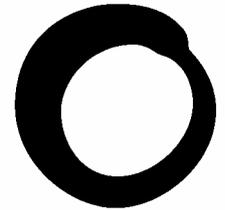


August 2006



**Friends of
the Earth**

Briefing

The use of palm oil for biofuel and as biomass for energy

Friends of the Earth's position

Friends of the Earth believes that climate change is the most pressing global environmental problem facing humanity. Hundreds of millions of people could lose their livelihoods or lives if average global temperatures rise by more than 2°C.¹ Up to one million species could go extinct.² This outcome is almost inevitable if global emissions do not start to fall within the next 20 years.³

Friends of the Earth therefore supports a diverse range of action to reduce the emissions of global warming gases including greater energy efficiency, a decentralised energy infrastructure system and a huge leap in investment in the renewables sector.

Friends of the Earth inspires solutions to environmental problems, which make life better for people.

Friends of the Earth is:

- the UK's most influential national environmental campaigning organisation
- the most extensive environmental network in the world, with almost one million supporters across five continents and over 60 national organisations worldwide
- a unique network of campaigning local groups, working in over 200 communities throughout England, Wales and Northern Ireland
- dependent on individuals for over 90 per cent of its income.

To join or make a donation call us on 0800 581 051

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Biofuel and biomass

Friends of the Earth believes that the use of biomass as an energy source should be part of the climate change solution as long as it is developed in a truly sustainable way. The growth of new biomass takes carbon dioxide out of the air to compensate for the carbon added when biomass is burnt. The use of biomass as part of the sustainable energy mix therefore has potential benefits.

The risks

It is important to remember that the potential for using biomass to reduce emissions is strictly limited and there is no substitute for cutting emissions at source. It must also be recognised that failure to undertake a cautious, sustainable approach to the development of the biofuel and biomass market will do more harm than good. Risks include:

- Increasing the emission of climate change gases rather than helping to curb them
- Damaging food security
- Damaging ecosystems and biodiversity
- Exacerbating social conflict

Palm oil

Palm oil is the second most traded vegetable oil crop in the world, after soy⁴, and over 90% of the world's palm oil exports are produced in Malaysia and Indonesia⁵. Palm oil is still mostly used in the manufacture of food products and is found in one in ten products sold in UK supermarkets.⁶

However, palm oil is now starting to be used as an ingredient in bio-diesel and as a fuel to be burnt in power stations to produce electricity. This is a new market for palm oil which has the potential to dramatically increase global demand for this commodity.

The development of the oil palm industry in Indonesia and Malaysia has brought economic benefits to both these countries. However it has also generated considerable environmental and social costs.

The development of oil palm plantations is one of the biggest causes of rainforest clearance. The palm oil industry has already set up 6.5 million hectares of oil palm plantations across Sumatra and Borneo but it is estimated that it is probably responsible for the destruction of 10 million hectares of rainforest.⁷

By clearing the forest first, plantation companies can offset the start up costs of their plantations. The profits are so large that some oil palm companies clear the land and don't even bother to set up the plantation. There is therefore a strong incentive for oil palm companies to seek concessions and access to land that is heavily forested.

Oil palm plantation development also poses the greatest threat to the survival of many species, including the orang-utan. Oil palm plantations could be responsible for at least half of the observed reduction in orang-utan habitat in the decade between 1992 and 2003.⁸

Tropical deforestation due to agricultural expansion, logging and infrastructure development already contributes between 10 and 30 per cent of greenhouse global emissions.⁹ The

clearance of rainforest to make way for oil palm plantations is exacerbating this problem.

In addition, oil palm plantation companies in Indonesia have been identified as one of the chief culprits in setting forest fires over the last 10 years.¹⁰ These occur every year in Indonesia and release huge quantities of carbon into the atmosphere. In one of the worst fire incidents between 1997 and 1998 it is estimated that the emissions from the forest fires in Indonesia were equivalent to 40% of all global emissions from burning fossil fuels that year.¹¹

The development of oil palm plantations has also often benefited large companies at the expense of local communities who can lose their land and access to important forest resources and ecosystem services.¹²

In Indonesia over 100 million people depend upon access to rainforest resources for their survival. The rapid expansion of the oil palm industry in Indonesia has all too often been associated with community exploitation and corporate greed rather than sustainable development.¹³

The Roundtable on Sustainable Palm Oil

A business / NGO initiative has recently been started called the Roundtable on Sustainable Palm Oil (RSPO).¹⁴ This project is half way through its development. It has set standards for sustainable palm oil production and is now developing auditing and trading systems. Friends of the Earth has actively been pushing UK food and household product companies that are already buying significant quantities of palm oil to join this initiative.

The impact of a rising global demand for palm oil

The new demand for palm oil to be used as a biofuel or as biomass for electricity production is potentially massive. In the UK the conversion of just one oil fired power station to palm oil could alone double UK imports.¹⁵

By 2020 Indonesia's oil palm plantations are projected to triple in size to 16.5 million hectares – an area the size of England and Wales combined.¹⁶

Friends of the Earth is greatly concerned that the increase in plantation area will lead directly and indirectly to the further clearance of a huge area of rainforest. In August 2005 the Government of Indonesia announced a project to build the world's largest oil palm plantation on Borneo, along the Malaysian border, which proposed to slice right through the middle of the last large remaining rainforest area and a number of national parks.¹⁷

Following an international outcry the Indonesian Government has distanced itself from this project. However Friends of the Earth is still greatly concerned that this project or a replacement project which is just as destructive may still go ahead. One of the key reasons originally cited by the Indonesian Government for this project was the projected rise in international demand for palm oil for use in bio-diesel.¹⁸

In Indonesia in particular the poor levels of governance, the high levels of corruption and a politically weak civil society means that many oil palm plantations continue to be developed in a highly destructive way.

Although Malaysia produces the majority of the world exports in palm oil, Indonesia is

projected to become the world number one producer in the next couple of years. Given the much larger land base in Indonesia, the greatest expansion in plantation area for the foreseeable future will take place in one of the countries where the sustainable management of forest resources is weakest.

Even if the demand for palm oil as a biofuel or for biomass is directed at sustainably certified sources, when such a system is fully established, this new demand is highly likely to displace much of the current global demand elsewhere towards destructive plantation development, especially in Indonesia.

Conclusion

Friends of the Earth believe that the UK food and household products industry must convert their current demand for palm oil to demand for sustainable palm oil. They should join the RSPO and buy RSPO certified palm oil as soon as it is available.

However, since the potential demand for palm oil as a biofuel or for biomass energy is so large and given the weak governance in Indonesia and its destructive policies regarding plantation development, Friends of the Earth does not support the use in the UK of palm oil as a biofuel or for use as biomass for electricity production.

The only exception is where palm oil is being recycled, for example by using chip fat. However it should be recognised that this source is very limited and would not be enough to support any large scale biofuel plants or power stations.

¹ Millions at Risk, Martin Parry, School of Environmental Sciences, University of East Anglia, Norwich.

² C.D.Thomas et al., 2004, Extinction risk from climate change, *Nature*, vol 427, Pages 145-148.

³ Avoiding Dangerous Climate Change, International Symposium on the Stabilisation of greenhouse gas concentrations. Hadley Centre, Met Office, Exeter, UK 1-3 February 2005. Report of the International Scientific Steering Committee May 2005.

⁴ Oil World (1999) cited in Casson, A. (2003) Oil-palm, Soy Beans and Critical habitat Loss, A Review.

⁵ FAO – FAOSTAT: Online database. <http://apps.fao.org>

⁶ Friends of the Earth: The oil for ape scandal (2005).

⁷ Friends of the Earth: The oil for ape scandal (2005).

⁸ Friends of the Earth: The oil for ape scandal (2005).

⁹ Schimel, D.S. et al. 2001. Recent patterns and mechanisms of carbon exchange by terrestrial ecosystems. *Nature* 414: 169-172.

¹⁰ Wakker.E (2004) Greasy Palms: The social and ecological impacts of large scale oil palm development in Southeast Asia – Friends of the Earth.

¹¹ *Nature*: 7th November 2002 – Scorched Earth: Volume 420 – Number 6911

¹² Wakker.E (2004) Greasy Palms: The social and ecological impacts of large scale oil palm development in Southeast Asia – Friends of the Earth.

¹³ Wakker.E (2004) Greasy Palms: The social and ecological impacts of large scale oil palm development in Southeast Asia – Friends of the Earth.

¹⁴ www.sustainable-palmoil.org

¹⁵ Friends of the Earth: Conversations with energy industry sources (2006)

¹⁶ Wakker.E (2004) Greasy Palms: The social and ecological impacts of large scale oil palm development in Southeast Asia – Friends of the Earth.

¹⁷ Friends of the Earth Netherlands and Swedish Society for nature Conservation (April 2006): The Kalimantan Border Oil Palm Mega Project:

¹⁸ Friends of the Earth Netherlands and Swedish Society for nature Conservation (April 2006):The Kalimantan Border Oil Palm Mega Project: