



“Sustainable” palm oil driving deforestation

Biofuel crops, indirect land use change and emissions

BRIEFING | AUGUST 2010

THIS IS THE SECOND BRIEFING IN A SERIES ON INDIRECT LAND USE CHANGE AND EMISSIONS FROM BIOFUEL CROPS



Friends of the Earth Europe

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Friends of the Earth Europe campaigns for sustainable and just societies and for the protection of the environment, unites more than 30 national organisations with thousands of local groups and is part of the world's largest grassroots environmental network, Friends of the Earth International.



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Deforestation in Malaysia's
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Palm oil

1. Introduction

European Union (EU) biofuel targets are leading to a rapid increase in demand for feedstock crops such as sugar cane, oil palm and soy. This creates severe pressure for more agricultural land. Where this expansion occurs at the expense of forests, peat land and other carbon rich habitats, it results in substantial increases in greenhouse gas emissions from the soil and the removed vegetation. This expansion at the expense of natural habitats is often indirect, ie. biofuel crops are not planted on forestland, but instead displace other crops or pasture land which move to the forest. This makes it impossible to address this issue through sustainability certification schemes that by definition work at a farm-scale level.

Scientific research has now shown that emissions from indirect land use change (ILUC) have the potential to negate any greenhouse gas emission savings which might be generated from biofuel use. In fact the net-effect of biofuel targets could be an overall increase in emissions.

In this series of briefings – looking at three different displacement chains - Friends of the Earth illustrates the reality of indirect land use change, highlighting how the EU's biofuel policy could in fact be aggravating climate change. This briefing looks at how demand for "sustainable" palm oil is contributing to ILUC. This is illustrated using the example of Malaysian palm oil company Sime Darby which is deforesting new land partially in order to meet increase in demand for certified palm oil for biofuel.

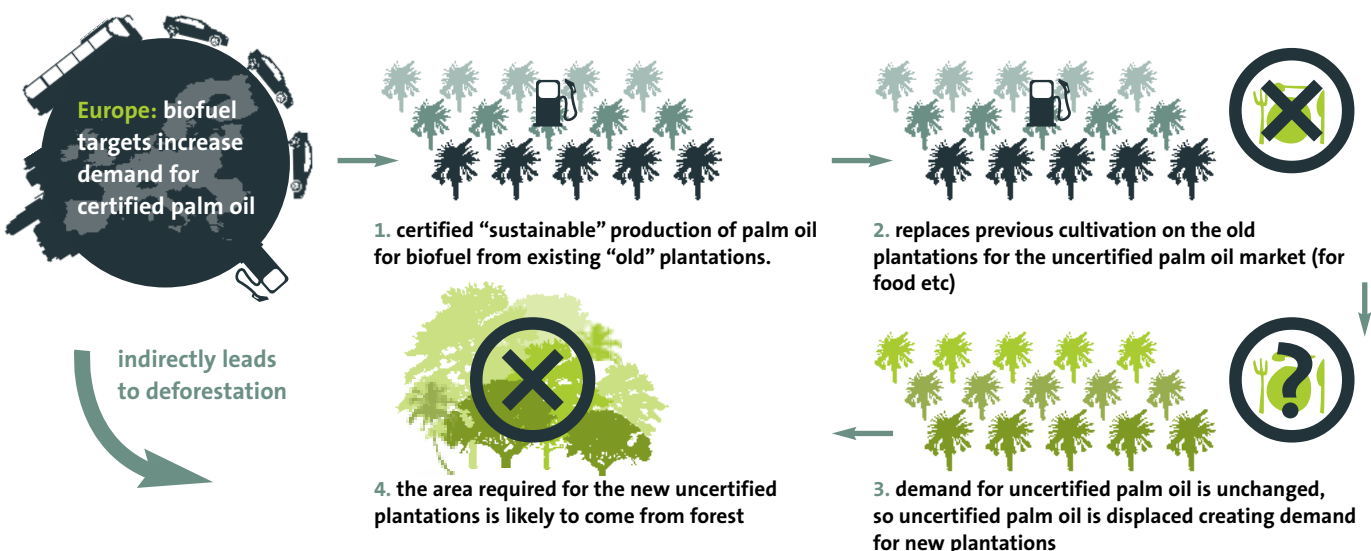
2. Palm Oil: drives deforestation and increases greenhouse gas emissions

Palm oil is produced from the fruit of oil palm trees, which grow best in tropical regions. Malaysia and Indonesia are by far the world's largest producers, but many other countries across Africa, Asia and Latin America are granting companies forest concessions to establish new plantations. Oil palm plantations have caused large scale rainforest destruction resulting in massive greenhouse gas emissions. Biodiesel produced from palm oil can easily produce more emissions than regular diesel (see box below).

Palm oil is used for food, cosmetics and many other products. It is found in one in ten supermarket products. Palm oil for biofuel is a new market that is increasing demand further. The charity ActionAid estimates that 2.5-3 million hectares of palm oil plantations will be needed to help meet the EU's biofuel target. Palm oil is also being increasingly used to replace other oils which are being used for biofuel to meet the EU targets.

According to the UK Government, 45 per cent of Europe's biodiesel could come from Malaysian and Indonesian palm by 2020, creating additional demand for palm oil of approximately 14 billion litres.¹ Some estimates suggest that an additional 2.5 – 3 million hectares of palm oil from Indonesia and Malaysia will be required.² There is currently 7.9 million hectares of oil palm plantations in Indonesia and 4.5 million hectares in Malaysia.

Figure 1. Europe: biofuel targets increase demand for certified palm oil



Palm oil

Emissions from palm oil biodiesel – worse than from fossil fuels The EU currently attributes palm oil biodiesel with a default value of 19 per cent greenhouse gas emission savings compared to fossil fuels. But this figure does not include the crucial emissions from indirect land use change. A UK Government study has found that palm oil biodiesel produces significantly more emissions than regular diesel if ILUC emissions are taken into account.³

If forest is cleared to make way for palm oil plantations, the biofuels produced are worse for the climate than regular diesel – the emissions from deforestation are so high that it would take 86 – 423 years of biofuel production before they are cancelled out.⁴

3. Sustainable Palm Oil and the RSPO: causes indirect land use change and deforestation

The EU hopes that a rise in demand for palm oil to produce biofuel will not contribute to deforestation so long as the palm oil comes from "sustainable" sources. In practice this means palm oil certified by the Round Table on Sustainable Palm Oil. But demand for "sustainable" palm oil is simply leading to the expansion of other palm oil plantations onto forested land.

What is the RSPO? The Round Table on Sustainable Palm Oil (RSPO) was set up in 2004 for "promoting the growth and use of sustainable oil palm products through credible global standards and engagement of stakeholders".⁵ Palm oil that meets its standards is RSPO certified and can be sold as "sustainable".

RSPO certified palm oil is certainly likely to be more sustainably produced than non-certified palm oil, but a voluntary certification scheme can never guarantee sustainability. The RSPO itself has been subject to much criticism and includes a number of loopholes.⁶ It does not even prohibit (direct) deforestation.

The RSPO does not address the issue of land use change. The key factor causing ILUC is increase in demand, which means an increase in plantation area which all too often means deforestation. Rather than tackling the fundamental issue of demand, the RSPO stimulates demand by offering sustainable palm oil to companies and consumers that would otherwise not buy palm oil.

New demand for palm oil for biofuels is already leading companies, such as Sime Darby, to chop down forest to create new plantations.



Palm oil plantation.

4. Sime Darby

Malaysian company Sime Darby describes itself as "the world's largest palm oil producer" and sells both RSPO certified palm oil and uncertified palm oil.

Table 1. Sime Darby vital statistics

Annual crude palm oil production	2.4 million tonnes = 6% of world production
2009 profit from palm oil	€348 million (1,719 million RM ⁷)
Oil palm area	633,607 hectares in Malaysia and Indonesia, with 524,626 hectares planted. Up to 220,000 hectares acquired in 2009 in Liberia ⁸
Number of oil palm estates	208
Number of oil palm mills	65 (23 in Indonesia, 42 in Malaysia) ⁹
Number of RSPO certified mills	5 (in Malaysia) ¹⁰
Amount of certified palm oil produced to date (up to November 2009)	209,444 tonnes ¹¹



Palm oil plantation, Indonesia.

Sime Darby also has 220,000 hectares in Liberia.¹²

Five of Sime Darby's 65 units – ie. a mill plus the plantations that supply it – are RSPO certified. These are all in Malaysia. Several others have been audited and are awaiting a decision from the RSPO. Sime Darby says it aims to be fully RSPO certified by 2010/11, but given that it is expanding into protected forest and still has unresolved land use conflicts¹³ this is an unachievable aim. To date, Sime Darby has produced 209,444 tonnes¹⁴ of certified palm oil.

Sime Darby is already looking to expand its plantations to meet growing demand. This is leading to areas of forest being cleared in Indonesia – and the company also has acquired the rights to forested land in Liberia.

As Sime Darby's certified plantations start supplying palm oil for biofuel instead of for other products, new plantations need to be established to maintain the supply for the other products. The EU biofuels market and other new palm oil demands are driving Sime Darby's expansion into tropical rainforest in Indonesia and Liberia.



Peat land forest cleared for oil palm expansion in Ketapang, Indonesia.

5. New plantations in Indonesia

Indonesia contains the most extensive tropical rainforest cover in Asia, but has the world's fastest rate of deforestation. Emissions resulting from the clearing of forests and draining of peat lands make Indonesia the third biggest emitter of greenhouse gasses after China and the United States. More than 2 million hectares of forest, including protected forest and conservation areas, have been illegally converted to palm oil plantations.¹⁵

6. Sime Darby's plantations on protected forest

Sime Darby's plantations in the Ketapang district in West Kalimantan, Indonesia, are unlikely to achieve RSPO certification in the near future. The company has illegally deforested Protected Forest (Hutan Lindung) in Ketapang and is producing palm oil on this land. Sime Darby's 100-per-cent-owned subsidiary PT Budidaya Agro Lestari (PT BAL) has 2,600 ha of concessions that overlap with Protected Forest. In 2003 a Forestry Department team discovered that part of this has been cleared without permission. Another Sime Darby's wholly-owned subsidiaries, PT Sandika Nata Palma (PT SNP) has a 1,300 ha concession that overlaps Protected Forest. Parts of this have been cleared and planted without permission.



A satellite image shows palm planted in protected forest areas in Ketapang.

Palm oil

7. New plantations in Liberia: moving into virgin rainforest in Africa to meet expanding demand

*"It is increasingly difficult to acquire arable plantation land in Asia and thus it is imperative that new frontiers be sought to meet increasing demand."*¹⁶ Dato' Seri Ahmad Zubir, Sime Darby President and CEO on the land acquisition in Liberia.

As well as expanding in West Kalimantan, Sime Darby is moving into Africa. In May 2009 the company acquired 63-year concessions for 220,000 oil palm and rubber plantations in Liberia. Eighty per cent of the investment will be in palm oil.¹⁷ This is about 25 per cent of the company's total land area.

Liberia is home to vitally important parts of the Upper Guinea Forest, a tropical rainforest that has already been 85 per cent deforested. At least two of the areas - Gbarpolu and Bong counties - where Sime Darby has concessions (exact locations are unknown) are currently extremely heavily forested, including virgin rainforest. It is reported that Sime Darby will establish 18 oil mills, a vegetable refinery and a kernel crushing plant.¹⁸ The company says it has started to plant 10,000 hectares of oil palm estates and to "clear land" to set up a nursery.¹⁹

8. The sky's the limit? Sime Darby wants to double current plantation area

"Later on, when the opportunity arises, we may open estates in Brazil or in any South American country near the equator where oil palm grows well." Sime Darby Plantation Sdn Bhd managing director Datuk Azhar Abdul Hamidi.²⁰

Sime Darby's expansion into Liberia is part of the company's ambition to reach 1 million hectares of plantation land in the next five years.²¹ This would very nearly double its current palm oil plantations area and would inevitably involve large scale deforestation to create new land. Sime Darby is not alone. Other RSPO companies with some certified plantations, for example IOI and Cargill, are also expanding their operations into new land including forest.

Below: Palm oil seeds.
Right: Land being cleared for palm oil in Ketapang, Indonesia.



9. Conclusion

EU biofuels targets are driving deforestation of tropical rainforests as Sime Darby's operations in Indonesia and Liberia reveal. Even though the certified proportion of the palm oil produced by companies such as these will probably be able to meet the EU's criteria for biofuels, they will continue to expand elsewhere to meet the extra demand for palm oil, therefore causing indirect greenhouse gas emissions. Using RSPO certified palm oil will not prevent this deforestation because the RSPO does not prevent deforestation and does not address the issue of emissions from indirect land use change. The EU must account for the emissions caused by the new demand stemming from its targets.

Friends of the Earth is calling for:

- Strong ILUC factors, based on the precautionary principle, to be used to calculate the impact of ILUC emissions in the life cycle analysis of biofuel emissions.
- An urgent review of EU biofuel targets in the light of findings that ILUC emissions increase disproportionately with the size of the overall target.

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 www.simedarby.com/downloads/pdfs/SDB/Annual_Report/Sime_Darby_AR2009.pdf
 8 220,000 hectares for oil palm and rubber. No exact figures for oil palm, but of the \$800 million investment, 80% will go to palm oil and the remainder to rubber.
 http://news.mongabay.com/2009/0504-liberia_palm_oil.html accessed on 1 march 2010
 9 www.simedarby.com/Plantation.aspx accessed on 1 march 2010
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 12 220,000 hectares for oil palm and rubber. No exact figures for oil palm, but of the \$800 million investment, 80% will go to palm oil and the remainder to rubber.
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