









Source: Meo Carbon Solutions

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Global Risk Assessment Services (GRAS) is a tool for the **GREPALME** implementation of sustainability risk analysis and land use verification



GRAS – Global Risk Assessment Services

GRAS provides reliable information on ecological and social risks related to biomass of agricultural or forestry origin. It supports companies in setting up sustainable supply chains. GRAS directly supports auditors carrying out sustainability certifications and is an important information source for companies in several sectors interested in assessing the sustainability of their biomass supplies.

GRAS provides latest and comprehensive information on biodiversity, carbon stock, land use change (LUC) and social indices. The tool is tailored to sustainability requirements set by authorities, commercial customers and NGOs'. GRAS covers the sustainability criteria set up by the European Commission in the Renewable Energy Directive (RED) and sustainability requirements of individual companies and associations in the food, feed and chemical sector.

News and events

G7-Alliance on Resource Efficiency

GRAS was presented on a side event of the Conference of the German Federal Ministry of Food and Agriculture in Berlin on November 23rd 2015.





GRAS allows the implementation of site- and regionspecific sustainability risk analysis & land use verification





GRAS helps to verify that supply chains of agricultural products are not linked to deforestation



Linked to deforestation?





...and many other agricultural raw materials...



Land Use Change verification with





Land Use Change (LUC) detection is the key feature of GRAS. EVI shows where, when and what kind of LUC occurred









GRAS identifies when palm plantations were installed and distinguishes between replantation and deforestation







GRAS facilitates risk assessments for whole sourcing areas GREPALMA and uncovers where in-depth analysis is required









GRAS identifies when palm plantations were installed and distinguishes between replantation and deforestation









GRAS allows mapping complex supply chains for the feedstocks used in chemical, food, feed and biofuel industries



GRAS offers:

- 1. Mapping of plantations, smallholders, oil mills, refineries, etc.
- 2. Identify the risk for sourcing areas of suppliers according to deforestation, biodiversity, carbon stock and social issues
- 3. Rank suppliers according to the identified risk
- 4. Detailed risk assessments on known plantations and associated smallholders



With GRAS, companies can set up Dashboards to trace back supply chains and to verify sustainability criteria



A Company Dashboard offers

- Mapping the components of the supply chain
- Transparency on sourcing areas
- Efficient steering and controlling tool
- GRAS supports sustainability assessments of plantations/farms in terms of:
 - Identification of LUC/proof that no LUC took place
 - Deforestation & Cut-Off Dates
 - Biodiversity Issues
 - Carbon Stock
 - Social Indices
- GHG emissions at any level of the supply chain, e.g. for:
 - Transportation
 - Processing
- Possibility to individually add any kind of information
- Availability of specific reports
- GRAS provides an independent expert sustainability assessment





GRAS Company Dashboard (I) – detailed sustainability analysis of sourcing regions on farm/plantation level is possible







GRAS Company Dashboard (II) – all supply chain elements **GREPALMA** are displayed including all relevant information (e.g. GHG information)





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Conclusions

- ISCC is a well established in the palm oil sector. It offers solutions for all markets: food, feed, chemicals, and energy
- ISCC is recognized for the EU biofuels market and also by major food and feed companies. It is also being used by major chemical companies
- ISCC is based on practical requirements of global agricultural commodity markets and international supply chains
- ISCC offers solutions to integrate smallholders (landscape approach). Working groups have been established to address this issue
- ISCC has a comprehensive expertise in GHG emission calculation and measures to reduce emissions. Working group established
- Mass balance offers a suitable solution for supply chains to be certified, especially in an initial phase when the amount of sustainable material is low in comparison to conventional material
- Innovative tools like GRAS support sustainability certification, in particular regarding risk assessment and land use change verification. This helps to reduce audit efforts and costs
- ISCC is based on a multi-stakeholder process. The ISCC association is open to new members



Muchas gracias por su atención!



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