

# Monitoring Sustainability Certification of Bioenergy – Short summary

At present numerous biomass and biofuel sustainability certification schemes are being developed or implemented by a variety of private and public organisations. Schemes are applicable to different feedstock production sectors (forests, agricultural crops), different bioenergy products (wood chips, pellets, ethanol, biodiesel, electricity), and whole or segments of supply chains.

To support sustainable bioenergy deployment and overcome some of the challenges associated with the current status of sustainability certification, this IEA Bioenergy strategic study examined what is actually known and what can be learned from the current development and implementation of voluntary certification systems, about the role of voluntary certification schemes in the governance of biomass/bioenergy/ biofuels sustainability and how this has affected actors along the supply chains and trade.



# Monitoring Sustainability Certification of Bioenergy – Short summary

## Strategic Inter-Task study, commissioned by IEA Bioenergy

Carried out in cooperation between IEA Bioenergy Task 40, Task 43 and Task 38  
June, 2013

**Luc Pelkmans<sup>1</sup>, Liesbet Goovaerts<sup>1</sup>, Inge Stupak<sup>2</sup>, C.T. (Tat) Smith<sup>3</sup>, Chun Sheng Goh<sup>4</sup>, Martin Junginger<sup>4</sup>, Helena Chum<sup>5</sup>, Alison Goss Eng<sup>6</sup>, Annette Cowie<sup>7</sup>, Oskar Englund<sup>8</sup>, Jamie Joudrey<sup>3</sup>, Lena Dahlman<sup>9</sup>**

### INTRODUCTION

At present numerous biomass and biofuel sustainability certification schemes are being developed or implemented by a variety of private and public organisations. Schemes are applicable to different feedstock production sectors (forests, agricultural crops), different bioenergy products (wood chips, pellets, ethanol, biodiesel, electricity), and whole or segments of supply chains. There are multiple challenges associated with the current status of sustainability certification, i.e. the proliferation of schemes has led to – to name a few – confusion among actors involved, fear of market distortion and trade barriers, an increase of commodity costs, questions on the adequacy of systems in place and uncertainty over how to develop systems that are effective and yet cost-efficient.

### INTER-TASK STUDY

To support sustainable bioenergy deployment and overcome some of the challenges mentioned above, this IEA Bioenergy strategic study examined what is actually known and what can be learned from the current development and implementation of voluntary certification systems, about the role of voluntary certification schemes in the governance of biomass/bioenergy/biofuels sustainability and how this has affected actors along the supply chains and trade.

The study was organised in 3 main tasks, leading to findings and recommendations, described in the report "Recommendations for improvement of sustainability certified markets".

- The first task examined the various approaches of selected sustainability schemes for agriculture, forestry, biomass, biofuels and bioenergy and how these schemes work, or are intended to work, in practice; what type of tracking procedures are in place (Chain of Custody standards), and how they ensure sustainability (according to the specific standard setting and assessment procedures). This task reviewed similarities and differences among systems to develop an understanding of the benefits and opportunities of different approaches.
- In the second task, a survey was conducted to explore the views and opinions of all types of actors involved in bioenergy production and trade – from biomass producers, processors, suppliers, and traders to certification bodies, auditors, regulators and energy producing end-users. It focussed on stakeholders' views on the required mix of governance mechanisms, how these stakeholders are affected by sustainability governance and what options are suggested to improve the effectiveness and efficiency of governance and certification systems for sustainable bioenergy deployment. About 200 responses were received and analysed.
- In the third task, two case studies were investigated to analyse the potential impact of sustainability certification on bioenergy trade flows and markets, i.e. the trade flows of liquid biofuels and wood pellets in the Netherlands and the UK, as forerunners in the development and implementation of sustainability certification and large scale trade of the selected commodities.

---

1 VITO, Belgium

2 University of Copenhagen, Denmark

3 University of Toronto, Canada

4 Utrecht University, the Netherlands

5 National Renewable Energy Laboratory, USA

6 US Department of Energy, USA

7 University of New England, Australia

8 Chalmers University of Technology, Sweden

9 Swedish Bioenergy Association, Sweden

## MAIN FINDINGS AND RECOMMENDATIONS

With the myriad of international and national regulations, initiatives and agreements related to sustainable biomass, biofuel and bioenergy, it is difficult for the industry and other stakeholders to see the best solutions to suit their sustainability goals. Certification has been deemed to be necessary and valuable, leading to the emergence of a number of schemes over the last decade and the acceptance of voluntary schemes to assess compliance with legislation, e.g. the EU Renewable Energy Directive (RED) approach.

The following bullet points summarise the main issues related to the implementation of sustainability certification and propose recommendations to address these issues.

1. Policies and regulations: Policies should take into account how markets operate and evolve (e.g. investment decisions, role of smallholders, technological development). Further deployment of sustainable bioenergy needs clear, transparent and stable policy pathways with clear implementation procedures, including the way changes are contemplated to take into account new insights. Changes should be implemented through a transparent step-by-step approach. Development of an international framework of (minimum) standards could generate greater coherence between the various emerging country/regional and industry-specific policies and requirements.
2. Voluntary schemes and regulations can be complementary tools. Certification can serve as an on-the-ground tool for implementing higher level legislative sustainability requirements. It can be adapted faster than legislation and may serve to explore how continuous improvement of sustainability performance could be achieved, based on science-based developments and management practices. However, legislated requirements in response to internationally agreed standards are needed to encourage further sustainable market deployment.
3. Certification schemes can serve as alternative tools for ensuring the sustainability of biomass from regions where policies and governance structures are weak. Risk evaluation systems could be used to determine the need for certification in addition to the legislative systems.
4. The main drivers for companies to seek certification are to comply with legislated requirements and maintain or gain market access. On the other hand there are still various barriers for some actors to become certified due to administrative complexity and costs.
5. Companies can use guidance to select a scheme that fits with the company's strategy, structure and market position. The credibility of a scheme is a key selection criterion for companies considering joining. Compliance with codes of good practice being developed by the International Social and Environmental Accreditation and Labelling Alliance (ISEAL) and similar organisations could be used as a guiding principle.
6. The proliferation of schemes has led to competition among schemes in the market. This may bring further improvements in efficiency and effectiveness, but different approaches and requirements may also lead to confusion in the market place. There may be a tendency for the use of the least demanding system, or even 'green washing'. With regard to the ease of implementing a scheme, a good balance is needed between comprehensiveness and the economic and administrative accessibility of schemes.
7. Systems should converge up to a level that ensures consistency and transparency, without losing relevance at local levels. Unilateral and mutual recognition are important instruments. While convergence to achieve consistency is desirable, it is also desirable to maintain incentives for superior performance, e.g. by classifying systems according to the level of their sustainability and enforcement standards.
8. A cross-sector approach covering harmonised global sustainability principles and certification systems would be a benefit to uniform application and implementation of sustainability criteria and avoid leakage. Criteria for sustainable production of biomass should be developed for and applied to all uses of biomass (food, feed, fibre, fuel).
9. To ensure legitimacy and increased trust, certification schemes should be developed in a multi-stakeholder approach, where communication and transparency are key.
10. Certification can be costly, in particular for small players. Solutions need to be sought to reduce the administrative and economic burden, improve the cost-efficiency of the process and obtain a fair distribution of costs along the supply chain.
11. To the extent that developing countries wish to enter international markets with sustainability requirements, they should be given time and support to enable them to improve enforcement of existing sustainability requirements and, if needed, develop these to match requirements of international markets.

A strategy towards a more harmonised global approach is considered as the best solution to secure sustainable biomass/biofuels production and trade, and avoid indirect effects (e.g. iLUC). Some actions are being taken in that direction (e.g. mutual recognition of some schemes, harmonisation efforts like ISO and CEN on standardisation and GBEP on outreach, identification, and dissemination of best practices for developing countries), but it is obvious that there is still a long way to go. Consistency and transparency are key. We should strive not to add bureaucracy, but implement certification schemes in such a way that it fosters sustainable production and achieves real world improvements. It is equally important to engage all stakeholders across sectors and geography with the purpose of finding common ground where possible and increasing trust among them. IEA Bioenergy can provide a platform for discussions, guidance, independent views and analysis to improve the effectiveness of certification systems to benefit sustainable bioenergy deployment locally and globally.



## REPORTS

The study has produced four reports, which are available on-line on the IEA Bioenergy website<sup>1</sup> and the sites of the participating IEA Bioenergy Tasks<sup>2</sup>:

- Examining sustainability certification of bioenergy (task 1)
- Survey on governance and certification of sustainable biomass and bioenergy (task 2)
- Impacts of sustainability certification on bioenergy markets (task 3)
- Recommendations for improvement of sustainability certified markets (task 4)

<http://www.bioenergytrade.org/downloads/iea-sust-cert-task-1-final2013.pdf>

<http://www.bioenergytrade.org/downloads/iea-sust-cert-task-2-final2013.pdf>

<http://www.bioenergytrade.org/downloads/iea-sust-cert-task-3-final2013.pdf>

<http://www.bioenergytrade.org/downloads/iea-sust-cert-task-4-final2013.pdf>

## WORKSHOP

On Tuesday 12 March 2013 the main outcomes of the study were presented in a workshop, in connection to the World Biofuels Markets in Rotterdam. The summary of the workshop and the presentations are available at:

<http://www.bioenergytrade.org/downloads/t40-rotterdam-march-2013.zip>

## ACKNOWLEDGEMENTS

*The authors would like to gratefully acknowledge the IEA Bioenergy Executive Committee for providing funding to make the project possible. We would especially like to thank the interviewees and the respondents of the survey, for providing thoughtful and engaging answers, and helping to move the discussion beyond the identification of problems, toward solutions.*

---

1 IEA Bioenergy: [www.ieabioenergy.com](http://www.ieabioenergy.com)

2 Task 40, Sustainable International Bioenergy Trade: [www.bioenergytrade.org](http://www.bioenergytrade.org)  
Task 43, Biomass Feedstocks for Energy Markets: [www.ieabioenergytask43.org](http://www.ieabioenergytask43.org)  
Task 38, Climate Change Impacts: [www.ieabioenergy-task38.org](http://www.ieabioenergy-task38.org)

# IEA Bioenergy

## Further Information

IEA Bioenergy Website  
[www.ieabioenergy.com](http://www.ieabioenergy.com)

Secretary  
Pearse Buckley  
ODB Technologies Limited  
The Crescent Building  
Northwood  
Santry  
Dublin 9  
IRELAND  
Phone: +353 87 737 3652  
Email: [pbuckley@odbtbioenergy.com](mailto:pbuckley@odbtbioenergy.com)

Technical Coordinator  
Arthur Wellinger  
Triple E&M  
Châtelstrasse 21  
AADORF, CH-8355  
SWITZERLAND  
Phone: +41 52 365 4385  
Fax: +41 52 365 4320  
Email: [wellinger@triple-e-und-m.ch](mailto:wellinger@triple-e-und-m.ch)