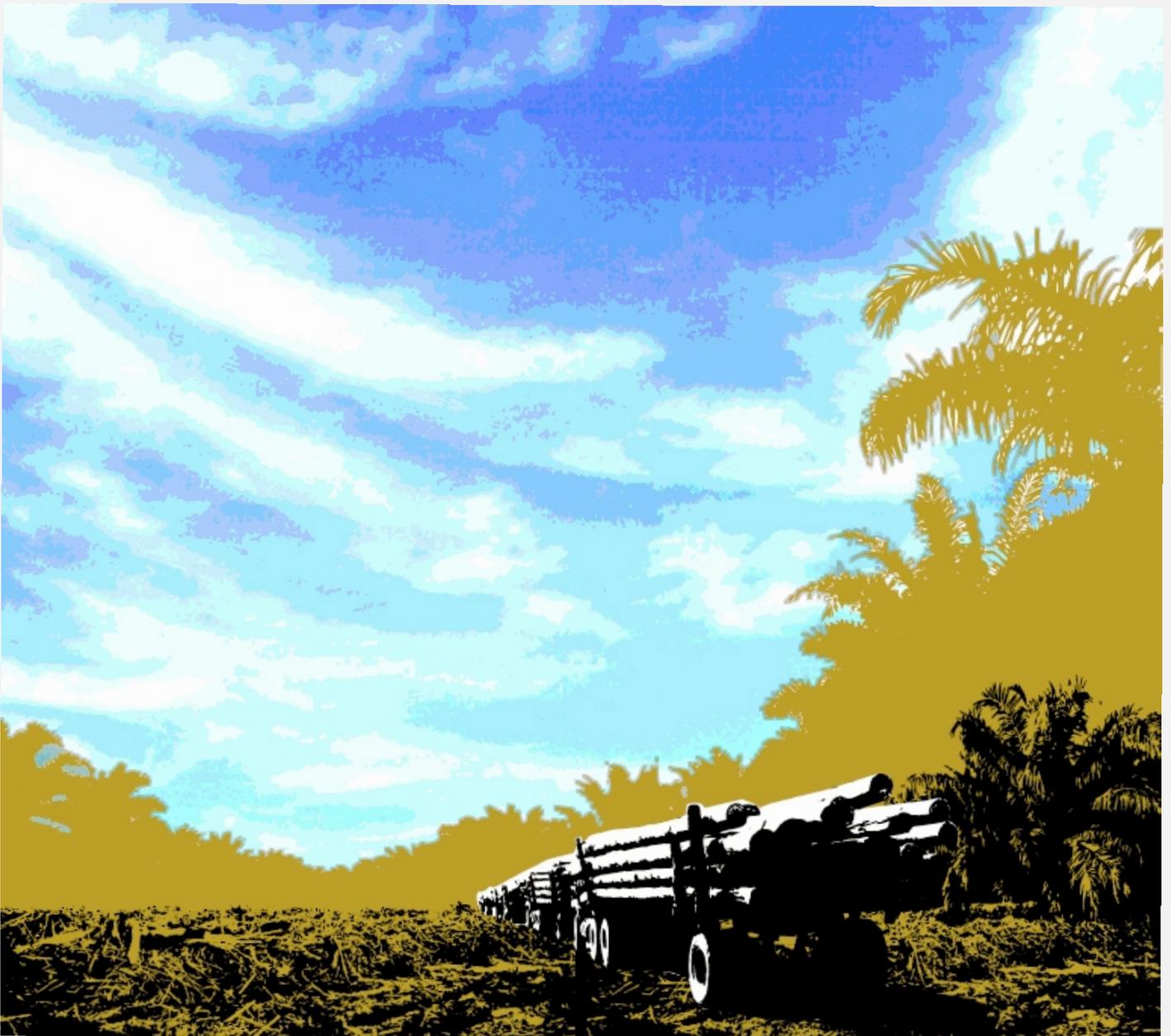


# The 'Golden' Crop?



## —Palm Oil in Post-Tsunami Aceh



*September 2007*



EYE ON ACEH is an independent research organisation that for several years has been publishing reports on critically important theme from Aceh's past and present. We aim to encourage debate and discussion among and between Acehnese, Indonesian and foreign audiences on social, economic and political issues in Aceh. Our reports can be found on-line at our news information portal [www.aceh-eye.org](http://www.aceh-eye.org)

[Info@eyeonaceh.org](mailto:Info@eyeonaceh.org)

---

National Library of Indonesia  
ISBN 978-979-16365-0-6

# The 'Golden' Crop? Palm Oil in Post - Tsunami Aceh

**EYE ON ACEH**

**September 2007**

[www.aceh-eye.org](http://www.aceh-eye.org)

*Cover by Faezal*

*We are grateful for financial support of*

**Trocaire**



## **Acknowledgements**

The production of this report has been made possible by the active co-operation of many staff in Provincial and District government departments in Aceh who gave their time for interviews and assisted in gathering information. We also wish to express our appreciation to those in the international donor community who spent time discussing our ideas, and who encouraged the research for this report.

As is usual with Eye on Aceh reports, this research would not have been possible without the contributions made by the villagers of Aceh, and our friends in the districts who always provide invaluable contacts and information, but who prefer to remain unnamed in our acknowledgements.

Thanks also to Edward Aspinall who provided comments on an earlier draft, and to Wynne Russell for her advice on this final version.

Eye on Aceh research team for this report: Samsul, Firman, Muhib, Syarwani, Helmi, Nurdin and Zakaria.

## Executive Summary

### Palm Oil and its Benefits

Palm oil is the world's most produced and traded vegetable oil. It is used in food and beauty products; in Western Europe and the U.S. it is found in one in ten products on supermarket shelves. Furthermore, it is increasingly looked upon as a commodity that will satisfy the growing demand in the developed world for an environmentally friendly, renewable fuel that will help solve the world's energy problems.

Indonesia is currently the second-largest crude palm oil (CPO) producer in the world, accounting for 42.9% of the 36.87 million tonnes produced globally.<sup>1</sup> The province of Aceh, in the far northwestern corner of Indonesia, has topographical and climatic conditions that some describe as "ideal" for the cultivation of palm oil. But the 30-year war for independence that raged between GAM (Gerakan Aceh Merdeka) and the Indonesian Government in the province, creating a volatile and dangerous security environment, means this potential has never been fully exploited. However, following the devastating earthquake and tsunami of December 2004 and the subsequent peace agreement between the two warring factions, a massive outpouring of aid amounting to US\$6.1 billion flooded the province of Aceh; some of this aid is helping to boost the agriculture sector, including the production of palm oil. For several years, local government in Aceh has had plans for expansion and investment in palm oil; it now has an abundance of financial and other resources available to help realise these plans.

The potential economic contribution palm oil might make to the local economy in Aceh is not in dispute. There is, however, often a darker side to this agri-business "development:" the social, environmental and economic burdens that often go hand-in-hand with rapid plantation expansion.

### Palm Oil's Costs

We have identified a few key areas of concern:

**Social costs:** The palm oil industry often fails to bring benefits, and in fact often imposes costs, on those least able to afford them.

**Land ownership.** Land identified for producing palm oil is often private or community-owned land, farmland that is being used by locals to grow vegetables, or even forested areas that local people would rather remain forested. Local needs, however, are rarely taken into account when permits are issued. The problem is exacerbated by the fact that most Acehnese lack land certificates to prove ownership, meaning that locals often receive little or no compensation for land taken over by plantations. Plantations are also often found to have expanded beyond their permit area, encroaching onto national parks as well as onto private or community owned land. The industry has become probably the biggest agricultural offender in Aceh in terms of these types of problems. But land disputes rarely receive any publicity in Aceh and so tend to go largely unnoticed, the complainants eventually giving up their struggle to prevent permits being granted or to fight for compensation.

**Local livelihoods.** The economic benefits of palm oil production are not equitably distributed, often creating a landless poor from people whose land has been seized or who sold land for palm oil production without understanding the longer-term implications. The appropriation of large tracts of land by a palm oil company can change the dynamics of the local economy, turning landowners into wage labourers, and leaving them with few alternatives to employment but the plantation company. Limited choice of employment often leaves the workforce vulnerable to low-paid jobs and poor health and safety standards, while their means to an independent and sustainable livelihood disappears. Even those smallholders who own their land are left vulnerable, as most processing plants belong to large plantation companies. Consequently, smallholders often become victims of monopolistic pricing by those companies to whom they usually sell their harvest.

**Environmental costs:** The palm oil industry is rife with unsustainable environmental practices.

**Land clearing.** The potential for establishment of lucrative plantations is used as justification for issuing permits to clear conservation-value forest, even though such areas are not necessarily best for cultivating palm oil. Some companies have used their plantation permits simply to cash in on the timber, sometimes without palm oil ever being planted. Peat areas, which are important carbon sinks, are also cleared.

**Burning.** The quickest and cheapest method of clearing already degraded land for plantations is often burning, contributing to air pollution and greenhouse gas emissions. Fires for clearing land also often rage out of control, destroying primary forest and its critical ecosystems and killing fauna and flora.

**Introduction of toxins.** In the growing phase, the use of highly toxic herbicides and pesticides such as Gramoxone, Roundup and Polaris is widespread. In the processing phase, mills frequently release untreated effluent.

The environmental consequences of these practices, and their implications for the health and livelihoods of the local communities can be devastating.

**Flooding.** Oil palm trees do not retain water in the same way as native forest. Where the land has been stripped of forest and native vegetation, flooding and landslides have become more common. Homes, livelihoods and even lives have been lost as floods hit Aceh with increasing frequency and severity.

**Air, soil and water pollution.** Toxins in water, air and soil affect health and livelihoods as well as the local flora and fauna. Pesticides, herbicides, fertilizer runoff, and untreated mill effluent have poisoned water supplies. Land clearing leads water supplies to turn yellow from sediment. Burning for land clearing, as well as burning empty husks in populated areas, causes dangerous air pollution.

**Loss of ecosystems and biodiversity.** When forests are replaced by palm oil, 80 - 100% of the reptile, mammal and bird species previously found in the forests cannot be supported by the new environment. The problem is exacerbated when wildlife such as elephants and orang-utan, left without habitat, are killed for encroaching on local farms and plantations in their search for food. The use of pesticides and herbicides also devastates fauna and flora.

**Greenhouse gas emissions.** The destruction of forests and peat land contributes to global warming both through the release of greenhouse gases during burning and through the loss of carbon sinks.

## Conclusions and Recommendations

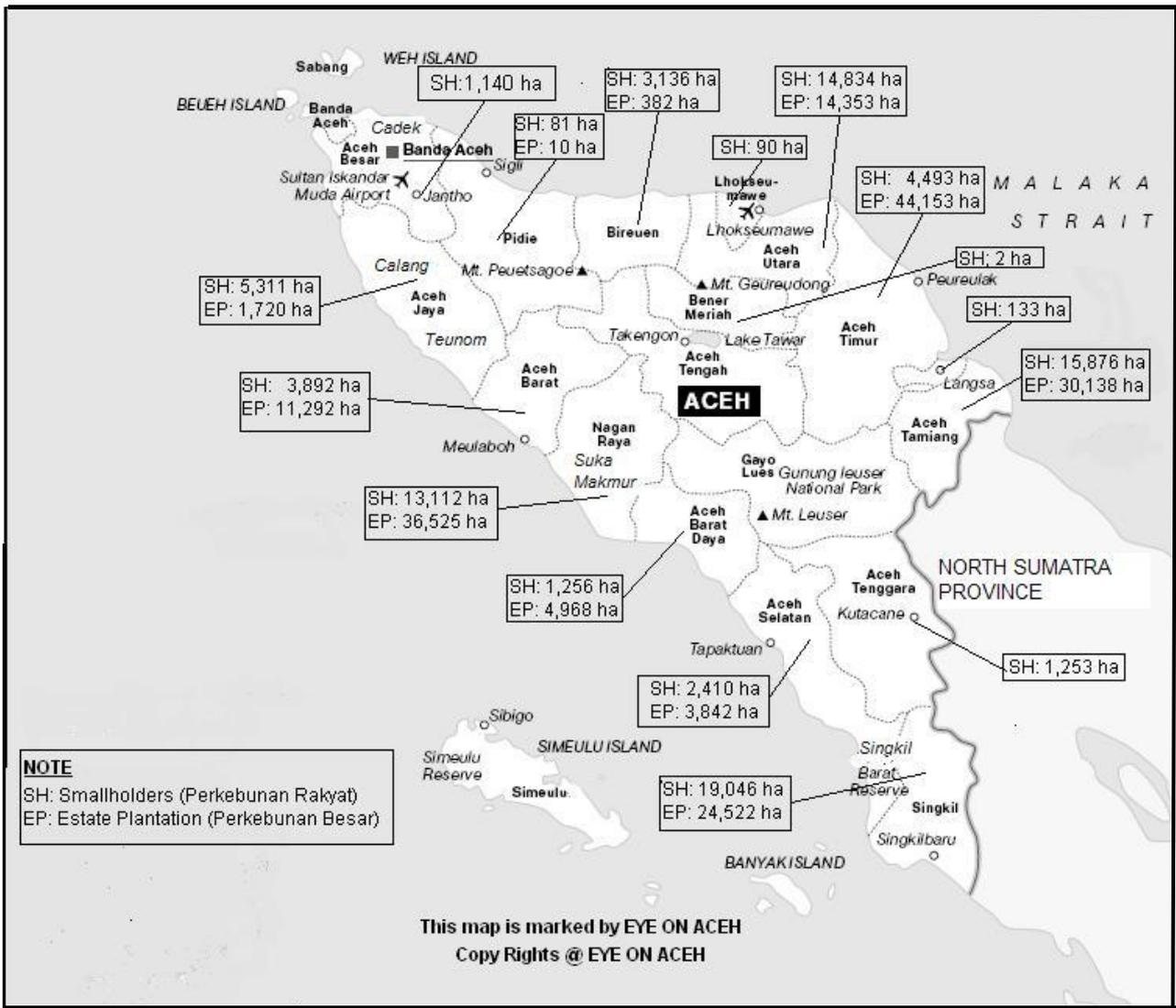
Palm oil as a crop is not inherently bad. However, the industrial model employed by many palm oil producers is causing social and environmental problems that can be avoided. This report does not advocate that palm oil be abandoned as an instrument of growth in Aceh, but rather that industry and government should learn the lessons from mistakes made elsewhere, and employ sustainable, equitable and environmentally sound practices.

- All companies given new permits in Aceh should be members of the Roundtable on Sustainable Palm Oil (RSPO). Those already operating in Aceh should be given a grace period to join.
- Land clearing should respect customary rights and the "free, prior and informed consent" of land owners must be obtained as opposed to the existing habit of creeping encroachment and land-grabbing.
- Oil palm plantation should only be established on degraded land; no forests should be converted to plantation. Burning should never be used as a method of clearing land. Aceh could have the opportunity here to pilot the sustainable plantation model.
- Palm oil plantation and mill operators should reduce the use of chemicals in the growing and processing cycle, and ensure environmental guidelines are adhered to. Husks should be composted and used as mulch, rather than burned.
- Palm oil plantation and processing facility operators should provide proper pay, conditions, and protective equipment for workers.
- Local government and civil society groups should help build the capacity of smallholders to form trading cooperatives in order to ensure that they can secure a fair price and that they do not become overly dependent on the oil palm plantation estates to purchase their production for processing.
- Smallholder-owned and managed cooperative CPO processing facilities should be encouraged.
- A government sponsored education programme on the hazards of working with, living close to, and consuming products that have herbicides and pesticides should be made a priority.

## Table of Contents

Acronyms	1
I. Introduction	3
- Methodology	4
II. Palm oil: the golden crop?	5
Palm oil: an industrial plantation crop in Indonesia	6
- Biofuel market	7
The growth of palm oil in Aceh	8
- Conflict palm oil	8
III. Policy and development of Aceh's palm oil plantations	10
Plantation Revitalisation Program 2006 - 2010	10
Palm Plantation Agri-Business Development Area	11
An economic pillar of post-tsunami recovery?	12
- Foreign interest in palm oil plantations	13
- Domestic ventures	14
- Transmigrants seen as vital to palm oil development	15
IV. At what cost?	17
Land ownership and production patterns	17
Production systems	18
Salaries	19
Land clearing	20
Use of hazardous chemicals and other forms of pollution	21
Greenhouse gas emissions	22
Flooding	22
Ecosystems and biodiversity	23
A world of caution...a case of Malaysia	26
V. Pressure for change- the Roundtable on Sustainable Palm Oil (RSPO)	27
VI. Conclusion	28
VII. Recommendations	29
- Taking local control of the palm plantation sector	29
- Establishing Aceh as a centre of best practice in the production of sustainable palm oil	29
- Land use policies	29
- Protection of flora and fauna	29
- Preventing pollutions	29
- Fair trade for independent smallholders	29
- Enhancing transparency and accountability	30
- Worker's rights and welfare standard	30
Notes	31

# The Location of Estate and Smallholders Palm Plantation Area in Aceh



## Acronyms

ADB	Asian Development Bank
AMDAL	Environmental Impact Assessment ( <i>Analisa Mengenai Dampak Lingkungan</i> )
APBA	Regional Development Expenditure ( <i>Anggaran Pendapatan Belanja Aceh</i> )
APBN	National Development Expenditure ( <i>Anggaran dan Pendapatan Belanja Nasional</i> )
APDA	Aceh Plantation Development Authority
Bakornas PBP	National Coordinating Agency for IDPs and Disaster Management ( <i>Badan Koordinasi Nasional untuk Penanggulangan Bencana dan Pengungsi</i> )
Bapedalda	Regional Environmental Impact Control Agency ( <i>Badan Pengendalian Dampak Lingkungan Daerah</i> )
Bappeda	Regional Development Planning Agency ( <i>Badan Perencanaan Pembangunan Daerah</i> )
BKPM	Regional Investment Coordinating Board in Aceh ( <i>Badan Koordinasi Penanaman Modal Daerah</i> )
BKSDA	Natural Resources Conservation Agency ( <i>Badan Konservasi Sumber Daya Alam</i> )
BRR	Rehabilitation and Reconstruction Agency ( <i>Badan Rehabilitasi dan Rekonstruksi</i> )
BUMN	State-Owned Business Company ( <i>Badan Usaha Milik Negara</i> )
CPO	Crude Palm Oil
ETESP	Earthquake and Tsunami Emergency Support Project
EU	European Union
FELDA	Federal Land Development Authority
FY	Financial Year
GAM	Free Aceh Movement ( <i>Gerakan Aceh Merdeka</i> )
GAPKI	Indonesia Palm Oil Producers Association ( <i>Gabungan Pengusaha Kelapa Sawit Indonesia</i> )
Ha	Hectare (s)
HGU	Land Cultivation Rights ( <i>Hak Guna Usaha</i> )
IDB	Islamic Development Bank
IDP	Internally Displaced Persons
IFC	International Financial Cooperation
INPRES	Presidential Instruction ( <i>Instruksi Presiden</i> )
IUCN	International Union for the Conservation of Nature and Natural Resources
KEPPRES	Presidential Decree ( <i>Keputusan Presiden</i> )
MoU	Memorandum of Understanding
MPOB	Malaysian Palm Oil Board
MPOC	Malaysian Palm Oil Council
NAD	Nanggroe Aceh Darussalam
NES	Nucleus Estate System
NGO	Non-Governmental Organisation
OPEC	Organisation of Petroleum Exporting Countries
PBSA	Foreign Private Estate Plantation ( <i>Perusahaan Besar Swasta Asing</i> )
PBSN	National Private Estate Plantation ( <i>Perusahaan Besar Swasta Nasional</i> )
PDKS	Simeulue District Owned Company ( <i>Perusahaan Daerah Kabupaten Simeuleu</i> )
PDPA	State Owned Enterprise of Aceh Government ( <i>Perusahaan Daerah Pembangunan Aceh</i> )
PERMENTAN	Regulation of Ministry of Agriculture ( <i>Peraturan Menteri Pertanian</i> )
POLDA	Regional Police ( <i>Polisi Daerah</i> )
PMK	Regulation of Ministry of Finance ( <i>Peraturan Menteri Keuangan</i> )
PP	Central Government Regulation ( <i>Peraturan Pemerintah</i> )
PT	Limited Corporation ( <i>Perseoran Terbatas</i> )
RSPO	Roundtable on Sustainable Palm Oil
SATKER	Working Unit ( <i>Satuan Kerja</i> )
TNI	Indonesian National Military ( <i>Tentara Nasional Indonesia</i> )
UMP	Provincial Minimum Wages ( <i>Upah Minimum Provinsi</i> )
UNESCO	United Nations Educational, Scientific, and Cultural Organization
U.S.	United States
YPEIM	Islamic Economy Development Foundation of Malaysia ( <i>Yayasan Pengembangan Ekonomi Islam Malaysia</i> )

## Glossary of Terms

<i>Adat</i>	Customary law
<i>Bahasa Indonesia</i>	The language of Indonesia
<i>Bupati</i>	District head
<i>Camat</i>	Sub-district head
<i>Cu'ak</i>	Military informers
<i>Desa</i>	Village
<i>Dinas</i>	Local government department of line ministries
<i>Foster Parents</i>	Companies or parties involved in assisting smallholders or small enterprises or home industry
<i>Idul fitri</i>	Islamic holiday
<i>Izin prinsip</i>	Permit on location
<i>Kabupaten</i>	Government administration at district level
<i>Kecamatan</i>	Government administration at sub-district level
<i>Perkebunan Besar</i>	Estate plantation
<i>Perkebunan Rakyat</i>	Smallholders
<i>Perkebunan Swasta</i>	Privately owned plantation company
<i>Provinsi</i>	Government administration at provincial level
<i>Qanun</i>	Local government regulation in Aceh
<i>Rp</i>	Rupiah unit of Indonesian currency
<i>Sawit</i>	Palm oil
<i>Tanah adat</i>	Customary land
<i>Warung kopi</i>	Coffee stall

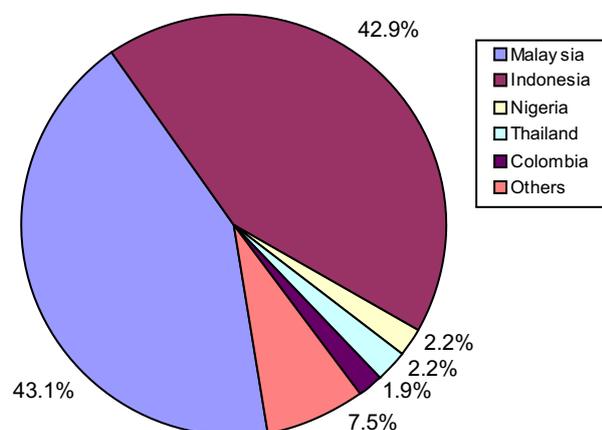
## I. Introduction

It is being promoted as the wonder crop of the twenty-first century; it is used in food, fuel and beauty products. In Western Europe and the U.S. it is found in one in ten products on supermarket shelves, and it is increasingly looked upon as a commodity that will satisfy the increasing need in the developed world for an environmentally friendly, renewable fuel that will help solve global energy problems.

The crop is palm oil, the world's most produced and traded vegetable oil. Global demand for vegetable oils has grown from 58.8 million tonnes in 1991 to 148.45 million tonnes in 2006, of which around 25% is palm oil.<sup>2</sup> Palm oil is used primarily for food, but more recently it is also being developed for conversion into biofuel.

In 2007, global CPO production is expected to increase by 3.1% to 38 million tonnes. Most of this increase will be from Malaysia and Indonesia, the world's two major producers, who between them account for almost 90% of global exports.<sup>3</sup> The area covered by productive plantations in these two countries is now as much as 10.95 million hectares (ha).<sup>4</sup> Both countries are racing to expand their palm oil sectors even further to satisfy the needs of their largest consumers: China, Europe, India, Pakistan and others.

**Figure 1: Percentage of Global Palm Oil Production in 2006**



Source: *Oil World*, April 2007

Indonesia is currently the second-largest CPO in the world, accounting for 42.9% of the 36.87 million tonnes produced globally.<sup>5</sup> The province of Aceh, in the far northwestern corner of Indonesia, has what some have described as "ideal" topographical and climatic conditions for the cultivation of palm oil. Until recently this potential has not been fully exploited because of the 30-year war for independence that raged in the province, creating a volatile and dangerous security environment.

The palm oil sector's commercial utility was severely limited during the conflict as plantation workers and management fled in fear, and local farmers were too afraid to go into the fields. Following the tsunami of December 2004, and the subsequent peace agreement between the two warring factions GAM (Gerakan Aceh Merdeka) and the Indonesian Government signed on 15 August 2005, Aceh is actively seeking investment in agri-business generally, with a specific focus on the rapid expansion of the palm oil sector.

For several years, local government in Aceh has had plans for expansion and investment in palm oil; the problem was always a lack of funding. In the wake of the December 2004 disaster, however, a massive outpouring of aid amounting to US\$6.1 billion flooded the province of Aceh; some of this aid is helping to boost the agriculture sector, including the production of palm oil. Plans that until recently existed only on paper thus can now begin to be realised.

The potential economic contribution palm oil might make to the local economy in Aceh is not in dispute. There is, however, often a darker side to this agri-business "development"; a social, environmental and economic burden often goes hand-in-hand with rapid plantation expansion. Elsewhere in Indonesia, where laws to protect the environment, the workforce, land rights and others are often inadequate, and their implementation is weak, the largely unregulated boom in palm oil plantations has led to the destruction of millions of hectares of Indonesian lowland forests and their highly endangered wildlife, and has contributed to environmental disasters such as floods and landslides and to Southeast Asia's annual smoke haze crisis. At the same time, the expansion of the palm oil sector has disrupted the lives of communities of indigenous people and other forest settlers; has led to land disputes as a result of companies taking over land belonging to local people without prior and informed consent, or paying bribes for permits; and in some places palm oil has destroyed social capital within and between communities.

The Indonesian government up to this point has been willing to accept the social and environmental price of such economic "development." However, as Indonesia, including Aceh, now races to expand its palm oil sector, there is growing disquiet both within and outside Indonesia over the potential social, economic, and environmental costs entailed. For example, European environmentalists, concerned by the E.U.'s push towards biodiesel, argue that while buyer countries strive to meet their domestic environmental standards, the "clean and green" palm oil is exacting a heavy toll in the producer countries.<sup>6</sup>

This report provides an overview of the palm oil business in Aceh, and considers the contribution it will make to the local economy, creating jobs and

Opportunities for international trade and foreign investment. The report does not conclude that palm oil is inherently bad, but rather that it is the industrial model employed by many palm oil producers that is problematic. There is no need for palm oil to be abandoned as an instrument of growth in Aceh, but industry and government should learn the lessons from elsewhere, and ensure that sustainable, equitable and environmentally sound practices are employed.

### **Methodology**

The research for this report was carried out by Eye on Aceh's team of local researchers. Fieldwork took place over several months from mid-2006 to early 2007, and benefited from the assistance of community leaders, local people, local government staff, some international donors and others.

This short report is by no means an exhaustive text on the palm oil sector in Aceh, but rather intends to introduce issues that have yet to be discussed vis-à-vis existing palm oil production and the planned expansion of plantations in Aceh. Data has been collected from interviews and discussions with local government staff, some local companies, the Indonesian Palm Oil Producers Association (GAPKI), local and international NGOs, and local people. Much data comes from, and analysis is informed by, government reports and statistics.

The report has been unable to present the palm oil industry's perspective in full due to difficulties encountered by the research team in meeting with company representatives. Many palm oil companies refused requests for interviews with Eye on Aceh, and were also reluctant to provide information in writing.

## II. Palm Oil: the Golden Crop? \_\_\_\_\_

### What is palm oil? What are biofuels?

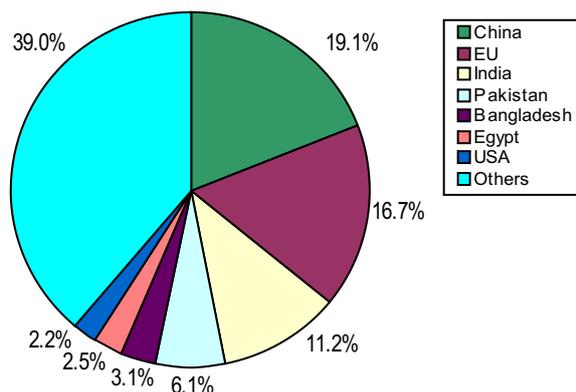
Palm oil is extracted from the fruit of the oil palm tree. Cloned varieties of palm trees become productive after 3.5 to 5 years, but produce most fruit when they are 20-30 years old. The fruit bunches can weigh up to 25 kg. Once harvested, the fleshy part of the fruit is converted into oil through a series of processes, while the palm kernel oil is extracted from the nut itself. The processing of the crude oil produces palm stearin and palm olein. The stearin (which is solid at room temperature) is used almost entirely for industrial purposes such as cosmetics, soaps, detergents, candles, lubricating oils, while the olein (liquid at room temperature) is used exclusively in foodstuffs (cooking oil, margarines, creams, cakes and pastries).

Biofuels are fuels that contains recycled components from either animal or vegetable fats. There are many crops such as sunflower, soy, sugarcane, castor oil and others on the market that can be turned into biofuel, but palm oil is the cheapest, and is the easiest to convert. Typically, biofuels are blended with traditional petroleum-based fuels, and can be used in diesel engines without modification. These biodiesels are biodegradable and, when burned, have fewer carbon dioxide emissions than traditional petroleum-based fuels.

Palm oil (in the local language Bahasa Indonesia *kelapa sawit*) is the world's most traded oil and is the second most consumed oil after soy bean oil.<sup>7</sup> Marketed as a "versatile" crop and one that can replace hard animal fats and cooking oils such as soy, canola and others, palm oil is found as an essential ingredient in margarine, lipstick, ice cream, shampoo, chocolate, and many others. More recently, palm oil has come to be seen as having the potential to contribute to cleaner alternatives to traditional petroleum-based fuels. The European Union, for instance, the world's largest producer and consumer of renewable energy, has stated that it sees biodiesel from palm oil as being central to assisting a move away from petroleum and fossil fuel energy to "cleaner and greener" sources of power.<sup>8</sup>

Commodities; it is cheap to grow and the yield is five times higher than that of other oil-producing crops. Global demand for vegetable oils has grown from 58.8 million tonnes in 1991 to 148.45 million tonnes in 2006, of which palm oil makes up around 25%. By 2006 the global consumption of palm oil had soared to almost 37 million tonnes; it is forecast to rise to almost 38 million tonnes in 2007.<sup>9</sup> The European and American markets for palm oil are strong, but new and greater demand for food and industrial use is now driving purchases from developing countries, such as India, China, Pakistan and others. (See Figure 2.) The sheer scale of these new markets is the driving force behind the Indonesian government's emphasis on palm oil production.

**Figure 2: Percentage of Global Palm Oil Import 2006**



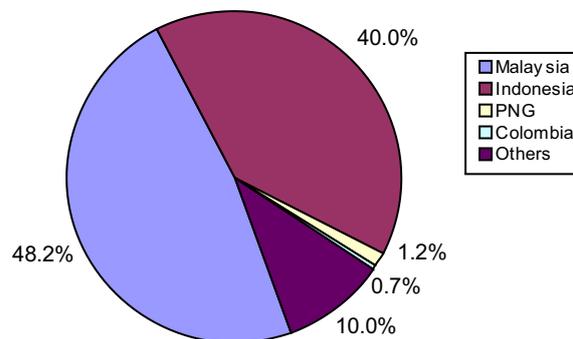
Source: Oil World, April 2007

The versatility of palm oil and the fact that it is cheaper than some other vegetable oils has driven up demand for the commodity. In 2001-2002, when the price of soy beans increased, palm oil became a cheaper and more popular substitute. Potential new uses for palm oil, such as biofuel are stimulating potential markets even further.

Global palm oil production has risen steadily since the 1970s; it is now one of the world's major

The five main producer countries of palm oil are (in order of priority) Malaysia, Indonesia, Nigeria, Thailand and Colombia.

**Figure 3: Percentage of Global Palm Oil Exports by Country in 2006**



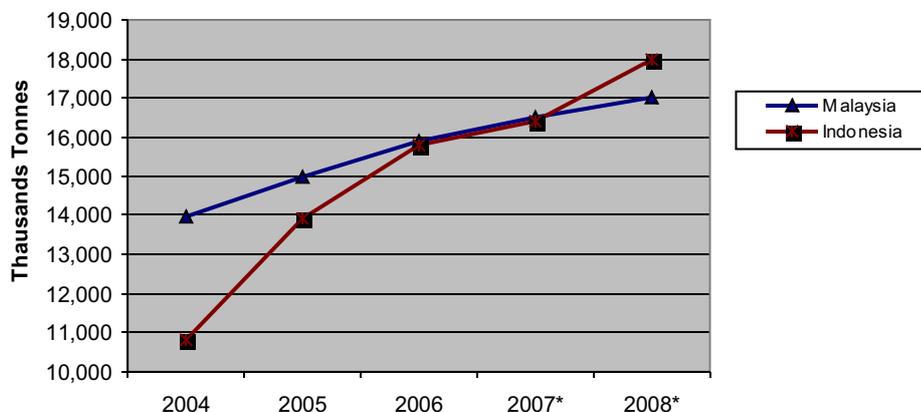
Source: Oil World, April 2007

The global trade in palm oil derivatives has become extremely lucrative for Indonesia: 11.95 of the 15.8 million tonnes of CPO and related products produced in 2006 was exported, accounting for 40% of global exports with a total value of US\$5.8 billion.<sup>10</sup> In 2007, Indonesian production is expected to increase to 16.4 million tonnes.

By 2008 Indonesia is expected to overtake Malaysia as the world's biggest CPO producer: it is estimated that Indonesia will produce 18 million tonnes while Malaysia will still be producing around 17 million tonnes.<sup>11</sup> More than two-thirds of Indonesia's CPO production is exported; India and China are

Indonesia's two biggest customers.<sup>12</sup> In 2006, Indonesia exported 2.2 million tonnes to India and 1.8 million tonnes to China, while for 2007, export to these two countries is expected to increase to 2.1 million tonnes and 2.5 million tonnes respectively.<sup>13</sup>

**Figure 4: Palm Oil Production by Malaysia and Indonesia in 2004 - 2007(F) (1000 Tonnes)**



Source: Malaysia Palm Oil Board (MPOB) January 2007; Indonesia Palm Oil Commission (IPOC) 14 May 2007. \*Forecast figures: Indonesia - GAPKI; Malaysia - Malaysian Palm Oil Board.

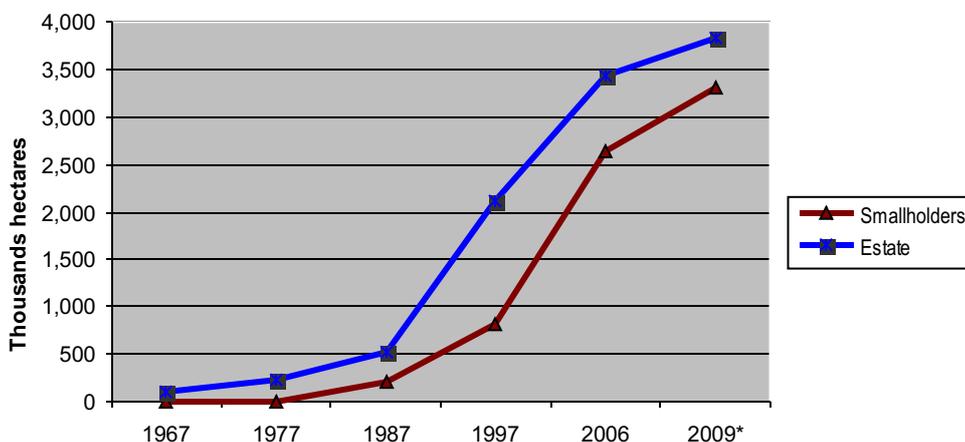
**Palm Oil: an Industrial Plantation Crop in Indonesia**

Palm oil estates were initially established in Indonesia as state-owned businesses by the Dutch colonial government between 1870 and 1930. In 1967, at the beginning of Suharto's New Order government, the World Bank gave assistance to the Indonesian government to make direct investments in palm oil through state-owned companies. In the early 1970s the price of palm oil on the international market began to rise steadily, leading Indonesia to make large tracts of land available for planting. The Indonesian government began to view palm oil as a vehicle for social and economic development in rural areas, including in Aceh, but expansion of this sector of agri-business remained slow until the late 1970s. A growing awareness of the potential of the palm oil sector, and a belief that this sector could change poverty trends in the struggling archipelago led to

the introduction of the 1980 - 1981 Nucleus Estate and Smallholder (NES) project sponsored by the World Bank. A programme of internal migration was also an integral part of this project: the government's transmigration scheme. Such was the perceived success of the plantation schemes that in 1986 a Presidential Decree (No 1/1986) stipulated that the transmigration and NES projects should be integrated, including in Aceh.

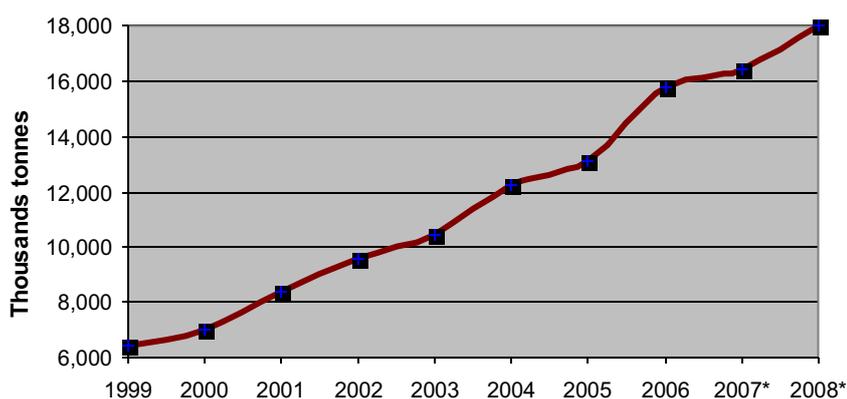
Palm oil did indeed play a role in the rapid and sustained economic growth enjoyed by Indonesia in the 30 years before the 1997 Asian economic crisis (1967-97), during which time the number of hectares covered by palm oil plantations increased 28 times (see Figure 5),<sup>14</sup> while output of CPO grew at an average of 12 per cent annually. By 1997 Indonesia was producing 30 per cent of global palm oil.<sup>15</sup> Since the late 1990s, the palm oil plantation sector in Indonesia has expanded exponentially as

**Figure 5: Palm Plantation Coverage Area in Indonesia by Growers from 1967 - 2009 (1,000 hectares)**



Source: Palm Plantation Coverage Area in Indonesia 1967 - 2009, Directorate General of Plantation. \* Projected increase

**Figure 6: Indonesia's CPO Production 1999 - 2008 (1,000 Tonnes)**



Source: "Indonesian Palm Oil Statistic 2005", BPS, November 2006; 2006 figure from IPOC May 2007; projected increased in 2007 2008 is based on an interview with Derom Bangun, Executive Director of GAPKI, 22 November 2006.

politicians, private and foreign investors seek to exploit the potential of the "golden crop". The area covered by palm oil plantations in Indonesia has soared in recent years to a little more than 6.75 million ha by 2006. Of those, 4.58 million ha are located on the island of Sumatra, 1.26 million ha in Kalimantan, 0.134 million ha on the island of Sulawesi, and the rest is scattered around Papua and the island of Java.<sup>16</sup>

### **The biofuel market**

With crude oil prices soaring and governments facing increasing pressure from the environmental lobby to find renewable and cleaner sources of energy, attention has turned to the possibilities of biofuel. As an oil-producing state and a member of OPEC, Indonesia's own energy security is in question; domestic oil consumption far outstrips the country's oil production.

Indonesia itself is now aggressively pursuing biodiesel as an alternative fuel as the government has reduced fuel subsidies, and prices at the Indonesian pumps have rocketed. Several pieces of legislation have been issued to pave the way for the production and promotion of biodiesel, and a National Biofuel Development Committee was formed in November 2006; its mandate includes ensuring legal resources are made available to expand the biofuel sector,<sup>17</sup> and a National Biofuel Development Committee was formed in November 2006; its mandate includes ensuring legal resources are made available to expand the biofuel sector.

With the promotion of biodiesel on the domestic market in mind, and perhaps more importantly in terms of economies of scale, the export of palm oil to renewable energy-hungry Western countries, the government has committed itself to devoting considerable state resources to ensure the expansion of this sector of the economy. Moreover, in June 2006 the Indonesian Minister of Energy and Mineral Resources Purnomo Yusgiantoro announced that financial incentives related to

taxation and customs duties, and the simplification of licensing procedures would be introduced to encourage the growth of this sector and to attract investors.<sup>18</sup> But the booming CPO export market put pressure on the price of cooking oil at home, contributing to inflationary tendencies. The government reacted by increasing customs duty for CPO to 7.5% in August 2007 to encourage the failing domestic market.<sup>19</sup>

Presidential Instruction (No.1/2006) on The Supply and Use of Biofuel as a Source of Alternative Energy directs several Government Ministries, Governors and District Chiefs to fulfill their role in assisting the promotion of biofuel from palm oil and other crops such as jatropha, cassava, sugar cane and others. These instructions include the following:

- The Ministry of Forestry should make available unproductive forests for conversion to plantations.
- The Ministry of Home Affairs, Governors and District Chiefs should encourage communities to turn land over to biofuel development.
- The Ministry of Agriculture should facilitate the supply of seeds and other raw materials.
- The Ministry of State-Owned Companies (BUMN) should encourage agriculture, plantation and forestry to produce material for biofuel.
- The Ministry of Finance should facilitate financial incentives to produce biofuel.<sup>20</sup>

The Decree also commits the government to securing 5% of total national energy requirements from biofuel by 2025.

Along with the biofuel agenda, the government also seeks to increase Indonesia's CPO production to meet the growing global and domestic market demand for non-energy purposes, such as cooking oil, cosmetics and other products.

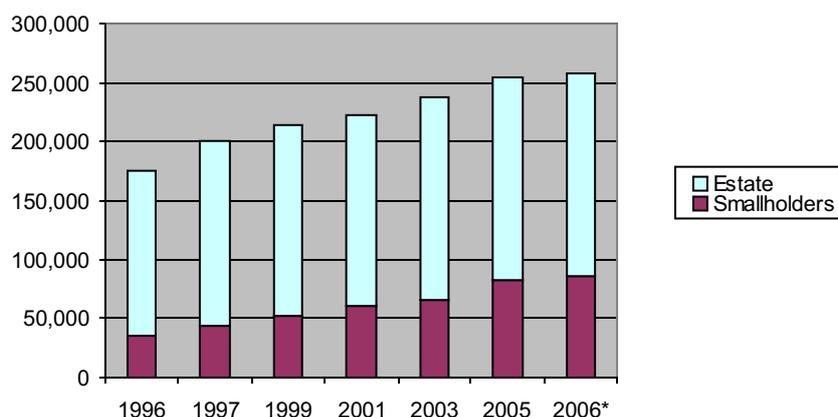
## The Growth of Palm Oil in Aceh

Aceh's climate is perfect for the cultivation of palm oil: hot, humid and rainy, with wet, swampy soil conditions and many lowland areas. However, until recently Aceh has not been an integrated part of Indonesia's plan for a palm oil boom. The pro-independence war made the province too volatile and violent. For 30 years a bloody war for independence was fought in Aceh between GAM and the Indonesian security forces,

Funds from the central government were ploughed into the military operations in Aceh rather than into economic development.

Thus the plantation sector, especially the smallholdings, was neglected for years. As a consequence, Aceh's palm oil sector developed slower than in other parts of the country, with planted palm plantations only increasing from 214,827 ha to 257,970 ha between 1999 and 2006.<sup>24</sup>

**Figure 7: Palm Plantation Coverage in Aceh 1996-2006 (Ha)**



Source: Department of Plantations, Aceh, Annual Data. \*Preliminary figures

During which time the province was subject to a series of military operations as the government sought to crush GAM. The agriculture sector suffered enormously. Afraid of being shot, kidnapped or tortured as they farmed their fields in remote areas, smallholders stopped tending their plantations, often leaving the fruit to rot. At the same time, larger plantation companies also suffered; owners, managers and workers often fled to the more populated areas of the province or left Aceh altogether. As the security situation in Aceh worsened and peace initiatives failed, martial law was imposed on 19 May 2003. In many places, the local economy almost ground to a halt; many palm oil producers small and large-scale no longer operated. In total, 52,712 ha of smallholder and 32,316 ha of estate plantations were abandoned during the years of the most intense conflict between 1999 and 2004.<sup>21</sup> Local government departments were also unable to respond to the problem of inactive plantations as staff were killed, kidnapped or tortured, while others were simply afraid to stay and left the local area. In addition, only 171,905 ha of the total amount of land issued with permits to grow oil palms was actually planted. Of those, 39,353 ha belong to state-owned companies; 110,413 ha belong to national estate plantations; and 22,139 ha to foreign companies.<sup>22</sup> Not included in these figures is the 86,065 ha of land that make up smallholders' farms which have become a source of livelihood for more than 53,000 families.<sup>23</sup> During the conflict the palm plantations in Aceh functioned at only 60% of their potential productivity. Poor-quality seeds and lack of understanding about best practice in oil palm cultivation also explains the poor level of production.

The security situation rapidly changed in the wake of the 24 December 2004 earthquake and tsunami in which more than 200,000 people died or went missing. It is unlikely there is a single person in Aceh who was not personally touched by the devastating loss of life that took place that day when the disaster changed not only the physical but also the political landscape in Aceh. The tragedy prompted a hastening of peace negotiations which resulted in a historic agreement being signed by the two warring parties in Helsinki on 15 August 2005.

### Conflict palm oil

It is common in places of low-intensity conflict for natural resources to supply a war chest to one or both of the warring parties. During the years of conflict in Aceh oil palm plantations played such a role. Some abandoned plantations were taken over by GAM who, along with local people, worked the plantations in order to finance the separatist insurgency. For example, during the conflict, GAM command in East Aceh often helped to bankroll GAM units in other areas with profit made from their involvement in palm oil. Former GAM commander in the area, Ishak Daud, justified GAM's involvement: "We need money, so we do whatever we can to ensure we can supply our troops with what they need. Yes, we are in the business of plantations; sometimes we must look the other way while the trucks transporting the harvest are given a military 'escort.' Cooperation with the police (and sometimes even the military), is the price we pay for being at war."<sup>25</sup>

In fact some plantation companies actually helped to finance both parties. For several years during the escalating conflict (late 1990s to early 2004), PT Blang Kara Rayeuk, operating in the sub-district of Julok in East Aceh, became a source of regular income for the Indonesian military (TNI). The area was heavily militarised as it was one of the “hot spots” of violence in Aceh. The company paid military who were posted locally an additional income to protect against attacks by GAM or “unknown parties”. The TNI also operated as business agents by buying from local palm oil smallholders and selling to another agent or even on the open market. These *sawit* agents also often operated as “*cu’ak*” (informers) for the military, giving information on who was involved in pro-independence activities. Other companies also paid the TNI for protection: “During the conflict, we were in a very difficult position here at PT Parasawita [Aceh Tamiang]. The local military commander always told us we must facilitate the military’s presence by giving a contribution. We were afraid not to, so we [the company] always gave what they asked. The sub-district level government also told us to facilitate the military to guard our company.”<sup>26</sup> For its part, GAM also regularly charged the company a *pajak naggroe* (revolutionary tax) to help fund its own war effort.

Palm oil not only helped to finance both sides in the conflict over independence, but it also fuelled conflict within the Indonesian security forces, such as the following example in Seunebok Bace in East Aceh. In November 2004, the TNI and Brimob (the elite mobile police brigade) clashed in Seunebok Bace village. The local Brimob post came under attack by troops from Rifle Company B, Peudawa, Battalion 111. According to local journalists, one Brimob was shot dead while three were seriously injured. Several soldiers were arrested, pending an investigation, and finally jailed. Clashes between the security forces are not uncommon in Aceh, usually because of competing business interests, or business “misunderstandings.” A local journalist who declined to be named explained: “It’s not the first time there has been fighting here between the police and military. Sometimes, it’s even between two different units of the military. It’s all about business, in this area specifically about palm oil.”<sup>27</sup>

Downsizing the military’s presence in Aceh was a priority condition of the peace process. But in many places in Aceh, the military’s involvement in business (legal and illegal) continues, including in the palm oil sector. By assuming the role of agents, charging illegal tolls to trucks transporting the fresh fruit bunches or CPO, or offering ‘security’ services, the income of local military command units, or of individual troops can be increased substantially.<sup>28</sup>

### III. Policy and Development of Aceh's Palm Oil Plantations

Programmes are now taking shape to rehabilitate the 28,000 ha of palm plantations devastated by the tsunami along the coastal area of Aceh Barat, Nagan Raya, Aceh Jaya and other districts, and the 85,028 ha of conflict affected estate and smallholder palm plantation, most of which was abandoned in the period 1998 to 2005.

Fifty per cent of tsunami-affected plantations have been rehabilitated and are either in full production or on the way to being productive again.<sup>29</sup> Of those that are not, the Chief of Institutional Development in the local Department of Plantations, Drs Fackri, explains: "Since Aceh is now a safe place for plantation activity, there is no reason for companies to be inactive. So, if a company is unable to manage the plantation for whatever reason, we will cancel their permit and grant it to a more serious investor."<sup>30</sup> He says that revitalisation of the oil palm sector is a priority for the local Department of Plantations: "One of the first tasks we identified is the need to document existing permits for palm oil areas that, for a variety of reasons, remain unproductive. We must complete this as quickly as possible, the market for palm oil is growing; we don't want to miss out on that." As of June 2007, this mapping exercise is still in progress. For Aceh, alleviating rural poverty is a priority short-term goal; smallholder palm oil expansion is one of the key strategies toward achieving that goal.

Despite its slow start, Aceh's palm oil industry is now in a phase of rapid development. Indonesia's biggest palm plantation producers association, GAPKI, has encouraged its members to pay more attention to Aceh: "In Aceh, soil suitability for palm plantation is very good with plenty of rain, especially in the west coast areas such as Meulaboh, Nagan Raya, and Singkil," commented Derom Bangun, Executive Director of GAPKI. He added: "The association has advised our members to focus on these areas, and many are already operating there, while others have applied for permits and are waiting approval."<sup>31</sup>

#### "Plantation Revitalisation Program 2006- 2010"

To assist in its plan to capture a larger share of the global palm oil market, in 6 November 2006, the Directorate General of Plantations within the Ministry of Agriculture in Jakarta launched a comprehensive five-year plan for the plantation sector nationwide, including Aceh. The "Plantation Revitalisation Program 2006 - 2010" covers three commodities palm, cocoa and rubber and is aimed at helping independent or NES smallholders.

The aim is to boost output of these sectors in line with what the government is convinced will be an expanding global market. Plans are already in place to extend the program for a further five years beyond 2010 if successful.

Moreover, the local government in Aceh, the palm oil companies and GAPKI envisage a booming future for palm oil in the province; the Revitalisation Program, to be implemented in 12 of Aceh's 23 districts, will make a significant contribution to this plan.<sup>32</sup>

The programme relies heavily on companies (core plantations) establishing smallholdings in the nucleus system. In the words of the government, the companies will become "foster parents" to facilitate smallholders gaining access to land and finance to establish small plantations the beneficiaries will include returning transmigrants, local communities close to the plantation area, and local (Acehnese) transmigrants as part of the local government's poverty eradication effort.<sup>33</sup> The programme includes substantial financial support to these smallholders in the form of loans and investment credits from several Indonesian banks, with interest rates subsidised by the government.<sup>34</sup> On 30 November 2006, the Ministry of Finance issued Regulation No.117/PMK.06/2006 on Credit for Bio-Energy Development and Plantation Revitalisation to facilitate the scheme.

Financial support will be channeled to special bank accounts established by the companies whose responsibility it is to oversee implementation of the programme and repayment of the loans. The loans become repayable at the end of the plantation establishment period, after five years for palm oil.<sup>35</sup>

In Aceh this programme is being executed through the Provincial Department of Plantations. The programme will facilitate the expansion of 40,000 ha of new palm plantations and the revitalisation of 4,775 ha in 12 districts.<sup>36</sup> The local Department of Plantations is actively seeking partnerships with established plantation companies to be "foster parents" as part of this scheme, and has already approached 17 such companies to request their active involvement. See Table 1. Others have also shown interest, including Indonesia's largest publicly traded agriculture company, PT Astra Agro Lestari.

Progress has been slow to date, with the programme only beginning in mid-November 2006. By June 2007, only PT Fajar Baizury in Nagan Raya district had committed to developing and facilitating some 5,000 ha between 2006 and 2010.<sup>37</sup>

**Table 1: Companies invited to participate in the Plantation Revitalisation Programme 2006 - 2010 in Aceh**

District	Foster Parents	Area (ha)
Aceh Besar	PT Buah Sejati	1,500
Pidie	PT Gotong Royong	2,000
Bireun	PT Blang Keutumba	3,000
North Aceh	PTPN I, PT Satya Agung	3,000
East Aceh	PT Banda Aceh Sakti Jaya, PT ARCO, PT Timbang Langsa, PT Damar Siput, PTPN I	3,000
Aceh Jaya	PT Boswa Megalopolis	5,000
Nagan Raya	PT Fajar Baizury, PT Kallista Alam	5,000
West Aceh	PT Mopoli Raya, PT Karya Tanah Subur, PT Telaga Sari Indah	5,000
South West Aceh	PT Kallista Alam	3,000
South Aceh	PTPN-I	3,000
Aceh Singkil	PT Delima Makmur	5,500
Bener Meriah	PT Perkebunan Lembah Bakti	1,000

Source: Proposal on the Location and Activities of Plantation Revitalisation 2006 - 2010 of NAD, Department of Plantations, Aceh, November 2006.

### “Palm Plantation Agri-Business Development Area”

The Palm Plantation Agri-Business Development Area policy was in place pre-tsunami, but its success was stymied by a lack of resources and the insecurities due to the war. However, the recent (post-tsunami) influx of human and financial resources, and the more peaceful environment, has seen this policy reinvigorated. This policy includes programmes by the local Department of Plantations, the Asian Development Bank (ADB), and the Rehabilitation and Reconstruction Agency (BRR).<sup>38</sup>

Overseen by the Provincial Department of Plantations, the aim of the program is to develop or rehabilitate new or existing palm plantation areas for independent smallholders whereby each family receives two to four hectares of land and also assistance to prepare the land, including equipment. District-level departments are responsible for the implementation of this policy, and for decisions on eligibility of beneficiaries.

Under this programme alone, smallholder plantations in Aceh will expand by some 43%; this does not include other government or private initiatives.

### Planned Expansion of Smallholder Palm Plantation in Aceh Per Year 2007 - 2010

Year	2007	2008	2009	2010
Area (ha)	9,000	10,300	9,200	8,500

Source: Kuisiner Pemutakhiran Data Base Komoditi Karet, Kelapa, Kelapa Sawit dan Jarak Pagar, Draft by Department of Plantations, Aceh, 2007.

In collaboration with the Department of Plantations in Aceh, the BRR, funded by the Asian Development Bank and the central government, assisted in implementing programme as part of their rehabilitation and reconstruction efforts in Aceh in 2006. Most of the BRR's funding for this programme came from the ADB's Earthquake and Tsunami Emergency Support Project (ADB ETESP),<sup>39</sup> with a contribution from the national budget. The BRR programme planned to develop 3,500 smallholder plantations in four districts: Nagan Raya, West Aceh, Aceh Jaya and Bireun (see Table 2). But progress was slow, hampered by bureaucracy and land issues.

Other problems also prevented the successful rollout of the program: 200 of the 1,000 ha in Nagan Raya could not be planted when it was discovered that the development was planned on peat land; a similar problem in West Aceh prevented 800 ha from being planted. Moreover, the seedlings for planting in Bireun were destroyed by pigs.<sup>40</sup> The ADB has admitted the programme's lack of success: “Implementation of the palm oil programme with BRR in 2006 did not run as smoothly as was planned: results were less than we had hoped for.”<sup>41</sup>

In Aceh's FY 2007 (January - December), the ADB will continue its palm oil programs in Nagan Raya, West Aceh and Aceh Jaya, and is sourcing alternative land to compensate for the problem of peat land in its first year of the program. The programme, worth Rp12 billion, will reopen and revitalise plantations, and develop some new areas; land allocation and start-up assistance will be under the direction of the local district governments.<sup>42</sup>

**Table 2: BRR - ADB Collaborative Palm Oil Programme FY 2006 - 2007**

District	Value (Rp)	Total (ha)	Planned Program
Nagan Raya	5.65 billion	1,000	Replanting, palm oil nursery, rehabilitating.
West Aceh	4.824 billion	1,000	Open up plantations, planting and rehabilitation.
Aceh Jaya	4.975 billion	1,000	Opening plantations, providing palm seedlings.
Bireun	1.5 billion	500	Planting.

Source: Information comes from various interviews with ADB and BRR.

The program will be implemented through the ADB's own working committee (SATKER) rather than in partnership with BRR. This is a rather "unusual" arrangement that circumvents the BRR's own mechanisms, and is perhaps a result of these earlier problems.

For its part, BRR will implement a Plantation Development Project worth Rp 44.8 billion, funded by the national budget.<sup>43</sup> Of this, Rp13.23 billion will fund the Provincial Department of Plantations own programmes, while the BRR will itself focus on opening up 4,100 ha of new palm plantation, rehabilitating 200 hectares, and providing training and seedlings for farmers.<sup>44</sup>

The programme also receives an allocation from the provincial budget, but Aceh's fiscal system remains bogged down in bureaucracy and hampered by a shortage of skilled bureaucrats to ensure the budgetary process is completed on time. Aceh's financial year is, theoretically, January to December, but the 2007 budget was only finally passed by the local Parliament on 18 May 2007. Known as the APBA, the budget includes support for the Palm Plantation Agro-business Development Programme including to open 9,000 ha of smallholders plantations in the eleven districts listed in Table 3. The areas opened up under this scheme might include land that had previously been abandoned, or will be transferred from another commodity to palm oil.

**Table 3: Plan for Expansion of Palm Plantation Smallholdings in 2007**

District	Area (Ha)
Aceh Besar	500
Pidie	500
North Aceh	1,000
East Aceh	500
Aceh Jaya	1,000
Nagan Raya	1,000
West Aceh	1,000
SW Aceh	1,000
South Aceh	1,000
Aceh Singkil	1,000
Bener Meriah	500

Source: *Kuisisioner Pemutakhiran Data Base Komoditi Karet, Kelapa, Kelapa Sawit dan Jarak Pagar, Draft by Department of Plantations, Aceh, 2007.*

The BRR and ADB programmes focus only on tsunami-affected areas; other (non-tsunami) areas

are funded from provincial and national government budgets. The rollout of the latter tends to be somewhat slower and is causing some discontent as local people see inequality in access to resources, with the tsunami areas being favoured unnecessarily.

### **An economic pillar of post-tsunami recovery?**

The central government has ambitious plans for palm oil expansion in Aceh. In July 2005 the Ministry of Agriculture in Jakarta released a document stating that 454,468 ha of new land is available for palm oil expansion in the province.<sup>45</sup> There might however, be problems in securing so much land: "Where is all that land coming from?" asks Saminuddin B. Tou from the Department of Forestry in Aceh. In fact, the Department is quite clear on its stance regarding conversion of land: "In the past ten years there has been no permits issued for forest conversion in Aceh. That is not the same as saying there has been no conversion. We know forest has been disappearing illegally some of it is now with palm oil," he continued. "The production forest we now have here in Aceh cannot be cleared, but only used for forest purposes; forest is forest, plantation is plantation. They are not the same."<sup>46</sup>

In addition, the Provincial Department of Plantations has doubts about the efficacy of such a large amount of land being devoted to one commodity; Drs Fakhruddin, Head of the Department in Aceh, was unaware that such a target had been set by the Ministry: "It would be unwise to use 400,000 ha of land in Aceh only for palm oil," he commented. "There are many other commodities that must also be accommodated in our plans, such as cocoa, rubber and others. Moreover, there is land in Aceh that is just not suitable for palm oil."<sup>47</sup>

The flurry of activity around the palm oil sector in Aceh shows no sign of slowing down. As the province enjoys its new-found peace, and with it a flush of reconstruction and post-conflict-related funding from donors and the central government, growth of the plantation sector has become one of the government's priority drivers of economic development. There is a general feeling in the corridors of power in Aceh that expansion of the agri-business sector will also bring improved infrastructure such as roads, schools, health clinics and other facilities for local communities that the local authorities themselves cannot afford.

In order to increase efficiency in output of the palm oil sector, the local Department of Plantations is actively seeking investors to expand processing facilities in the province. A variety of initiatives have been discussed but so far there has been few concrete results. One such initiative is that of the Forum Sawit (Palm Oil Forum), an initiative of the International Financial Cooperation (IFC). At the forum's first meeting held in September 2006 in Banda Aceh, one of the main topics of discussion was the need for more CPO processing facilities in Aceh. Speaking in December 2006, the Director of Agriculture Development at BRR, Yusya Abubakar, had high hopes for the new Palm Oil Forum: "We hope this Forum will establish a clear method of collaboration within the sector in Aceh which will help to attract investment of around Rp17-20 billion for CPO processing."<sup>48</sup> But by May 2007 no further meeting had taken place; it seems that the Forum Sawit has more or less collapsed.

The new Law on Governing Aceh (LOGA) enacted by the Indonesian Parliament in Jakarta on 11 July 2006 provides for the operationalisation of the peace agreement signed in August 2005, and for governing Aceh as an autonomous province within the Republic of Indonesia. This devolution of power from central government in Jakarta to the province has also created uncertainties in the decision making process; smooth implementation of policies could potentially be stymied by legislative ambiguities and delays. For example, the Third Draft of Central Government Regulation on National Government Authority in Aceh, dated 19 February 2007 is somewhat unclear in exactly where authority lies in relation to planning development of the plantation sector in Aceh. Article 2.4.Z in the section on Agriculture and Food Security states that responsibility for establishing guidelines and policy will lie with the central government in Jakarta. But it also states that the "management and use of

plantation land" will lie with all three levels of government: national, provincial and district. By April 2007 the document remains only a draft with several problematic features such as the overlapping responsibility for determining land use.<sup>49</sup>

### ***Foreign interest in palm oil plantations***

According to the Aceh Investor Outreach Office, there has been some considerable interest in palm oil by foreign investors. Malaysian-based palm growers are especially keen to increase their investment in Aceh. For example, there have been several tentative discussions between local government in Aceh with Johor State Government, Selangor State Government and also the Malaysian Federal Land Development Authority (FELDA).

Malaysian companies have been operating in Aceh for some time, such as PT Ubertraco, the Guthrie Group, and others. In June 2005, the then temporary Governor of Aceh, Mustafa Abubakar, discussed the possibility of making special provision for private companies from Malaysia to open up palm plantations in Aceh. At that time 100,000 ha of land in Aceh Besar area was offered to the Malaysians. In August 2005, FELDA also requested a permit from the Department of Plantations in Aceh for 10,000 ha of land in the east of the province close to the area of recent flooding.<sup>50</sup> In March 2006, local media reported that a plan to open 20,000 ha of palm oil in Bener Meriah was being discussed by the Selangor State Government of Malaysia and the local District Chief.<sup>51</sup> There has also been interest from Malaysian companies in, among others, South Aceh, North, and South West of the province. None of these early approaches have been finalised, but continue to be cited by the departments of plantations in these districts as possible future ventures.

### **What is FELDA?**

Malaysia's largest palm oil producer is the Federal Land Development Authority (FELDA) Founded in 1956 to channel financial assistance to state governments for land development programmes, it began with developing a rubber scheme of just over 1,500 ha and expanded quickly with involvement in palm oil beginning in 1961.

FELDA's role was later expanded to include the task of implementing land development programs throughout the country.

FELDA is now one of the world's largest fully integrated palm oil-based groups with 92 factories in Malaysia and overseas. It is also Malaysia's biggest plantation-land owner with over 853,000 ha nationwide. It accounts for more than 20% of Malaysian palm oil production, and has played a central role in transforming the agricultural sector from being subsistence-based to being commercially motivated.

FELDA operates a highly centralised system of administration and management; as it has diversified from merely a production (upstream) focus, to a downstream focus including milling, refining, transporting, marketing and trading, it has been able to oversee and set standards throughout the process.

FELDA's reach has spread throughout Malaysia, including Sarawak and Sabah, but there is now a shortage of land, hence its commitment to overseas expansion.

In January 2007 the Aceh Governor Irwandi Yusuf, and a delegation from the Aceh provincial government, visited Malaysia to discuss the possibility of expanding trade ties. The focus of much attention during the visit was the palm plantation sector. The delegation met with the Islamic Economy Development Foundation of Malaysia (YPEIM), a Malaysian federal government foundation. The YPEIM has committed to developing 185,000 ha of smallholder plantation as well as 13 CPO processing facilities in Aceh.<sup>52</sup>

The Aceh delegation discussed the possibility of establishing an agency similar to FELDA in Aceh. For its part, FELDA also gave advice on the process of drafting the concept and the necessary *qanun* (local legislation). From this visit and subsequent discussions, the decision was made to establish a new body called the Aceh Plantation Development Authority (APDA). The draft *qanun* that will establish APDA as a legal entity is now under discussion in the Aceh Parliament. The Deputy Chief of the Regional Investment Coordinating Board (BKPM) explains the Malaysia-Aceh collaboration: "We made this draft [*qanun*] with the assistance of our Malaysian friends as they have more expertise than we do. The Malaysians will give technical expertise, and advise us on best practice in plantations, and also how to conduct the APDA. The body will be overseen jointly by us here in Aceh and the YPEIM."<sup>53</sup>

The initial phase of the programme will open 185,000 ha of smallholders' palm plantations in 17 districts; 11,250 orphans and 35,000 poor families will each receive 4 hectares.<sup>54</sup> A total investment of US\$410 million is required to develop the land, with a further US\$158 million needed for the processing mills. There is a tentative plan to borrow US\$500 million from the Islamic Development Bank (IDB).<sup>55</sup>

Much about APDA remains unclear as it is still in the planning and negotiation phase. It will however, take some time for the *qanun* to become law, so in the meantime the Aceh Governor is in process of making the Governor Regulation that will serve as temporary legislation until the *qanun* is passed through Parliament.

### **Domestic ventures**

In several areas of Aceh, the local district governments view palm oil as a solution to many of the localised economic and social problems. In the beautiful and remote area of Gayo Lues in the southern part of Aceh, the Head of the Department of Plantations and Forestry explains that while the mountainous terrain of Gayo Lues is not the most ideal for the cultivation of palm oil, some trial areas have been identified. For example, "Lesten village in the sub district of Pining would be very good for oil palm," he explains. "But there is no road. Once the new Ladia Galaska road is finished the whole area will open up. It will be very good for our economy."<sup>56</sup> In Terangon sub-district of Gayo Lues the local communities have already cleared land for palm oil,

But staff in the local Department of Plantations says such efforts are wasted as the land is unsuitable for that crop.

The local Department of Agriculture in Gayo Lues also has plans for expansion of palm oil: "Since the MoU [peace agreement] was signed, we have already invited national and foreign investors to Gayo Lues to help with building the plantation sector; especially in palm oil, coffee and other fruit trees," explains Munawir, staff in the local Department of Agriculture.<sup>57</sup> He continues: "But our expansion potential is limited due to the difficult terrain here. We have a lot of land here in this area, palm oil can surely help us to bring our local economy alive; there are many poor families in Gayo Lues." The remoteness of Gayo Lues means that livelihood options are limited, but efforts are being made to identify every possible hectare on which the "golden crop" can be planted.

In Bireun, a small district in the northern part of Aceh, the head of the Bireun branch of the Regional Development Agency explains a different policy approach: "Here in Bireun we prefer a policy of 'one sub-district, one commodity.' In five of our 17 sub-districts, palm oil is the preferred crop."<sup>58</sup> The district has 6,449 ha of company-owned estate palm plantations, and 2,011 ha of smallholder plantations.<sup>59</sup> In 2005, the palm plantation sector contributed Rp 81,128,450 to the district government income, more than five times the predicted revenue.<sup>60</sup>

Over in the west of Aceh, the district of Nagan Raya has much more land under palm oil: 36,525 ha of estate plantations and 13,022 ha of smallholdings.<sup>61</sup> The local government has plans to increase the number of smallholders in the near future as the local government implements assistance packages in order to boost the local economy. Nagan Raya is included in the BRR program mentioned above; in addition the local authority is implementing its own program which included the development of 275 ha of palm oil around Kuala Tripa (Tripa Swamp) area in 2005. The district will continue expansion of palm oil into 2008 and beyond.<sup>62</sup>

There are also tentative plans for collaboration between the local Nagan Raya government and ADB to develop 1,000 ha of smallholder plantations for tsunami-affected communities, and those who are living below the poverty line. Chief of Plantation Development in Nagan Raya, Sudarman SP, explains: "We are still discussing the details of our implementing strategy; we will give assistance to help farmers cultivate their land, as well as seedlings and fertilizers. And for those who have no land, we will develop plantations on state-owned land; each family in the program will receive two hectares." He continues: "The people here are very enthusiastic to be involved in this sector as they have heard demand is expanding. The market price of CPO has increased to more than US\$600 per tonne compared to US\$430 last year [2006]."<sup>63</sup>

Further assistance in Nagan Raya comes under the national government's "Plantation Revitalisation Program 20062010." An area as big as 5,000 ha will be opened up under the "foster parent" system with PT Fajar Baizury and PT Kallista Alam. The focus of this program will be to return transmigrants who fled the area during the conflict. According to Sudarman, the production system will be wholly nucleus connected to these two companies. The government also hopes to attract more CPO processing facilities to the area, but in the meantime the local Department of Industry and Cooperatives plans to build a limited CPO processor for use by smallholders.

The importance of smallholdings in the booming palm oil sector is also reflected in guidelines for estate plantations. Ministry of Agriculture Decree No. 26/2007 on Permitting Guidelines for Plantation Business states that at least 20% of a company's total plantation area should be made up of smallholders.<sup>64</sup> The Head of the Economic Bureau at the Aceh Governor's office endorses the Decree: "This type of partnership is important; we do not want the company just to give money from a community development fund as is usually the case. In our experience this does not help the people's economy, and leaves all the profit with the company. A much more effective approach is to give the people land and the means to a sustainable livelihood."<sup>65</sup>

The biggest post-tsunami palm oil area is the district of Aceh Singkil, in the south of the province; in that area, permits for the location of plantations have been processed more quickly than elsewhere.<sup>66</sup> The new Head of the local Department of Plantations in Singkil, Ir.Momod Suharsa explains: "Since the tsunami, there have been 50,600 ha of 'permits in principle' (*Izin Prinsip*) granted. Approximately fifteen companies have received these permits of between 200 and 17,800 ha each.<sup>67</sup> These new location permits are approved by the Bupati (District Chief), and are a prerequisite for obtaining the necessary business and land permits. Several *izin prinsip* have also been granted in areas along the west of Aceh. If followed through to completion, all companies must set aside an allocation for smallholdings.

These government policies for expansion are in line with plans by the private sector to increase investment in Aceh's palm oil sector. Indonesia's largest publicly traded agriculture company, PT Astra Agro Lestari, is looking for 200,000 ha of land in Aceh for palm oil development. The company has already received guarantees for land in three areas Nagan Raya, Aceh Jaya and West Aceh but the total area promised is only 15,000 ha. The local government in North Aceh is also negotiating with the company to make land available for plantations and a processing plant. A representative of the company explained the conditions required for the company to invest in Aceh: "The land must be available, and proper surveys done. There has to be enough hectares available to justify us [PT Astra

Agro Lestari] building our own processing plant. We would never work without our own CPO mill, and we need a production guarantee that would probably be in cooperation with smallholders in a plasma situation."<sup>68</sup>

At Belawan sea port in North Sumatra, palm oil has become the largest export commodity. The port is being extended, partly in response to the continuing increase in its handling of CPO and its by-products which constituted 69% of the export freight handled by the port in 2006.<sup>69</sup> In Aceh, ports are being built in Kuala Langsa, North Aceh, and Meulaboh in part to facilitate the export of the planned increase in CPO that will be produced locally.

### ***Transmigrants seen as vital to palm oil development***

With a population in excess of 220 million, Indonesia has long sought to relieve chronic over-population and poverty in areas such as Java, by encouraging people to migrate to other less populated areas. The government's transmigration scheme gives an incentive package - which includes support such as transport costs, assistance with housing, land, and food packages to those who agree to relocate. Most transmigrants have been deployed to areas where farming, plantation and agricultural work are available. Being an area of some 56,365 square kilometres, but containing only two per cent of the country's population and being rich in agricultural land, Aceh has thus been a natural host destination.

But the transmigrant program in Aceh created its own specific set of problems. In Aceh's conflict-torn environment, any potential social benefits of the transmigration programme were overshadowed by the belief by many Acehnese that the transmigrants received more benefits from the government than the local people; the perceived 'wealth' of these 'incomers' was resented. In the atmosphere of anti-Indonesian sentiment that prevailed in some areas of Aceh during the conflict, the transmigrants were also thought to be pro-Jakarta, and were sometimes the target of intimidation or even worse by local factions of anti-Indonesian groups operating in the province. Between 1999 and 2002 as the conflict escalated, 21,000 transmigrant families fled the province as news spread of attacks against "incomers," including intimidation, torture and disappearances in some cases homes were even burned.<sup>70</sup> During the more recent period of martial law, May 2003 - May 2004, many of the remaining transmigrants left and established settlement areas around the city of Medan in North Sumatra. Since many transmigrant families worked on the palm plantations, the fleeing of so many workers hampered the sector's operational capacity.

More recently, in post-tsunami Aceh's more peaceful environment, local government is actively encouraging transmigrants to return. "We are happy that transmigrant families feel safe to come to Aceh again, and we offer incentives for them to come," remarks Ir. Asrin of the Department of Transmigration.

He continues: “The Plantation Revitalisation Programme and other government initiatives are part of that; you will see a direct correlation between our transmigrant and plantation areas here in Aceh. Not only do these families have work with the plantation companies, but we also encourage them to be smallholders and grow palm oil on the two hectares of land provided as part of the transmigration programme incentive package.”<sup>71</sup> In order to speed up the process of return, he further explains that the local government has turned to the plantation companies to assist: “If we wait for the government to act alone, encouraging returning and new transmigrants might take 16 years. So much better the private sector is involved in providing resources at the point of arrival.”

The government in Aceh now views the transmigrant population as a valuable vehicle for rehabilitation and development of the palm oil sector. Makmur Syahputra reflects: “When I was District Chief in Singkil [until 2005], we saw that the local population alone did not have the capacity to build the plantation sector in our area. That is why we developed a plan, which continues today, to actively encourage transmigrants to come to Aceh Singkil. Without them the plantations would not be successful.”<sup>72</sup>

By early 2007, several thousand transmigrant families had returned to the province; many have returned to the palm oil plantations that were

problematic during the conflict times in areas such as Nagan Raya, West Aceh, North Aceh and East Aceh.<sup>73</sup> The government's assistance package to these groups includes: accommodation (a new or repaired house), and for the first three months an allowance of 42 kg of rice per month, salty fish, cooking oil, sugar and other foods to the value of Rp225,000 per family per month.<sup>74</sup> In 2007, with a budget of Rp14 billion, the transmigration authority plans to facilitate the return of 3,554 families.<sup>75</sup>

Companies currently participating in the programme include the following: PT Boswa Megalopolis has now restarted its abandoned 6,000 ha of plantation in two locations in Aceh Jaya and has requested more than 2,000 transmigrant families from the local Department of Labour to help facilitate development of an agro-estate. In the same area, PT Tiga Mitra Perdana has plans for more than 5,000 families in its new palm oil plantation.<sup>76</sup> In addition, PT Aceh Sawit Sejahtera will have around 7,000 ha of palm plantation under the agro-estate method in Peunaron Pereulak, East Aceh, and has requested 2,000 families from the transmigration authority. Other companies that have submitted requests for labour deployment are PT PDPA in East Aceh and PT Calang Sejahtera in Aceh Jaya. Realisation of these plans has been slow because the companies are lacking funds for expansion, but there are hopes for progress with government assistance under the new Revitalisation Program.

## IV. At What Cost? \_\_\_\_\_

Without doubt, the palm oil sector will develop and expand to become an increasingly important part of the local economy in Aceh. Palm oil crops need not necessarily leave an ecological and social footprint that is destructive to local communities and their environment. In general, however, new palm oil development in Indonesia is commonly problematic, and in areas where large-scale commercial palm plantations operate, economic, social, environmental and other problems are common. In some areas of Aceh the expansion of palm oil is already creating, rather than alleviating local problems, such as: the transfer of land ownership, unfulfilled expectations of communities and false promises, a lack of adherence to legislation, pollution and many others.

### Land ownership and production patterns

In Indonesia, palm oil is associated with land grabbing and the displacement of people. It also often brings an end to traditional ways of life where the forest provided non-timber livelihood products such as traditional herbs and medicines that can be sold, and food and materials for making houses, furniture and other things. Many indigenous peoples and farmers are quite willing to agree to land sales or to become part of out-grower schemes even within areas where land is owned under *adat* (customary) law, but currently these deals are often struck in very dubious or unfair ways. Farmers are being cheated out of their land by false promises, as much as through intimidation and manipulation.

The agriculture sector in Aceh harbours much poverty, social division and conflict. Many people in the province have poor access to the cash economy; as many as 47.8% are living in poverty - less than US\$2 per day.<sup>77</sup> On the whole however, local people are not land-poor. But the transfer of ownership of land that is an inevitable consequence of the expansion of the palm oil sector risks creating a new rural poor in Aceh as people lose their land and hence their traditional livelihoods.

Although Aceh has not experienced the violent conflict over land seen elsewhere in Indonesia, such as in Kalimantan, the province has suffered its share of land disputes. Moreover, there is a clear correlation between the growth of the palm oil industry and the prevalence of land disputes and other social and environmental problems. The industry has become probably the biggest agricultural offender in Aceh in terms of these types of problems. Why should this be so? The reason is quite simple: the land identified for producing palm oil is often private or community-owned land, farmland that is being used by locals to grow vegetables, or even forested areas that local people would rather remain forested. The loss of this often traditionally-owned and used land can be a severe blow to local livelihoods. These problems are often made worse by the fact that most people in Aceh do not have land certificates to prove ownership. As a

consequence, when companies approach the local government for land that is available for plantation, there is no grand map of community land ownership. Without such clarification there is often a dispute when the companies begin to clear the land. Moreover, possession of a land certificate does not always guarantee justice for land owners.

### Land grabbing in Bandar Baru

"It is often the case that we, the local land-owners, are the last ones to know about our land being used for palm oil. One month ago, my land was suddenly marked by the company PT Bahari Lestari. The company wanted to include my land as part of the palm plantation they were developing. So, they cut my Nipah trees [a type of trees which people make into roofs] in order to do that. I told them 'this land is my land; you cannot just seize my land.' They said they would pay compensation, but until now I have received nothing. My neighbour's land was also taken in the same way. Some of us have land certificates, but it makes no difference. I have lost my land." (*Tumingan, villager from Bandar Baru village, Bendahara sub-district, Tamiang, 1 July 2006*)

It is not uncommon to find oil palm plantations have encroached on national parks or on private or community-owned land. But land disputes rarely receive any publicity in Aceh and so tend to go largely unnoticed, the complainants eventually giving up their struggle for compensation or to fight the application for permits. A second problem facing local landowners is that plantations often expand beyond their permit area. But in Aceh, where it is well known that justice, like most things, can be bought at a price, the palm oil companies commonly pay the local police and government officers to turn a blind eye to the fact that they have encroached on other people's land.

A further example of land encroachment is that of a Malaysian-owned company, PT Ubertraco, which operates palm oil plantations in Aceh Singkil in the southern part of Aceh.<sup>78</sup> This company's operation is extensive; covering 13,925 ha and spanning several villages. The company is involved in an ongoing land dispute.

According to local villagers, the area for which the company was granted a permit back in 1988 included privately owned land, thus PT Ubertraco has (allegedly) been planting palm oil on *adat* land. In October 2006 Asmardin, the then Head of the local Department of Plantations, said: "If it is proven to be the case that the company has trespassed on people's land, we will negotiate compensation with the company on behalf of the local people." "He continued: "The Land Cultivation Rights permit (HGU) held by the company will be rendered invalid if there is proof they have worked outside their permitted area. They would have to apply for a new and expanded HGU."<sup>79</sup> Responding to this accusation, the company's Assistant Chief, Abdullah Hakim, explained: "We [PT Ubertraco] are working with the local Department of Plantations and should have a decision about what action

## History of the PT Ubertraco dispute

Most land ownership in Singkil is under the *adat* system: it is held only through acknowledgement by the local community; there are few legal certificates. Thus, proving ownership is difficult. A local villager explains: "Actually, some of the land now used by PT Ubertraco is owned by the local people, but in 1988 the government signed it over to the company without consulting with the community. Since then, they [PT Ubertraco] have been expanding into our land and the local government and police have been silent."<sup>80</sup> Protests by the local community have been intermittent, demonstrations took place in 1999 and company buildings and vehicles were burned. After that time, the separatist conflict flared and public gatherings almost inevitably attracted a military reaction, so demonstrations became rare. As the shaky peace process began to show some success and parts of Aceh became temporarily more peaceful, demonstrations over land disputes flared again in 2002. By 16 January 2007, in the prevailing climate of peace that now exists in Aceh, the local community felt it was safe for the first time in years to hold a large protest; around 500 villagers demonstrated outside the local Parliament and office of the District Chief in Singkil. Their demand was for PT Ubertraco's HGU to be revoked.

A villager from Samar Dua, Kota Bharu sub-district, explained: "How could we speak out in the past to reclaim our land; the military, police and members of the government were always paid by the company to protect their operations. We were afraid that it might be dangerous, there have been many incidents elsewhere in Aceh where the villagers simply disappear. So we were mostly silent." (*Source requested anonymity, interviewed Kampung Baru, Aceh Singkil, 14 January 2007*)

should be taken sometime in November this year [2006]. We might indeed have made a mistake with land ownership. Compensating the local people is one option the company is considering."<sup>81</sup> But the local Department of Plantations found it difficult to identify a solution: "Until now [December 2006], no land owners have come forward with evidence of their land ownership, so it is very difficult for us to process this case."<sup>82</sup>

Progress was eventually made; by mid 2007 the local government had completed mapping the area, and found that the company might indeed be operating on privately owned land. In July 2007 PT Ubertraco agreed to pay compensation, but the matter remains in dispute as the government and the company are still waiting for local people to prove ownership by producing land certificates.

### Production systems

The system of palm oil cultivation in Aceh mirrors that of Indonesia more generally; it is a combination of large plantations and smallholdings.

The former are estate plantations run by state-owned or private companies (either Indonesian or foreign), and some follow the huge agro-estate model. Many of these estates employ workers on a contract basis or as daily workers for all stages of the production process.

The workers are often brought in from outside Aceh as part of the government's transmigration scheme, although some are also local. The smallholdings operate under differing systems: they may be attached to a large company under the NES system (see below); be part of local cooperatives, or be small independent plantations. Smallholdings are usually of no more than 25 hectares.

The extraction stage of production, however, is far less diverse. Palm nuts should be processed to extract their CPO within 24 hours of harvesting; the CPO can then be shipped for further processing. This creates a problem for smallholders: There are currently only 21 CPO processing plants in Aceh with an operating capacity of 540 tonnes per hour; all are located in seven districts and are part of large

### The Nucleus Estate System

A common form of production in Aceh is the so-called Nucleus Estate System (NES) also sometimes called the nucleus plasma system. It consists of small-scale plantations surrounding a large "core" plantation the "nucleus." This scheme, originally introduced into Indonesia in 1978 and encouraged by the World Bank which funded the expansion of the NES in the early 1980s in Indonesia, has become widespread in Aceh.

There are various forms of the NES: essentially it involves a package of management, technology, financial resources and services invested by a company to establish individually operated smallholdings the "plasma" in cooperation with the company's own (usually large-scale) commercial heart area the "*inti*". In other words, companies assert control and receive permits for an area of land, but are able to increase the original area by collaborating with the government which will also allocate land to be given in small parcels usually two hectares to poor people, transmigrant families and, more recently, to victims of the December 2004 tsunami. The company or government will supply resources to help these individuals establish their smallholding. In this way small-scale farmers can have some measure of control over smallholdings but have no access to processing plants so usually sell their raw product to the companies hence increasing the companies' production capacity. Examples of this can be found in current policy for palm oil expansion as overviewed above.

estate plantations. Consequently, most smallholders have to sell their harvest to one company, and are forced to accept non-competitive prices. Former Head of Aceh's Department of Plantations, Azwar A.B. explains that a priority for the sector is to attract investors willing to invest in the processing side of the business, including small cooperative ventures that might be more favourable to smallholders.<sup>83</sup> In reality, it is difficult to attract investors interested only in processing the CPO; most processing plants belong to large plantation companies that have a reliable supply of fresh fruit bunches from their own plantations.

## Salaries

Palm oil does not necessarily lead to increased wealth for the bulk of the population. Particularly for smallholders, palm oil can breed dependency on a single commodity, the price of which is driven by international markets. Local people lose control of their own livelihoods.

Moreover, "in many cases, indigenous people have little choice but to surrender their land and undertake poorly paid work on the plantations."<sup>84</sup> The appropriation of large tracts of land by a palm oil company can change the dynamics of the local economy, turning landowners into wage labourers, and leaving them with few alternative employment opportunities other than with the plantation company. Limited choice of employment often leaves the workforce vulnerable to low-paid jobs, poor health and safety standards, while their means to an independent and sustainable livelihood disappears. Many in the palm oil industry argue that the industry "create[s] stable well-paid jobs" and that companies often provide social infrastructure that would otherwise be lacking.<sup>85</sup> In fact, salaries in the palm oil sector in Aceh are low, often below the minimum legal wage.

In January 2006, the provincial minimum legal wage (UMP) increased in Aceh from the 2005 level of Rp620,000 (US\$91) to Rp 820,000 per month.<sup>86</sup> The UMP not only applies to contract staff, but also to daily paid workers who should be paid pro-rata at the monthly rate. In addition to the basic salary, Indonesian labour laws include additional allowances such as at the end of the fasting month of Ramadan when workers receive an extra month's salary.<sup>87</sup> There are many examples of palm plantation companies not adhering to these laws. Largely non-unionised, most workers suffer in silence. But just occasionally, some do protest.

In early 2006, oil palm company PT Parasawita's 800-strong workforce at the company's site in Tamiang, East Aceh, began to protest the company's non-compliance with minimum wage laws.<sup>88</sup> By July 2006, the company had yet to comply with the new minimum salary of Rp 820,000: "Since January 2006 our policy has been to increase salaries to Rp820,000 in line with the law," explained Prayogo, Chief of the company's administration department. "However, we have not been able to

fulfill our obligation to increase salaries to the new rate, and so our payment still refers to the 2005 rate."<sup>89</sup>

The Workers' Union of Aceh Tamiang is supporting the workers in their protest. Three months later, in October 2006, the problems at the PT Parasawita plantation had worsened. Not only was the company still unable (some have suggested "unwilling") to pay minimum rates of pay, but the legally required *idul fitri* allowances paid during the fasting month of Ramadan was reduced to Rp420,000 around 50% of what was due. The workers demonstrated at the local Parliament office, accusing the company of violating many labour rights, such as the payment under UMP, health, and other allowances.<sup>90</sup>

The local Department of Labour in Aceh is willing to help solve workers' problems, but the Head of the Industrial Relations and Labour Union section explains: "PT Parasawita is not the only offender, we know of this [salary] problem in the plantation sector, but what can we do to help? The companies rarely report how many workers they are employing, for which jobs, salaries and other information. Without this basic information, it's very difficult for us here at the Department to check everything is in order with the workforce, or to intervene when there is a problem. On top of that, the workers themselves are not unionised and so usually don't have the capacity to organise a formal protest by sending a delegate down to the Department to report wrongdoing by a company. If we hear of companies violating the law, we will take action, such as with the PT Delima Makmur case - we are trying to assist."<sup>91</sup>

At the Singkil-based company, PT Delima Makmur (PBSN), 291 members of the 510-strong workforce have filed a complaint against the company with the Department of Labour for underpaying staff. The issue was covered in the local media, quoting the Head of the Industrial Relations and Labour Union section at the Department of Labour in Aceh, M. Yunan, as saying: "It is not only a problem with the new minimum wage regulation, the company has never met the 2004 and 2005 minimum wages as regulated by the government."<sup>92</sup> Yunan continues, "The workers are demanding that the company pays the balance of two years' unpaid salary...For this demand, we at the Department of Labour will support the workers."<sup>93</sup> Several attempts to secure an interview or comment from PT Delima Makmur by Eye on Aceh researchers were unsuccessful.

And in July 2006, PT Padang Palma Permai's 600 workers at the company's plantation of more than 1,000 ha in the district of Tamiang in the eastern part of Aceh, went on strike to protest the non-payment of bonuses normally paid in June each year. According to the workers, the company has been underpaying bonuses since 2003 and management refused to enter into dialogue with them.

In addition, there are many stories of daily paid workers being underpaid, but these are rarely

reported to the authorities as these “casual” workers feel they have no rights. Hundreds of interviews with plantation workers by Eye on Aceh researchers in Aceh Tamiang, Aceh Singkil, Nagan Raya and East Aceh between August and December 2006 show that daily paid workers typically receive around Rp18,000 (US\$2) per day for seven hours' work. The Department of Labour in Banda Aceh comments: “Yes, we have heard stories of daily workers being underpaid, but we have never received a formal complaint by people being paid Rp18,000 a day. If they make a complaint, we will follow up, as this is an abuse of workers' rights in Aceh because that payment is below the minimum provincial wage.”<sup>94</sup>

Smallholders tied to the NES often fare no better. In general, the company benefits far more than the smallholder. For the company it reduces the amount of investment capital required and so lessens risk exposure. It also increases the area of land that is given over to palm oil from which the companies can benefit. The workers effectively become wage labourers, usually with no bargaining power to set prices. The company sets the price, enjoys the biggest slice of the profit, and usually gives little to the smallholder in terms of transfer of skills or knowledge.

Over the longer term, many smallholders have come to realise their experience in the NES has been more beneficial to the company than to themselves, and that they have in fact been impoverished by the relationship rather than enriched and empowered.

### Land clearing

The expansion of palm oil plantations has led to wide scale land clearing in Aceh. Between 1982 and 2001, a total of 265,995 ha of forest were converted for non-forest purposes in Aceh; an unconfirmed number of hectares of this total were given over to palm oil.<sup>95</sup>

By law, plantations are allowed only on land that has been officially listed for conversion to other uses; since 2001, there has been no official conversion of forest for palm oil production in the province. But in Indonesia, where implementation of existing legislation is often weak, such laws offer little protection for the forest.

Land clearance does not only occur in the context of establishment of plantations. There have been cases in Aceh in the past, as is common throughout Indonesia, where land that has high-value trees has been targeted by plantation owners not necessarily because it is best for cultivating palm oil, but simply to cash in on the valuable timber found there.<sup>96</sup> Many hectares of conservation forest have been cleared, sometimes without palm oil ever being planted. But whether planted or not, the effect is the same: the forest is gone.

For example, in 1999, PT Mandum Paya Tamita was granted an investment permit to develop a mixed plantation over an area of 8,015 ha covering three sub-districts in North Aceh. This area was formerly a production forest and had been selectively logged by another company. However, when PT Mandum Paya Tamita was granted a permit to operate on the land, many valuable trees remained. Sixty per cent of PT Mandum Paya Tamita's permit area is designated as mixed industrial forest plantation consisting of pine, teak, mahoni and other species of tree; 40% is designated for palm oil.<sup>97</sup> After much lobbying of local government, the company also obtained a permit to clear what remained of the forest before planting the mixed production forest and palm oil plantation. The company's attention turned to logging, but permits for processing and transporting the wood had not been issued.

Development of the production forest and palm oil plantation has been slow, indicating PT Mandum Payah Tamita might be more interested in logging than in plantations. The company has allegedly been involved in a series of illegal logging activities; machinery to process timber was found at the site. The company does not have a permit to operate a sawmill, but only to clear land for plantations. As a result, on 23 January 2006 the director of PT Mandum Payah Tamita, Krisna (a Malaysian citizen), was interrogated by the police in North Aceh over allegations about illegal logging activity.<sup>98</sup> And in June 2006 the police in North Aceh secured the heavy sawmill machinery as evidence. To date however, there has been no further progress on this case.<sup>99</sup>

The clearing of forest vegetation is not the only form of environmental degradation that accompanies land clearing for the establishment of plantations. If the land is covered in small trees or forest scrub, those who want to plant palm oil plantations will seek the quickest and cheapest method of clearing the area, which is often burning. While burning to clear land is not as commonly practised in Aceh as it is in other parts of Indonesia, some companies are importing bad habits. The fires they light often rage out of control, destroying primary forest, killing wildlife and valuable plant species, and polluting the atmosphere.

One such example involves PT Ubertraco, the Malaysian company cited in the land dispute case above. Local people in Singkil were outraged by fires lit to clear land in 2006: “Many people here had breathing problems at that time. We are very disappointed that PT Ubertraco put its own business interests to expand the plantation area above our health.”<sup>100</sup> The Singkil Police District Chief, Asep Syahrin, was quoted in local media as commenting: “We [the local police] have collaborated with other institutions such as the Department of Plantations and Bapedalda [the Environmental Impact Control Agency] of Aceh Singkil in order to develop this investigation to find out how the fire started.”<sup>101</sup>

Nazariah explains the impact of the fires on her children: "I have four children, all under the age of 11 years. The youngest two vomited when the fires were lit, and the eldest had pains in the eyes and throat and could not breathe because of the smoke. I wouldn't let my husband go to the fields at that time as I was afraid my children would become seriously ill. The doctor could do nothing, the pollution was too powerful for medicine. The doctor told me, 'If you want your children to be healthy, you must leave this area until the fires are finished.'<sup>102</sup> The story is similar throughout the area.

The Chief of the Department of Plantations in Singkil echoes the frustration of the local community: "PT Ubertraco has caused some big problems here mostly relating to forest burning that caused pollution around Singkil. The company has been reported to the police, and also to Bapedalda and other related authorities."<sup>103</sup> He continues: "The matter is now with the police. We at the Department do hope this case will be solved quickly and fairly, and that the guilty parties will be found and held responsible in the appropriate way. We have two expert witnesses willing and able to help in the police investigation."<sup>104</sup> There are also complaints of local water supplies being polluted as a result of constant spillage from its CPO processing plant. At time of writing (June 2007) investigations are ongoing with the local police.

PT Ubertraco admits to burning land in order to speed up the process of clearing. But according to the company's Assistant Chief in Aceh Singkil, Abdul Hakim, "We did burn to clear [land] in the period 1998-2000, but many companies were also doing the same at that time."<sup>105</sup> Hakim continues: "But now burning is no longer allowed. If it does still happen, it is a mistake and is not our intention." And he denies the company has caused pollution: "We operate in an environmentally friendly way - that means almost no pollution. Yes, they can accuse us of polluting, but where is the evidence? No evidence, no guilt." Meanwhile, when contacted by Eye on Aceh's research team, PT Ubertraco's Malaysian parent company, Nafas Estate Sdn.Bhd, refused to comment on the allegations made by the local government department and in the local media.

### **Use of hazardous chemicals and other forms of pollution**

Planted without consideration to local conditions, palm oil often disturbs the local environment. When cultivated as a large-scale monocrop its impact is greatest. The use of chemicals fertilizers and pesticides has led to a loss of soil and biodiversity. In Aceh, the use of highly toxic herbicides and pesticides such as Gramoxone, Roundup and Polaris is widespread. In some villages in Aceh, the presence of palm oil has caused water supplies to turn yellow with a high level of sediment. The sedimentation, together with high toxic run-off from pesticides and ground pollution, affects health, livelihoods and the local flora and fauna. According

to local pressure groups, "This is an almost inevitable effect of large-scale palm oil production because of the inability of the crop to absorb water. But palm oil needs a lot of irrigation, so water is often diverted from a nearby river."<sup>106</sup>

Discharging the chemicals and pesticides used in growing and in processing CPO into rivers, and allowing them to spill onto the land, has devastating effects on flora and fauna. The water becomes discoloured and smells, and fish and other animals die.<sup>107</sup>

These chemicals are hazardous, but local farmers appear unaware of the highly dangerous nature of the pesticides and herbicides they use and which are often bought by small-scale farmers from local dealers in unsealed bags which display no warning of their hazards. Furthermore, in palm smallholdings and estates it is not uncommon for the chemicals to be used without sufficient protective clothing being worn by workers.

#### **A palm oil worker says:**

"I started working for PT Blang Kara Rayek in February 2006. I work in the pesticides department of the company where most of the workers are women. Our work is mostly to keep the land clear by spraying pesticide and fertilizer. The company usually distributes the herbicide Roundup for us to spray. We have never been given protective clothing although we did ask for safety wear, as we know the risks of these poisons. But the company said they could only provide the protective clothing if we agreed to have it deducted from our salaries. We didn't agree, so we work without it. We are daily paid workers, our working hours are from 7am to 2pm each day. Meanwhile our salary is only Rp18,000 per day. The company doesn't help us with doctor's bills if we are sick, or if we are pregnant; if we don't work, we don't get paid."  
*(Habsah, Ujong Tunong village, Julok, East Aceh, 22 July 2006)*

The herbicide Gramoxone is widely used in palm oil plantations in Aceh, and is freely available to anyone who wants to buy it. Gramoxone is in fact, the market name for Paraquat, a highly dangerous herbicide banned in several countries because of its known lethal side-effects for which there is no antidote.<sup>108</sup> Inhaled, digested or absorbed through the skin, Paraquat can have fatal or long-lasting effects. Its use is in fact "highly restricted" under Indonesian law, but the restrictive regulations are rarely enforced. Roundup, another herbicide widely used in the province, is thought to have a detrimental impact on the reproductive capacity of female plantation workers, kills insects and has been shown to be responsible for genetic damage to small mammals and to fish if it spills into nearby rivers.

The Department of Plantations in Singkil distributes Gramoxone as its pesticide of choice because of its "effectiveness", and in the past has distributed it as part of its palm oil programs.<sup>109</sup>

Companies such as Socfindo and PT Delima Makmur also prefer Gramoxone as it destroys not only above-ground vegetation, but also the root. It also kills much other insect and plant life, and endangers those who use it.

The environmental impact of palm oil does not end with cultivation, the processing of the raw fruit harvested from the plantations is also a dirty process. The heating of the palm oil nut to extract the CPO often causes land and water pollution; the untreated palm oil mill effluent can pollute local water supplies and rivers. The waste from oil palm mills is a mixture of water, crushed shells and fat residue that comes from the processing of palm fruits for CPO. Bad practice and negligence causes ground-water pollution, and many companies continue to burn the empty husks thus causing hazardous air pollution. The alternative is to compost the husks and use the mulch as a tree fertilizer which would reduce the need for chemical fertilizers.

The plan to increase the number of CPO plants in Aceh will inevitably lead to more pollution unless cleaner methods of processing are adopted. Around 1.5 tons of solid waste is produced for every ton of CPO; this waste includes palm fiber, and shells, and palm oil mill effluent - a polluted mix of crushed shells, water, and fat residues that has been shown to have a negative impact on aquatic ecosystems.

### **Greenhouse gas emissions**

Gone are the days when the phenomenon of climate change due to greenhouse gas emissions was dismissed as activist scare-mongering; the issue is now considered a very real threat to human and traditional (military) security at a national, regional and global level.

Burning wood, oil and coal, whether in cooking fires, cars, factories or power stations, produces not only invisible carbon dioxide the principal greenhouse gas responsible for global warming but also many other toxic pollutants.<sup>110</sup> Moreover, this is causing the Earth to increase in temperature, a phenomenon known as global warming. Fears are that if people continue to produce these gases at increasing rates, the results will be negative in nature, such as more severe floods and droughts, increasing prevalence of insects, sea levels rising, and the Earth's precipitation may be redistributed.

The world is warming; temperatures in the period 1980-2000 were the warmest for 400 years, and the UN reported that eleven of the last twelve years are among the warmest since 1850.<sup>111</sup> The oil palm sector in Indonesia is contributing to that by burning the peat land which lies in many lowland and swampy areas-where plantations are planned. The peat land formed over many hundreds of years and usually several meters deep is actually a giant storage tank for carbon dioxide-one of the main contributors of greenhouse gas and thus global warming.

There are currently eleven concessions totaling 70,000 hectares to grow palm oil on peat land in Aceh, smallholdings also exist in these areas. Peat is normally wet, soaking up water, keeping swamp ecosystems balanced, and acting as a sponge for rain and river water in the wet season, thus controlling flooding. But as swampy areas are drained, and often burned for commercial agriculture use, peat dries and decomposes, oxidising and releasing vast amounts of carbon dioxide into the atmosphere thus contributing to global warming. Wetlands International, an international pressure group, argues that if peat emissions were taken into account, along with industrial emissions, Indonesia would move from its position as the 21st-largest carbon dioxide producer in the world to the third-largest, behind the USA and China.<sup>112</sup> In Aceh, however, it seems there is little evidence of significant awareness of, or interest in, such considerations.

In the area of Arongan Lambalek in West Aceh, the BRR program supported palm plantations in peat soil land in secondary forests. In 2006, 200 ha of land was prepared for planting which destroyed valuable multi-layered peat soil areas. By the time the mistake was discovered, it was too late; the peat layers that had taken so long to develop were destroyed.

### **Flooding**

Oil palm trees do not retain water in the same way as native forest. Where the land has been stripped of forest and native vegetation, flooding and landslides have become more common. Homes, livelihoods and even lives have been lost as floods hit Aceh with increasing frequency, and increasing severity. In the villages and towns of Aceh, people see the devastation caused by a breakdown in natural defences. But short-term economic gain continues to be more attractive to many communities who fail to consider the non-economic costs.

A recent example of devastating floods, directly linked to the change from indigenous agriculture to large-scale palm oil plantation, is that of Tamiang in the eastern part of Aceh in December 2006. Between 22 and 25 December 2006, muddy flood water washed over farmland, villages and roads in seven sub-districts in that area. The central highlands and the northern part of Aceh were also affected. In total, 69 people died, 10,323 houses were severely damaged, and 367,752 people were displaced from their homes.<sup>113</sup>

Three of Tamiang's seven sub-districts (Karang Baru, Tamiang Hulu and Kejuruan Muda) were severely damaged in the floods. These sub-districts border the Leuser Ecosystem where increased illegal logging in recent years has literally torn the communities' natural defences the forests from their roots. In addition, Aceh Tamiang has experienced an extremely high rate of palm plantation growth; there are now around 15,641 ha of smallholdings, and a further 30,138 ha belong to

estate plantations companies. According to local people, annual floods began to affect Aceh Tamiang in the early 1990s soon after the palm plantation companies began to operate, but have become worse since 2000 when larger companies moved into the area and more smallholdings also sprang up. The main road from Banda Aceh to Medan now floods regularly. A local truck driver explains how things have changed: "I have been driving trucks on the main Banda Aceh to Medan route since 1980, and although there were sometimes small floods before 2000, it never really hindered my journey. But more recently my journey has been severely delayed three times because of flooding once in early 2005, and twice in 2006."<sup>115</sup>

Recognising the connection between the increase in relatively uncontrolled palm plantation development and frequent flooding in the past few years, Sunaryo, the Head of the Department of Food Crop Agriculture and Horticulture in Aceh Tamiang, suggested converting some palm oil plantations into forest to prevent further flooding: "Palm plantation is one of the main reasons for the floods in Aceh Tamiang. Other reasons include uncontrolled logging and land clearing activities also often related to plantations. As a result, we estimate that at least 128,028 ha of farmland will become swampy when the rainy season arrives, and during the dry season will suffer drought."<sup>116</sup> He has recently proposed that: "The government now needs to think about the result of its actions; we must be responsible for our mistakes. More trees must be planted that retain water during the rainy season. It's not enough to repair drainage systems, it can never cope with the amount of rain we get in this area. That won't solve the problem, perhaps we need to make unpopular, non-commercial choices."<sup>117</sup>

Since 2005, the increasing logging activities in the Leuser area and in Aceh Tamiang have reduced the capacity of the forests to absorb the overflow of water. The presence of palm plantations in Aceh Tamiang, especially along the border with the Leuser Ecosystem area, where there are 32,100 ha of HGU with 26,359 ha of planted palm plantation belonging to 19 companies, has simply compounded the problem.

Several towns and villages in North Aceh were also devastated by floods around the same time; in this area illegal logging and palm plantations were generally thought to be responsible. As in Aceh Tamiang, floods have become increasingly more severe: "There has been flooding in this area since early 1990s, but we have had what we call 'big' floods four times in the past few years. The palm oil companies began to move in around the same time as the floods; following the example of the companies, the communities also cleared land for palm oil." Mukminim, a villager from Labuk Pusaka in North Aceh, says there are often discussions in the local *warung kopi* (coffee shop) about the connection between palm oil, logging and floods: "We all see our mistakes, but it is too late," he says.

---

### **Nasrudin was born in the village of Kreung Tadu, Nagan Raya and has seen many changes in recent years.**

"Between 1990 and 1997 many palm oil companies began to open up in this area, such as PT Fajar Baizury, PT Socfindo and others. The companies made what we thought were attractive offers to use our land; some money in compensation, and at the same time we received help to clear our remaining land and seeds to plant palm oil to establish our own smallholdings. The company also promised to buy all our harvest which they do. The problem is that we are unable to negotiate the price with the company, and many of us here feel we are being cheated. My income is little more than before when I was working with my fruit trees, but I work much harder, longer hours, and I don't like all the chemicals that we need to use. My eyes often hurt and I get headaches.

"We also have more flooding in the village, and some of the women are angry at the company they blame the palm oil for the flooding. My wife is angry with me for selling my land. She says I only think of tomorrow, and always asks me 'What about the future for our children, now there is not much land left for them to inherit? Not only that, they will live with floods that only came with the plantations and the greed of their father and others like him.' I agree with my wife. She is wise, I made the wrong decision. I wish I had not sold my land." (*Nasrudin, Kreung Tadu, Nagan Raya, interviewed 28 November 2006*)

---

### **Ecosystems and biodiversity**

A tension exists between the undeniable need to boost Aceh's economy and the inevitably negative impact the rapid and largely uncontrolled expansion of palm oil plantations has on the natural environment. Aceh does indeed offer ideal conditions for growing palm oil, but its forests rank among some of the most diverse remaining ecosystems in the world and these are being sacrificed to satisfy the insatiable needs of the marketplace.

Research has shown that when the forest has been replaced by palm oil, 80 - 100% of the reptile, mammal and bird species previously found in the forests cannot be supported by the new environment. Aceh has some very special, rare and now critically endangered species whose perilous existence has been made much worse by the cultivation of oil palms. Plantations, and the "hazards" that go with them such as logging activities, fires and so on destroy these animals' habitats, and make migration patterns all but impossible.

Perhaps the best-known species under threat are the Sumatran tiger, Sumatran rhinoceros, and Sumatran orang-utan, all slow-breeding species

## Leuser Ecosystem

The Leuser Ecosystem covers an area as large as 26,000 square kilometres (2.6 million ha). Around 80% of which is located in Aceh, the remainder is in North Sumatra. The area is of global conservation importance, receiving the status of a World Heritage Site by UNESCO in July 2004. In addition to the endangered Sumatran species of rhino, orang-utan, tiger, and the Asian elephant being found there, it contains 25,000 species of flora and fauna. The Mount Leuser National Park is located within the Leuser Ecosystem, and covers about one-third of its total size.

The Leuser is a crucial life-giving source to about two million people who live surrounding its vast borders. Its huge forests soak up excess water preventing flooding and landslides, and local communities rely on fresh water from its rivers. Many non-timber forest products such as bamboo and rotan for furniture and other needs, herbal medicines, fruit and others are also an important part of community life in the area.

But the area is under increasing threat from rampant logging to facilitate plantations, farming and the Ladia Galaska road which will link the southern and western parts of Aceh through the central highlands to the eastern and northern parts. The road has been a source of controversy as it cuts through conservation forest and the Mount Leuser National Park. Many fear that the road will open up the area to even greater exploitation, such as logging and poaching. At the same time, communities and local government plan for the development of agri-business, including palm oil, in the area.

found nowhere else on Earth. Sumatran tigers live in rainforests, usually covering a territory as big as 3050 square kilometres. The forest must be able to support enough prey for them to eat: mainly large animals such as deer and pigs. It is estimated that only 250 Sumatran tigers are left in the wild, while the magnificent Bali and Java tigers are already extinct. For their part, Sumatran rhinoceros are, according to the World Conservation Union (IUCN), the most critically endangered species of rhino. An optimistic estimate of surviving numbers in the forests of Sumatra, Peninsula Malaysia and Sabah is 400 mostly in Sumatra. Each rhino needs a territory of around 52 square kilometres. The fragmentation of forests for logging, conversion to agricultural land or other human uses has a large impact on the rhino in Sumatra, as they prefer to remain more than 2 kilometres from roads or human activity. Meanwhile, the Sumatran orang-utan favours the lowland forest areas where they live on rainforest fruits, eat leaves, shoots and bark, and nest in the trees unfortunately, the same areas sought by the palm oil industry. Studies have revealed an almost 50% decline of the Sumatran orang-utan population in Leuser between 1993 to 2005 due to degradation and destruction of habitat related to palm oil and other plantation crops.<sup>118</sup>

These endemic species may be the most prominent species under threat, but they are not the only ones. For example, the majority of Indonesia's Asian elephant population is to be found in Sumatra; by 2000, however, only 2,800 elephants remained in the island's forests. It is likely that even fewer survive in today's more fragmented forests.

Incidents of human-animal conflict are also on the rise, with animals the inevitable losers. In increasing numbers, and with increasing frequency, elephants, orang-utan, monkeys and other wildlife whose habitat has been destroyed have been foraging for food in the villages of Aceh, encroaching on local farms and plantations. There have even been sightings of tigers close to villages in South Aceh.

This has resulted in an increasing number of animal-human conflicts as the animals seek food close to human settlements. In the Bireun sub-district of Juli, and also in Trumon Timor in South Aceh, elephants have been ransacking palm plantations with increasing frequency. In April 2007, in what has become a recurring event in the area, elephants trampled gardens and palm plantations in Simpang Keuramat in North Aceh. Local media has linked these incidents to the disturbance of elephant habitat due to land clearing.<sup>119</sup> Viewed as "pests" by the plantation workers as they eat their way through the young palm plants, the elephants are usually trapped and removed to 'elephant training schools' where conditions are poor. Some have been shot, and in some cases poisoned. It seems there are some in local government who understand the problem. Local media reported the Head of the Aceh BKSDA, Andi Basrul, as commenting: "If we continue to destroy someone's home [referring to elephant], even the ant will get angry, moreover elephants, so the main thing is to stop logging activities."

In Malaysia, where the mistakes of the past have seen wildlife pushed to the verge of extinction, some palm oil companies after years of lobbying by NGOs have returned land to reforestation initiatives. For many animals, this comes as too little too late. And for those left the corridors often lead to small oases of forest where vegetation is so degraded that it can sustain only minimal life; the animals move on, and eventually die.

With the Aceh provincial government desperate to increase local revenue, the Department of Plantations has become a major player in the economics of the local districts. The New Aceh Governing Law, signed by the Indonesian President on 1 August 2006 gives the provincial government limited authority to issue permits for the conversion of forest areas, and to make decisions on the management of forests, and the processing of forest products.<sup>120</sup> But the new Governor of Aceh, Irwandi Yusuf, elected on 11 December 2006, says he is

determined that Aceh's forest should not be over-exploited, and announced a temporary province wide moratorium on logging on 6 June 2007. This is to allow time for an assessment of forest loss to be conducted. At the same time, however, the Governor is giving a green light for palm oil expansion albeit not in forest areas.

In some places in Aceh there is a structural obstacle to sustainable palm oil expansion, one of these is the issue of forest governance. The Head of the Department of Forestry in Gayo Lues, Nurdinsyah, has a complicated task; how to implement the mandate of the forestry department to protect the magnificent and pristine forests of Gayo Lues from

the loggers and plantation companies, when he is himself, also the Head of the Department of Plantations whose priority it is to develop plantations. Nurdinsyah himself does not see a conflict of interest in the governance structure in Gayo Lues, he explains; "It is not a problem for me to do more than one job, and I always try to make the best decisions for the local communities that is my primary consideration." This somewhat contradictory aspect of forest governance is found in 14 of the 23 districts in Aceh and is in itself an obstacle to achieving sustainable palm oil production in Aceh, and to protecting the environment.

### **Converting Protected Forest into Palm Plantation in Simeulue Island**

In 2003, a local company, the Simeulue District Owned Company (PDKS), applied for a permit to open 21,000 ha on the island for palm plantation.<sup>121</sup> The District Chief, Darmili, approved an initial permit of 5,000 ha which included 3,375 ha of protected forest. However, the Ministry of Forestry in Jakarta has never (as is required for protected areas) given its approval for the area to be cleared for palm oil.

Following an investigation begun in February 2006, Darmili and the Director of the company, Yazir, appeared in court on 21 March 2007 in a case that is bringing widespread attention to the logging/land clearing-plantation issue. The case centres around the fact that the first phase of land clearing included the entire 3,375 ha of protected forest. Both are accused of conspiring to release the land without due process.

According to Ir. Ibnu Abbas, the Head of the local Department of Forestry in Simeulu, Darmili met with relevant government departments in 2003 to discuss the issue: "The Department of Forestry told Darmili at that time that the area requested included protected forest and that a permit should be requested from the Ministry in Jakarta," explains Ir. Ibnu Abbas. "But what could we do to stop Darmili issuing the permit? This Department is under the Bupati [District Chief] in terms of authority, so we could only advise, even though we know that Law 41/1999 states that only the Ministry of Forestry can issue a permit to release protected forests."<sup>122</sup>

Local police verify that the evidence is "complete and damning:" "We went to the site to investigate whether the boundaries of the permit had been breached, and when we arrived all we could see was palm plantation. This case is clear there is no defence," says a member of the local POLDA (provincial police).<sup>123</sup>

In his defence, Darmili, who as Bupati was also Chief of the Supervisory Board of PDKS, cites the fact that the area had already been degraded by an earlier logging permit granted to PT Kruing Sakti on 28 February 1988.<sup>124</sup> The permit allowed for "selective" logging in the protected forest for a period of 30 years, until 2008. According to the local Department of Forestry, this permit remains active, but the company ceased all logging activities in Simeulue in June 2003 during martial law when the martial law authorities ordered logging to stop. It was immediately after this that the PDKS obtained its permit to establish a plantation and clear the land, rendering PT Kruing Sakti's ongoing permit redundant.

The company received a loan for Rp50 billion from Bank Syariah Mandiri to implement the planned palm oil plantation, but so far only 2,450 of the 5,000 ha have been planted with palm oil.<sup>125</sup> And since the criminal investigation began the operation has halted.

In an interview with Eye on Aceh in December 2005, Drs Darmili said: "I will never allow logging concessions in Simeulue if the wood from this island will be taken offshore. We will only log for our own use, so the logging will be minimal."<sup>126</sup>

On 27 March 2007 Darmili was officially inaugurated to a further term as District Chief by newly elected Aceh Governor, Irwandi Yusuf. By June 2007 no court decision has yet been made on this case.

## **A word of caution...the case of Malaysia**

The Indonesian government is looking to neighbouring Malaysia, currently the world's largest supplier of palm oil, as a beacon of success and an example which should be followed.

According to the Malaysian Palm Oil Council, "Palm oil is Nature's gift to Malaysia, and Malaysia's to the World."<sup>127</sup> Malaysia is the world's number one producer and exporter of CPO and other palm oil derivatives. Moreover, through its Federal Land Development Authority (FELDA), the Malaysian government has tackled rural poverty using palm oil and other plantation agriculture as a vehicle. Without doubt FELDA has had some measure of success in increasing the incomes of many in rural Malaysia. But there have also been high environmental and social costs in some FELDA areas which, in its praise of the Malaysian system, the local Aceh government appears to be ignoring.

The Malaysian government has overseen the wholesale conversion of vast tracts of land to plantations: from 642,000 ha in 1975 to just over four million ha in 2006, only 15% of which is immature and not yet productive.<sup>128</sup> But the "cost" to the local people has been high: many farmers sold their land for a quick profit but now find themselves landless and poor. Flooding and landslides have increased due to deforestation, 87% of which in the period 1985 - 2000 can be attributed to the palm oil plantation sector. A similar trend can be seen in Indonesia; 66% of Indonesia's plantations have already involved forest clearance.<sup>129</sup>

Despite the decline in available land for expansion of the oil palm sector at home, the ageing of plantations and decline in output, the Malaysian government and palm oil-producing companies are not ready to slow down palm oil production. They have instead turned their sights toward the vast tracts of land potentially available in Indonesia, and in Aceh.

The favourable response by the Provincial and District governments in Aceh can be understood because of the perceived success of the Malaysians in being the world's largest producer of palm oil, and its geographical proximity making it a natural trading partner.

For their part, the Malaysians are very successful at self-promotion.

The result of the rapid expansion of palm oil production in Malaysia has left a dearth of available land for further conversion and expansion. Hence Malaysian government representatives have been keen to discuss opportunities for cooperation in Aceh, and Malaysian companies are already operating in the province. The Malaysian model of expansion should, however, be viewed with caution.

In some areas of Malaysia, especially in Sabah and Sarawak, there have been significant negative environmental and social problems stemming from the highly commercialised palm oil sector. Large companies, often linked to Malaysian elites, have been the prime beneficiaries while claims by the government that palm oil has helped alleviate poverty in rural areas are only partially true. Land disputes, health problems and environmental problems have been commonplace. Moreover, while it is true that land was initially handed over to smallholder farms, some was later returned to larger companies as smallholders were no longer able or willing to look after the land their children had little interest in agriculture and emigrated to the booming towns and cities leaving many rural areas impoverished backwaters.<sup>130</sup>

To better facilitate Malaysian interests in Indonesia, on 25 May 2006, the two countries signed an MoU on Bilateral Cooperation in Commodities, defined as "palm oil, pepper, cocoa and their products". Cooperation will be in the areas of supply and demand, joint ventures and trade, research and other aspects of production, processing and marketing.<sup>131</sup> Some fear the MoU creates a monopoly situation, but Malaysian Deputy Prime Minister Najib explained the rationale behind the MoU as follows: "We [Malaysia and Indonesia] have agreed to boost the production and marketing of CPO by forming a strategic alliance. Malaysia has the capital and technical management skills while Indonesia has abundant land and labour."

The MoU states that Indonesia will make land available to Malaysian companies. The APDA policy (described above) sits well in this newfound cooperation.

## V. Pressure for change - the Roundtable on Sustainable Palm Oil (RSPO)\_\_\_

The impact of the aggressive and, some would argue, ill-conceived expansion of the palm oil sector in several countries, most notably Malaysia and Indonesia, has attracted criticism from some NGOs concerned with the environmental, economic and social impact of such expansion. Over several years, the news that palm oil is having a detrimental social and environmental impact in the producing countries has been heard by some overseas consumers and governments, and has become an issue of concern. The international palm oil market has finally acknowledged that all is not well in the producing countries. Moreover, producers are beginning to awaken to the fact that such discontent might in fact disrupt the market place.

As the calls for greater social and environmental accountability grew louder, the palm oil industry could no longer ignore it. The question became *when*, and not *if*, the different stakeholders would agree to enter into dialogue. Some producers (growers, refiners and traders) have entered into a dialogue with pressure groups that resulted in the establishment of a multi-stakeholder platform called the Roundtable for Sustainable Palm Oil (RSPO). The RSPO discourse centres around preventing the potentially devastating and irreversible social and environmental impacts of the industry on producer countries, while at the same time ensuring its profitability and sustainability.

After some preliminary discussion, the first annual Roundtable (RT1) was held in Malaysia in 2003; the theme was "What is sustainable palm oil? How to achieve it and how to acknowledge it." In August 2004 the RSPO was formally established and now has a membership of more than 140. One of the first tasks of the Roundtable was to establish guidelines for best practice in the industry, thus the Principles & Criteria for Sustainable Palm Oil were drafted by its working group at its meeting in Singapore on 22 - 23 November 2005:

### *RSPO Principles and Criteria*<sup>132</sup>

- Commitment to transparency
- Compliance with applicable laws and regulations
- Commitment to long-term economic and financial viability
- Use of appropriate best practices by growers and millers
- Environmental responsibility and conservation of natural resources and biodiversity
- Responsible consideration of employees and of individuals and communities affected by growers and millers
- Responsible development of new plantings
- Commitment to continuous improvement in key areas of activity

The RSPO mechanism offers the potential to improve social and environmental practices in the oil palm industry and could even lead to new laws on corporate responsibility. The membership base is growing, with some companies visibly more committed than others to the Principles & Criteria of the Roundtable. The palm oil industry is at a crossroads. The challenges it faces are: to develop highly productive plantations, engage in ongoing research and development to improve the cost-effectiveness of the industry, while at the same time retaining a competitive edge, and finally (and most importantly) - be seen to improve environmental and social standards and strive for longer-term sustainability. The RSPO is not without problems although many analysts recognise the value of the Roundtable's work as "A very positive step, although practical implementation and verification may not be entirely straightforward."<sup>133</sup>

The RSPO itself is aware of the hurdles it faces; its Liaison Officer for Indonesia explains that: "Among many Indonesian palm oil growers, the RSPO is viewed with scepticism and even some resistance. So we must work hard to overcome that." The RSPO is after all, a voluntary initiative and has no powers of enforcement.<sup>134</sup>

At the local Department of Plantations in Aceh there is no "resistance" to the idea of sustainable palm oil, but the head of the Department, Drs Fachrudin, has never heard of the RSPO, nor of its Principles & Criteria: "RSPO? What is that, I have never heard of the RSPO, and nobody has ever come to my office to give us information. Sustainable and more environmentally friendly plantations sound interesting, but we already follow legal procedures, such as an environmental impact assessment before palm companies are allowed to plant."<sup>135</sup>

RSPO members, particularly plantation companies, are now engaged in a two-year period of field trials to test the workability of the Principles & Criteria which include environmental and social issues. After this initial trial period the Principles and Criteria, together with methods of implementation, will be evaluated. The RSPO does not offer a solution to the problems caused by the oil palm industry. It does, however, provide a forum for dialogue, and will work towards persuading its members to implement more sustainable working practices.

## **VI. Conclusion**

It is forecast that by 2012 oil palm will be the world's most produced, consumed and internationally traded edible oil. The provincial government in Aceh hopes the province will contribute significantly to Indonesia's plans to increase its palm oil production to 18 million tonnes in 2008, thus becoming the world's largest producer.

In a country where laws are lax and enforcing them is all but impossible, the cost of loosely unregulated plantation expansion to the people, to the natural environment, and ultimately to the economy will continue to be high. Moreover, Aceh is generally recognised as one of the most corrupt provinces in Indonesia. Permits can be "purchased," even for areas of protected forest, as in the Simeulue case; so too can environmental assessments. In addition, law enforcement officers are also often the ones involved in illegal logging, or paid by companies to stop local people demonstrating.

If plans in place under the various government policies are fully implemented, smallholder plantations alone will increase four-fold to more than 400,000 ha in the next four years. In increasing the palm oil sector in Aceh, the emphasis is quite clearly on assisting smallholders as a way of helping to lift the rural communities out of poverty - such as is the mission of FELDA in Malaysia. Whilst expansion of palm oil can be problematic in itself for the reasons outlined in this document, the fact also that many are tied to large plantation companies under the NES system breeds a reliance on export-oriented crops, and a dependency on prices and policies determined by others - mostly international actors.

The goal of palm plantation companies is to develop highly productive, low-cost plantations, with ever increasing improvement in productivity and efficiency indicators, supported by advances in related technology (including new pesticides and herbicides), to ensure competitiveness and sustainability. Smallholders are also encouraged to participate in this quest for ever-increasing productivity and profits, but the slice of the profit pie that they receive is very little.

Aceh is at a critical crossroads - the wildlife, the people's way of life, the forest cover and the unique biodiversity found there could be destroyed by the palm oil industry.

A fitting conclusion to this report is summarised in these words of caution and wisdom by the Head of The Regional Investment Coordinating Board in Aceh (BKPM):

"We should not encourage investors where the project will benefit only a few people, such as the larger plantations. The reason is I am afraid that it might start the conflict again; there will be land-grabbing, and disputes between community and the plantation, the issue of labour rights and worker exploitation will surface, existing environmental problems will become worse - and new ones will appear. There might also be other problems that actually disempower the people and economy rather than make them stronger. But if we develop the community plantations where more people control their own land, it might help to eradicate the poverty. Even with this there are potential problems: do not think it is only in large plantations that social, economic and environmental problems exist. I predict that unregulated and ill-planned expansion of palm oil - whether in estates or in smallholdings - might bring social conflict in the next 10 - 20 years, perhaps even sooner. We need to ask ourselves why local people often complain about land problems, the bad condition of the road because of the heavy trucks that transport the CPO or fresh fruit bunches, water pollution and others. So, what I see from this expanding plantation sector is a potential time bomb for new social injustices, economic and environmental problems."<sup>136</sup>

## VII. Recommendations

*“No forest, peat land or other bio-diverse land should be converted for oil palm plantations, they should only be established on already degraded land. Aceh must seize the opportunity to pilot the sustainable plantation model.”<sup>137</sup>*

### **Taking local control of the palm plantation sector**

- Expansion of palm oil in Aceh is, as is the entire plantation sector, dependent on legislation from central government in Jakarta. However, Aceh's special autonomy status gives power to district governments to issue the permits necessary for new, or enlargement of existing palm oil plantation. To ensure protection of its natural environment, of its people and culture, the province should take the opportunity to legislate a *qanun* (local law) on plantation and forestry before embarking on rapid and loosely regulated plantation expansion

### **Establishing Aceh as a centre of best practice in the production of sustainable palm oil**

- All companies applying for new permits to open palm plantations in Aceh should be members of the RSPO.
- A period of grace should be given to companies with existing palm oil plantations in Aceh to become members of the RSPO.
- A province-wide independent mechanism should be introduced to ensure all companies and smallholders comply fully with the RSPO principles and criteria in order to ensure best practice and sustainability.
- Verification mechanisms should be established to ensure company claims are actually true.
- All companies that apply for permits should be required to provide operational records for examination before the permit is granted.

### **Land use policies**

- There is already an abundance of degraded land in Aceh that could be used for plantation agriculture. There should therefore, be no further conversion of forests or peat land to palm oil plantations.
- Existing plantation permits that are lying dormant (company not active, land abandoned) should be revoked, re-assessed, and, if approved, re-registered as land available for plantation development.
- Existing concessions for peat lands should be reallocated to already degraded land.
- Land clearing should respect customary rights and the “free, prior and informed consent” of land owners must be obtained.

### **Protection of flora and fauna**

- When permits for new areas are being granted to plantation companies, wildlife impact studies should be conducted with more rigour and forested areas left intact to ensure the preservation of Aceh's flora and fauna.
- In areas where forest cover has diminished or fragmented to such an extent that rehabilitation is a long term prospect, wildlife corridors should be established to enable animals to move from one forest area to another.
- Burning should never be used as a method of clearing land.

### **Preventing pollution**

- Palm oil plantation and mill operators should reduce the use of chemicals in the growing and processing cycle, and ensure environmental guidelines are adhered to.
- The Provincial Government should require that applications for plantations and opening of smallholdings include a list of pesticide, herbicide and other chemicals to be used and an overview of precautions to be taken to minimise the health risks to workers and local communities, and to ensure minimal environmental impact. Permits should be refused if the required information is either unclear or below standard.
- Husks should be composted and used as mulch, rather than burned.
- Local government agencies should collaborate to plan and implement a public education programme about the health, economic and environmental hazards of chemical use in palm oil production, and the plantation sector more generally. The education programme should target plantation workers and small-scale farmers, local communities close to these areas and also consumers.

### **Fair trade for independent smallholders**

- Local government and civil society groups should help build the capacity of smallholders to form trading cooperatives in order to ensure that they can secure a fair price and that they do not become overly dependent on the oil palm plantation estates to purchase their production for processing.
- Smallholder-owned and-managed cooperative CPO processing facilities should be encouraged.

### ***Enhancing transparency and accountability***

- Palm growers, processors, and retailers should meet regularly with other stakeholders such as government, NGOs and the surrounding community to increase transparency and accountability.
- All stakeholders should collaborate to achieve a common objective of social, economic, and environmental best practice in palm oil production.

### ***Workers' rights and welfare standards***

- Companies and government schemes establishing palm oil plantations must ensure all workers/smallholders are familiar with health and safety regulations and that protective equipment is provided for all workers, both contract and daily paid labour.
- Salary levels should at least meet the UMP.
- Health and other benefits such as the *idul fitri* and holiday allowances should be met by the company.

## Notes

- Indonesia Palm Oil Commission (IPOC), May 2007.
- Data from Oil World, April 2007.
- Data from the Indonesia Palm Oil Commission (IPOC), May 2007, and the Malaysian Palm Oil Board (MPOB), January 2007.
- Data compiled from: Indonesian Ministry of Agriculture, 2006; Malaysian Palm Oil Board, January 2007, and Oil World, April 2007.
- Malaysia is the world's largest producer, accounting for 43.1%. Data from the Indonesia Palm Oil Commission (IPOC), May 2007, and Malaysian Palm Oil Board (MPOB), January 2007.
- See petition: 'Call for an immediate moratorium on EU incentives for agrofuels, EU imports of agrofuels and EU agroenergy monocultures', 27 June 2007.
- Bloomberg, 26 February 2006.
- The European Union has declared its intention to enact a new energy policy that will replace 10% of its transport fuel market with biofuels by 2020.
- Data from Oil World, April 2007.
- Indonesia Palm Oil Commission (IPOC), May 2007.
- Information from the Indonesian Ministry of Communication and Information, 22 December 2006.
- Other major importers are Netherlands, Pakistan, Bangladesh, Malaysia and Singapore.
- Information from the Indonesian Ministry of Communication and Information, 22 December 2006.
- Palm oil plantations increased from 105,808 to 2,922,296 ha in the period 1967 - 1997.
- Oil World, Oil World Annual 1999.
- Directorate General of Plantation, Oil Palm Area by Province in Indonesia, 2006.
- Presidential Regulation No. 5/2006 National Policy for Optimising Energy Use, Presidential Instruction No. 1/2006 The Supply and Use of Biofuel as a Source of Alternative Energy, Ministry of Finance Regulation No. 117/2006 Providing Credit for Bio-energy Development and Plantation Revitalisation.
- Jakarta Post, 18 June 2006.
- Ministry of Trade Regulation No.35/M-DAG/PER/8/2007, 31 August 2007.
- Presidential Instruction No.1/2006, 25 January 2006.
- Data obtained from the Provincial Department of Plantations, March 2006.
- Department of Plantations, Aceh, 'Area and Production of Estate Plantation for Palm Oil of NAD Province in 2005', September 2006.
- Department of Plantations, Aceh, April 2007 (temporary data only).
- Department of Plantations, Aceh, 2007.
- Ishak Daud, interviewed 21 August 2002.
- Prayogo, Head of Administration, PT Parasawita, Aceh Tamiang, interviewed 12 July 2006.
- Local journalist who requested anonymity, interviewed 2 December 2004.
- For further reading on the military's business activities in Aceh/Indonesia see: Human Rights Watch, June 2006, 'Too High a Price: The Human Rights Cost of the Indonesian Military's Economic Activities'; L. McCulloch, May 2005, 'Aceh: Then and Now, Minority Rights Group, and 'Trifungsi: The role of the Indonesian Military in Business' in J. Brommelhorster et al, *The Military as an Economic Actor*, Palgrave Macmillan, 2003.
- Drs Jailani, Head of Research and Plantation Development, Department of Plantations, Aceh, interviewed 6 December 2006.
- Drs Fackri, Chief of Institutional Development of Department of Plantations, Aceh, interviewed 6 June 2006.
- Derom Bangun, Executive Director of GAPKI, interviewed 6 September 2006.
- Two new districts were established in July 2007, Subussalam and Pidie Jaya, bringing the total number of districts in Aceh to 23.
- 'Foster parents' is a phrase used by Drs Jailani, Head of Research and Plantation Development, Department of Plantations, interviewed 6 December 2006.
- The banks involved in the scheme are: BRI, Bank Mandiri, Bank Bukopin, Provincial Development Bank (BPD) North Sumatera, Provincial Development Bank (BPD) South Sumatera. Collectively these five banks have committed Rp 25.56 trillion to the programme. An MoU was signed between the Ministry of Finance and the banks on 20 December 2006.
- PERMENTAN No. 33/Permentan/OT.140/7/2006, Chapter VI, Article 22, point 3. The investment credit must be paid by the thirteenth year from time of initial agreement.
- Department of Plantations, 'Proposal on the Location and Activities of Plantation Revitalization in NAD, Year 2006 -2010', November 2006.
- Drs Jailani, Head of Research and Plantation Development, Department of Plantations, interviewed 6 December 2006.
- The BRR was established by Presidential Decree on 29 April 2005 to ensure a coordinated approach to planning, fundraising and implementation of tsunami-related programs.
- The Earthquake and Tsunami Emergency Support Project (ETESP) is a total of US\$290 million grant from ADB that unrolled from 2005 to 2008; US\$32.7 million of the total is allocated to the agriculture sector (also include plantation, food crops, and livestock sector).
- M. Yahya Head of Plantation SATKER, interviewed 27 April 2007.
- Rusli, ADB adviser on agriculture and fisheries, interviewed 20 April 2007.
- M. Yahya, Head of ADB's Plantation SATKER, interviewed 27 April 2007.
- The programme will be implemented in the following areas: Aceh Jaya, Pidie, Bireun, North Aceh, Tamiang, Simeuleu, WestAceh, Nagan Raya and Singkil.
- Yusha Abubakar, Director of Agriculture Development in BRR, interviewed 17 April 2007.
- Department of Agriculture, 'Prospect and Development of Palm Oil Agribusiness', July 2005, p. 15.
- Saminuddin B. Tou, Head of Forest Inventory and Management, Department of Forestry, 19 April 2007.
- Drs Fakhruddin, Head of Department of Plantations, Aceh, interviewed on 24 December 2006.
- Yusya Abubakar, Director of Agriculture Development in BRR, interviewed 5 December 2006.
- Third Draft of Central Government Regulation on National Government Authority in Aceh, article 2.4.Z section of Agriculture and Food Security, dated 19 February 2007.
- Zainal Abidin, staff of Department of Plantations, Aceh, interviewed 8 February 2006.
- Serambi Indonesia, 11 March 2006.
- Several interviews: Fachrizal, Deputy Chief of Regional Investment Coordinating Agency (BKPM), 20 April 2007; Asrin MP, Chief of Transmigration Development Area, Department of Transmigration NAD, 16 April 2007; TA Razali, Head of the Economic Bureau in the Aceh Governor office, 16 May 2007 and various interviews with the staff at the Department of Plantation in Aceh and Office of the Governor NAD.
- Fachrizal, Deputy Chief of Regional Investment Coordinating Board (BKPM), interviewed 20 April 2007.
- The first program for orphans will take place in 3 districts (Pidie, Aceh Besar, and Aceh Jaya), each district developing 15,000 ha; the second (for poor families) will take place in 14 districts (Bireun, North Aceh, East Aceh, Aceh Tamiang, West Aceh, Nagan Raya, South West Aceh, South Aceh Selatan, Aceh Singkil, Bener Meriah, Gayo Lues, Simeuleu, South East Aceh, and Central Aceh), each district developing 10,000 ha.
- Serambi Indonesia, 5 April 2006.
- Nurdinsyah, Head of the Department of Plantations and Forestry, Gayo Lues, interviewed 17 March 2006.
- Munawir, staff of Production Sub-unit of the Department of Agriculture, Gayo Lues, interviewed, 12 July 2006.
- Razuardi, Head of Regional Development Agency, Bireun, interviewed 13 June 2006.
- Data from Department of Forestry and Plantations, Bireun, January 2006.
- Department of Regional Income, Bireun office, 5 January 2006.
- "Luas Areal Perkebunan Kelapa Sawit Milik Perkebunan Besar dan Perkebunan Rakyat Tahun 2005", Dinas Perkebunan NAD, September 2006.
- Sudarman SP, Chief of Plantation Development under the Department of Plantations Nagan Raya district, interviewed 30 January 2007.
- Sudarman SP, Chief of Plantation Development under the Department of Plantations Nagan Raya district, interviewed 30 January 2007.
- Ministry of Agriculture Decree 26/2007, 26 February 2007, Article 11.1.
- TA Razali, Head of the Economic Bureau in the Aceh Governor office, interviewed 16 May 2007.
- Based on data released September 2006 by the Department of Plantations Aceh; in 2005, Singkil had 17,308 ha of national private estate plantation, 7,214 ha of foreign estate plantation, and 19,456 ha of smallholder plantation.
- Telephone correspondence with Ir.Momod Suharsa, Head of the Department of Plantation, Aceh Singkil, 23 August 2007.

68. Yan, staff in Department of Development ,PY Astra Agro Lestari, interviewed by telephone 14 May 2007.
69. Badan otorita pelabuhan Belawan, Penanganan Komoditi Dominan tahun 2001 Februari 2007, Maret 2007.
70. Ir. Abdul Kadir, Head of Department of Transmigration, interviewed 16 May 2006.
71. Ir. Asrin MP, Head of Area Development, Department of Transmigration, interviewed 7 August 2006.
72. Makmur Syahputra, interviewed 1 November 2006. He was Singkil District Chief (20012005), and was then re-elected on 11 December 2006.
73. Department of Transmigration, 31 December 2006.
74. Ir. Asrin MP, Head of Transmigration Area Development, Department of Transmigration, interviewed 7 August 2006.
75. Ir. Asrin MP, Head of Transmigration Area Development, Department of Transmigration, interviewed 7 August 2006.
76. Information from Effendy, Official in the Department of Manpower, Aceh Jaya, 22 May 2006.
77. Bappeda, September 2006.
78. PT Ubertraco is owned by Nafas Estate Sdn.Bhd, Malaysia.
79. Asmardin, Head of the Department of Plantations, Singkil District, interviewed 31 October 2006.
80. Armiadi, villager of Pandan village, Kota Bharu, Singkil, interviewed 10 January 2007.
81. Abdullah Hakim, Assistant Chief, PT Ubertraco, interviewed 29 October 2006.
82. Asmardin, Head of the Department of Plantations, Singkil District, interviewed by telephone 23 December 2006.
83. Azwar Abubakar, the then Head of the Department of Plantations, Aceh, interviewed 21 April 2006.
84. Helen Buckland, The Oil For Ape Scandal, Friends of the Earth et al. September 2005, p. 20.
85. Jens Mesa-Dishington, "New Opportunities for Strategically Positioning Palm Oil in the World Market", presented at the 15th International Oil Palm Conference, Colombia, 20 September 2006, p. 10.
86. The Decision of the Ministry of Manpower on Regional Minimum Wages in Indonesia, January 2006.
87. Regulation of Ministry of Manpower of Indonesia, NO.PER-04/MEN/1994 on religious holiday allowance for the company workers.
88. PT Parasawita holds two HGU in two sub-districts in Aceh Tamiang: Bendahara (1.143.50 ha SK.56/HGU/BPN/90, permit valid from 24/12/1990 31/12/2015) and Sereuway (1,355.61 ha - SK.37.37HGU/BPN/90 valid from 24/12/1990 31/12/2015).
89. Prayogo, Head of Administration, of PT Parasawita, interviewed 12 July 2006.
90. Analisa Daily, 21 October 2006.
91. M. Yunan, Head of the Industrial Relations and Labour Union section, Department of Labour, interviewed 6 December 2006.
92. Aceh's province minimum wage (UMP) in 2004 was Rp 550,000.
93. Serambi Indonesia, 26 January 2006.
94. M. Yunan, Head of the Industrial Relations and Labour Union section, Department of Labour, interviewed 6 December 2006.
95. Forest Conversion for Non-Forestry Purposes, Ministry of Forestry, 2002.
96. Throughout Indonesia, 66% of the land under palm oil was one magnificent forest (Eric Wakker, Greasy Palms: The Social and Ecological Impacts of Large-scale Oil Palm Plantation Development in Southeast Asia, 2005.)
97. The AMDAL (Environmental Impact Assessment) for PT Mandum Payah Tamita was approved on 20 November 2003.
98. Serambi Indonesia, 24 January 2006.
99. Serambi Indonesia, 29 June 2006.
100. Idris, a villager of Srikayu village, Gunung Meria, Singkil, interviewed 29 October 2006.
101. Berita Sore, 10 June 2006.
102. Nazariah, Srikayu village, interviewed 30 Oktober 2006.
103. Asmardin, the then Head of Department of Plantations, Singkil District, interviewed 31 October 2006.
104. Asmardin, the then Head of Department of Plantations, Singkil, interviewed 14 December 2006.
105. Abdul Hakim, Assistant Chief, PT Ubertraco, interviewed 29 October 2006.
106. Ismail, SOS-OIC, interviewed 28 October 2006.
107. For further information on the dangers of some pesticides and herbicides, see the Pesticide Action Network's website at [www.pan-uk.org](http://www.pan-uk.org).
108. For information on Paraquat and a list of countries that have banned its use, see [www.pan-uk.org/pestnews/actives/paraquat.htm](http://www.pan-uk.org/pestnews/actives/paraquat.htm).
109. Asmardin, Head of Department of Plantations, Singkil, interviewed 31 October 2006.
110. Including other contributors to greenhouse gases such as methane, nitrous oxide, and fluorocarbons.
111. United Nations' Intergovernmental Panel on Climate Change (IPCC).
112. Wetlands International press release, 2 November 2006.
113. Bakornas PBP, 27 December 2006.
114. Luas Areal dan Produksi Komoditi Kelapa Sawit Perkebunan Rakyat dan Perkebunan Besar Provinsi Nanggroe Aceh Darussalam Tahun 2005, Dinas Perkebunan NAD, September 2006.
115. Hermadi, truck driver from Bireun, interviewed 7 January 2007.
116. Serambi Indonesia, 6 February 2006
117. Former Head of the Aceh Tamiang Department of Agriculture, interviewed 13 December 2006.
118. C.P. van Schaik, K.A. Monk, Y. Robertson, 2001, Dramatic decline in orang-utan numbers in the Leuser Ecosystem, North Sumatra, Oryx, 35; Helen Buckland, SOS-OIC, responding to questions sent by email, 15 October 2006.
119. Serambi Indonesia, 29 April 2007.
120. Law No 11/2006, Chapter Six, Trade and Investment, Article 165, 2 and 3.
121. PDKS was established by Qanun (local government regulation) No. 1/2002.
122. Ir. Ibnu Abbas, Head of Department of Forestry, Simeulu, interviewed 30 December 2006.
123. Officer from POLDANAD who preferred to remain anonymous, 3 February 2007.
124. Permit No. 146/Kpts-IV/88.
125. Staff at the local Syariah Mandiri Bank in Simeulue confirmed a loan of that amount had been received by PDKS, but declined to give further information.
126. Drs Darmili, Bupati Simeulue, interviewed 19 December 2005.
127. [http://www.mpoc.org.my/palm\\_oil.asp](http://www.mpoc.org.my/palm_oil.asp), accessed 6 July 2006.
128. Department of Statistics, Malaysia, 2006.
129. E.wakker, 2005, Greasy Palms: The social and ecological impacts of large scale oil-palm plantation development in Southeast Asia, Friends of the Earth.
130. See for example: IDEAL, A Social Study Report on the Oil Palm Plantation in the Kanowit District of Sarawak, December 2001; Helen Buckland, The Oil For Ape Scandal, Friends of the Earth et al., September 2005,
131. Article III, Forms of Cooperation, 25 May 2006.
132. [www.rspo.org](http://www.rspo.org)
133. Helen Buckland, SOS-OIC, responding to questions sent by email, 15 October 2006.
134. Deuximi Kusumadewi, RSPO Indonesia Liaison Office, interviewed 22 November 2006.
135. Drs Fachrudin, Head of the Department of Plantations, interviewed 23 August 2006.
136. Ir. Zainal Arifin Panglima Polem, Head of Aceh's Investment Coordinating Board (BKPM), interviewed 18 October 2006.
137. Helen Buckland, SOS-OIC, interviewed by email, 15 October 2006.

## **Other Eye on Aceh Reports**

A People's Agenda? Post - Tsunami Aid in Aceh (February, 2006)

Serambi Indonesia: News Extra! No News Today (August, 2005)

Between Life and Death: Surviving Aceh's Tsunami (July, 2005)

One Year Martial Law in Aceh: May 2003 - May 2004 (May, 2005)

Responding to Aceh's Tsunami: The First 40 Days (April, 2005)

Aceh: Logging a Conflict Zone (October, 2004)

Fear in the Shadows: Militia in Aceh (July, 2004)

Victims and Witnesses: The Women of Aceh (April, 2004)

All can be viewed at [www.aceh-eye.org](http://www.aceh-eye.org)