

United Nations Conference on Trade and Development

**Making Certification Work for Sustainable
Development: The Case of Biofuels**



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Executive summary

Increasing fossil fuel prices, energy security concerns and environmental consciousness – especially related to climate change stabilization – have motivated countries to explore alternative energy sources. Biofuels, fuels derived from biomass, are among the alternatives which are being considered. Under careful strategies and appropriate regulations, biofuels could be instrumental to slowing down the process of global warming and enhancing energy security, as well as providing countries opportunities to diversify agriculture production, raise rural incomes and enhance access to commercial energy, especially for rural communities.

Global energy and environmental concerns combined with comparative advantage considerations are powerful motivating factors behind international trade in biofuels and related feedstocks.

In parallel with fast-growing biofuels use and trade, concerns are being voiced about the sustainability of biofuels and feedstock production, and interests in mechanisms to ensure it are intensifying. Discussions are ongoing on developing frameworks for certification schemes that encourage sustainable production. The numerous public and private initiatives being undertaken are in various stages of development ranging from the discussion phase to full implementation.

Increased production and use of biofuels indeed raise a number of concerns. Some shortcomings refer to the danger that rapid growth in demand for energy crops would divert too much cropland to fuel feedstock production, jeopardizing food security and resulting in socially detrimental increases in the prices of agricultural commodities. Concerns refer also to the risk that increasing biofuel demand will lead to the cultivation of previously uncultivated lands, including land having high biodiversity value or high carbon stock. Large use of water and pesticide for feedstock production could jeopardize the environmental advantages of biofuels. The process of transforming feedstocks into biofuels may also be environmentally unfriendly and possibly eclipse the greenhouse benefits of biofuels.

Certification is a form of communication along the supply chain that permits the buyer to be ensured that the supplier complies with certain requirements. Certification allows product differentiation and provides information about certain characteristics of a product, in this case, its sustainability. Depending on how sensitive a market is to certain product attributes, certification may have a significant market impact, affecting both domestic and imported products. Moreover, certification may be linked to tax breaks and other incentives, or it may be the precondition for products to be counted towards national targets. All this makes certification a crucial product attribute.

While there is a need to ensure that biofuels contribute to the achievement of energy and environmental goals, and certification may be instrumental to it, ongoing certification initiatives also raise a number of concerns.

Proliferation of individual sustainability schemes may damage the efficiency and credibility of certification, and create market segmentation and opacity.

The principles and criteria on which certification schemes are based are diversified and often far-reaching. All schemes put emphasis on greenhouse gas emissions reduction; others tackle in addition issues such as biodiversity preservation, land use changes, food security, social well-being and local prosperity. Evaluating the “macro effects” of biofuels production is inevitably an involved and lengthy process which may involve an aspect of subjectivity, depending on the evaluation methods employed. Hence, a balance should be struck between the comprehensiveness of the criteria included in the schemes, and the technical and administrative feasibility of applying them.

Sustainability certification will add significant costs to biofuels production. These expenses are associated with both meeting and proving sustainability criteria. The level of costs will be highly dependent on the number, strictness and inclusiveness of the criteria established by the certification system. Costs will likely be higher for developing countries as opposed to industrialized countries, and for smallholders as opposed to large-scale producers.

Concerns remain on developing countries' ability to effectively participate in the process of standard development and about the risk of domestic producers playing a disproportionately influential role in the establishment of sustainability requirements.

Certifying biofuels and distinguishing them on the basis of sustainability is a complex legal issue. Firstly, World Trade Organization (WTO) rules contain some loopholes and "grey areas" on issues of relevance for biofuels certification schemes, starting with the fundamental question of whether such schemes, when developed by private bodies, are covered by WTO rules or, conversely, should be regarded as private marketing schemes that escape from the scope of WTO rules. Secondly, the legitimacy of product differentiation based on how goods have been manufactured and on their impact through the life cycle is still an open issue under WTO rules. While WTO jurisprudence has proved increasingly flexible to allow product differentiation based on environmental and health considerations, doubts exist that it will consider favourably product differentiation based on how products and their manufacturing processes contribute to fulfilling a vast range of goals, including compliance with labour rights, rural development and food security.

Taking the following steps may contribute making certification work for sustainable biofuel production in all world regions. Efforts should be deployed towards the convergence of existing programmes and the formulation of internationally agreed principles and criteria that are flexible enough to accommodate the varying environmental and socio-economic conditions of different producing countries; that are quantifiable, verifiable and scientifically informed, and that are the result of an inclusive process where stakeholders from various regions are effectively represented. Existing forums and ongoing initiatives may be used for the purpose of developing genuine international standards. Certification programmes should make allowances for supporting small producers, especially in developing countries, to comply with sustainability requirements. In addition, compliance could be linked to certain benefits, such as access to microcredit or to support services, to encourage producers to engage in sustainable production. Equally, support is needed to improve developing country ability to issue credible declarations of conformity and test products. In order to assess the "macro effects" of biofuels production, it would be necessary to develop methods that are as accurate as possible as well as cost effective and practical to ensure that they can reasonably be implemented for certification purposes. A thorough reflection has to take place in order to assess which kind of product differentiation is suitable, WTO-consistent and instrumental to the fulfilment of sustainability goals.

Introduction

According to the International Energy Agency (IEA) World Energy Outlook reference scenario, economic growth and increasing population will lead to an annual increase in global energy demand of 1.8 per cent between 2005 and 2030.¹ While it is projected that fossil fuels will remain the dominate source of energy, increasing prices, energy security concerns and environmental consciousness have motivated countries to explore alternative energy sources.

Biofuels, fuels derived from biomass,² are among the bioenergy³ alternatives which are being considered and are currently viewed, if carefully developed, as one of the means of slowing down the process of global warming and enhancing energy security, as well as possibly providing countries opportunities to diversify agriculture production and raise rural incomes.

While biomass has traditionally been used in the production of biofuels in the region it was produced, the comparatively low production costs in the developing world have created a price incentive that is driving an emerging international market in biofuels and related feedstocks. Additionally, imports are becoming a precondition for several developed nations that are interested in transferring to biofuels to meet their biofuel blending targets, considering that they do not have the land capacity to produce the needed amount of feedstocks. For small and medium-sized developing countries, exports may be a precondition to engage in biofuels production because of economies of scale.

In parallel with fast-growing biofuels use, concerns are being voiced about the sustainability of biofuels and feedstock production, and interests in mechanisms to ensure this are intensifying. Discussions are ongoing on developing frameworks for certification schemes that encourage sustainable production.

The issue of certification of biofuels has been raised in numerous meetings organized by the UNCTAD Biofuels Initiative and has been addressed in past reports by the agency. This current study has been authored by UNCTAD with the aim of providing policymakers with an overview of certification schemes that are already in place or being developed, analysing the benefits and drawbacks of such schemes, assessing the implications for developing countries, and reporting on the possible ramifications of certification in the context of WTO. Some suggestions on how to ensure that biofuels certification is indeed conducive to sustainable production in all regions are offered at the end of the study.

¹ International Energy Agency (IEA). *World Energy Outlook 2007*, found at: www.iea.org/Textbase/npsum/WEO2007SUM.pdf.

² The term “biomass” is used as defined by the United States Department of Energy: Biomass is “any derived organic matter available on a renewable basis, including dedicated energy crops and trees, agricultural food and feed crops, agricultural crop wastes and residues, wood wastes and residues, aquatic plants, animal wastes, municipal wastes, and other waste materials”. Found at: www.energy.gov/energysources/bioenergy.htm.

³ The term “bioenergy” as used in this paper refers to electricity and any solid, liquid or gaseous fuel that is produced through the processing of biomass.

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