



WORLD GROWTH

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## **The RSPO and a Carbon Intensity Standard— Issues, Facts and Necessity**



WORLD GROWTH



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**Palm Oil Green Development  
Campaign**

**Alleviating Poverty through Wealth Creation**

Palm oil provides developing nations and the poor a path out of poverty. Expanding efficient and sustainable agriculture such as Palm Oil Plantations provides small and large plantation owners and their workers with a means to improve their standard of living.

**Sustainable Development**

Sustainable development of palm oil plantations and growth of the palm oil industry in developing nations can and will be achieved through consultation and collaboration with industry, growers, lobby groups and the wider community.

**Climate and the Environment**

Palm Oil is a highly efficient, high yielding source of food and fuel. Palm Oil plantations are an efficient way of producing fossil fuel alternatives and capturing carbon from the atmosphere.

**Opportunity and Prosperity**

Developing nations must be allowed the chance to grow and develop without political intervention by environmental groups or developed nations. It is crucial that developing nations be given the same opportunities which developed nations have benefited from.

**Property Rights**

Efficient palm oil plantations and the growing demand for palm oil give smaller land holders greater opportunities to make a living off their land, maintain their ownership and support their rights to property and prosperity.

# The RSPO and a Carbon Intensity Standard — Issues, Facts and Necessity

## Executive Summary

**The Roundtable on Sustainable Palm Oil has come under significant scrutiny and criticism recently from environmental NGOs. This criticism has centred on a claimed failure of the RSPO to uphold and improve sustainability criteria for palm oil.**

The Roundtable on Sustainable Palm Oil has come under significant scrutiny and criticism recently from environmental NGOs. This criticism has centred on a claimed failure of the RSPO to uphold and improve sustainability criteria for palm oil.

Pressure from NGOs to tighten sustainability requirements and adopt criteria and principles to demonstrate compliance with a carbon footprint is growing. There is, however, no reason to adopt one.

The latest proposals before the RSPO to introduce a carbon standard lack the necessary scientific or social impact analysis to warrant development of such a standard.

Seeking to develop and implement a carbon sustainability standard on the present level of knowledge would be a mistake. The information about the level and rate of emissions of greenhouse gases from the production of palm vary so widely that no effort to measure it or set in place measures to reduce it could be devised with an expectation of being able to predict the outcome.

Any such measures would be technically deficient – either having little effect or the wrong effect.

Proposals for a carbon standard would single out palm oil as the only food supply in the world which would be required to meet carbon standards before being considered sustainable.

The proposal also appears to presume that all palm oil will be used as biofuel. Only around 10 percent of palm oil is used for biofuel.

Governments are already formally engaged in public policy processes to set national policies to mitigate increases of greenhouse gases and to adapt to change wrought by them. It would be inefficient, if not commercially unwise, for producers to seek to develop strategies specific to reducing emissions of GHG from palm oil production and processing before Governments decide what are to be national policies to manage emissions.

World Growth considers that the inclusion of a ‘Carbon Intensity Standard’ in the Principles and Criteria for RSPO certification as premature.

World Growth considers that a case for the necessity or effectiveness of a carbon standard has not been made.

World Growth considers that the RSPO should not implement a carbon standard at this time. It should concentrate on establishing the facts of the matter first.

RSPO should call on governments to undertake a full analysis of the science of GHG emissions from palm oil production. With that knowledge, the carbon cycle in each producer can be properly assessed and the impact on developing country economies and producers of various criteria and principles in carbon footprint for palm oil as an element of the RSPO system can be properly assessed.

## Introduction

The question of a carbon footprint or 'Carbon Intensity Standard' as a criteria for sustainability certification will be considered at the Roundtable on Sustainable Palm Oil (RSPO) General Assembly in November.

This move has met with resistance. Many palm oil producers believe that WWF, Unilever and the RSPO should not be moving the goalposts for certification after participants have signed on. Unfortunately this has become too common an occurrence with some certification standards. Once producers receive certification they are then squeezed to change their production processes to their own detriment, rather than face the embarrassment of losing their certification.

World Growth supports voluntary systems of standards and conformance to demonstrate the sustainability of particular products. The guiding principle in adopting voluntary standards is that they must be negotiated by producers and consumers as adding value to the production service involved.

However, proposals before the RSPO to introduce a carbon footprint into certification standards currently do not meet this test. They are flawed and have the potential to harm the palm oil industry and consequently, efforts to lower poverty and increase living standards in developing nations.

## I. Existing RSPO Criteria

The proposals to include a 'Carbon Intensity Standard' in RSPO criteria do not appear to be directed at improving any particular practices in the cultivation or milling of palm oil. Instead, it appears to be an attempt to place another arbitrary restriction on the certification of palm oil for 'cosmetic' or marketing purposes.

The introduction of a 'Carbon Intensity Standard' is unnecessary. Existing RSPO criteria 5.2, 5.3, 5.4, 7.3 and 8.1 all provide criteria for the improvement and avoidance of practices which would lead to carbon emissions. The RSPO principles and criteria already exclude new plantations on high conservation value forest, primary forest or peat after 2005 and drive the improvement of milling processes and waste disposal.

In short, a carbon intensity standard itself will add little to improving cultivation and processing standards which the RSPO principles already address.

## II. Scientific Knowledge is Uncertain

In the 2009 proposals from the RSPO's Working Group (GHG-WG) to the RSPO Executive Board, it was noted that the working group could not come to a unanimous conclusion on all of the findings of the literature review. Agreement was reached on how to approach and measure emissions from processing.

The primary stumbling block was that producers and non-producers "have not unanimously agreed with the literature study findings in relation to carbon stocks and peat ...In short, producers' representatives felt that more data collection is required before (quantitative) standards can be set, while non-producers' representatives felt that sufficient evidence was available for the development of (quantitative) standards".

The GHG Working Group recommended additional data needed to be collected. No sound analysis of the impact on the carbon cycle of palm oil can be made until that occurs.

### Existing Estimates of Emissions from Palm Oil Vary Widely

#### *The Brinkman Report*

The RSPO literature review by Brinkman Consultancy found large variations in existing estimates of carbon emissions. For example, in its conclusion on emissions from peat decomposition the report stated "there is a large variety of quantitative data on CO2 emissions from drained peatlands ... not all measurement methods applied are reliable in terms of quantifying emission from peat oxidation".

Brinkman Consultancy also quotes Gibbs et al (2007) as stating that most technologies used to assess carbon stocks have a 'medium to high' uncertainty as regards to quantitative results and, although forest inventories are reliable, they demand significant human resources.

In its summary of the literature the Brinkman Consultancy found that total emissions ranged as much as from 16,220 to 96,565 CO2 equivalent emissions per hectare.

For example, the Brinkman Consultancy's concluding margin of error for estimates of emissions from the removal of aboveground and belowground biomass (and carbon stock change), for both intact primary forests and grasslands is greater than 50 percent of the actual given estimate. Specifically, GHG emissions from the removal of aboveground and underground biomass in tropical grasslands are in the order of 43 tonnes of CO2 equivalent per hectare, +/- 28 tonnes (or +/- over 65 percent).

#### *Other Literature*

A short overview of some other literature by World Growth underlines the significant variations among assessments of carbon emissions. These are set out in Table 1.

- The variation for time-averaged carbon stocks of Palm Oil is nearly 55 percent.

**Table 1. Examples of varying estimates of carbon emissions**

Author	Date	Emission Types	Estimate	Difference in estimates
Germer and Sauerborn	2007	Time-averaged carbon stock of oil palm	35.5 tonnes carbon/ha	Difference of 54.9 percent
IPCC	2006		55 tonnes carbon/ha used as default value	
Germer and Sauerborn	2007	Emissions from Peat decomposition	18 tonnes CO <sub>2</sub> /ha/yr	Difference of 305.5 percent
Fargioni et al	2008		Up to 73 tonnes CO <sub>2</sub> /ha/yr	
Melling et al (in Delft Hydraulics, 2006)	2005		40 tonnes CO <sub>2</sub> /ha/yr	
Murayama and Bakar (in Delft Hydraulics, 2006)	1996		54 tonnes CO <sub>2</sub> /ha/yr	
Nikander	2008	Emissions from diesel consumption	From 180 CO <sub>2</sub> eq./ha/yr	Difference of 124.4 percent
Wood and Corley	1993		404kg CO <sub>2</sub> eq./ha/yr	

- The differences of estimation from Peat Decomposition vary by over 300 percent
- Assessment of emissions from diesel consumption vary by nearly 125 percent.

Margins of error in estimating emissions are also so large as to render the estimates almost hypothetical. These are set out in Table 2. Key features are:

- For decomposition of biomass from grasslands, the margin is 65 percent
- For decomposition of biomass from forest, it is 52 percent
- For carbon emissions from El Nino forest fires, its 39 percent
- And for carbon emissions from El Nina fires they are 62 percent.

Another example of variation in the literature is the estimation of emissions from land-use conversion to oil palm plantations. For example, numerous studies have argued that palm oil plantations lead to the destruction of carbon sinks.

However, Syahrudin (2005) conducted research into the

potential of oil palm and forest plantations for carbon sequestration on degraded land in Indonesia by sampling the biomass and carbon storage inventory of oil plantations in Sumatra and East Kalimantan. They found that the persistent increase in biomass and biomass carbon store of the oil palm plantation with age suggests that the establishment of plantation in grassland is an effective tool to promote higher terrestrial carbon storage, estimating that in certain conditions a carbon sink of 172.9Mg per hectare over 30 years could be expected.

*Reliable and Detailed Data and Estimates Required*

The studies relied on to estimate carbon emissions and stocks have very high margins of error and therefore must be considered correspondingly less accurate.

The larger the margin of error, the less faith should be held that the estimate is close to the true value as a higher margin of error indicates greater uncertainty as to a given estimate and a lower probability that the true value is equal to the estimate. A framework for reducing GHG emissions cannot be introduced into RSPO Principles and Criteria, around a 'base-line' of emis-

**Table 2. Examples of margins of error in carbon emission estimates**

Author	Date	Emission Types	Estimate	Margin of error	Size of error
Germer and Sauerborn	2007	Biomass decomposition of grassland	42.0 tonnes CO <sub>2</sub> eq./ha	27.4 tonnes CO <sub>2</sub> eq./ha	65.2 percent of estimate
		Biomass decomposition of forest	627 tonnes CO <sub>2</sub> eq./ha	326.3 tonnes CO <sub>2</sub> eq./ha	52 percent of estimate
Van der Werf et al	2008	Carbon emissions fires (during El Niño)	303 Tg C/year	118 Tg C/year	38.9 percent of estimate
		Carbon emissions fires (during La Niña)	47 Tg C/year	29 Tg C/year	61.7 percent of estimate

sions without a standard framework for measuring carbon emissions which depends on the availability of quality quantitative data. Even if GHG-WG members are able to agree on a how a base-line is to be measured, reliable quantitative measures of emissions are required and current estimates of emissions, as shown, vary greatly and have large margins of error.

World Growth maintains that it would be irresponsible to move to develop a carbon intensity standard for inclusion in RSPO principles and criteria until there is substantial, consistent and quality on-the-ground data collection on carbon emissions from palm oil.

### III. Palm Oil is a Food Staple

Palm oil is a food staple for millions of people across both the developed and developing world. It is used in low cost food products, soaps and a range of consumables.

The push to implement a ‘Carbon Intensity Standard’ derives

from palm oil’s use as a biodiesel to ensure that incentive schemes for biodiesel achieve the aim of reducing greenhouse gas emissions.

The application of a carbon intensity standard to the production of all palm oil – regardless of whether it is used as a food, cosmetic or biofuel – is misdirected.

The International Energy Agency has estimated that only 10 percent of palm oil harvested is used as a biodiesel<sup>1</sup>. In 2009, Malaysian palm oil producers exported a total of 22.4million tonnes of palm oil and related products, of which 0.23 million tonnes was biodiesel exports<sup>2</sup>. Both soy and rapeseed sell a significantly higher proportion of output to biodiesel – yet neither is certified on the basis of a carbon footprint.

The application of sustainability criteria for biofuels to a food staple will create an unprecedented barrier to certification for palm oil as a food staple and unduly harm the palm oil export market.

1 International Energy Agency, Energy Technology Perspectives: Scenarios and Strategies to 2050, 2008.

2 Malaysian Palm Oil Board, Overview of the Malaysian Oil Palm Industry 2009.

A Carbon Intensity Standard would form a barrier to trade with nations which do not hold their oilseed or other agricultural products to the same carbon standards.

The RSPO could not introduce standards which consciously place its product in an uncompetitive situation vis a vis competing or substitute products and continue to serve its brief to represent the interests of palm oil growers, workers and their families in developing nations.

A carbon certification standard would increase certification costs for smallholders and millers driving up palm oil prices in developed and developing nations as the demand for sustainable palm oil increases.

Accordingly, analysis is required on the impact on food prices, exports and living standards in the nations which rely on palm oil as a food source of certifying a food crop as if it were a biofuel crop.

The proposal ignores the importance of agriculture and instead seeks to treat palm oil in isolation from the national economy and national strategies to manage carbon emissions.

#### **Other Fora are Charged with Reducing Emissions**

World Growth considers the wisdom should be queried of seeking to use specific criteria within the terms of global voluntary standard on sustainability of palm oil to secure reductions in emissions in any country or any industry in any country.

Members of the United Nations have agreed to strike global agreements on mitigation of greenhouse gases. Some disciplines have been established for this. They include the Clean Development Mechanism for parties to the Kyoto Protocol.

The presumption behind the negotiations for a new global approach under the United Nations Framework Convention on Climate Change is that each national government will

develop strategies to reduce emissions inside its economy.

It would be inadvisable for private companies to commit to measures to reduce emissions in their specific industry without taking into account national public policy strategies to do so. They may reduce the competitiveness of their own industry if this is done without regard to intentions of national governments to apply national programs to manage emissions. They would of necessity require government decisions about what restrictions were expected to apply to specific sources of emissions, or what economy-wide measures might be used to reduce emissions. Some Governments may decide to reduce emissions by applying an economy-wide carbon tax on consumers, not by setting specific measures on specific industries.

An industry, like palm oil, that self imposed measures to reduce emissions may find that Governments have adopted policies that did not require the action taken by the industry, the cost of its own competitiveness.

The impact of palm oil as a consumable must be considered under the auspices of national government policy and priorities under the existing structure for climate change negotiations.

#### **Conclusion**

World Growth considers that the inclusion of a 'Carbon Intensity Standard' in the Principles and Criteria for RSPO certification as premature.

World Growth considers that a case for the necessity or effectiveness of a carbon standard for RSPO has not been made.

While Governments have accepted a remit under the United Nations Framework Convention on Climate Change to develop global strategies to reduce emissions which entail development by national governments of national strategies to mitigate emissions and adapt to the impacts of increasing

emissions, it would be unwise for any specific industry in any country to commit in a voluntary system to reduce emissions in a way that may affect competitiveness.

In the case of palm oil, the high level of uncertainty about the level and rate of emissions and the very high margin of error in current estimates mean it would be highly inadvisable to devise principles or criteria to govern actions to reduce emissions. The impact and economic consequences would be impossible to estimate with any accuracy. Commercial and national development interests could be adversely affected.

Given that the desire to measure and regulate, even voluntarily, a carbon cycle for palm oil in order to meet the concerns of regulators in economies which import around only 10 percent of global trade for use as a biodiesel, it would be highly inappropriate to dictate the process of production and processing for that purpose when the overwhelming use of palm oil is as a food staple.

To this end, World Growth considers that the RSPO should not implement a carbon standard at this time. It should concentrate instead on establishing the facts of the matter.



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