Aloha Senator Menor,

I'm enclosing some information on the palm oil which will likely be used in the proposed "biodiesel" plant. I spent two years in Indonesian Borneo (Kalimantan) as a Fullbright Scholar conducting dissertation research there. I witnessed first hand the human rights violations and destruction of indigenous-owned tropical forests associated with the establishment of oil palm plantations. In Europe there is growing awareness of the damage caused by palm oil plantations and growing resistance to the use of this so-called "biofuel". Please act swiftly to be sure that, out of ignorance, Hawai`i does not add to massive deforestation and violations of indigenous rights by creating a market for this damaging process. Oppose HB 1912.

Thank you for your help.
Sincerely,
Stephanie

****

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235 7907

Once a Dream Fuel, Palm Oil May Be an Eco-Nightmare

*Please Note: Archive articles do not include photos, charts or graphics. More information.
January 31, 2007, Wednesday

By ELISABETH ROSENTHAL (NYT); Business/Financial Desk

Late Edition - Final, Section C, Page 1, Column 3, 1187 words

DISPLAYING ABSTRACT - Scientists discover palm farming on peatland for production of palm oil as sustainable energy source is damaging to environment; study by Wetlands International and Delft Hydraulics shows Indonesia has become third-leading producer of carbon emissions likely responsible for global warming; Netherlands suspends palm oil subsidies; leads effort to distinguish which biofuels are truly environmentally sound; Palm oil produces most energy of all vegetable oils when burned

Down to Earth No. 71, November 2006

Palm oil is not green

Plans have been shelved to use palm oil in a UK power station after campaigners highlighted the negative consequences for local communities, forests and wildlife. But the promotion of palm oil as a means of addressing climate change, on top of its use in food products, still threatens millions of livelihoods in Indonesia.

Npower, one of the UK's top three gas and electricity suppliers, announced its decision to drop plans to use palm oil to fuel its Littlebrook power station in Kent, southeastern England, in November. The power station, which currently uses petroleum-based oil, has a capacity of 1,000 megawatts and is used as a top-up electricity generator in times of high demand. The conversion to palm oil would have made Littlebrook Britain's biggest biofuel electricity generation project by far. According to the company, using palm oil would reduce carbon dioxide (CO_2) emissions by almost a million tonnes per year - the equivalent of taking quarter of a million cars off the road*.

The company, which is owned by Germany's RWE, said it had made the decision because its strict sustainability criteria could not be met.

NGO pressure may well have contributed to the decision too. Friends of the Earth England, Wales and Northern Ireland (FoE EWNI) publicly criticised the company's plans in August. In October, the German group Watch Indonesia! wrote to Npower, urging the company not to go ahead with plans to use palm oil at Littlebrook, pointing out that palm oil is neither clean nor climate-friendly.

"For producer countries like Indonesia, the growing demand for palm oil turns out to be a curse for the rainforests and the local communities living there: as a consequence, forests are destroyed, soil, water and air are poisoned by agro-industrial toxins, conflicts over land erupt and the people concerned lose their livelihood and often suffer human rights abuses. At breathtaking speed, the habitats of species threatened with extinction, i.e. orangutans, forest elephants and tigers on Sumatra and Borneo, have fallen prey to deforestation carried out to make way for palm oil plantations." (Watch Indonesia!, letter to Npower, 10/Oct/06)

Malaysia and Indonesia are the world's two big players in palm oil production, accounting for more than 80% of the total global trade. Indonesia is expected to overtake Malaysia soon as the world's biggest producer but the interests of both countries are closely linked as Malaysian companies are investing heavily in plantations in Indonesia. Indonesia's palm oil production is forecast to rise to 17.6 million tonnes next year from an estimated 15.9 million tonnes in 2006. (See DTE 69 and DTE 66 for more background).

Friends of the Earth, which is campaigning against the use of unsustainable palm oil in the food and biofuel industries, said that current levels of demand for palm oil for the food industry are already threatening Indonesia's forests with annihilation. "The forests and the people and wildlife they support simply cannot cope with a steep rise in global demand for palm oil for the energy industry. It will sound the death knell for the orang-utan and create further conflict between palm oil companies and local communities," said FoE's Ed Matthews (*Press Association* 23/Aug/06). FoE reckons that oil palm plantations are probably responsible for the destruction of 10 million hectares of Indonesian rainforest.

Indonesian groups have also warned that the emerging biofuel market will put more pressure on the country's forests and forest peoples. Indonesia's advocacy network on palm oil, Sawit Watch, believes that higher European targets for renewable energy and electricity could mean that more forests that provide livelihoods for local communities - especially indigenous peoples - will be converted to oil palm plantations.

Despite such warnings, the large profits to be made are prompting the palm oil industry and

the Indonesian government to keep on promoting palm oil as both food product and biofuel, and announce ambitious schemes such as the Kalimantan-Malaysian border mega-project. Its use is being promoted on the domestic market too: President Susilo Bambang Yudhoyono issued two decrees on energy earlier this year to encourage the use of biofuel as fossil fuel substitute and, in June last year, Aburizal Bakrie (then coordinating minister for economics and industry, and now embroiled in the Sidoardjo mudflow disaster - see mudflow article) stated that an additional 600,000 hectares of plantation land would be made available for oil palm cultivation for biodiesel production.

According to Reuters, Indonesia and Malaysia plan to set aside up to 40% of their palm oil output for biodiesel. Jakarta estimates that 600,000 tonnes of crude palm oil will be used by the biodiesel industry next year. Earlier this year, the government allowed a 10% blend of biofuels in fuel products and state oil and gas company, Pertamina, is selling diesel with a 5% palm oil content.

A company owned by the Bakrie family is planning to build Indonesia's first large-scale biodiesel production plant in Sumatra with a capacity of 60,000-10,000 tonnes per year (see DTE 69). Other Indonesian companies that have announced plans to develop biodiesel plants are PT Astro Agro Lestari and PT Asian Agri. Foreign companies planning to enter the Indonesian biofuel industry include Malaysia's Golden Hope Plantations, Genting Bhd and Sime Darby Bhd, and Singapore's Wilmar Holding Pte. Ltd.

Protest against Dutch company's use of palm oil

In October, Friends of the Earth Netherlands staged a protest at the headquarters of Essent, a major Dutch energy producer, against the use of palm oil in their biomass plants. The group handed over a complaint filed with the state advertising code commission, on the basis that Essent claims it only uses sustainable biomass. (Milieudefensie update 2/Nov/06)

Sawit Watch reports

Two new reports by Sawit Watch and partner NGOs highlight the serious injustices already caused to indigenous peoples, local communities and smallholders by oil palm development in Indonesia. The first report, which is based on a detailed legal study and field surveys, shows that Indonesia already has around 6.4 million ha of oil palm and plans a further 20 million ha. Most of this area is the customary land of indigenous peoples and local communities, who have minimal protection under Indonesia laws. Communities are still being forced to give up their lands against their will, without adequate compensation.

The second Sawit Watch report, based on workshops and interviews with smallholders, shows how local farmers have been forced to relinquish their land, only receiving small plots as oil palm smallholdings on large commercial oil palm estates in return. They are saddled with large debts which take up to 20 years to pay off. Farmers complain of low prices, unclear financial arrangements, poor infrastructure, inadequate training and serious social problems on the estates. Sawit Watch estimates that there are about 4 million smallholders and their families on these estates in Indonesia.

RSPO links

The Sawit Watch reports were published in advance of the November meeting of the Roundtable on Sustainable Palm Oil (RSPO) in Singapore. This is a voluntary body set up in 2004 by the palm oil industry and World Wide Fund for Nature (WWF) partly in response to NGO charges than oil palm plantations destroy forests and impoverish local communities. Sawit Watch is a member of the RSPO Executive Board and helped push the organisation to adopt relatively progressive social criteria for plantation developers last year (see DTE 66 and DTE 68 for more background).

In his opening address to the Singapore meeting, RSPO president Jan Kees Vis of Unilever drew attention to the Nairobi climate change discussions, pointing out that climate change is a very real threat and that changes in attitudes are taking place. Governments and companies are now taking biofuels very seriously and this supports the lobby for palm oil as biodiesel. However, he warned that expansion of palm oil plantations to meet this end was potentially enormous and could have devastating effects on the environment and local people's livelihoods. He went on to argue that the RSPO should not take a position on the sustainability of biofuels, including palm oil.

RWE Npower, also an RSPO member, was aiming to source its palm oil supply for the Littlebrook power station from fellow RSPO members. The company linked its decision not to go ahead to the fact these suppliers could not yet prove that their products were from 'well-managed' plantations. According to Npower, this means they did not involve rainforest destruction or relocation of indigenous peoples to establish them. The company's stance reflects a high level of scepticism over plantation companies' ability and willingness to apply RSPO standards. RSPO members with decidedly dodgy credentials include Musim Mas, whose heavy handed attempts to break up a union at its Sumatra operation, ended in jail sentences for six workers, while others were evicted from their homes. RSPO member LonSum is still refusing to settle land disputes with communities in Pergullaan (North Sumatra) and Paser (East Kalimantan). Another affiliate member is Syngenta, makers of Paraquat, the highly toxic weedkiller used in oil palm plantations associated with a range of serious health impacts on workers, especially women (see DTE 66).

At the latest Roundtable meeting in Singapore, NGOs criticised Malaysian companies that are members of the RSPO for lobbying for the national ban on the use of Paraquat to be lifted, even though the RSPO has ostensibly committed itself to finding substitutes for Paraquat by the end of 2007. Moreover, the Malaysian Palm Oil Association, which is represented on the Executive Board of the RSPO, also called for the RSPO standard to be revised as member companies thought the standard was too high for them. The announcement caused dismay among European retailers and manufacturers who want to source 'sustainable palm oil' by the end of 2007.

RWE Npower itself has not ruled out using palm oil in future and may still be involved in smaller-scale use right now. According to the company's website, it is already using palm oil to replace heavy fuel-oil during start-up at its coal-fired power stations in the UK. The company has also been linked to another, smaller UK power generation project, approved earlier this year by Southampton city council. The proposed combined heat and power project is designed to power more than 3,000 council homes around the city. It plans to use palm oil only initially, until local enterprises are able to supply locally grown alternative biofuel crops. Construction

is expected to start later this year.

Incentives and subsidies

The Npower case highlights the fact that incentives for using biofuels like palm oil are not linked to good sustainability practices throughout the supply chain. Had it gone ahead with its plan, Npower would have benefited from the UK government's Renewable Obligation Certificates subsidy, despite the fact that using palm oil is linked to decidedly ungreen activities like forest fires, peatland destruction and deforestation - all major contributors to global warming.

In a case study on Southeast Asian palm oil, the NGO Biofuelwatch says that government incentives boost demand for the product, without guarantees of sustainability.

"Palm oil has by far the highest energy yield of all the biodiesel crops grown at present. This, together with low wages and the lack of any rights for plantation workers, gives south-east Asian palm oil a great competitive advantage in the new free biofuel market. Biodiesel companies in the UK, such as Biofuel Corporation, favour palm oil as their main source. Once the UK's Renewable Transport Obligation comes into force, in 2008, the amount of biodiesel sold in the UK will dramatically increase and it is likely that most of it will come from Indonesian and Malaysian palm oil."
(www.biofuelwatch.org.uk/background6.php, accessed 16/Nov/06)

Biofuelwatch also reports that large sums of funding for another subsidy, the Kyoto Protocol's Clean Development Mechanism (CDM- see box), are used to support Indonesia's palm oil industry and the demand for its produce, despite plantation developers' responsibility for the destruction of peatlands and forests. Biomass projects (including palm oil) already account for 63% of all CDM funding in Indonesia and this is expected to increase in coming years, according to the group. At the same time, industrialised countries are implementing measures under the Kyoto Protocol which are vastly increasing the demand for palm oil and thus giving an incentive for ever faster deforestation and peat destruction. These include the European Biofuels Directive and the European Biomass Action Plan (making palm oil burned in power stations eligible for government support). Under the Biofuels Directive, 5.75% of transport fuel should come from renewable fuel sources by 2010, and 20% by 2020. (See also DTE 69 for background on Kyoto and the CDM.)

Biofuelwatch says that CDM funding has been criticised by many NGOs because it allows polluting companies in rich countries to buy themselves out of having to reduce their own emissions. In the case of palm oil, the companies involved not only fail to reduce their own emissions, but also fund the causes of forest and peat destruction in Indonesia. "There is probably no single industry in any single country which contributes as much to global warming as palm oil in Indonesia, and the Kyoto Protocol is being used to finance and sustain it."

Biofuelwatch

Biofuelwatch, a new organisation set up in the UK, campaigns for regulation to ensure that only sustainably-sourced biofuels can be sold in the European Union. The group is particularly concerned about the potential of the biofuel market to drive the destruction of old-growth forests. Sustainable biofuels, says the group, "should have been rigorously shown not to have an adverse effect on old growth forests, wetlands and grasslands, greenhouse gas emissions, biodiversity, soils, water, food security and human rights." Biofuelwatch says that heat and energy can be sustainably provided by agricultural and forestry waste, whilst sustainable sources of transport fuel include waste vegetable oil and possible future technologies such as algal biodiesel. For more information see www.biofuelwatch.org.uk.

Forest fires

Biofuelwatch, along with Ecological Internet, Watch Indonesia! and Save the Rainforest (Germany) have launched a campaign calling for 'real action' to address the causes of the annual peat and forest fires in Southeast Asia. The campaign is addressed to the signatories of the United Nations Framework Convention on Climate Change (UNFCCC) who met in Nairobi this November to debate the future of the Kyoto Protocol. The groups say that Indonesia's peat contains some 50 billion tonnes of carbon - equivalent to 7-8 years of global fossil fuel emissions. Peatland areas drained for oil palm and timber plantations, plus the annual fires, many of which are deliberately set by plantation developers, releases carbon stored in the peat. The NGOs cite a Wetlands International report, which said one tonne of palm oil grown on peat is linked to the release of around 20 tonnes of carbon dioxide from that peat.

The science journal Nature estimated that carbon emissions from Indonesia's 1997-1998 forest and peatland fires, were equivalent to 40% of all global emissions from burning fossil fuels that year. Oil palm companies using fire to clear land were widely believed to be responsible for much of the destruction (see DTE 35, fires supplement, for further background), but close links to the Suharto elite meant that almost no legal action was taken against them. Now this year's fires are being described as the worst since 1997-1998 and they are still being linked to oil palm plantation companies.

The NGOs wanted the Nairobi conference to agree to international assistance to fight the fires raging in many parts of Borneo. They also want UNFCCC governments to set up a working group to draft proposals for the protection and restoration of the peatlands which must report back within a year.
(Sources: BBC Radio 4 *You and Yours*, 14/Nov/06 at www.bbc.co.uk/; RWE npower statement regarding future use of Palm Oil, 13/Nov/06 at www.npowermediacentre.co.uk/; Green fuels at www.rwenpower.com/cr/green_fuels.aspx, accessed 20/Nov/06; Indonesia is not an oil palm plantation, briefing note by Sawit Watch and DTE, 16/Sep/06; SEEDA Board Meeting 20/Jul/06, at www.southeast-ra.gov.uk/ accessed 16/Nov/06; Friends of the Earth Briefing *The use of palm oil for biofuel and as biomass for energy* , August 2006; Nature, 7/Nov/02; Press Release circulated by Forest Peoples Programme 17/Nov/06; Biofuelwatch *Factsheet 1: South-East Asia' Peat Fires And Global Warming*; joint press release, 10/Nov/06; both

documents on www.biofuelwatch.org.uk; *Reuters* 21/Nov/06)

CDM: giving polluters a helping hand

Under the Clean Development Mechanism (CDM), one of the Kyoto Protocol's 'flexibility mechanisms', an industrialised country with a greenhouse gas reduction target, can invest in a project in a developing country without a target. It can then claim credit for the emissions that the project has avoided. By promoting cheap projects in the South, Kyoto signatory governments in the North can greatly reduce the cost of meeting their agreed Kyoto reduction commitments.

The credits are in the form of tradeable Certified Emissions Reductions (CERs) certificates, which can be used by governments to help meet Kyoto targets. In Europe they can be used by companies to help meet their allocations under the EU emissions trading scheme.

Critics say this new international carbon trading market is encouraging destructive development like hydro-electric dams and fast-growing tree plantations, while letting polluters off the hook in their own countries.

(Source: www.cdmwatch.org, *Guardian* 15/Nov/06)

*Biofuels are sometimes described as 'carbon neutral' meaning that the amount of CO_2 released when they are burned is equivalent to the amount of CO_2 the crop absorbs when growing. However, this does not take into account the carbon-producing external inputs required to grow the crop, including agricultural chemicals, transport and processing, and in transporting the product from producer to consumer country. In palm oil's case, such sources of CO_2 must be added to the massive amounts of carbon released when forests are cleared or peatlands drained to make way for the plantations.

New publications:

Promised Land: Palm Oil and Land Acquisition in Indonesia - Implications for Local Communities and Indigenous Peoples by Marcus Colchester, Norman Jiwan, Andiko, Martua Sirait, Asep Yunan Firdaus, A. Surambo and Herbert Pane (2006) Forest Peoples Programme, Sawit Watch, HuMA and ICRAF, Bogor (also available in Bahasa Indonesia).

Ghosts on our own land: oil palm smallholders in Indonesia and the Roundtable on Sustainable Palm Oil by Forest Peoples Programme and Sawit Watch, Bogor (2006) (also available in Bahasa Indonesia).

Downloads of these two documents are available soon on www.sawitwatch.or.id and www.forestpeoples.org

Carbon Trading: A Critical Conversation on Climate Change, Privatisation and Power, by Larry Lohmann (editor), Dag Hammarskjold Foundation, Durban Group for Climate Justice and The Corner House, October 2006. Available in PDF format from

Down to Earth No. 69, May 2006

Biodiesel and the expansion of oil palm plantations

The new demand for biofuels is putting more pressure on community land.

With the largest extent of oil palm plantations in the world, covering an estimated 6,059,441 hectares[1], Indonesia wants to replace Malaysia as the world's biggest crude palm oil (CPO) producer. To achieve this, the Indonesian government is relentlessly promoting investment to expand oil palm plantations by 3 million hectares in the next five years[2], including the 1.8 million ha mega-project planned for the border area between Indonesia and Malaysia (see DTE 68).

There are different opinions as to how much of the border area is suitable for oil palm. The Department for Public Works states that potential oil palm plantation land in the border districts, plus the districts of Landak and Sekadau amounts to 3,368,363 ha[3]. However, according to a study by the Oil Palm Research Centre (PPKS), only 180,000 ha is suitable for oil palm development[4].

Another reason for the push to increase palm oil production is the fact that oil reserves are being depleted, while demand for fuel continues to grow. This has prompted the search for renewable energy sources as a substitute for oil.

In Indonesia, consumption of diesel oil, both for transport and industry, has increased to the extent that Indonesia can no longer produce enough for domestic needs. In 2003, diesel production stood at 17 million kilolitres (kl), while total consumption reached 26.4 million kl (165 million barrels)[5].

Biodiesel is considered one renewable alternative energy source which has environmental advantages over petroleum diesel. However, the claim that biodiesel is 'carbon neutral' is disputed (see box, below).

Vegetable oils can be turned into fuel in three different ways. They can be used pure or mixed with petro-diesel in specially modified engines. They can also be converted to biodiesel by a simple process using alcohol and a strong alkali to make a more volatile mix of fatty acid esters (transesterification). Some waste animal fats can also be turned into biofuels in the same way[6].

The vegetable oil fatty acid compounds for manufacturing biodiesel can be extracted from a variety of tropical and temperate plants or plant products including: palm oil, coconut oil, castor oil, kapok seed oil, malapari (Pongamia pinnata/glabra, Derris indica), soya beans, sunflower seeds, rapeseed, sugar cane, nipah palm sap, sorghum, cassava and sweet potato[7]. In Indonesia, the plan is to focus on palm and castor oil to make biodiesel. The industry will be a form of downstream development so that the country no longer exports CPO, but instead exports processed oil[8].

To achieve this, the government has issued two decrees: Presidential Instruction No. 1/2006 on the provision and use of biofuels as alternative fuel, and Presidential Regulation No. 5/2006 on National Energy Policy.

Both instruments express the intention to develop biodiesel as an alternative, renewable and

environmentally friendly energy source, by 2025.

As a follow-up to this, the Department of Industry and Trade has been given the task of building four castor and palm oil biodiesel factories with a capacity of 6,000 tonnes each and with state budget funding of Rp70 billion (around US $8 million). The plan is to locate the palm oil-fed factories close to oil palm plantation areas on Sumatra and Kalimantan, which have the largest plantation areas[9].

In September last year, Indonesia's research and technology minister announced that seven companies had been licensed to set up biodiesel plants. He singled out Jambi and Riau as areas to start production, as well as the border area with Malaysia (see DTE 67).

PT Bakrie Rekin Bio-Energi

PT Bakrie Rekin Bio-Energi is planning to build a biodiesel factory with a capacity of 60,000 to 100,000 tonnes per year, and an investment of US$25 million[10].

The company is a joint venture between two Indonesian companies: PT Rekayasa Industri (Rekin) (30%) and PT Bakrie Sumatra Plantation Tbk (70%).

This will be Indonesia's first large-scale biodiesel production plant, and is to be located in Jambi province or on Batam island, Sumatra[11]. Construction will start in 2007, with biodiesel production, for domestic consumption and export, from mid-2008. Bakrie will act as supplier, with CPO or other feedstock for processing into biodiesel. Rekin will take on the engineering role and construct the factory.

Increasing demand for CPO

Internationally, countries are in the race to increase their use of environmentally friendly fuel in order to implement their commitments under the Kyoto Protocol and to use the Clean Development Mechanism (see box, below). They are also keen to diversify their energy sources in view of the geopolitics of oil and gas supplies from the former Soviet Union, Middle East and Latin America. Biodiesel is being promoted as a means of doing so.

The European Union countries are attempting to fulfil their Kyoto commitment to reduce greenhouse gas emissions through the European Climate Change Programme[12]. The EU is aiming to increase renewable energy use from 6% to 12% by the end of 2010, and to increase its share of the total electricity supply from 13% to 21%[13]. To reach these targets, it is hoped that EU countries will provide facilities and subsidies to companies which support the use of renewable energies.

The European Union is also promoting the use of biofuels as an energy source for transport. The EU has set itself a target of increasing the use of biofuels in energy consumption to 5.75% by 2010. The Commission is now pressing member states to fulfil their commitments under the 2003 Biofuels Directive. The agriculture council of 20 Feb 2006 held a first policy debate on the biofuels strategy and the EU's biomass action plan. The advantage of using biofuels like bioethanol (made from sugar) and biodiesel (made from vegetable oils) is that they are cheap and abundant. It is also claimed that they produce lower emissions of greenhouse gases.

Another plus for European farmers is that domestic production of biofuels could offer new income and employment opportunities after the reform of the Common Agriculture Policy[14].

In Europe, biodiesel is used in Germany, France and Austria in varying concentrations. In Germany, there are more than 1,000 filling stations providing biodiesel[15]. The first 'biorefinery' is to be built in Emden, Germany, with financing from a Dutch syndicate. The plant is intend to turn 430,000 tonnes of palm oil, probably from Indonesia, into more than 400 million litres of biodiesel[16].

Demand for CPO to generate electricity has increased 400,000 tonnes this year in the Netherlands, of which 250,000 tonnes will be imported. The electricity company, BIOX bv, is reportedly planning to build four new generators using palm oil. The company intends to sell this palm oil-based electricity to several EU countries[17].

On top of the new demand for biofuel generation, international market demand for CPO has been on the increase in the Netherlands, the US, Singapore and other countries because the price of other vegetable cooking oils, such as sunflower oil, are higher than palm oil. There has also been an increase in processing capacity - especially in the Netherlands - with the development of new processing plants with capacity from 350,000 to 1 million tonnes per year[18].

Land for biodiesel

The increasing international demand for biofuels, their promotion as sources of renewable energy which can reduce the greenhouse effect, and the need to maintain the supply of raw materials, is being used as a justification to expand oil palm plantations in Indonesia.

Research carried out by the Indonesian Biodiesel Forum (FBI) states that 15-20 tonnes of fresh fruit bunches of oil palm per hectare produce 0.2 - 0.22 m3 of raw oil, with 0.95 litres of biodiesel produced from one litre of CPO. This means 0.3ha of oil palm plantation would be needed to generate 1,000litres (1kl) of biodiesel[19].

In 2009, biodiesel from oil palm is projected to reach 2% of diesel consumption or 0.7 million kl, requiring over 200,000 ha of oil palm plantations[20].

Demand is expected to increase to 2025, when the demand for biodiesel is projected to reach 5% of petroleum diesel consumption, equivalent to 4.7 million kl. This will need 1.41 million ha of oil palm plantations[21].

This is a huge amount of land. Indigenous peoples are already suffering the negative impacts of oil palm plantations at their current extent. Apart from destroying socio-cultural values, oil palm plantation projects have been associated with gambling and prostitution. Indigenous people have reported that living costs are higher than before palm oil plantations are developed, when they farmed rice and other crops and/or tapped rubber. Oil palm plantation schemes result in loss of land rights as well as increased family expenditure. Cultivating oil palm does not permit traditional intercropping (tumpang sari) methods, as does rubber[22].

If 1.41 million hectares of land is needed just for the biodiesel supply, it is worth considering how much more indigenous-owned land will be seized and how much more suffering will

result. All so that Indonesia can develop monocultures in order to reduce greenhouse gas emissions caused by industrialised countries and meet their fuel needs.

Currently, the six million plus hectares of land taken up by oil palm plantations in Indonesia, supply the domestic and international market for household products such as soap, toothpaste, margarine and cooking oil.

If the requirements of biodiesel are added on top of this, it is likely that there will not be any tropical forests left in Indonesia in a few years' time outside national parks and other protected areas. Indigenous and/or local communities whose lives depend on the forests will be destroyed because their forests will be planted with monocultures to supply the renewable energy industry.

The question now is: which is more important for humankind - to sustain life and grow food or biodiesel?

NGOs reject biodiesel from palm oil

An alliance of human rights and environmental NGOs are campaigning against European countries' use of fuel made from palm oil at the expense of forest ecosystems. In an April statement entitled 'No to Deforestation Diesel!', over thirty German, Austrian and Swiss groups warn that a palm oil-fuelled biodiesel boom would repeat the pattern of forest destruction caused by the rapid growth of Indonesia's pulp and paper industry.

"In pursuing such policies the EU becomes co-responsible for the destruction of the last rainforests for supposedly 'renewable' fuel"

Claims that palm oil-based biofuel is carbon neutral are naive, according the groups, because they don't take into account how oil palm plantations are developed. The swamp and peat forests on Sumatra and Borneo are important carbon sinks, but it is just these forests which are being cleared in order to establish oil palm plantations.

The groups argue that a fundamentally different approach to energy consumption is required, rather than merely replacing oil with biofuels. This entails promoting of public transport over private car and air traffic, more energy conservation measures and more energy from renewable sources such as solar and wind power.

The groups are calling for strict criteria to be applied to the use of biofuel raw materials including: no conversion of primary forests for plantations, no burning to clear forests for plantations, no human rights violations or police or military operations and no certification schemes. The statement also calls for customary rights and land rights to be respected and full compliance with ratified international agreements relating to indigenous peoples, biodiversity, workers' rights, etc in countries cultivating biofuel crops.

(No to deforestation diesel! joint statement of NGO-alliance, 18/Apr/06, circulated by Watch Indonesia! watchindonesia@snafu.de)

What is the Kyoto Protocol?

The Kyoto Protocol is an international treaty, adopted in Kyoto, Japan, on 11 December 1997, by the third Conference of Parties (COP3) to the United Nations Framework Convention on Climate Change.

The Kyoto Protocol obliges developed countries grouped in Annex 1 to reduce greenhouse gas emissions by at least 5% from 1990 levels, between 2008-2012[23] .

The six main greenhouse gases are covered: carbon dioxide (CO2), methane (CH4), nitrogen oxide (N2O), hydrofluorocarbon gases (HFCs), perfluorocarbons (PGCs) and sulphurhexafluoride (SF6)[24].

The Kyoto Protocol defines three 'flexibility mechanisms' to lower the overall costs of achieving its emissions targets. These are:

- Joint Implementation, which provides for cooperation between for Annex I countries to implement projects that reduce emissions;
- Clean Development Mechanism, which provides for developing countries to assist developed countries reduce greenhouse gas emissions and for the attainment of sustainable development for developing countries;
- Emissions Trading, which provides for the trading of carbon credits between Annex 1 countries in order to reach their targets[25].

The Clean Development Mechanism is the only one that permits collaboration between developed and developing countries.

Indonesia has one registered CDM project (a German solar cooker project in Aceh) out of a global total of 176[26].

This mechanism is intended to contribute directly to the reduction of greenhouse gas concentrations in the atmosphere and to result in developing countries receiving additional funds as compensation for their assistance. The result is meant to be beneficial for both sides.

However, the CDM has attracted strong criticism from civil society organisations, particularly since 2001, when governments decided to make temporary carbon storage projects (carbon sinks) eligible as a project category in the CDM. This is because the mechanism can be used by polluting companies to avoid their obligations to reduce greenhouse gas emissions, by promoting highly dubious projects in developing countries.

As the Brussels-based NGO, FERN, puts it:

"These sink projects will only ensure temporary storage while justifying additional, permanent carbon emissions from fossil fuels in an industrialised country party to the Kyoto Protocol. Eventually, the carbon stored through terrestrial sinks - trees, other plants, soil (i.e. part of the 'active carbon pool') - will be released again into the atmosphere, thus adding to the already released carbon emission from fossil fuels the sink was meant to permanently offset."[27]

The Bali-based organisation CDM Watch lists eleven Indonesia projects under preparation, including three in the sinks and

Notes

1 Sawit Watch data.
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5 Pusat Penelitian dan Pengembangan Teknologi Minyak dan Gas Bumi (LEMIGAS - Oil and Gas Research and Technology Development Centre), Jakarta. May 2005
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