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The Hesitant Boom: Indonesia's Oil Palm Sub-Sector in an Era of Economic Crisis and Political Change

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Abbreviations and Glossary

AMDAL	*Analisa Mengenai Dampak Lingkungan,* Environmental Impact Assessment
AIMMI	*Asosiasi Industri Minyak Makan Indonesia*, The Association of Indonesian Cooking Oil Industries
BKPM	*Badan Koordinasi Penanaman Modal*, Investment Coordinating Board
BKPMD	*Badan Koordinasi Penanaman Modal Daerah,* Provincial Investment Office
BPN	*Badan Pertanahan Nasional,* National Land Agency
BULOG	*Badan Urusan Logistik*, State Logistics Agency
BUMN	*Badan Usaha Milik Negara*, State-Owned Plantation Firms
CIFOR	Center for International Forestry Research
CPO	Crude Palm Oil
ENSO	El Niño Southern Oscillation
FFB	Fresh Fruit Bunches
GAPKI	*Gabungan Pengusaha Kelapa Sawit Indonesia*, Association of Indonesian Palm Oil Producers
HGU	*Hak Guna Usaha,* Land Use Rights
HPH	*Hak Pengushahaan Hutan,* Forest Use Right
HP	*Hutan Produksi,* Production Forest
HPK	*Hutan Produksi Konversi,* Conversion Forest
HPT	*Hutan Produksi Terbatas,* Limited Production Forest
HT	*Hutan Tetap,* Forest Land
HTC	*Hutan Tanaman Campuran,* Mixed Forest Plantings
IBRA	The Indonesian Bank Restructuring Agency
ICBS	International Contact Business System
IL	*Izin Lokasi*, Location Permit
IMF	International Monetary Fund
IP	*Izin Prinsip*, Permit in Principle
IPK	*Izin Pemanfaatan Kayu,* Timber Use Permit
KPB	*Kantor Pemasaran Bersama,* State Joint Marketing Office
KDI	*Koperasi Distribusi Indonesia*, Indonesian Distribution Cooperative
KKPA	*Koperasi Kredit Primer Anggota*, Prime Cooperative Credit for Members
KKN	*Kolusi, Korupsi dan Nepotisme,* Collusion, Corruption, and Nepotism
KRISMON	*Krisis Moneter*, Monetary Crisis
LonSum	PT PP London Sumatra Indonesia Tbk
MIT	Ministry of Industry and Trade
NGO	Non-governmental organisation
PAPL	*Penyediaan Area Penggunanan Lain*, Forest Land Designated for Other Use.
PIR/NES	*Perkebunan Inti Rakyat*, Nucleus Estate and Smallholder Scheme
PIR-Trans	*Perkebunan Inti Rakyat Transmigrasi,* Nucleus Estate and Smallholder Scheme for Transmigrants
PMA	*Penanaman Modal Asing,* Foreign Investment Approval
PPKS	*Pusat Penelitian Kelapa Sawit,* Oil Palm Research Centre
PTP	*Perseroan Terbatas Perkebunan,* Plantation Company
RTRWP	*Rencana Tata Ruang Wilayah,* Provincial Spatial Plan
SBI	*Sertifikat Bank Indonesia,* Bank Indonesia Certificate
SFC	State Forest Companies
SME	Small and Medium Enterprises
TGHK	*Tata Guna Hutan Kesepakatan*, Forest Land Use Consensus

The Hesitant Boom: Indonesia's Oil Palm Sub-Sector in an Era of Economic Crisis and Political Change*

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Executive summary

From 1967 through to 1997, oil palm was one of the fastest growing sub-sectors of the Indonesian economy, increasing 20-fold in planted area and showing 12 percent average annual increases in crude palm oil (CPO) production. While the growth of the oil palm sub-sector has conferred important economic benefits, it has posed an increasing threat to Indonesia's natural forest cover. Local communities have also been displaced by the large scale oil palm plantations and social conflict has resulted.

At the beginning of the economic crisis, there was every expectation that the oil palm boom would not only continue, but would also be propelled by the currency depreciation and lifting of foreign investment constraints. But a slowdown in area expansion and CPO production took hold instead. For 1999, the government estimated that only 177,197 hectares of oil palm would be planted. While this is a large area increase, it is a 33 percent decline in plantation expansion compared to the 266,565 hectares planted in 1997. CPO production also declined for the first time since 1969 and reached only 5 million tonnes in 1998. This was a 7 percent decline in production from 1997 when it reached almost 5.4 million tonnes.

Among the key reasons for the slowdown are: (1) the government's export tax policy; (2) reform policies that targeted the oil palm sub-sector; (3) social unrest and the consequent withdrawal and withholding of foreign investment; (4) changes to the CPO distribution system; (5) credit access difficulties; (6) changes to the state-owned plantation sector; (7) the 1997/98 El Niño Southern Oscillation phenomenon and consequent drought and fires; (8) a precipitous decline in the world price of crude palm oil; and (9) increased production costs.

It now seems that the Indonesian oil palm sub-sector is poised for a return to the pace of growth that prevailed prior to the economic crisis. Many companies increased their planting targets for 1999 and CPO production was expected to increase by 12 percent to 5.6 million tonnes in 1999. The growth in CPO production is mainly attributed to an increase in rainfall after the 1997/98 El Niño Southern Oscillation phenomenon. However, several other factors have stimulated plantation development, and will continue to do so. Among these are: (1) lower interest rates; (2) regulatory changes that facilitate further oil palm development; (3) debt restructuring opportunities; (4) the availability of land cleared through the El Niño drought and related forest fires; (5) predicted growing global demand for CPO; (6) the government's drastic reduction of the export tax; and (7) cooperation between Indonesian and Malaysian oil palm producers to push up the price of palm oil and regain their share of the vegetable oil market.

While the government is committed to emphasising oil palm development in Eastern Indonesia, particularly in Kalimantan and Irian Jaya, most expansion can be expected to occur in Sumatra in the near future. Oil palm companies will, however, continue to apply for concession areas in Kalimantan, Irian Jaya and Sulawesi in the near term to gain access to forest land. Unless there are fundamental changes in the way forest land is allocated in Indonesia, further expansion in the oil palm sub-sector will continue to pose a significant threat to Indonesia's forest cover.

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1. Introduction

Oil palm has been one of the most dynamic of Indonesia's agricultural sub-sectors. Dating from the late 1960s, the oil palm sub-sector expanded from around 106,000 hectares to 2.5 million hectares in 1997. This prolific growth has conferred important economic benefits, inasmuch as it has become an important source of foreign exchange and employment. However, it has also become a source of concern, because much of the oil palm expansion has happened at the expense of Indonesia's humid tropical forest cover.[1] Oil palm expansion has also been held partly responsible for the 1997/98 forest and land fires that affected more than 5 million hectares in Kalimantan alone (Departemen Kehutanan dan Perkebunan 1998).

During Indonesia's recent period of economic crisis and political change (mid-1997 to mid-1999) the boom subsided. From early 1998 through to mid-1999, oil palm area expansion slowed significantly. For 1999, the government estimated that only 177,197 hectares of oil palm would be planted. While this is still a significant increase of oil palm area, it is a 33 percent decline in growth compared to the 266,565 hectares planted in 1997.

In 1998, CPO production declined for the first time since 1969. Total production only reached 5 million tonnes in 1998. This was a 7 percent decline from 1997 production which almost reached 5.4 million tonnes. The reduction is mainly attributed to the recent El Niño Southern Oscillation phenomenon.

The recent slowdown in oil palm area expansion and decline in CPO production is ironic because in the latter half of 1997, conditions seemed to be optimal not only for continued growth, but even for accelerated growth due to increasing world and domestic demand, and cheap production costs in Indonesia. Just prior to the crisis, the Suharto government had reduced the export tax on CPO products from a progressive tax to 5 percent, promoted the development of oil palm in Eastern Indonesia through the Prime Cooperative Credit for Members (KKPA; *Koperasi Kredit Primer Anggota*) scheme and designated large tracts of land for oil palm development. In 1996, the Suharto government pledged to overtake Malaysia as the world's largest oil palm producer by doubling the area for palm oil production to 5.5 million hectares by the year 2000. Half of this was to be allocated to foreign owned private estate companies. Most of these plantations were to be established on the outer islands of Indonesia, primarily Kalimantan, Sumatra, Sulawesi and Irian Jaya. Correspondingly, Indonesian palm oil production was also expected to increase, reaching 7.2 million tonnes in 2000 and 10.6 million tonnes in 2005 (Arifin and Susila 1998a).

This paper seeks: (1) to explain factors behind the extraordinary growth of the oil palm sub-sector up until late 1997; (2) to explain the causes of the slowdown in area expansion since the beginning of 1998; and (3) to assess the possibilities for renewed growth in the sector. It then goes on to consider the implications of renewed growth on Indonesia's forest cover. CIFOR has commissioned such a study because oil palm development is viewed as a major cause of forest conversion in Indonesia. This development has also been linked to an increase in social conflict resulting from allocation of large tracts of land to oil palm companies. This was brought to the fore by a ground-breaking study on the trends, impacts and directions of tree planting activities, including oil palm, by Lesley Potter and Justin Lee (1998a). Further understanding of factors underlying or impeding the growth of the oil palm sub-sector is therefore considered necessary in order to determine the extent to which such growth will pose a threat to Indonesia's existing forest cover.

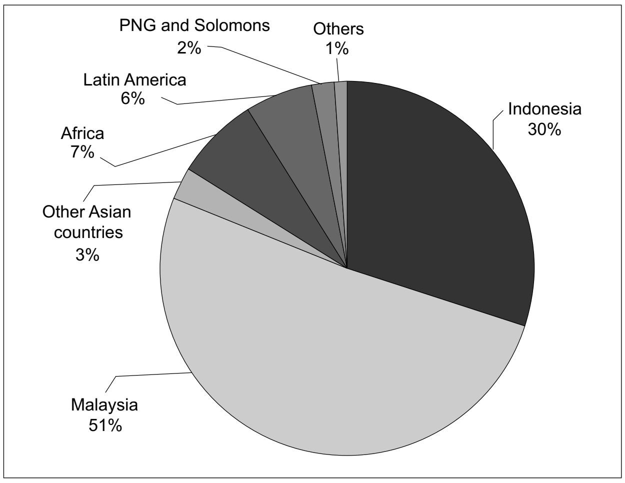
The present study primarily focuses on economic and political change during the period of President Habibie's government. It has been researched through three approaches. First a review of secondary literature, including scholarly articles, industry literature and the print media. Second, the research involved semi-structured interviews with industry representatives, non-governmental organisations and government officials in Indonesia and Malaysia (Appendix 1). Third, field visits were made to North Sumatra, West Kalimantan, Jambi and Riau.

Part 2 of this paper summarises basic information on the growth of oil palm in Indonesia up until the end of 1997. This provides a context through which to understand the pace and character of oil palm growth, and the conditions and policies encouraging growth. Part 3 identifies and analyses the conditions leading to a slowdown in area growth during the recent period of economic crisis and political change. The concluding part briefly analyses the prospects for resumed growth and the implications for tropical forest cover in Indonesia.

2. Rapid Development of the Oil Palm Sub-Sector Until 1997

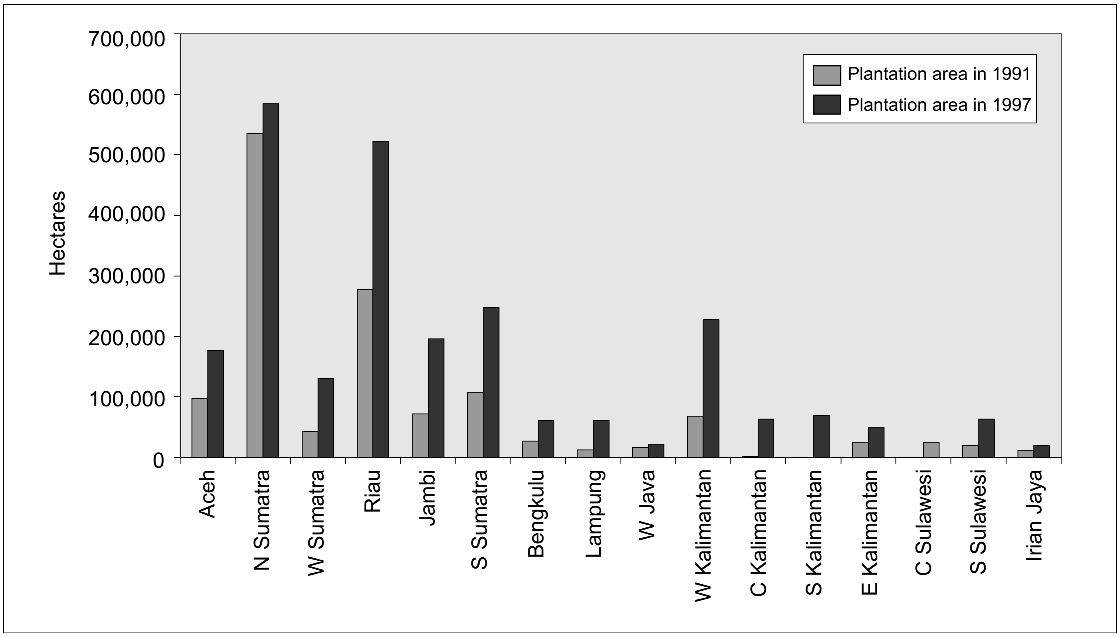
The Indonesian oil palm sub-sector has experienced remarkable growth since the late 1960s. The area of oil palm plantations has increased from 106,000 hectares in 1967 to 2.5 million hectares in 1997, implying an average growth rate of 11.2 percent per annum (See Appendix 2). Most of this oil palm plantation area is concentrated in the six provinces of North Sumatra, Riau, South Sumatra, West Kalimantan, Jambi and Aceh (Figure 1). While North Sumatra could be perceived as a traditional area,[2] the others are areas of new development, having experienced sharp growth in the last decade. For example, Riau and West Kalimantan experienced 12.1 and 25.4 percent average annual area growth rates, respectively, between 1991 and 1997.

Figure 2. Share of CPO world production by producer country, 1997.



Sources: Departemen Kehutanan dan Perkebunan (1998); Oil World (1999a).

Figure 1. Geographical distribution of oil palm plantations, 1991-1997.



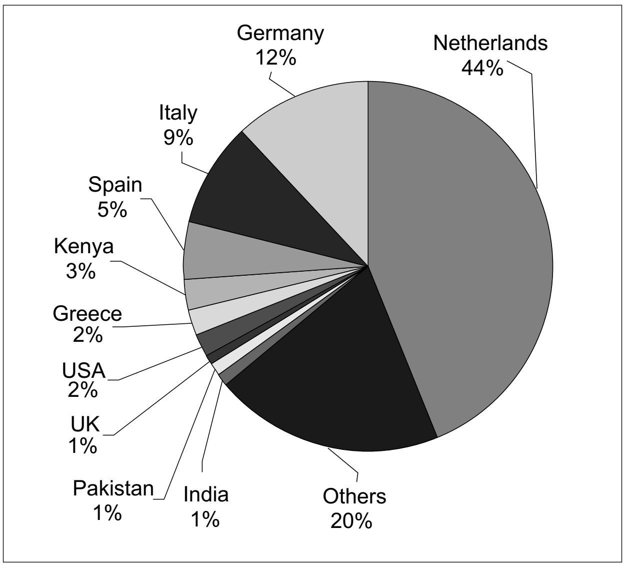
Source: Departemen Kehutanan dan Perkebunan Direktorat Jenderal Perkebunan (1998).

As the plantation area increased in Indonesia, CPO production has correspondingly increased by around 12 percent per annum, from 167,669 tonnes in 1967 to 5.4 million tonnes in 1997 (see Appendix 2). This remarkable growth made Indonesia the world's second largest CPO producer after Malaysia, with a 30 percent contribution to the 1997 global palm oil supply (see Figure 2).

The prolific growth of the oil palm sub-sector has conferred important economic benefits; palm oil has become a valuable source of foreign exchange. In 1997, 2.9 million tonnes of palm oil were exported bringing in earnings valued at US$1.4 billion (Departemen Pertanian Direktorat Jenderal Perkebunan 1998). This was 31 percent of Indonesia's agricultural exports in 1997, and 3.5 percent of Indonesia's total non-oil and gas exports. The main destinations of Indonesian CPO exports were the Netherlands, Germany, Italy, Spain and Kenya (Figure 3).

Moreover, crude palm oil is considered to be a strategic commodity because it is the raw material of the main cooking oil consumed in Indonesia. Palm oil industries are also considered to be important because they are labour-intensive and are able to provide employment opportunities for Indonesia's growing population. In 1997, Indonesia's oil palm industry employed over 2 million people (Arifin and Susila 1998b: 1).

Figure 3. Indonesia's palm oil exports by country of destination, 1997.



Sources: Departemen Kehutanan dan Perkebunan (1998); Oil World.

In light of the economic importance of palm oil to the Indonesian economy, the Indonesian government has facilitated the growth of the sector through various schemes. These schemes have led to the emergence of three categories of oil palm estates: state-owned, smallholder and privately owned. Prior to 1990, state-owned estate companies held the largest area of oil palm plantations in Indonesia. Most of the state-owned estates were originally established by the Dutch colonial government between 1870 and 1930. This was made possible by the 1870 Agrarian Law which declared all land not under permanent cultivation to be 'waste land'. Dutch developers were then offered as much land as needed on 75-year renewable leases at nominal rent (Gordon 1982: 179).

When Indonesia gained independence in 1945, the plantation system partly collapsed as Dutch plantation owners no longer had the backing of the colonial government and labour migration was no longer undertaken with government help (Gordon 1983: 181). Also President Sukarno promoted an isolationist policy during the period of Guided Democracy which was antagonistic towards the entry of foreign capital or foreign loans (Robinson 1986: 73). The pattern of property ownership, however, remained unaltered and individual plantations continued to be established until all Dutch-owned plantations were nationalised and placed under the control of the New State Plantation Company (*Perusahaan Perkebunan Negara Baru*) in 1957 (Gordon 1982; Sarin 1996). During this time, the sector was impeded by an unrealistic exchange rate regime (notwithstanding widespread smuggling), by the loss of Dutch technical expertise after 1957/58, and by the general political uncertainty which discouraged investment in crops not offering immediate yields. More generally, rural markets were unable to function effectively due to the deteriorating state of infrastructure and a plethora of unrealistic government pricing and output regulations.

State-owned estates next experienced growth from 1968 onwards when the Suharto government (with World Bank assistance) boosted the oil palm industry by making direct investment via state run companies called *Perseroan Terbatas Perkebunan* (PTPs) (Larson 1996). During this period, the area planted in oil palm on government estates grew from 84,640 hectares in 1969 to 176,408 hectares in 1979. Correspondingly, production increased by an average of 13 percent per annum from 128,561 tonnes in 1969 to 438,756 tonnes in 1979 (Appendix 2). By early 1997, nine out of fourteen state-owned plantation companies in Indonesia operated oil palm plantations. Most of these plantations were found in Sumatra, primarily North Sumatra. However, the government had begun to expand state-owned plantations into Kalimantan and Irian Jaya in the late 1980s.

Smallholder estates expanded after 1979 through government initiative and with World Bank assistance for the PIR/NES schemes (*Perkebunan Inti Rakyat* or Nucleus Estate and Smallholder Scheme). Under these schemes private developers (known as *Inti* or Nucleus) prepared plots of land for smallholders located nearby. As these plots matured, usually after three to four years, the operations were transferred to the smallholders (known as Plasma), who developed the plantations under the supervision of the Inti developers. Inti developers were then required to purchase the oil palm fresh fruit bunches (FFB, from which the oil is extracted) from the smallholders. Since the PIR/NES scheme was initiated, smallholder plantations have expanded under the PIR-Trans programme (1986-1994) and the KKPA scheme (1995-1998). Non-existent in 1978, planted area held by smallholders grew to 813,175 hectares in 1997 and production jumped to more than 1.29 million tonnes (Appendix 2). In 1997, most smallholder estates were found in Riau, South Sumatra, North Sumatra, Jambi and West Kalimantan (Table 1).

From 1986 onwards, the Indonesian private estate sector experienced rapid growth. By 1996, 1.1 million hectares of oil palm had been planted by the private sector compared to just 144,182 hectares in 1986 (Appendix 2). This was a 23 percent average annual growth rate compared to a 7.6 percent average annual growth rate between 1969 and 1986. The Indonesian government encouraged greater private sector involvement in the oil

Table 1. Area and CPO production by province and category, 1997.

Province	Smallholders		Government Estate		Private Estate		Total	
	Area (ha)	Production (tonnes)	Area (ha)	Production (tonnes)	Area (ha)	Production (tonnes)	Area (ha)	Production (tonnes)
Aceh	39,249	34,799	31,593	70,210	105,704	223,300	176,546	328,309
N Sumatra	99,344	255,614	237,726	1,120,680	247,676	905,119	584,746	2,281,413
W Sumatra	41,599	46,110	3,256	15,509	85,283	156,660	130,138	218,279
Riau	165,861	388,663	56,460	252,126	300,113	545,160	522,434	1,185,949
Jambi	112,749	148,044	8,326	29,028	74,385	78,430	195,460	255,502
S Sumatra	113,680	109,055	27,209	100,680	106,220	143,847	247,109	353,582
Bengkulu	17,380	17,648	4,345	5,100	38,672	56,160	60,397	78,908
Lampung	21,537	4,456	12,996	44,116	26,556	17,300	61,089	65,872
W Java	6,296	13,758	11,071	12,160	4,135	7,450	21,502	33,368
W Kalimantan	125,420	142,651	28,179	99,589	74,113	53,237	227,712	295,477
C Kalimantan	10,641	8,291	0	0	52,595	24,355	63,236	32,646
S Kalimantan	350	0	0	0	68,891	37,198	69,241	37,198
E Kalimantan	22,816	44,241	9,360	15,340	17,043	12,296	49,219	71,877
C Sulawesi	6,047	12,900	2,000	0	16,569	6,839	24,616	19,739
S Sulawesi	19,206	30,427	7,964	20,644	36,214	20,015	63,384	71,086
Irian Jaya	11,000	36,172	8,250	15,070	0	0	19,250	51,242
Total	813,175	1,292,829	448,735	1,800,252	1,254,169	2,287,366	2,516,079	5,380,447

Source: Departemen Pertanian Direktorat Jenderal Perkebunan (1998).

palm sector between 1986 and 1996 by granting access to credit at concessionary rates for estate development, new crop planting and crushing facilities. Newly established companies could then draw on a loan from an 'executing bank' at a rate of 11 percent during land preparation and establishment of the trees and 14 percent after the trees yielded. In turn, the 'executing bank' was eligible to borrow from the Bank of Indonesia at a concessionary rate of 4 percent. The interest subsidies were intended to help investors overcome risks and uncertainties associated with establishing estates involving smallholders (Larson 1996).

In 1997, the Indonesian private estate sector was dominated by ten conglomerates[3] namely the Salim Group, the Sinar Mas Group, the Texmaco Group, the Raja Garuda Mas Group, the Astra International Group, the Hashim Group, the Surya Dumai Group, the Napan Group, the Duta Palma Group and the Bakrie Group. In 1997, these ten conglomerates owned land banks[4] totalling approximately 2.9 million hectares. This was approximately 400,000 hectares more than the total planted area of oil palm plantations in Indonesia. However, only around 723,206 ha of the total land bank acquired by these companies had been planted by the end of 1997 (Table 2). This is still significant as it means

Table 2. Land holdings owned by 10 largest Indonesian oil palm conglomerates, 1997.

Group	Holding Company	Total land bank Area (ha)	Total area planted (ha)
Salim Group	PT Salim Plantations	1,155,745	95,310
Sinar Mas Group	PT Golden Agri Resources	320,463	113,562
Texmaco Group		168,000	35,500
Raja Garuda Mas	PT Asian Agri	259,075	96,330
Astra Group	PT Astra Agro Lestari Tbk	192,375	125,461
Hashim Group		244,235	105,282
Surya Dumai Group		154,133	23,975
Napan Group	PT PP London Sumatra Indonesia Tbk	245,629	78,944
Duta Palma Group		65,800	25,450
Bakrie Group	PT Bakrie Sumatra Plantations	49,283	23,392
Total		2,854,738	723,206

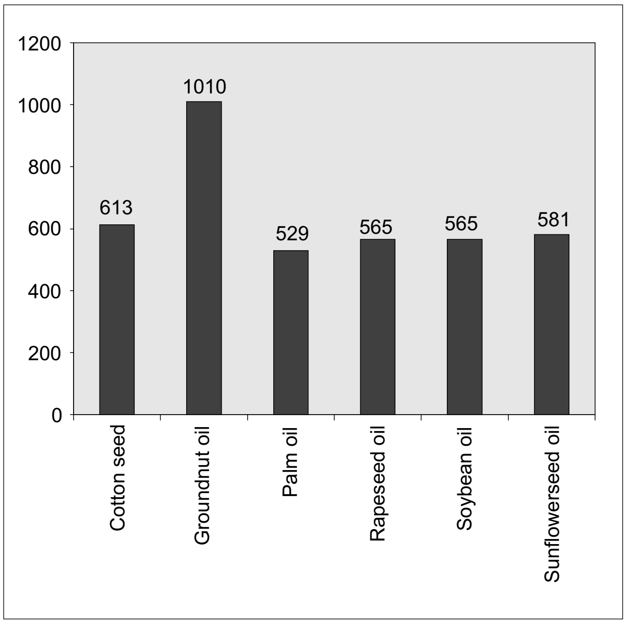
Source: Badan Planologi (1999b).

that around 64 percent of the total planted area owned by private companies was owned by just ten conglomerates.

Prospects for the oil palm sub-sector before the crisis

Prior to the crisis, prospects for the Indonesian oil palm sub-sector looked extremely promising and all three producer groups, particularly the private sector, were expected to rapidly expand for several reasons. First, the CPO production process in Indonesia was highly efficient due to the relatively high yield obtained from trees[5] and the potential to harvest trees throughout the year. These factors, combined with low labour costs, favourable climate and soil conditions particularly in Sumatra, and the perception of an abundance of undeveloped land in Indonesia, particularly Eastern Indonesia, resulted in lower production costs than for other edible oils. Indonesia was, therefore, one of the most cost-efficient countries in the world for the establishment of oil palm plantations (Table 3).

Figure 4. Year-end 1997 global vegetable oil price comparison.



Source: Oil World, 8 January 1998.

Table 3. Comparison of CPO production costs, 1997.

US$ per tonne	Colombia	Côte d'Ivoire	Indonesia	Malaysia	Nigeria	World average
Establishment	71.2	69.5	64.3	60.7	224.5	72.1
Cultivation	91.2	136.1	72.5	75.7	113.7	79.3
Harvesting/transport	78.9	33.8	40.2	45.1	90.7	47.3
Milling costs	106.1	105.3	82.6	98.3	130.7	96.6
Kernel milling costs	6.9	7.7	7.2	7.6	8.2	7.5
Kernel oil and meal credits	(58.2)	(54.0)	(60.0)	(61.9)	(65.6)	(61.5)
Total	296.1	298.4	206.8	225.5	502.2	241.3

Source: PT Purimas Sasmita (1998).

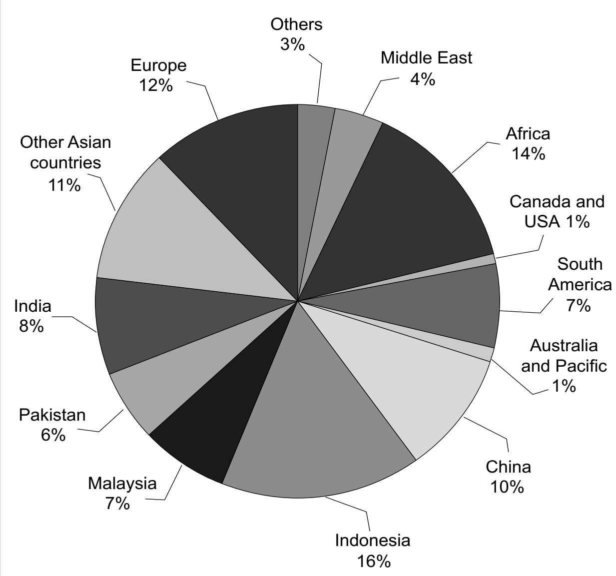
Second, from an investor's perspective, the domestic and international markets for crude palm oil looked promising. Before the economic crisis hit Indonesia, palm oil was projected to replace soybean oil as the world's most consumed oil by the year 2000.[6] Growth in global demand for palm oil was attributed to world population growth and rising spending power. There had been an increasing preference for CPO over other edible oils because it was cheaper than other vegetable oils such as soybean and rapeseed oils prior to 1998 (Figure 4).

On the international market, the compound average growth rate of palm oil consumption was the highest among vegetable oils and all major categories of oils and fats since 1992. Between 1992 and 1997, global demand for palm oil grew around 7 percent per annum, followed by soybean oil at 5 percent while other vegetable oils grew less than 4 percent per annum (Goldman Sachs 1998: 5).

Most of this palm oil was consumed in Asia, primarily by Indonesia, China, India, Malaysia and Pakistan (Figure 5). This is mainly because of the type of food characteristic of the region, which is usually fried.

The processing of CPO by various industries in Indonesia, especially for cooking oil, was also expanding with an average annual growth rate of 13 percent since 1986. In 1986, domestic consumption was just 0.66 million tonnes and it jumped to 2.8 million tonnes in 1997 (Oil World 1999a). This sharp increase is explained by several factors, mainly increasing population and income per capita. In 1990 per capita consumption was 6.9kg and it rose to 10.4 kg in 1995, implying an 8.6 percent annual increase (Arifin and Susila 1998b). In 1997, the Indonesian market consumed around 55 percent of domestic CPO production (or 20 percent of global production), making Indonesia the world's largest market for palm oil.[7]

Figure 5. Global palm oil consumption by country, 1997.



Source: Oil World (1999a).

The third reason that the Indonesian oil palm sub-sector looked promising was that the government had demonstrated its commitment to development of the palm oil sub-sector by offering numerous incentives to both domestic and international investors. Just prior to the crisis, the government had reduced the export tax on CPO products from a progressive tax to 5 percent, promoted the development of oil palm in Eastern Indonesia through the KKPA scheme, and designated large tracts of land for oil palm development. In 1997, the Suharto government pledged to overtake Malaysia as the world's largest oil palm producer by doubling the oil palm area to 5.5 million hectares by the year 2000. Correspondingly, Indonesian palm oil production was also expected to increase, reaching 7.2 million tonnes in 2000 and 10.6 million tonnes in 2005 (Arifin and Susila 1998a).

Most of these new plantations were to be established on the outer islands of Indonesia, primarily Kalimantan, Sumatra, Sulawesi and Irian Jaya. Half of the area allocated for oil palm development was to be offered to foreign-owned private estate companies. As a result, the sector attracted considerable investment from overseas, primarily from Malaysia, Singapore, England, Hong Kong, Belgium, South Korea and the British Virgin Islands. In fact, foreign investor interest had become so strong that the government was forced to close the oil palm sub-sector to foreigners in early 1997 because domestic companies had begun to complain about having to compete for land with foreign investors, those from Malaysia in particular. Malaysian investors had been especially active in the Indonesian oil palm sub-sector because land had recently become scarce in Malaysia and rising wages had increased the cost of CPO production in that country. With much encouragement from the Indonesian government,[8] Malaysian investors were able to acquire land banks totalling at least 1.3 million hectares before the crisis hit Indonesia. Most of these land banks were in West Kalimantan, Central Kalimantan, South Sumatra, Riau and Jambi (For details on Malaysian investors in the Indonesian oil palm sub-sector see Appendix 3).

3. The Hesitant Boom

From the beginning of the economic crisis (mid-1997) through to early 1998, it appeared that the Indonesian oil palm sub-sector would continue to expand. Indeed, it seemed as if changes resulting from the crisis would not only allow continued growth but even encourage faster growth. Most important were windfall profits made possible through depreciation of the rupiah against the dollar and a low export tax of 5 percent. By increasing sales to the export market, companies were able to take advantage of high international CPO prices and low production costs. The government then issued a directive removing barriers to foreign investment in oil palm plantations and sped up the processing of applications, in line with International Monetary Fund (IMF) demands. With the collapse of many industries across the country, the plantation sector was hailed as the 'prima donna' of the Indonesian economy.

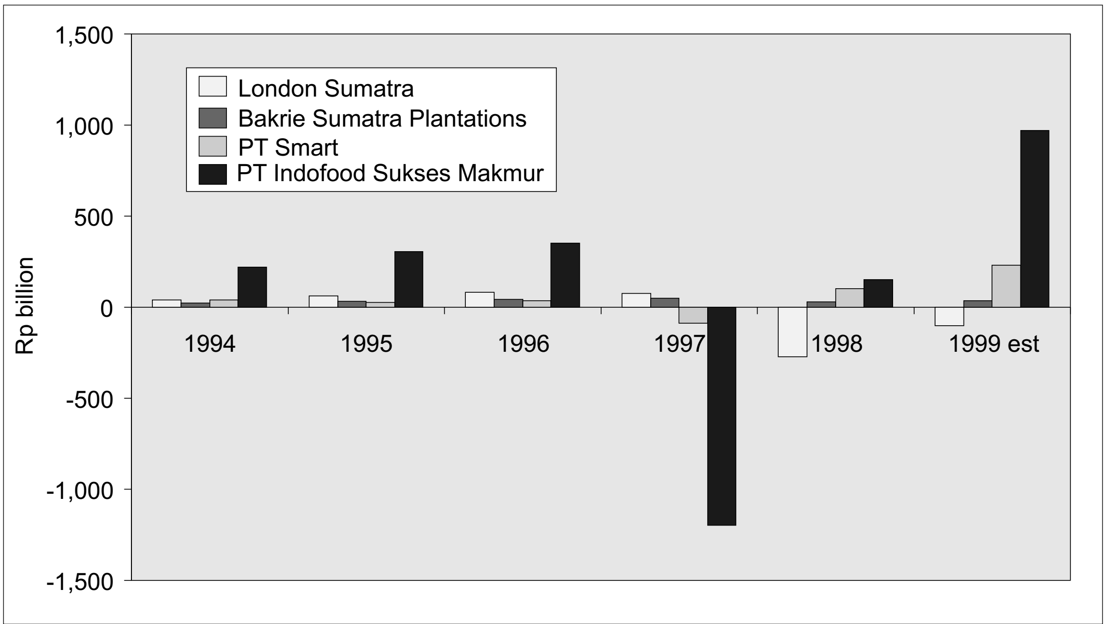
In January 1998, the Far Eastern Economic Review drew attention to the performance of the oil palm sub-sector by producing an article on PT PP London Sumatra Indonesia's (LonSum) record profits which 'were going through the roof'. The author of this article stated that in 1996, LonSum's net profit was Rp 80.6 billion (about US$34 million at 1996 exchange rates) on sales of Rp 208 billion. For the first nine months of 1997, operating profit totalled Rp 83 billion, a 17 percent year-on-year increase. LonSum was able to increase its profit margin by increasing its exports to 60 percent of its output to take advantage of record world prices for CPO on the world market. Moreover, when the rupiah was floated in mid-August 1997, each 5 percent depreciation against the US dollar added 2 percent to LonSum's rupiah earnings (Tripathi 1998).

Because of record earnings during the crisis, companies such as LonSum were able to demonstrate that the agribusiness sector, particularly the oil palm sub-sector, 'remained a bedrock of the region's economy' despite the economic crisis (Tripathi 1998).

> *As Indonesian companies ponder their fate, they might want to consider the country's comparative advantages once again: natural resources, land, labour. Returning to basics, to farms and plantations, may not sound as glamorous as gleaming office towers, plush resort hotels and manicured golf courses. But it would be sound and profitable. Ask London Sumatra.* (Tripathi 1998)

Technically the company is bankrupt. Similarly PT SMART, a subsidiary of the Sinar Mas Group and one of Indonesia's largest oil palm companies, recorded a negative net profit of Rp –87.7 billion in 1997 compared to Rp 37.0 billion in 1996. Bakrie recorded a profit of Rp 28.2 billion in 1998 compared to Rp 50 billion in 1997 and PT Indofood Suksus Makmur recorded a negative net profit of –Rp 1.2 trillion in 1997 compared to Rp 351.3 billion in 1996 (Figure 6).

Figure 6. Net profits of some listed oil palm plantation companies (1994-1999 est).



Source: Annual reports of companies involved, Danareksa and Ing Baring (various issues).

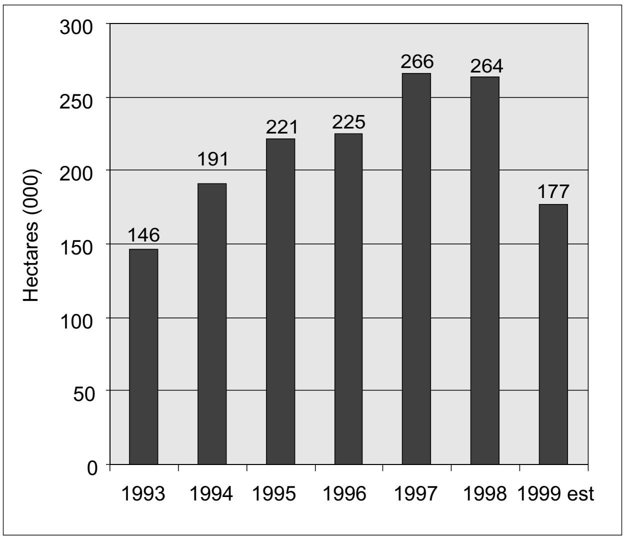
While the article did acknowledge that the rupiah's collapse, while boosting earnings, dampened the company's plans to continue planting and the availability of short and long term US dollar loans, LonSum was thought to be in good shape, unlike the majority of debt-saddled Indonesian companies. In fact, the company was said to be cash rich and able to write off its foreign exchange losses (Tripathi 1998).

However, by 1998 it became clear that several companies, including LonSum, had begun to experience difficulties and it was revealed that they had not performed so well in the midst of the economic crisis. In fact, 1997 marked the first year in which LonSum's growth in net profit[9] actually declined. LonSum achieved a net profit of Rp 76. 5 billion in 1997, a 5 percent decline against Rp 80.6 billion in 1996.[10] In 1998, LonSum recorded a negative net profit of Rp –274.6 billion. However, LonSum failed to recognise certain losses in its 1998 profit and loss statement. If the company had recognised these losses it would have booked a net loss of Rp 1.5 trillion in 1998.[11]

Because of the financial difficulties companies began to face in 1998, oil palm expansion began to slow down. According to the Indonesian government, an average of approximately 200,000 hectares of oil palm was planted per annum between 1990 and 1997. Oil World estimated that during January-December 1998 only 70-80,000 hectares were newly planted.[12] The Indonesian government's planting figures for 1998 are much higher than this but they do show that area expansion started to slow down and the government's most recent estimates were that 177,197 hectares of oil palm were to be planted in 1999 (Figure 7). This constitutes a 33 percent decline in plantation establishment compared to the 266,565 hectares planted in 1997.

The decline in new plantings occurred because many companies, burdened with US dollar liabilities reduced their plantation targets in 1998. For instance, PT Astra Agro Lestari previously planned to plant around 20,000 hectares per year. However, they were only able to plant 3,000 hectares in 1998. Similarly PT Asian Agri Agro,

Figure 7. Growth in area planted to oil palm, 1993-1999 est.



Source: Departemen Kehutanan dan Perkebunan (1998).

a subsidiary of the Raja Garuda Mas Group, planned to plant 30,000 hectares per year but reduced their planting target to 10,000 ha in 1998. PT SMART planned to plant 70,000 hectares per year but reduced their planting target in 1998 to 20,000 hectares per year. And LonSum was forced to cut its planting programme altogether except on already prepared land.[13] As a consequence, the sales of Indonesia's three oil palm seed suppliers—LonSum, Socfindo and *Pusat Penelitian Kelapa Sawit* (Oil Palm Research Centre, PPKS)—declined. Socfindo's seed sales decreased from 17 million in 1997 to 14 million in 1998. Similarly, seed sales recorded by PPKS declined from 51 million in 1997 to 37 million in 1998. PPKS estimated that they would only be able to sell around 20 million seeds in 1999.[14]

Palm oil production also declined in 1998. Despite a large expansion in the average area of mature oil palm in 1998 by over 12 percent,[15] in that year CPO production only reached around 5 million tonnes. This was a 7 percent decline in CPO production from 1997 when it reached almost 5.4 million tonnes (Figure 8). The decline in 1998 signalled the first time that CPO production had stagnated since 1969.

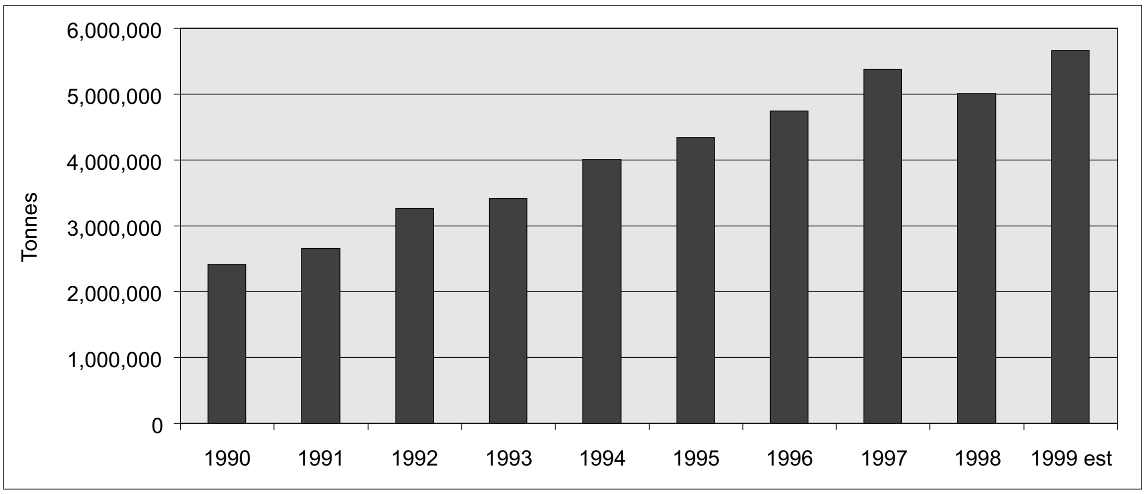
Reasons behind the slowdown in palm oil area expansion

While the decline in CPO production is mainly explained by the recent El Niño Southern Oscillation phenomenon, the slowdown in area expansion is primarily explained by hardship encountered during the period of economic and political change. The following section discusses some of the reasons behind this slowdown. These factors vary greatly in magnitude. Jointly, they have acted as a powerful brake on land acquisition, planting, investment and planned development.

3.1 The Government's export tax policy

As previously mentioned, the collapse in the value of the rupiah from mid-1997 prompted most local CPO producers to increase their sales to the export markets,[16] resulting in a substantial drop in local supply. Exports of Indonesian edible oils then surged 59 percent (including a 75 percent increase in the export of crude palm oil) in 1997 to US$2.23 billion.[17] With local demand rising gradually towards the end of 1997 as Christmas and Lebaran approached, the domestic supply situation became critical and led to a dramatic price jump on the domestic market for CPO from Rp 1,245/Kg before the economic crisis to Rp 3,277/Kg at the beginning of 1998.

Figure 8. CPO production, 1990-1999 est.



Source: Departemen Kehutanan dan Perkebunan (1998).

This trend could also be seen in the price of cooking oil, which rose to Rp 3,767/Kg in January 1998 from Rp 1,439/Kg in May 1997 (Appendix 4).

As CPO and cooking oil prices soared on the domestic market, the Ministry of Industry and Trade (MIT) introduced a temporary export quota[18] for CPO producers, before banning exports altogether in early 1998.[19] The ban was removed in mid-1998, but replaced by a set of higher export tax rates, including a 40 percent rate on CPO.[20] This was later increased to 60 percent in July 1998 in response to a jump in domestic cooking oil prices in May.

The export ban and higher export taxes reduced Indonesia's export earnings by an estimated US$ 1 billion 1998.[21] In 1998, CPO exports declined by 27 percent to 2.2 million tonnes from 3 million tonnes in 1997.[22] Revenue generated from palm oil exports correspondingly declined by 48 percent from US$ 1.4 billion in 1997 to US$ 745 million in 1998 (Figure 9).

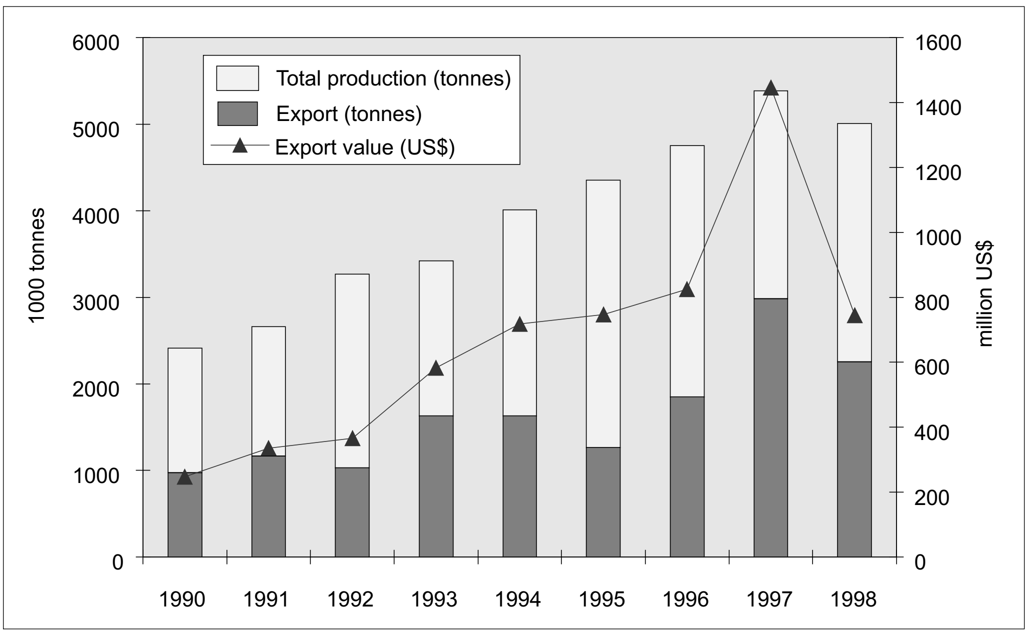
Throughout this period, the industry fervently argued that the government's export tax policy was harming the industry. They were supported by the Minister of Forestry and Estate Crops, Muslimin Nasution, who made a strong statement publicly criticising the Ministry of Trade and Industries' export tax policy in early 1999. He was quoted as saying that the high export tax on CPO and its byproducts had halved the incomes of oil palm farmers, been ineffective in terms of stabilising domestic cooking oil prices and discouraged foreign investors. He then went on to say that:

> '*inconsistency in government regulations, including those on trade in CPO and cooking oil, will kill the palm oil business in the long term because international investors will come to view opening palm oil plantations here as risky*'.[23]

Observers were sceptical of the oil palm industry claims (for example, see Sunderlin 1998), however it is now clear that the export ban and consequent high export taxes did actually prevent companies from continuing to make windfall profits from CPO export sales.[24] Companies such as PT Bakrie Sumatera Plantations, PT Indofood Makmur, LonSum and PT SMART then began to experience difficulties because they had substantial US dollar liabilities (Table 4). Some companies also lost money because of prior commitments to sell their CPO at the pre-crisis exchange rate of Rp 2,500. In fact, Oil World estimated that at least 0.2 million tonnes of oil had already been sold for export in January/March 1998 when the government placed the ban on CPO exports.[25]

Having lost the opportunity to benefit from the fall of the rupiah and increased CPO prices on the world market, these companies began to find it difficult to meet their loan repayments and some have been forced into debt restructuring programmes. PT Bakrie Sumatra Plantations has managed to stay afloat by deciding not to develop the large land banks formerly acquired in West Kalimantan and by deferring its foreign exchange losses as a contra account to its long term liabilities. Most of the concessions formerly acquired in West Kalimantan by Bakrie Sumatra Plantations have been revoked by

Figure 9. Crude palm oil total production, export production and export value, 1990-1998.



Source: BPS (1997); Departemen Kehutanan dan Perkebunan (1998).

Table 4. Loans taken out by some Indonesian listed oil palm plantation companies prior to the crisis.

Company	Total US dollar Loan US$ million	Date Loan taken out	Date Due US$ million	Lending Banks of US dollar loans
PT London Sumatra Indonesia Tbk	Syndicated loan: 183.5	Nov 1994	Due May 1996	**Syndicated loan—**a consortium of banks including: ● Citicorp International Ltd, USA ● Comerzbank AG, Germany ● Rabobank Nederland, Hong Kong Branch
	Syndicated loan: 132 (unhedged)	May 1996	10 was due in 1997 20 was due in 1998 40 was due in 2000 40 was due in 2001 22 was due in 2001	**Syndicated loan—** a consortium of banks including: ● Citicorp International Ltd, USA ● Commerzbank, Singapore, Branch ● Rabobank, Hong Kong Branch ● Hong Kong Bank, Singapore Branch ● Shanghai Banking Corporation, Singapore ● Union Bank of Switzerland ● Sumitomo Bank Ltd, Singapore Branch ● Bank of Taiwan
	Promissory notes: 40 (unhedged)	1997	1998	**Promissory notes** ● Indosuez Bank, France ● Citibank, United States ● LTCB, Japan. ● UBS Bank, Switzerland
	Forward contracts: 103.5	Early 1998	Between 30 December 2000 and 16 March 2005	**Forward contracts** ● Credit Agricole Indosuez ● Union Bank of Switzerland ● Citicorp Financial Services Limited
PT. Bakrie Sumatra Plantations	Syndicated loan: 75 Syndicated loan: 150	1995 1996	1999	● Credit Suisse, Singapore ● Rabobank Nederland—Singapore Branch
PT SMART	Syndicated loan: 150 Secured loan: 21 Secured loan: 40	April 95 July 96 April 97	104 was paid off in April 1998 14 is due in 1999 62.8 is due in 2000	● The Chase Manhattan Bank, New York ● ABN-Amro Bank N.V. Jakarta. ● Fuju Bank Limited, Singapore ● Nederlandse Financierings-Maatschappij ● Voor Ontwikkelingslanden N.V. (FMO) ● PT Bank Société Generale Indonesia ● PT Bank Credit Lyonnais Indonesia ● PT Sanwa Indonesia Bank ● PT Bank Sakura Swadharma ● PT Bank Internasional Indonesia ● PT Bank Danamon Indonesia ● PT Bank Dagang Negara (Persero) ● Jaya Fuju Leasing ● PT Sinar Mas Multifinance
PT. Indofood Sukses Makmur	1,047.7	1996 and early 1997	81.1 was due in 1997 449.1 was due in 1998 417.4 is due in 1999 126.5 is due in 2000	● Citibank N.A Jakarta ● PT Bank Central Asia ● The Hong Kong & Shanghai Banking ● Corporation ● Bank of Tokyo-Mitsubishi, Ltd ● Bank Société Generale Indonesia ● Deutsche Bank ● Credit Suisse First Boston, Singapore ● Citicorp Investment Bank ● The Chase Manhattan Asia Limited ● LTCB Merchant Bank ● Fuji Bank Limited, Singapore ● Bank of Tokyo, Mitsubishi Ltd, Singapore ● Bankers Trust Company, Hong Kong ● Bank of America Asia Limited ● Ocrim SPA, Italy ● Yasuda Trust & Banking Co, ltd ● PT Bank Daiwa Perdania

Source: Annual reports of companies involved; Danareksa; Ing Barings and personal correspondence with Jan Willem van Gelder.

the Ministry of Plantation and Forest Estates because the company has failed to develop them (Dinas Perkebunan 1999a). PT SMART has been more fortunate because its parent company, Sinar Mas, paid off US$ 100 million of the companies' US$ 150 million debt in August 1998.[26] PT Indofood Sukses Makmur was able to hedge a significant portion of its loan and attempted to sell a 60 percent stake to a foreign holding company based in the Netherlands.[27]

Difficulties encountered because of US dollar liabilities, along with the government's reluctance to drop the export tax, affected investor confidence in the industry and share prices in the oil palm sub-sector plummeted as a result. LonSum's shares fell from Rp 6,650 in January 1997 to Rp 1,375 in January 1999. Similarly, PT Bakrie Sumatra Plantation shares fell from Rp 2,275 in January 1997 to Rp 925 in January 1999 (Appendix 5). Both of these companies are now at risk of being delisted from the Jakarta Stock Exchange and LonSum is intending to sell a 50 percent stake in the company to Lazard Asia Investment—a Hong Kong based investment bank—in order to stay afloat.

3.2 Reform policies that target the oil palm sub-sector

After President Suharto stood down in May 1998, the new Habibie government was under a great deal of pressure to reform the forest sector and rid Indonesia of corruption, collusion and nepotism (KKN). Some of these changes have deterred investment. The three changes that most concern the industry are discussed in further detail below.

a) In early June 1998, the Directorate of Inventory and Forest Land Use, within the Ministry of Forestry and Estate Crops, instructed all provincial forestry and plantation offices to revoke the forest use and conversion permits of estate crop companies that were only interested in cutting timber from their concessions and had failed to develop their estates. This instruction was strengthened when, in October 1998, the Ministry of Forestry and Plantation Estates issued a statement saying that they had stopped issuing new licences to open up conversion forest land for plantation estates because many investors had neglected their projects. According to the government, only 1.4 million hectares (16.5 percent) had been realised from the nine million hectares of forests licensed for plantation estates since early 1990. Investors were then warned that the government would revoke their licences if they did not start their projects within the next year.

   The instruction to revoke the plantation licences of companies that had failed to develop their estates has been implemented at the provincial level. In West Kalimantan, 36 oil palm companies have recently had their licences revoked (Dinas Perkebunan 1999b). The government's threat to revoke licences given to companies who had not realised their plantations has greatly concerned the industry, particularly since many companies have had to reduce their planting targets due to increased planting costs and US dollar liabilities. New investors have also been deterred from the sub-sector by this instruction and are waiting until the process has been completed before they go ahead with their investments. The government is currently assessing the performance of a number of companies on the ground and will lift the moratorium on issuing new licences to open up conversion forest land for plantations once they have finished. The concessions of companies that have failed to realise their plantations will be revoked and reallocated to new investors.

b) In March 1999, the Ministry of Forestry and Estate Crops released a regulation[28] that limited plantation concession sizes. In this regulation, tree crop plantation development area was set at 20,000 hectares in any one province, and up to a maximum of 100,000 hectares in the whole country for a given company. This regulation was supposed to prevent a handful of business groups, who had greatly benefited from KKN during the Suharto era, from controlling large tracts of land.

   The proposal to limit the size of forest concessions has raised concerns over the government's commitment to attract investment to the oil palm sub-sector. Although the policy appears to be aimed at preventing the build-up of monopolies, it is expected to hurt the efficiency and productivity of the sector. Moreover, uncertainties still exist over this new regulation, and some financial analysts[29] believe that the lack of clarity will endanger the industry's attractiveness to foreign investors. Analysts also believe that this new regulation could have an adverse impact on major CPO plantations given that a maximum of only 20,000 hectares of planted area would reduce economies of scale.[30]

   The industry has, however, noted a loophole in the regulation. The regulation states that *companies* are not allowed to own more than 20,000 hectares in each province, but there is nothing stopping *conglomerates* from starting up new companies in order to obtain more land. In fact, most Indonesian plantation conglomerates only own an average of 6,000 hectares under the one company as this is the minimum amount of land required to establish a processing mill. But conglomerates can establish as many companies as they like. For instance, 42 plantation companies are owned by PT Astra Agro Lestari and 23 plantation companies are owned by PT SMART. Each of the companies that fall under these conglomerates lease at least 6,000 hectares of land. Under this new regulation these conglomerates can therefore continue to acquire more land by merely establishing a new company. The process could, however, be more costly and bureaucratic than it was before this regulation came into effect and companies are unsure about whether the government will allow them to get away with opening more companies to gain access to land. Oil palm conglomerates are therefore waiting until the regulation becomes more transparent before they begin to establish new companies to acquire larger land banks.

c) In line with the government's promotion of a 'people's economy' *(ekonomi kerakyatan)*[31] the Indonesian government has encouraged investors to cooperate with local farmers and cooperatives in the ownership and operation of oil palm plantations through five new schemes which offer incentives to both cooperatives and private enterprise (see Appendix 6). The programme is extremely complicated and few people, including government representatives at the provincial level, seem to know how it will be implemented. Many plantation companies and new investors have therefore put off their plans to develop further plantations until the government's intentions about this regulation become clear. Having realised that the industry is concerned about this regulation, the Ministry of Forestry and Estate Crops has gone to great lengths to reassure the plantation sector that the new investment schemes would only affect new investors, and would not affect existing plantation firms. But they have urged existing plantation firms to adopt these schemes, 'because they will create a sense of belonging for the local people' and 'encourage the local people to protect plantation areas from looting, theft and damage'.[32]

The above regulations have deterred investors from the oil palm sub-sector and existing companies have either cancelled or frozen previous expansion plans until they know the government's stance on land use.[33] Government representatives are well aware of this and have been desperate to cover up poor investment confidence in the sector. When an article appeared in the Malaysian Star Daily in July 1998 stating that Malaysian oil palm plantation firms in Indonesia had slowed down their operations and were considering pulling out their investments because of new land use laws, the Indonesian government was quick to refute these claims by declaring that the country's plantation sector remained as attractive as ever. The Ministry of Forestry and Estate Crops then claimed it had sent a special team to several regions in the country to look for land where investors could immediately open new plantations. In doing so, the Ministry failed to acknowledge that investors are no longer concerned about the availability of land. They want to have secure land title, a stable economic and political environment, and consistent land use regulations and export tax policies. Since the crisis unfolded, the Indonesian government has not been able to offer these conditions and investors are expected to keep away from the oil palm sub-sector until conditions improve.[34]

3.3 Social unrest and withdrawal and withholding of foreign investment

Since the resignation of President Suharto in May 1998, there has been a marked increase in social unrest in and around oil palm estates. This has resulted in the consequent withdrawal and withholding of foreign investment. Since May 1998, reformists have called upon the national government to examine the domination of conglomerates in the forestry sector and allow local communities to play a larger role in new economic development. Unrest has also increased in and around estates because the 'reform era' has provided an opportunity for communities to reclaim their land from plantation companies. Communities have stepped up protests against further oil palm expansion by burning estate offices, large machinery, processing plants and plantations. Conflicts between estate workers and communities have also increased and many have resulted in injury or death (see Appendix 7).

Looting also increased on estates because estate workers and local communities began to experience increased living costs after the rupiah depreciated against the dollar. Some resorted to looting in order to supplement their incomes. In January 1999, the Ministry of Forestry and Estate Crops estimated that at least 39,800 hectares of oil palm plantations were looted during 1998, causing an estimated material loss of around Rp 196 billion (about US$26 million).[35]

The government made numerous statements saying it would increase security on the estates to protect companies from looting and social unrest. However many companies have said that, since the fall of Suharto, they can no longer call on the armed forces to control the security situation.[36] The armed forces have distanced themselves from handling such matters and many companies believe the armed forces are behind most of the organised looting.[37] Unable to rely on Indonesian authorities for assistance some companies have been forced to close down their operations, reduce their planting targets, or withdraw their investments. New investors have also been deterred from the sector by increasing reports of looting and conflict and some have held back their investments as a consequence.

3.4 Changes to the CPO distribution system

Changes to the distribution system of oil palm products contributed to the slowdown of production and area expansion by sending confusing signals to producers and traders, by increasing wariness of investing in the sector, and by doing little to alleviate upward pressure on domestic prices. After the Ministry of Industry and Trade lifted the ban on CPO exports and replaced it with a 40 percent tax in April 1998,[38] cooking oil prices on the domestic market continued to rise. The price situation worsened when rioting in Medan and other cities in early May 1998 increased panic buying and impeded the distribution of CPO on the domestic market (Johnson 1998). The International Monetary Fund would not allow the government to reinstate the ban on CPO exports to control the domestic price of CPO, so the Ministry of Industry and Trade was forced to reconsider the way cooking oil was being distributed between producers and consumers. It equivocated, however, over the agency best suited for the task and numerous changes were made to the distribution system as a result (Table 5). The changes greatly confused the industry and did little to control the price of cooking oil on the domestic market. Investors were also deterred by the changes and many raised concerns about the way in which European traders would react to such uncertainty.[39]

Table 5. Changes to the CPO distribution system in 1998 and 1999

April 1998	State-owned plantation companies were told to supply their entire CPO production to the three government-owned refineries (which were supported by 12 additional refineries owned by smaller private producers), as opposed to 12 private refineries. These products would be distributed by BULOG and other state-owned distribution companies to assure price stabilisation in the market. Distribution of cooking oil processed by the private sector was independent of this system.
May 25	The new Habibie government signed a Ministerial decree which revoked the exclusive rights given to private companies to process CPO produced by state-owned plantation firms.
May 27	BULOG was stripped of its role to distribute CPO on the domestic market and the Government made the State Joint Marketing Office (Kantor Pemasaran Bersama, KPB) and the state distribution company PT Dharma Niaga responsible for ensuring the supply of cooking oil around the country. Under the new scheme, KPB would buy all cooking oil from The Association of Indonesian Cooking Oil Industries (AIMMI) and sell it directly to market retail cooperatives (Inkoppas) in the city at a subsidised price.
July 1998	The government directed PT Dharma Niaga to sell olein at a subsidised price to the cooperatives, who were supposed to channel the cooking oil directly to retail consumers.
July 1998	The government instructed the KPB to buy 176,850 tonnes of palm olein from private companies at international prices. The palm oil would then be sold domestically at a subsidised price. This move was made as an effort to curb smuggling.
July 1998	State plantation companies were ordered to sell their CPO to private refineries and BULOG was directed to buy it and sell it at a subsidised price. PT Dharma Niaga was then removed from the distribution chain.
7 Sept 1998	The government handed over the task of distributing cooking oil produced by state-owned refineries to the Indonesian Distribution Cooperative (Koperasi Distribusi Indonesia, KDI), with BULOG's assistance until the end of 1998.
June 1999	The government lifted the monopoly granted to the Indonesian Distribution Cooperative (KDI) to distribute cooking oil from state-owned companies on the domestic market.

Sources: Various newspaper articles; Ing Barings, Plantation Sector Review, October 1998.

3.5 Credit access difficulties

Local investment in the oil palm sub-sector also declined because local investors were unable to obtain credit at affordable interest rates. Before the economic crisis it cost around Rp 200 billion to set up a 10,000 hectare oil palm plantation in Indonesia, or about US$ 80 million at pre-crisis exchange rates.[40] Data on 56 private domestic companies collected by the International Contact Business System (ICBS 1997) revealed that on average each company borrowed about 77 percent of the total establishment cost of their plantations. In August 1998, the benchmark interest rate of Bank Indonesia's one-month Bank Indonesia Certificate (*Sertifikat Bank Indonesia*, SBI) promissory notes jumped to as high as 70 percent from about 16 percent in June 1997.[41] The IMF encouraged the Indonesian government to raise interest rates to induce savers to keep their money in banks and to entice money back into the banking sector (Johnson 1998: 43). This was supposed to stabilise the exchange rate and bring an end to the decline of the rupiah

(Pardede 1999: 16-17). When interest rates were around 70 percent, it was costly for Indonesian companies to obtain credit. For the period January through June 1999, domestic investment approvals amounted to less than US$3 billion at the mid-year exchange rate; this compares with amounts of about US$27 billion for the same periods of both 1996 and 1997, and about US$13 billion in both 1994 and 1995 (Pardede 1999: 33). This made it difficult for companies to finance new planting schemes or acquire land. Moreover, the ability of companies to obtain credit was further impeded by the virtual collapse of the Indonesian banking system (Cole and Slade 1998: 62).

3.6 Changes to the state-owned plantation sector

The government made several confusing statements concerning its plans for the state-owned plantation sub-sector. The has greatly concerned the industry and raised apprehensions about the future performance of the state-owned plantation sub-sector. The confusion began when the government announced its intention to float the shares of five state companies on the Jakarta stock exchange in April 1998. The float included the state-owned plantation company PTPN IV—one of the largest plantation companies in Indonesia in terms of mature hectarage, and the largest CPO producer among the state-owned plantation companies. By July 1998, however, the State Minister for the Empowerment of State Enterprises, Tanri Abeng, said the five companies would no longer be sold to the public but to strategic partners in accordance with the IMF agreement. The new agreement planned to accelerate state enterprise reform in order to increase budget revenue and achieve efficiencies (Johnson, Colin, 1998: 33). PTPN IV was to be sold to a foreign business partner with wide market access overseas and the technological ability to develop downstream industry within Indonesia (Potter and Lee 1998b). Investors were invited to purchase either a minority equity interest of approximately 30 percent, or a majority equity interest of 51 percent.[42]

Because PTPN IV owns some of the most suitable land for oil palm in Indonesia, the offer attracted interest from several foreign investors including Tanpa Bay International (Hong Kong), Felda Enterprises Sdn Bhd (Malaysia) and Auric Pacific Group (Singapore). All of these companies expressed an interest in purchasing a 51 percent majority stake in the company.[43] However, in late May 1999, after a number of foreign investors had already submitted their proposals to purchase a majority stake in the company, the government retracted its offer and decided to sell 40 percent of the company's shares to the public on the Jakarta Stock Exchange.[44] Shortly after this decision was made, Tanri Abeng released plans to consolidate the country's 159 state companies into 10 holding companies. All of the state's 14 plantation companies would be merged into one state-owned plantation holding company according to this plan.[45] He argued that the merger would raise the sale price of state firms earmarked for privatisation (EIU 1999: 29).

The decisions to form one state-owned plantation holding company and to cancel the sale of PTPN IV have eroded confidence in the future performance of the state-owned plantation sector. H.S. Dillon, a vocal promoter of the oil palm sub-sector, argued that the process would inhibit investment, make the sub-sector more bureaucratic, and damage the future performance of the state-owned plantation sector.[46] His concerns were echoed by the IMF and World Bank. Both rejected the plan arguing that it would hinder the government's privatisation programme and the performance of the companies involved. Economist, Sri Mulyani, warned that the holding companies would merely serve to obstruct the privatisation programme and provide those in charge with the opportunity to extract rent from the assets under their control (EIU 1999: 29). Their concerns were confirmed when Muslimin Nasution asserted that none of the state-owned plantation or forestry companies could be privatised because they were 'public goods'.[47] The government's reluctance to go ahead with the privatisation of PTPN IV and other state companies is explained by cultural resistance to foreign ownership, and recent improvements in the exchange rate and other economic indicators (Cameron 1999: 26).

3.7 ENSO, drought and fires limit CPO production

From January 1997 until April 1998 many areas in Indonesia, the Philippines and Malaysia and other South East Asian countries were severely hit by drought and forest fires resulting from the El Niño Southern Oscillation phenomenon. During this period, precipitation was 25 percent below normal rainfall levels in Sumatra and Kalimantan. The drought placed oil palm trees under considerable stress and many trees were unable to produce fruit.

Oil palm plantation companies in East Kalimantan and Sumatra took advantage of the dry conditions to burn and clear land, but in doing so they inadvertently affected the production of existing palm oil trees. The haze had the following impacts on palm oil production: (1) oil palm trees suffered from the absence of sunshine because of limited photosynthesis;[48] (2) weevils died on a number of estates and were therefore unable to carry out the process of pollination; (3) and workers were unable to go out into the plantations to collect fruit because the smoke and haze affected their health and vision.[49]

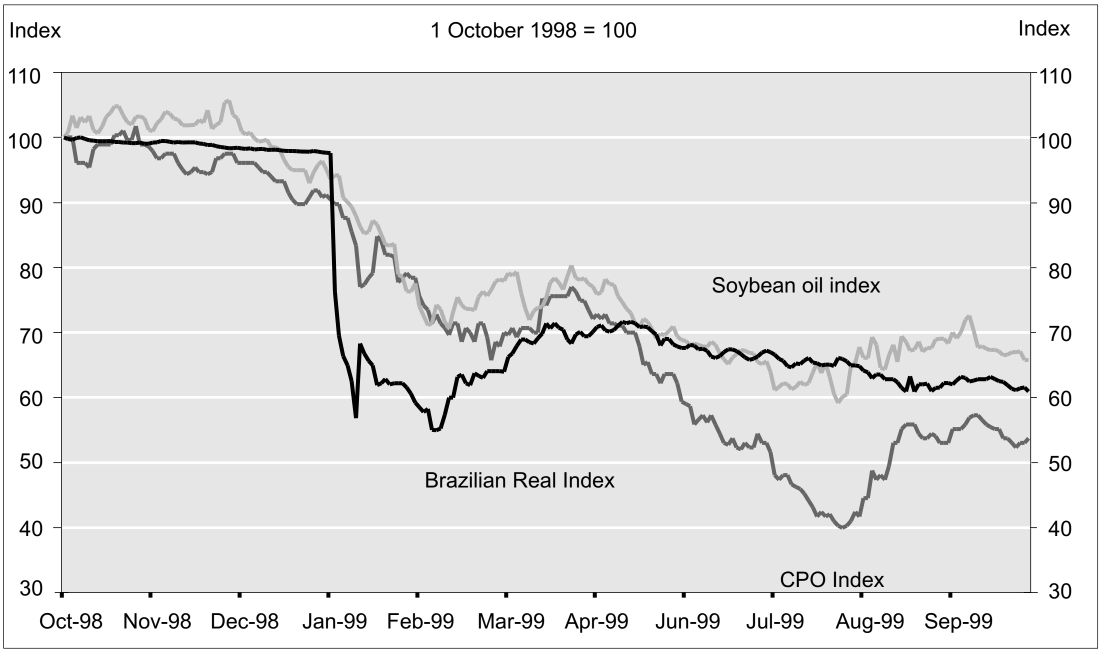
The El Niño-related drought and forest fires are held primarily responsible for the marked decline in crude palm oil production in 1998.[50] As world CPO stocks declined, the price of CPO on the world market increased to a record US$ 700 per tonne in May 1998. This encouraged Indonesian producers to boost their CPO exports. Domestic supply then declined and the domestic price of cooking oil jumped from Rp 1,750 per kilogram in July 1997 to Rp 5,900 per kilogram in July 1998 (Appendix 4). The government was forced to impose the export ban and high export taxes in order to control domestic prices of CPO. As previously mentioned in Section 3.1, this prevented companies from making windfall profits after the rupiah depreciated and affected their ability to expand their estates.

3.8 A precipitous decline in the world price of CPO

Investors were temporarily deterred from the sub-sector by the 50 percent drop in the world price of CPO from over US$700/tonne in late 1998 to US$342 in August 1999 (Appendix 4). This was the lowest it had been since the mid-1980s. The price of CPO on the world market is explained by a number of factors that jointly pushed the world price downwards. The most significant include:

a) *The devaluation of the Brazilian Real.* Brazil is the second largest producer of soybean oil in the world after the US. In mid-January 1999, the devaluation of the Brazilian Real simultaneously pulled down the price of soybean oil. As soybean oil prices decreased, CPO prices correspondingly declined (See Figure 10).

Figure 10. The impact of the devaluation of the Brazilian Real on soybean and palm oil prices.



Source: Danareksa (1999a).

b) *Smuggling.* Estimated to be over 760,000 tonnes (Danareksa 1999b) (15% of total Indonesian CPO production in 1998) pushed international prices down as smuggled CPO was sold below market price on the world market.

c) *Increased preference for soybean oil.* As CPO's price premium against soybean oil was extremely high in 1998, many CPO buyers switched to soybean oil. Although the CPO premium over soybean oil is disappearing, buyers are not expected to switch back to CPO until the price falls below the price of soybean oil.

d) *Increased CPO production.* Between April and May 1999, Malaysian and Indonesian CPO production was unusually high. This was attributed to increased rainfall levels following the 1997 El Niño drought and related forest fires (Danareksa 1999b). As production increased, the industry was forced to lower the price of CPO to compete with soybean oil

> and rape oil. This was done in order to regain market shares lost during the preceding 12 months when world CPO prices were high and palm oil production low.[51] Palm oil producers lost their share of the vegetable oil market because consumers reacted to the extraordinary palm oil price situation by switching part of their oil demand to more attractively priced soybean oil, rape oil or sunflower oil.

In mid-July 1999, Agus Pakpahan, the Director General of Plantations within the Ministry of Forestry and Estate Crops, voiced concern over the CPO price situation and predicted that prices would continue to fall. This was because both Malaysia and Indonesia were expecting good harvests in the coming months. CPO produced from these harvests was expected to flood the oil market and bring prices down even further (Danareksa 1999a: 32). The Malaysian government was also concerned about decline in the world CPO price. In July 1999, the Malaysian Primary Industries Minister, Lim Keng Yaik, was quoted as saying: 'If prices decline further, Malaysian and Indonesian producers will not be able to make any profit because of the high production cost and many may not survive'.[52]

3.9 Increased production costs

Shortly after the rupiah depreciated against the US dollar in mid-1997, several companies and industry representatives said that oil palm companies were burdened with increased production costs. Initially, the sharp depreciation of the Indonesian rupiah lowered Indonesian producers' production costs in terms of US dollars given the relatively high proportion of local currency costs.[53] However, after US dollar earnings decreased because of the export tax and the prices of goods were adjusted to accommodate the rising rupiah, production costs began to show a marked increase. They also increased because imported goods such as machinery, fertilisers and pesticide were paid for in US dollars. The situation worsened when the government instituted official wage increases to accommodate the rising cost of living incurred from the rupiah depreciation. In July 1998, The Ministry of Manpower announced it would increase minimum wages by an average of 15 percent. Wages were then further increased in April 1999 when the Chairman of the Planters Association, Soedjai Kartasasmita, signed an agreement to increase estate workers' wages by another 40 percent.[54] Once this had been taken into account, companies were forced to pay their estate workers around Rp 250,000-Rp 260,000 a month compared to Rp 170,000 a month prior to the crisis.[55] This included a KRISMON (monetary crisis) allowance of around Rp 12,000-25,000 per month and a large subsidy for rice.[56] Given the above, the Chairman of GAPKI, Derom Bangun, estimated that oil palm expansion costs had increased from Rp 10 million per hectare before the economic crisis hit Indonesia to around Rp 20 million per hectare in 1998.[57] It is likely that Bangun exaggerated these figures in order to build a case against the government's export tax policy. Imported goods and wage increases only account for a small proportion of production costs. Production costs did, however, increase marginally and this may have deterred some investors, particularly the smaller investors, from planting oil palm since early 1998.

4. Prospects for Resumed Growth and the Fate of Forests

In the foregoing we have seen that the Indonesian oil palm sub-sector grew at a phenomenal pace in the three decades prior to 1998, and then entered a period in which CPO production declined for the first time since 1969 and area growth began to slow down. The relevant questions to pose at this juncture are: (1) What are the prospects for renewed area growth?; and (2) If growth does resume, what potential impacts will this have on Indonesia's remaining natural forest cover?

Prospects for renewed growth

It is difficult to answer the first question with any degree of certainty because economic and political conditions in Indonesia remain unstable. However, it is possible to surmise that the oil palm sub-sector will continue to expand in the near future, in spite of the conditions described in Part 3 which have inhibited the process of growth. In fact, many companies have already started to boost their planting targets. PT Astra Agro Lestari has increased its planting target from 6,000 ha in 1998 to 10,000 ha in 1999.[58] PT SMART also expects to increase its planting target from 20,000 ha in 1998/99 to 50,000 ha in 2000. These new plantings will come into production in the next four to five years.

CPO production was also expected to increase in 1999 to 5.6 million tonnes, a 13 percent increase over the 5 million tonnes produced in 1998. The increase in CPO production is mainly explained by increased rainfall once the El Niño drought subsided in mid-1998, and the maturation of plantings prior to the crisis. Increased yields per unit area will make investment more attractive in terms of improved returns.

Several factors can stimulate the growth of the oil palm sub-sector, including: (1) lower interest rates; (2) regulatory changes that facilitate further oil palm development; (3) debt restructuring opportunities; (4) land made available through the El Niño drought and related forest fires; (5) predicted growing world demand for crude palm oil; (6) the government's new export tax policy; and (7) cooperation between Indonesian and Malaysian producers to push up the price of oil palm and regain shares in the vegetable oil market.

4.1 Lower interest rates

Investors have recently been attracted to the sector by lower interest rates. In early 1999, the state bank interest rate started to decline and reached 17.15 percent at the end of the first week of July 1999. This is a stark contrast to the extraordinary interest rate of 70% in mid-1998. The decline results from easing inflationary pressure and the strengthening of the rupiah. The interest rate is expected to decline further and return to its pre-crisis level of 15 percent within the next few months.[59] While this is good news for investors wishing to obtain credit to open up oil palm plantations, investors have been told that Indonesia's non-financial sector should not expect local banks to resume significant lending in the immediate future even though the central bank benchmark interest rate has dropped to the pre-crisis level and major banks have been recapitalised. This is because domestic banks need more time to adjust their lending rate structure to reflect the current low interest rate environment. Banks that have received import financing deposits from the government may be able to immediately resume lending, albeit at a limited capacity because the funds were free of interest costs.[60] However, these banks are expected to adopt more stringent lending policies in order to differentiate between good and bad loan applicants (Pardede 1999: 35). In any case, once banks are able to resume lending, the lower interest rate environment is expected to encourage domestic investors to resume borrowing capital to establish oil palm plantations.

4.2 Regulatory changes that facilitate further oil palm development

In addition to regulatory changes aiming to reform the plantation sector, the government has made a number of regulations designed to stimulate the growth of the plantation sector.

a) In January 1998, the government relaxed the foreign investment ban and encouraged investors to develop estates in Eastern Indonesia. By February 1999, the restriction was lifted altogether and foreign developers were invited to invest in the oil palm sub-sector throughout Indonesia. The government was initially forced to make this decision in accordance with the IMF agreement but it began to see the merits of the decision once the economic crisis worsened. Many domestic companies had by then begun to run out of capital to invest and the government began to actively encourage greater foreign investment again to keep the sector moving. The decision to open up the oil palm sub-sector to foreign investment has the potential to place greater pressure on Indonesia's forest cover. However, foreign investment performance has been relatively poor since the crisis began and the consequences of this decision are yet to be realised.

b) On 18 June 1998, the government gave State Forestry Companies (SFCs) permission to use 30 per cent of their concession areas for estate crops, including oil palm. Shortly after this decision was made, Inhutani III announced that it intended to convert 60,000 hectares or 20 per cent of its concessions, totalling 300,000 hectares in West and Central Kalimantan, into oil palm.[61] State Forestry Companies are usually awarded concession rights in permanent production forest rather than conversion forest lands. The decision will therefore contribute to, and legitimise, expansion of estate crops onto permanent production forest land. Estate crops were previously only supposed to be established on conversion forest land, which in theory have less forest cover than permanent production forest land.

c) In June 1998, the government released plans to increase the budget allocations for local administrations in the 1999/2000 fiscal year in a bid to give them greater autonomy in managing the country's forest assets. The Minister of Forestry and Estate Crops, Muslimin Nasution, said that the amount to be managed by provincial offices to develop forests in their areas would be raised by 79.1 per cent to Rp 177.4 billion from Rp 99 billion in the current fiscal year, ending in March 1999.

The decision to give local administrations greater autonomy has been formalised through the passing of two laws (UU Nos 22 and 25). Law No.22, merely states that that the central government will endeavour to delegate more authority to the provincial and *Kabupaten* (regional) governments. Law No 25 outlines tax revenue allocations for natural resource sectors.[62] Under the allocation system devised in the Law, regional governments would receive 80 percent of tax revenues from fisheries, forestry and mining.

Both of these laws, particularly Law No 25, have the potential to accelerate deforestation and plantation development. According to Brown (1998) the natural resource tax revenue allocations will not be sufficient to maintain or replace regional government budgets in most cases. Provincial governments will therefore find it difficult to generate enough revenue from current levels of resource exploitation. This will force them to further exploit their natural resources in order to make up for the shortfall in revenue.

d) In March 1999, the government released a regulation[63] that seeks to simplify the licensing procedure for developing new plantation areas in order to encourage more investment in the oil palm sub-sector. Investors have long been complaining about the arduous and costly application process they have had to undergo to acquire a HGU (right to use land). Investors are required to go through a ten-step process in order to obtain five licenses from the Ministry of Forestry and Estate Crops, including forest relinquishment and wood use permits, before they can clear land and start planting.[64] In late June 1999, the Investment Coordinating Board (BKPM) threw its support behind the plan and asked the President's approval to become the sole agency responsible for issuing business permits in the plantation sector.[65] The agency argued that pooling the licensing process under BKPM would cut the complicated bureaucratic procedures faced by potential investors when applying for business permits. Instead of going to four agencies[66] in order to acquire the necessary licences, potential investors could just go to the one agency—BKPM. The government has not yet made any changes to the HGU application process but the concept has been well received by potential investors.

e) In August 1999, the government released a new regulation which gives plantation companies the right to establish tree crops and timber plantations in non-productive[67] production forest formerly allocated to logging companies.[68] This new development has been termed Mixed Forest Plantings (*Hutan Tanaman Campuran,* HTC). Companies that choose to use this opportunity will be required to adopt one of the government's cooperative schemes mentioned in Part 3. Companies are then able to obtain a maximum land holding of 50,000 hectares in any one province except in Irian Jaya where the amount is 100,000 hectares. Forty percent of the concession can be allocated to estate crops and the rest is to be planted with timber plantations. However, if companies wish to invest in rubber they can develop the entire concession area with rubber trees.

This new regulation has the potential to be particularly damaging to Indonesia's forest cover as it gives plantation companies the right to plant oil palm, or other tree crops, in production forest. The regulation also gives logging companies little incentive to practise sustainable logging techniques or to rehabilitate their concessions. This is because forest land allocated to logging companies can now be directly converted to plantation crops after the HPH licence expires. Logging companies are therefore more likely to clear cut their concessions rather than use selective logging techniques.

f) In October 1999, within the last days of President Habibie's presidency, a new presidential degree was announced which gave provincial administrations full authority to approve foreign and domestic investment. Under the new regulation, foreign investors have three options for obtaining investment approvals: through Indonesian representative offices in their respective countries; through the Investment Coordinating Board (BKPM) in Jakarta; or by applying directly to the Provincial Investment Office (BKPMD). Foreign investments worth up to US$100 million could previously only be issued by BKPM or by the President himself if the investment exceeded US$100 million. BKPMD was previously only allowed to approve domestic investment on projects worth less than Rp 10 billion.[69] Provincial Investment Offices will be eager to accept investment in order to generate much needed revenue and oil palm investors will be eager to take advantage of simplified investment procedures. It is possible0 investments will be pushed through without much consideration for local communities or the environment.

4.3 Debt restructuring opportunities

Since mid-1997, the IMF has encouraged private companies to restructure their debts.[70] The restructuring of corporate debt is considered to be imperative for the recovery of the Indonesian economy and IBRA (The Indonesian Bank Restructuring Agency) has been established to restructure the nation's collapsed banking system. In this capacity, IBRA has the legal authority to require companies to pay back non-performing loans and seize corporate assets of companies that do not pay their debts to banks under IBRA's management. However, the agency has been reluctant to call in non-performing loans because they wish to allow companies to record positive cash flows in order to maintain asset value and contribute to Indonesia's economic recovery.

In doing so, the agency has allowed many companies to continue to operate despite being technically bankrupt.[71]

In addition to corporate debt restructuring being undertaken by IBRA, a number of Indonesia's oil palm companies have entered into private debt restructuring programmes with their creditors to stay afloat. While the fate of these companies is uncertain, debt restructuring has raised their chances of survival and it may enable them to continue with their expansion programmes. The most significant debt restructuring programmes being undertaken in the oil palm sub-sector are those of PT London Sumatra Indonesia Tbk and PT Bakrie Sumatra Plantations.[72]

PT London Sumatra Indonesia appointed HSBC Investment Bank Plc as the coordinator of its debt restructuring programme with external creditors in April 1998. However, HSBC was unable to successfully restructure the company's US$262 million debt before it was announced that a memorandum of understanding between LonSum and Lazard Asia Investment Ltd[73]—a Hong Kong investment bank—had been entered into. In accordance with this memorandum, LonSum agreed to replace three of its board members with Lazard Asia executives.[74] Lazard Asia agreed to take over LonSum's debt restructuring programme and expressed an intent to acquire a 50 percent stake in the company through the issuance of 486.5 million new shares valued at $US100 million.[75] Funds generated through this transaction will be injected directly into the company. The funds will be used to finance the construction of a new mill in South Sumatra. Any remaining funds will be used to develop LonSum's concessions in South Sumatra and East Kalimantan.[76] As oil palm takes at least three years to mature from planting, it is in LonSum's best interest to expedite the planting programme to generate cash flow to repay its rescheduled loans starting in 2003.[77]

Bakrie & Brothers entered into negotiations to restructure the group's US$1.02 billion debt in January 1998.[78] Eight of the group's subsidiaries, including PT Bakrie Sumatra Plantations are involved in the process. In early September 1999, the conglomerate signed a debt restructuring agreement with its 300 creditors.[79] Under this agreement, Bakrie and Brothers will restructure its debt through a debt-to-equity swap. The restructuring involves the establishment of a Master Special Purpose Vehicle (MSPV) company, through which creditors will take over 80 percent of Bakrie & Brothers' shares in five of its subsidiaries—Iridium (2.2%), PT Arutmin Indonesia (20%), PT Bakrie Kasei Corporation (25.5%), PT Bakrie Electronics Company (70%) and PT Bakrie Sumatera Plantations (52.5%) (Bakrie & Brothers 1998). In addition, this new company will own 30 percent of Bakrie & Brothers through the issuance of new shares on a fully diluted basis.[80] Once Bakrie & Brothers has successfully restructured the company's debt, it will be able to continue operations and enhance future performance. While Bakrie Sumatra Plantations is not expected to expand its plantation estate in the very near future, the debt restructuring process will enable it to consider the prospect in the year 2000. While Bakrie's concessions in West Kalimantan (Dinas Perkebunan 1999a) have already been revoked by the Ministry of Forestry and Estate Crops, the company hopes to be able to expand its oil palm estate area in Sumatra.[81]

4.4 Land made available through the El Niño drought and related forest fires

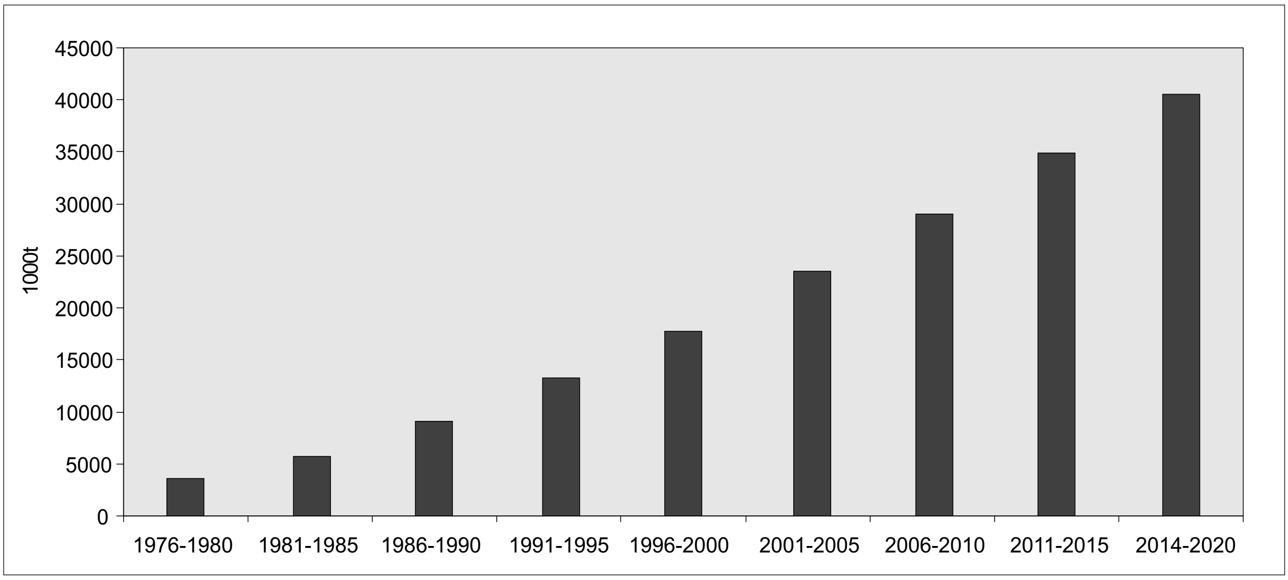
The 1997/98 forest fires have left behind large tracts of degraded land that will be attractive to prospective investors if the regulatory environment improves in Indonesia. When the El Niño drought hit Indonesia, palm oil companies took advantage of dry conditions to burn in order to clear land for oil palm plantations (Photo 1). In October 1998, 176 companies were accused of practising forest burning, 133 of which were oil palm plantation companies (Wakker 1998b). These companies originally intended to use land cleared by fire for further oil palm development. However, many have not yet been able to because of difficulties faced during the recent period of economic and political change. Once the regulatory environment improves and the political and economic situation in Indonesia stabilises, oil palm companies will inevitably return to land cleared by the fires to establish further plantations. The government has also indicated that idle forest land burned during the 1997/98 forest fires will eventually be allocated to plantation companies.[82]

4.5 Growing world demand for crude palm oil

Demand for crude palm oil is expected to grow in coming years and reach 40.5 million tonnes by the year 2020 (Figure 11) (Oil World 1999b: 46). This will be a 128 percent increase compared to total world production in 1998 which reached 17.7 million tonnes. Most of the demand for palm oil will continue to come from within Indonesia itself, China, India, Pakistan and Malaysia. As demand increases, Oil World predicts that palm oil will become the leading oil in about 2012 (Oil World 1999b: 12). Palm oil producers are expected to increase their share in the vegetable oil market because: (1) oil palm

Photo 1. Oil palm plantations being established on burnt forest land (Photo by Anne Casson).

Figure 11. Actual and projected global demand for CPO up until 2020.



Source: Oil World (1999b).

trees produce a much higher yield per hectare than any other seed oil; and (2) palm oil can usually be produced more cheaply than other vegetable oils. World demand for palm oil may, however, be deterred by the political and economic crisis in Indonesia. If political and economic stability does not soon return to the country, investors will be kept away and palm oil producers will find it difficult to increase their share in the vegetable oil market.

4.6 The government's drastic reduction of the export tax

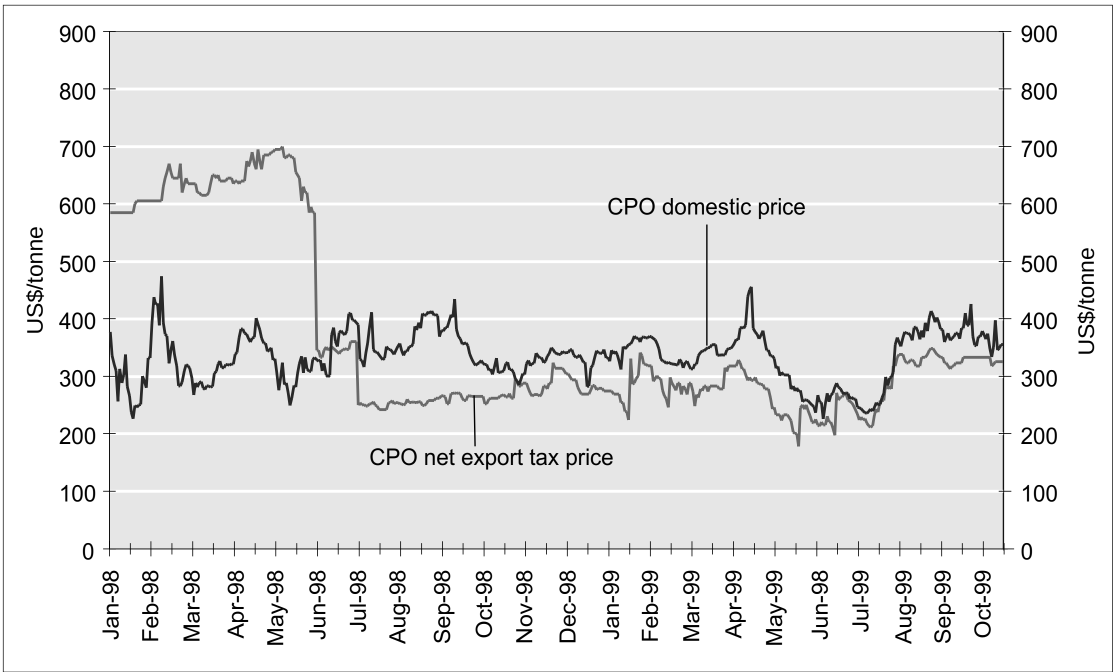
Some investors have recently returned to the oil palm sub-sector because of the government's willingness to reduce the export tax on CPO. In June 1999, the price of CPO and cooking oil on the domestic market stabilised and the export tax was reduced to 30 percent. This was later reduced to 10 percent in July 1999, almost six months before the Indonesian government was obliged to in accordance with the IMF agreement. The market initially reacted positively to the decision. Shortly after the tax was reduced from 60 percent to 30 percent, share prices of listed oil palm companies jumped to near pre-crisis levels. These share prices have since declined in response to the record low price for CPO on the world market, but PT SMART's shares temporarily increased shortly after its holding company—PT Golden Agri Resources was listed on the Singapore Stock Exchange in early 1999 (See Appendix 5). The government is obliged to keep the export tax at a maximum of 10 percent in accordance with the IMF agreement. Many companies have not yet taken advantage of the government's new export tax policy because the domestic price for CPO has exceeded the world price for CPO (see Figure 12). However, a low and consistent export tax policy will attract investors to the sector once the world CPO price increases. Companies will then be able to increase their profit margins and resume planting programmes.

Nasution said the cooperation could be directed toward forming a joint marketing agreement to control supply and demand to make prices stable.[83] Muslimin was, however, careful to add that the joint marketing agreement would not operate as a cartel, since it could not set prices.[84]

The Malaysian Primary Industries Minister, Lim Keng Yaik, has also urged Malaysian palm oil producers to form partnerships with producers in Indonesia as prices decline.[85] Malaysian producers have been encouraged to engage Indonesian producers and exporters in talks to improve the price situation and formulate a 'combined marketing strategy'.[86] Lim urged palm oil producers to cut or at least stabilise the cost of production to ensure profitability and reduce the impact of the steep decline in palm oil prices.

If partnerships between Indonesian and Malaysian producers are formed, we can expect to see an increase in the world price of CPO. In fact, prices have already increased slightly since August 1999 and in September 1999 reached an average of US$386 per tonne. The increase is mainly attributed to increased demand for CPO in India and less than expected soybean oil production. CPO prices were likely to remain low until demand increased during the month of Ramadan at the end of 1999. Once CPO prices increase, we can expect to see further expansion occur in the oil palm sub-sector.

Figure 12. The net export tax price for CPO compared to the Indonesian domestic price for CPO.



Sources: PPS; Ministry of Industry and Trade; Danareksa Sekuritas.

4.7 Plans to boost the world price for CPO

The Indonesian government has begun to cooperate with the Malaysian government to increase the CPO price and regain palm oil's former share of the world vegetable oil market. The cooperation will focus on ways to promote the use of CPO on the world market amid the increasingly popular use of other edible oil such as soybean. Muslimin

A price increase will encourage companies to increase CPO exports. In doing so, they will be able to increase their net profits and cash flow, especially now that the export tax on CPO has been cut to 10 percent. They will then be more able to finance further planting programmes.

The impact of resumed growth on Indonesia's natural forest cover

Having argued that the Indonesian oil palm sub-sector looks poised for further growth, it is important to determine where this growth will occur and what implications it will have on Indonesia's forest cover. Prior to the crisis, most oil palm development occurred within Sumatra. However, from the late 1980s the Suharto government attempted to redirect development into Eastern Indonesia. This has resulted in some oil palm development in Kalimantan and Irian Jaya (See Figure 1). The Habibie government was committed to former President Suharto's policy of directing plantation development to Eastern Indonesia, primarily Kalimantan and Irian Jaya. To facilitate this growth, the Habibie government allowed companies wishing to establish plantations in Irian Jaya to double their land holdings. Companies were able to utilise 40,000 hectares of land in Irian Jaya as opposed to 20,000 hectares in other provinces.

The Habibie government also demonstrated its willingness to support further development in Irian Jaya by giving permission to 28 Indonesian private companies to open large-scale oil palm plantations in that province. If realised, the investment would make the province one of the world's main crude palm oil producers.[87] Five of the 28 investors have already opened plantations in Irian Jaya.[88]

In addition to Irian Jaya, the Habibie government also had large-scale plans for oil palm expansion in Kalimantan. In October 1998, the government announced plans to establish one million hectares of oil palm in East Kalimantan in the Kutai, Pasir and Bulungan regencies.[89] Moreover, according to a report published by the West Kalimantan regional plantation office, *Dinas Perkebunan*, the government has already allocated around 1.5 million hectares of land to oil palm companies for development in the near future (Dinas Perkebunan 1999a).

However, despite the government's grand plans for expansion of the oil palm sub-sector, some oil palm companies are hesitant about establishing plantations in Irian Jaya and Kalimantan for the following reasons:

- *Ethnic unrest.* This is often attributed to the government's PIR-Transmigration programme, which established plantations with transmigrant labour in the outer islands of Indonesia and often resulted in social conflict between local people and transmigrants. These conflicts have increased during the reform era.
- *Poor infrastructure.* Oil palm trees produce fruit on a continuous basis, with seasonal variations. Once ripe, the fresh fruit bunches must be processed quickly to prevent a build up of acid in the oil. Fruit which has not been crushed within 48 hours of harvest has limited value. Roads in Kalimantan and Irian Jaya tend to be poor in comparison to roads in Sumatra and this can greatly affect the ability of companies to process the fruit within 48 hours.

Companies are, however, interested in the timber that can be harvested from oil palm concessions in Irian Jaya and Kalimantan. This explains why the majority of companies setting up in these regions have strong links with logging companies.[90] It also may explain poor performance in realising their plantation targets. For example, by March 1999, the government had issued location permits for the development of 871,211 hectares of oil palm plantations in West Kalimantan. However only 18,278 hectares had actually been planted (Dinas Perkebunan 1999a). Admittedly some companies have been unable to plant oil palm because of the above mentioned difficulties encountered during the economic crisis. But, despite these difficulties, performance has been extremely poor and this fuels the suspicion that these companies are more interested in exploiting the timber from allocated concessions than in establishing oil palm plantations.

Companies actually interested in establishing oil palm are more likely to develop estates in the provinces of Riau, Jambi and South Sumatra in the near future. Oil palm investors prefer to establish estates in these regions because Sumatra possesses the best climate and soil conditions in the country for cultivating oil palm and has the necessary infrastructure already in place for palm oil processing. Companies also prefer to invest in Sumatra because the estate workers (primarily Javanese in origin) are used to plantation life and culture and work harder than the indigenous peoples of Kalimantan, Sulawesi and Irian Jaya.[91]

The desire to open oil palm plantations in Sumatra is confirmed by the recent forest fires that occurred in August 1999. Using satellite imagery, these fires have already been linked to oil palm companies wishing to clear land for further oil palm development.[92] The Director of *Dinas Perkebunan*[93] in Pekanbaru, Riau, also revealed that investors, particularly Malaysian investors, are continuing to expand and develop estates in the province (Photo 2). This is despite problems arising from recent political and economic change. The regional forestry and plantation office is hard-pressed to find land for these new developments and has asked the Malaysians to invest in downstream processing plants rather than oil palm plantations. The Malaysians rejected the offer and stressed their desire to invest in plantations only.[94]

Because most plantation companies still wish to open estates in Sumatra, forest area allocated for conversion to plantations (*Hutan Produksi yang dapat dikonversi*, HPK) has been placed under considerable pressure. According to the Ministry of Forestry and Estate Crops, approximately 4.1 million hectares of forest land has been converted to plantations since 1982.[95] Most of the land converted (3.3 million hectares) was on conversion forest land—forest land actually designated for plantation development. However, plantations were also developed on 166,532 hectares of limited production forest (*Hutan Produksi Terbatas, HPT*),[96] 455,009 hectares of production forest (*Hutan Produksi, HP*),[97] and 129,449 hectares of forest land designated for other uses (*Penyediaan Area Penggunanan Lain, PAPL*) (See Figure 13).[98]

Photo 2. Newly planted oil palm plantation in Riau (Photo by Anne Casson).

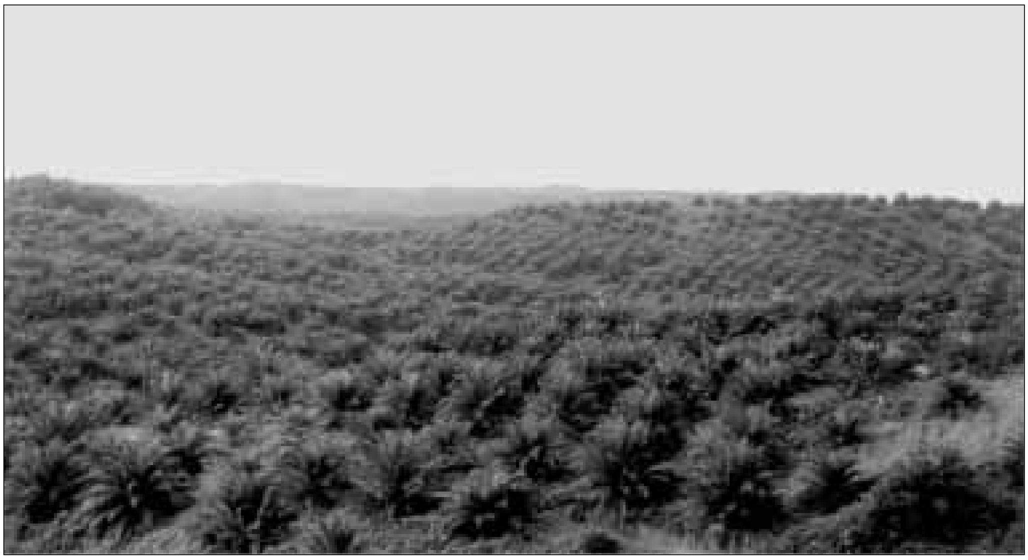
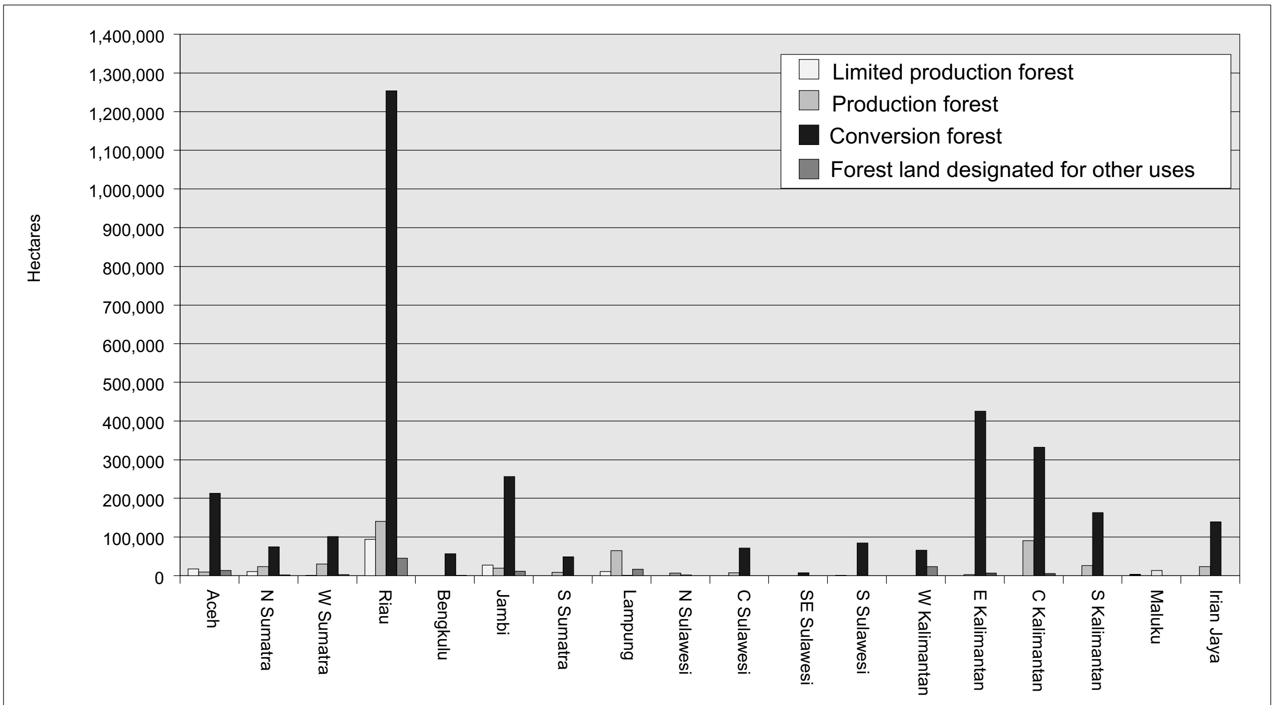


Figure 13. Forest land converted to plantations according to forest type and province since the 1982 TGHK.

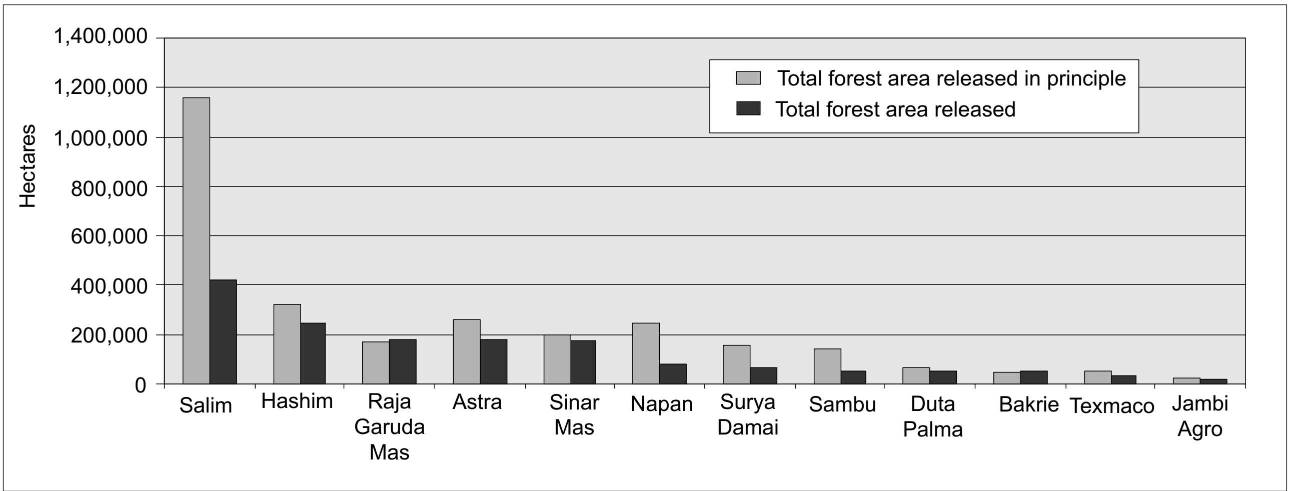


Source: Badan Planologi (1999b).

According to the Division of the Ministry of Forestry and Estate Crops responsible for the release of forest land for conversion, *Badan Planologi*, 12 groups had been given permission to convert approximately 1.5 million hectares of forest land to oil palm plantations between 1982 and 1999. The same 12 groups had also received *izin prinsip*[99] permits to convert approximately 2.8 million hectares of forest land to oil palm plantations between 1982 and 1999. This constitutes almost 70 percent of the total forest land converted to plantations since 1982 (See Figure 14). Almost 1.2 million hectares, or 43 percent, of this forest land had been allocated to just one conglomerate—the Salim Group. The Salim Group were able to obtain these permits through its connection to the Suharto family. The founder of the Salim Group, Liem Sioe Liong, is a close friend of former President Suharto (Robinson 1986).

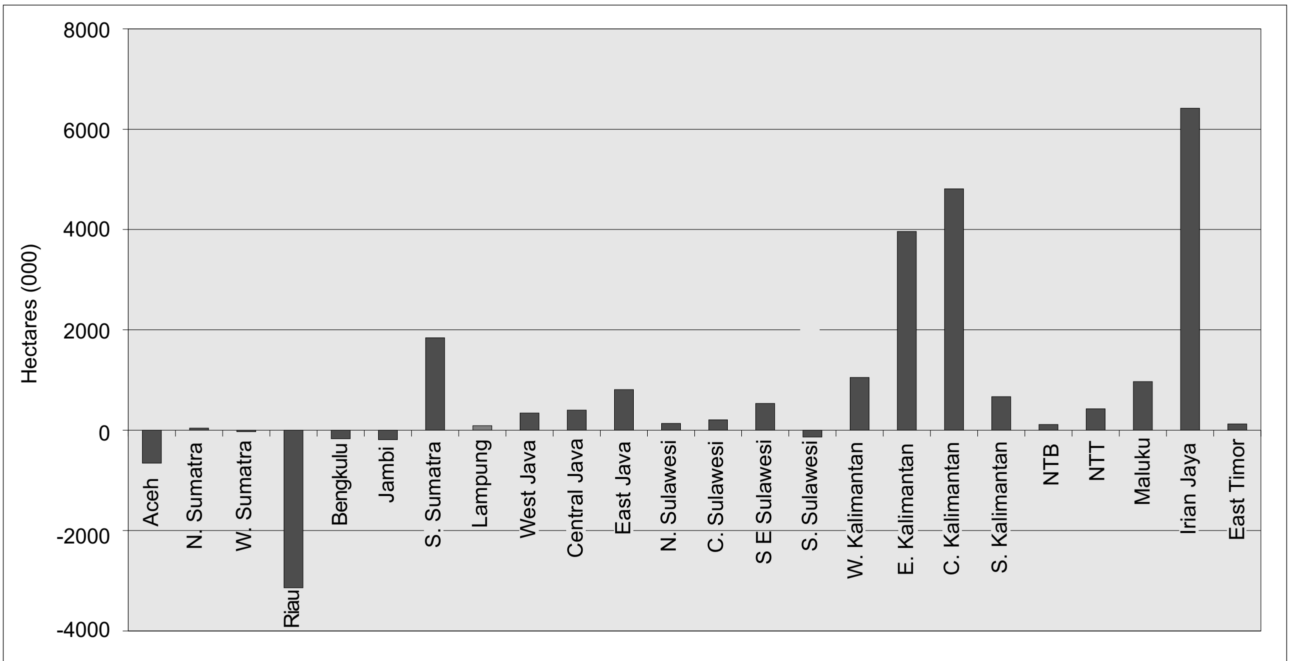
The conversion of forest land to plantations has resulted in significant conversion forest deficits[100] in the provinces of Aceh, Riau, Jambi, Bengkulu, West Sumatra and South Sulawesi. This is confirmed by statistics recently released by the government which show conversion forest deficits in a number of Sumatra's provinces (See Figure 15).

Figure 14. Forest land released to conglomerates between 1982 and 1999.



Source: Badan Planologi, (1999b).

Figure 15. Remaining conversion forest according to the 1982 TGHK as of March 1999.



Source: Badan Planologi (1999b)

The existence of conversion forest deficits in much of Sumatra partly explains why large areas of production forest and limited production forest are now being allocated to plantation companies in Aceh, North Sumatra, Riau, Bengkulu, Jambi, South Sumatra and Lampung. However, it does not explain why production forest is also being allocated to companies in the provinces of Central Kalimantan, East Kalimantan and Irian Jaya. Large areas of conversion forest are still available in these three provinces yet a significant area of production forest has already been allocated to plantation companies in these three provinces (Figure 13). This suggests that oil palm plantations are going directly onto former HPH[101] sites. This has far-reaching implications as it means that logging companies are clear cutting their concessions in order to make way for oil palm plantations (Photo 3).

However, the new RTRWP states that 334,521 hectares of conversion forest remain in Riau despite the significant conversion forest deficit revealed in Figure 15. Clearly there are discrepancies in these figures and they can not be considered accurate. They do, however, reveal the fact that serious problems exist in terms of forest land allocation and the way in which forest land is classified in Indonesia.

Questions surround the remaining outstanding applications for the release of 4.5 million hectares of forest land to plantations. The government has decided that any outstanding applications for the release of forest land, agreed to in principle and received before February 1999, will be processed. Preliminary data indicate that the outstanding applications already agreed to in principle will consume around 843, 058 hectares of forest land.

Photo 3. Timber being cleared to make way for oil palm plantations in Riau (Photo by Anne Casson).

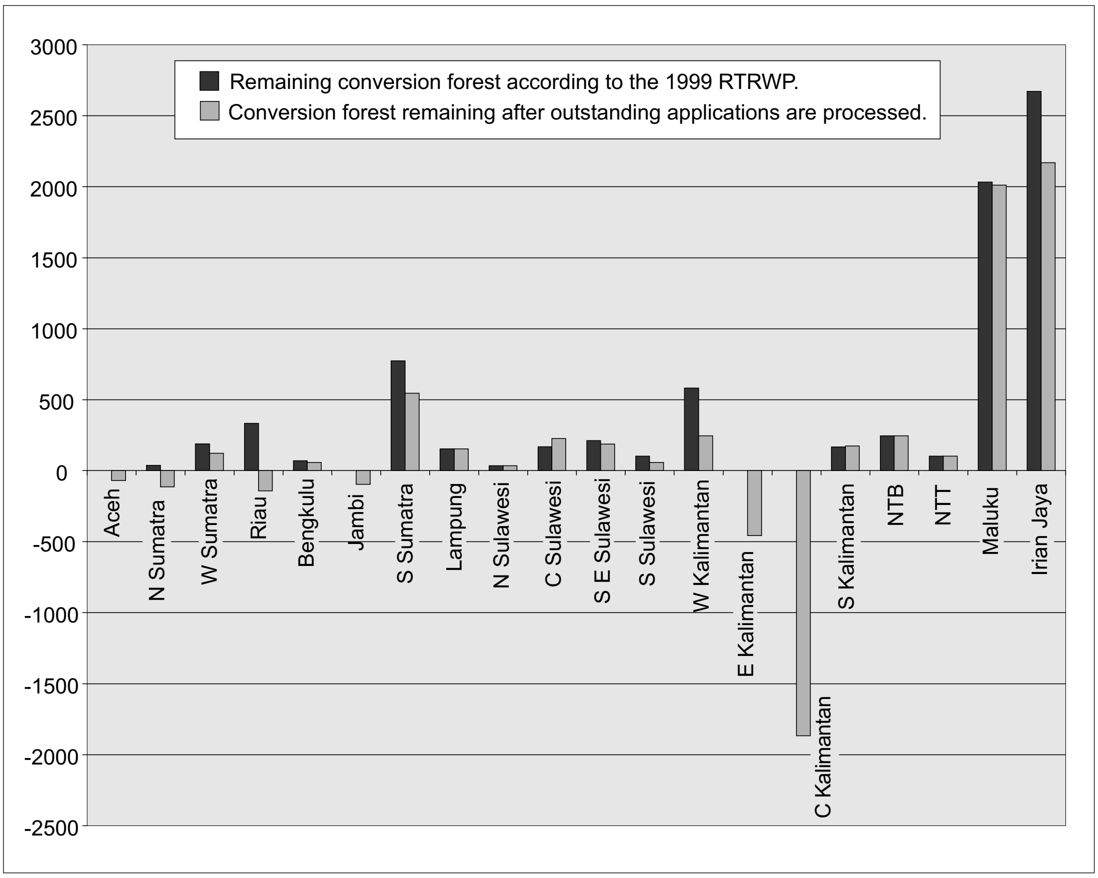
In recent years, the Indonesian government has faced mounting criticism from international donors and non-governmental organisations about its policy to develop oil palm plantations on forest land. The Habibie government did take progressive steps to address the conversion of forest land to plantations by: (1) revoking the licences of companies that have failed to realise their plantations; (2) placing a temporary moratorium on any new applications for forest conversion in October 1998; and (3) reassessing existing forest land in Indonesia through the 1999 Provincial Spatial Plan (RTRWP). The new Provincial Spatial Plan acknowledges that there is little conversion forest remaining in Sumatra's provinces, especially Aceh, Jambi, North Sumatra and Bengkulu.

Around 70 percent of this land will be converted to oil palm.[102] Most of this forest land is in Riau (417,503 ha), Lampung (74,779 ha), Central Kalimantan (100,100 ha) and East Kalimantan (168,848 ha). Once these outstanding applications are processed there will be conversion forest deficits in Aceh, Riau, Jambi, East Kalimantan and Central Kalimantan in accordance with the new 1999 Provincial Spatial Plan (Appendix 8, Table 3). While we can expect to see real oil palm development in Aceh, Riau, South Sumatra and Lampung, many developers will only extract the timber they can fell in Central and East Kalimantan in the near term. This may, however, change once the environment for oil palm development in Indonesia becomes more favourable.

The fate of the remaining 3.6 million hectares already agreed to in principle is uncertain. The moratorium on further forest conversion for plantation development is only temporary and can be lifted at any time. If the government allows the remaining applications to be processed on conversion forest lands in accordance with the 1999 RTRWP, there would still be conversion forest deficits in Aceh, North Sumatra, Riau, Jambi, and significant conversion forest deficits would arise in East Kalimantan and Central Kalimantan (Figure 16). This would inevitably mean that some of the outstanding applications will be located on remaining production forest land and increasingly on limited production forest land, particularly in East and Central Kalimantan. This has now been legitimised by the new Mixed Forest Plantings (*Hutan Tanaman Campuran* or HTC) regulation and the decision to allow Inhutani to convert 30 percent of their logging concessions to oil palm. Mounting anecdotal evidence also suggests that estate developments are moving into national parks and other forest areas of high conservation value (see Potter and Lee 1998b; Sunderlin 1998; EIA/Telapak 1999; Hakim Basyar 1999).

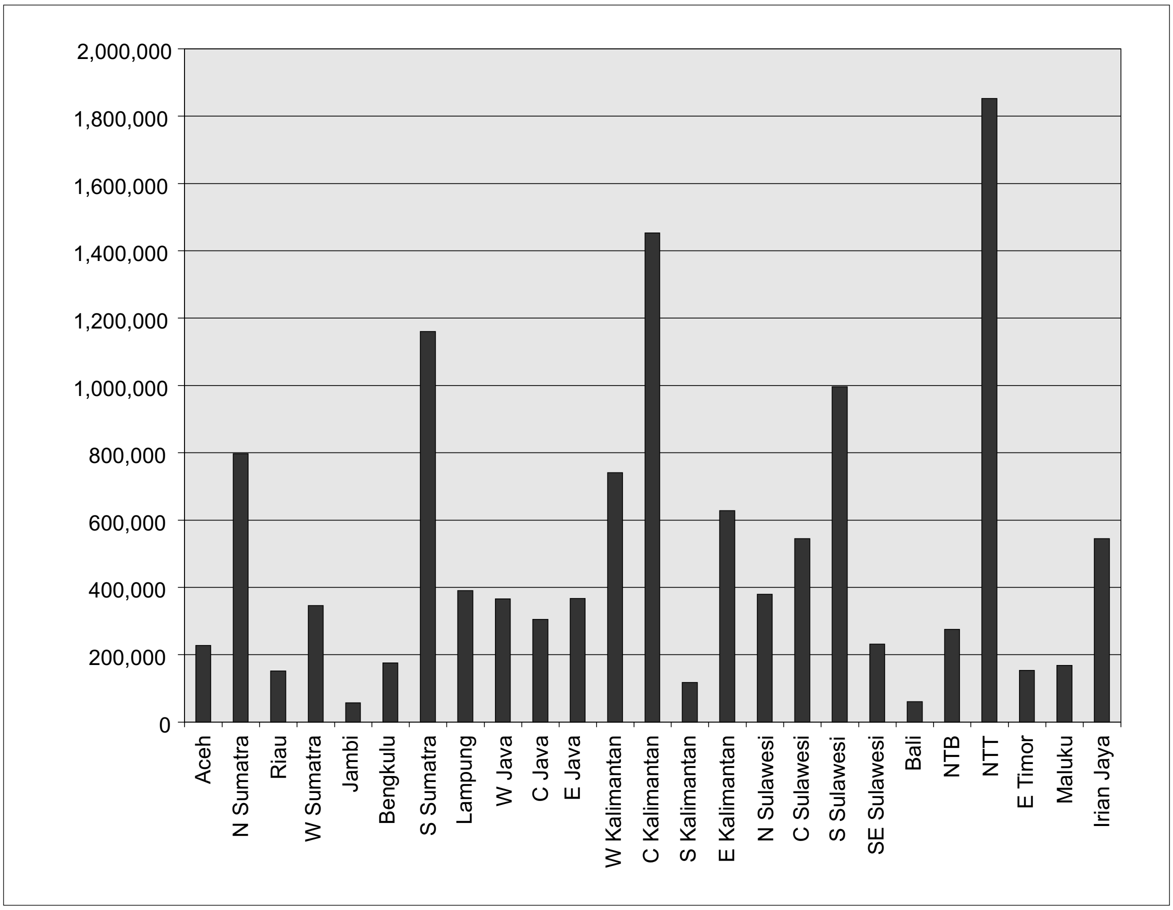
Alternatively, there is potential for outstanding applications and any future applications to be directed onto degraded lands.[103] Large areas of degraded land exist in many of the provinces earmarked for plantation development (Figure 17). This is particularly the case for Central and East Kalimantan. Redirecting plantation development to degraded lands would allow the government to continue to facilitate the development of the oil palm sub-sector while minimising the impact of further development on Indonesia's existing forest cover. However, great care will be needed in order to ensure that further plantation development does not displace local people who have already occupied these lands. Care will also need to be taken to ensure that such a policy does not encourage plantation companies to purposely light fires in order to reclassify forest land as degraded land.

Figure 16. Remaining conversion forest according to the 1999 RTRWP and conversion forest remaining after outstanding applications are processed.



Sources: Badan Planologi (1999b).

Figure 17. Available degraded land in 1998.



Source: Departemen Kehutanan dan Perkebunan (1998).

Conclusion

The Indonesian oil palm sub-sector expanded rapidly after 1967. Much of this growth has occurred in the last decade and posed a significant threat to Indonesia's existing forest cover. It has also displaced local communities and increased social conflict. At the beginning of the economic crisis in 1997, there was every expectation that the oil palm boom would not only continue, but also be propelled by the currency depreciation and lifting of foreign investment constraints. But a slowdown in area expansion and CPO production took hold instead. From early 1998 through to mid-1999, oil palm area expansion slowed significantly and CPO production declined for the first time since 1969.

The decline in growth can be attributed to the following factors: (1) the government's export tax policy; (2) reform policies that targeted the oil palm sub-sector; (3) social unrest and consequent withdrawal and withholding of foreign investment; (4) changes to the CPO distribution system; (5) credit access difficulties; (6) changes to the state-owned plantation sector; (7) the 1997/98 El Niño Southern Oscillation phenomenon and consequent drought and fires; (8) a precipitous decline in the world price of crude palm oil; and (9) higher than expected production costs.

It now looks like the sector is poised for further growth because many companies have increased their planting targets for 1999 and share prices of oil palm companies have stabilised. Several factors have promoted and will continue to stimulate this growth. Among these factors are: (1) lower interest rates; (2) regulatory changes that facilitate further oil palm development; (3) debt restructuring opportunities; (4) the availability of land cleared through the El Niño drought and related forest fires; (5) predicted growing global demand for CPO; (6) the government's drastic reduction of the export tax; and (7) cooperation between Indonesian and Malaysian oil palm producers to push up the price of oil palm and regain their share of the vegetable oil market.

As the oil palm sub-sector is poised for further growth this paper has attempted to determine where growth has already occurred, what impact this growth has had on Indonesia's forest cover and the implications of further growth on Indonesia's forests. Over the last decade, oil palm development has primarily occurred within Sumatra and increasingly in Kalimantan. The Habibie government was committed to the Suharto government's policy of directing plantation development to Eastern Indonesia, primarily Kalimantan and Irian Jaya, but the industry was more interested in developing palm oil plantations in Sumatra. This is because Sumatra has the necessary infrastructure required to process palm oil and an established plantation labour force.

The rapid development of oil palm in much of Sumatra has already resulted in significant conversion forest deficits. This has increased the potential for further expansion to be located within production forest, limited production forest and increasingly into protected forest areas.

While there has been less interest in developing oil palm plantations in Kalimantan and Irian Jaya, companies continue to apply for concessions so that they can gain access to timber readily available in these two outer island provinces. Although some of these companies actually intend to plant oil palm, many are primarily interested in the timber they can extract. This explains why many oil palm developments are occurring on production forest land in Kalimantan and Irian Jaya. This is despite the availability of large areas of degraded land in much of Kalimantan. The allocation of production forest land to oil palm developers has accelerated conversion and environmental degradation.

It is too early to say whether the new government, led by President Abdurrahman Wahid and Vice President Megawati Soekarnoputri, will uphold recent polices implemented by the Habibie government. However, the new government is still in great need of export revenue and will probably facilitate further development of the oil palm sub-sector. This is evidenced by President Wahid's recent attempts to encourage Chinese investors to return to Indonesia.[104] Further oil palm development will undoubtedly have an adverse impact on Indonesia's forest cover unless fundamental changes are made in the way such development is implemented in the near future.

Recommendations

The Indonesian government, IMF and World Bank wish to support the development of the Indonesian palm oil sub-sector, particularly in the current era of economic crisis, for the following reasons: (a) the oil palm sub-sector has the ability to generate much needed foreign exchange; (b) the oil palm sub-sector is labour-intensive and can provide employment opportunities for those that have lost their jobs in the manufacturing and industrial sectors; (c) and crude palm oil is a strategic commodity because it is a raw material for the main cooking oil consumed in Indonesia.

However, despite these benefits the rapid growth of the oil palm sub-sector has displaced local communities, resulted in social conflict, contributed to the devastation caused by the 1997/98 forest fires, and posed a significant threat to Indonesia's existing forest cover.

Given the above, it is necessary to promote policies that will allow the Indonesian people to continue to benefit from further oil palm development, yet minimise adverse impacts of future oil palm developments on local communities and Indonesia's remaining natural forest cover. The following proposed policy aims would address these diverging goals:

- The government should allocate concessions to companies wishing to open up plantations in Irian Jaya and Kalimantan only if they can demonstrate they are able to properly police their operations and ensure that these companies will in fact establish oil palm plantations rather than just exploit the timber.

- The government should not allocate any more production forest or limited production forest to plantation companies in West Kalimantan, South Kalimantan or Irian Jaya. These parts of the country still have large areas of conversion forest remaining.

- The government should carefully consider further oil palm development in the provinces of Riau, Jambi, Aceh, Bengkulu, West Sumatra, North Sumatra, East Kalimantan and Central Kalimantan. The area of forest land considered suitable for oil palm development and conversion is already limited in these provinces. This increases the possibility of further oil palm development encroaching into production forest land, limited production forest land, protected forest land or national parks.

- The government should rethink its current procedure for land applications. Companies now receive a location permit and permit for clearing land before they have to carry out an environmental impact assessment.

- If the government is serious about limiting the size of land holdings private companies can obtain they should make sure that conglomerates can not acquire more land by opening up new companies.

- Local governments should actively consult local communities about further oil palm development before they allocate land to a particular company. When undergoing this process, communities should be given the opportunity to map their land rights and reject applications that fall within customary forest land, fallow, sacred sites and community gardens. This process should help to minimise conflict on oil palm estates and be of benefit to both the community and the company involved.

- Estate companies should be encouraged to be more environmentally sensitive in site selection and preparation. The government may be able to facilitate this by putting in place a system of taxes, fines and other incentives that will lead to environmentally and socially acceptable plantation management. This should be accompanied by procedures for independent monitoring and enforcement.

- Funding agencies, particularly overseas funding agencies, should practise more due diligence when providing loans to oil palm companies. They should ensure that companies do have the intention of planting oil palm rather than just exploiting timber and should also ensure that the companies they fund adequately consult the communities involved before starting operations. Funding agencies should also ensure that companies carry out environmental impact assessments before clearing land and establishing oil palm plantations.

- The government should reconsider its decision to allow plantation development on production forest land via the new *Hutan Tanaman Campuran* (HTC) regulation. The conversion of production forest land to oil palm is not considered to be necessary given that large areas of degraded land exist in Indonesia.

- The provincial land use plan (RTRWP) process clearly needs to be re-examined before any more applications for oil palm development are approved. There are numerous discrepancies in the process and quantitative data already suggest that there is a significant conversion forest deficit which needs to be addressed. Non-governmental organisations and local communities should be encouraged to participate in the process to facilitate the designation of *adat* (traditional) and community lands in future spatial plans.

- There is potential for directing outstanding applications and future applications onto degraded lands rather than forest lands. Redirecting plantation development to degraded lands would allow the government to facilitate the development of the oil palm sub-sector while minimising the impact of further development on Indonesia's existing forest cover. However, great care will be need to be taken to ensure that further plantation development does not displace local people who have already occupied these lands. Care will also need to be taken to ensure that such a policy does not encourage plantation companies to purposefully set fires in order to reclassify forest land as degraded land.

- The government's export tax policy may need to be reconsidered. The recent policy did appear to reduce the domestic price of palm oil products and address the domestic supply shortage. However, the policy also reduced revenues of the government and lowered profits for oil palm companies, and more importantly smallholders. Keeping the export tax policy down will certainly encourage further investment in the sector, especially once the price of oil palm on the world market increases. If further development benefits local people then this could be a good thing. But the trend seems to be that further development has an adverse impact on the environment particularly forest cover. Oil palm development also seems to displace local communities and increase social conflict.

- The decision to remove restrictions on foreign direct investment should be reconsidered. The Ministry of Forestry and Estate Crops initially enforced the ban on further foreign investment because competition for land in a number of Sumatra's provinces was excessively high. Recent statistics released by the government and discussed in the final section of this paper confirm this.

Acknowledgements

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Endnotes

[1] For further information on this see EIA (1998); Potter and Lee (1998a,b); Wakker (1998a,b); Hakim Basyar (1999).

[2] North Sumatra is viewed as a traditional area for oil palm development because the Dutch initially established estates in this region. Early oil palm plantations were established there because the province has some of the most suitable soil conditions for this crop.

[3] Four of these conglomerates had their plantation holding companies listed on the Jakarta and Surabaya Stock Exchanges: PT Astra Agro Lestari TBK (Astra International Group), PT PP London Sumatra Indonesia Tbk (Napan Group) PT SMART (Sinar Mas Group) and PT Bakrie Sumatra Plantations (Bakrie & Brothers). The Salim Group has a listed company called PT Indofood which has some investments in oil palm plantations and commands a 60 percent share of the cooking oil industry.

[4] Area of land agreed to be developed in principle by the governor of a given province.

[5] In 1997, Indonesia's oil palm trees produced an average of 3.37 tonnes per hectare. This is slightly below the Malaysian average of 3.68 million tonnes per hectare but higher than the world average of 3.21 tonnes per hectare (Oil World, July 1997, p251).

[6] Danareksa Sekuritas, Plantation Sector Review 1998: 2.

[7] Ing Barings, Plantation Sector Review, October 1998.

[8] The Indonesian government had pledged to allocate 1.5 million hectares of land to Malaysian developers for oil palm development.

[9] It's important to draw a distinction between net profit and operating profit. Net profit refers to: 'the net excess of all the revenues over all the expenses'. Operating profit refers to: 'revenues generated from sales minus operational expenses'. The operating profit referred to in the Far Eastern Economic Review did not, therefore, take into account expenses incurred from US dollar liabilities.

[10] Ing Barings, Plantation Sector Review, October 1998.

[11] These losses mainly arose from unfulfilled off and on balance sheet contractual obligations: including: US dollar sell forward contracts to Credit Agricole Indosuez, Union Bank of Switzerland, and Citicorp Financial Services Limited; an interest swap extension contract between the company and Citicorp Financial Services Limited; a commodity par-forward contract with Citibank; losses on advances to smallholder projects; and doubtful affiliates receivable. These losses totalled around Rp 1.2 trillion.

[12] Oil World, 29 January 1999, p32.

[13] Personal correspondence with companies involved in April 1999.

[14] Personal correspondence with LonSum and Socfindo, in April 1999 and Pusat Penelitian Kelapa Sawit (1997).

[15] This is a consequence of record new plantings in 1994 and 1995, primarily in Kalimantan.

[16] Agricultural export income was lucrative because the drastic currency depreciation made Indonesian commodities cheap on the international market, and because earnings are in US dollars while costs are in local currency. The export market became even more attractive when world CPO prices rose from US$ 456 in July 1997 to US$ 584 in January 1998.

[17] Ing Barings, Plantation Sector Review, 1998.

[18] The export quota required Indonesia's 17 largest palm oil producers to supply 80 percent of their production to the local market and only 20 percent for export in December 1997.

[19] The ban was enforced in contravention of the IMF agreement which stipulated that the export tax on crude palm oil was to be decreased to 10% by the end of December 1999. The decision to enforce the ban damaged positive sentiment in financial markets and raised concerns about the government's willingness to implement the IMF programme (see Johnson 1998: 34).

[20] Oil World, April 17, 1998.

[21] This is because the price of CPO was unusually high during 1998 at around US$ 600 per tonne.

[22] Note that these are the government's official figures which do not account for CPO smuggled out of the country during 1998. Some 767,000 tonnes of Indonesian CPO was smuggled out of the country in 1998 (Danareksa 1999b).

[23] The Jakarta Post, Conflicting strategies on CPO tax, 26 January 1999, p12.

[24] For further analysis on this subject see: Marks *et al.* (1998).

[25] Oil World, 2 January 1998.

[26] This sort of move is almost unheard of anywhere else in the world as liabilities should be shared equally by the public shareholders (who in this case own 49 percent) and the majority shareholder. The entire debt was therefore absorbed only by the majority shareholder PT Purimas, who represents Sinar Mas. The Sinar Mas Group decided to make this move because PT SMART is the only public company under the Sinar Mas (Purimas Group) and it therefore acts as a buffer, or front, for the other less transparent companies under the Group.

[27] The transfer would have enabled Indofood's parent company, the Salim Group, to control all of the holding

company's shares. The transfer was to be preceded by the signing of an accord between the Salim Group, Nissin Food Products of Japan and First Pacific of Hong Kong. Nissin and First Pacific would each hold a 30 percent stake in the company (Antara, 17 December 1998). However, in late April 1999, First Pacific and Nissin cancelled the share purchase agreement. In the acquisition agreement, there was a condition that the transaction could only be carried out if Indofood's creditors endorsed the arrangements. In a meeting held in January 1999, the majority of independent shareholders did not approve of the transaction so the deal was cancelled. The breakoff in the share transaction agreement is not expected to have much of an impact on the company's operational activities now that a significant portion of the companies' US dollar liabilities have been hedged (Antara, 29 April 1999).

[28] Plantation Use Permit Regulation, 107/Kpts-II/1999.

[29] Ing Barings 1998, PT Danareksa Sekuritas (1999a), and Goldman Sachs, (1998).

[30] Personal correspondence with analysts from Ing Barings and Danareksa in June 1999.

[31] The Minister of Cooperatives and Small Enterprises in the Habibie cabinet, Adi Sasono, staunchly promoted the people's economy concept after June 1998. Policies under the people's economy concept aimed to 'create a broad base of small and medium-scale enterprises [SMEs]…and to foster mutually beneficial linkages between cooperatives, SMEs, large companies and state enterprises'. In accordance with this new concept, 'national land use rights and land ownership in the hands of a few individuals or companies shall be prevented in light of efforts to enhance the strength of cooperatives, SMEs and the people at large' (See Decree No. XVI/MPR/1998 on Political Economy within Economic Democracy). The people's economy concept attracted much controversy and criticism. This was mainly triggered by Adi's promotion of the concept and his constant attacks on ethnic Chinese business people. It was suggested that Adi was using the 'people's economy' concept to appeal to the strong presence of economic nationalism and anti-Chinese sentiment within the body politic (Cameron 1999: 30-2). The programme is also thought to be highly vulnerable to corruption and failure if adequate institutional capacity as well as competent and highly dedicated personnel are not in place to manage and oversee the programme.

[32] Muslimin Nasution, quoted in the Jakarta Post, July 1999.

[33] Oil World January 29, 1999

[34] It is worth noting that the oil palm sector is only one of many sectors to register poor performance in terms of foreign investment. According to the Investment Coordinating Board (BKPM), first half-year foreign investment approvals were just under $2 billion in 1999, having peaked at $21 billion in 1996 (Pardede 1999).

[35] Jakarta Post, 39,800 ha of plantation areas looted last year, 13 January 1999, p8.

[36] Personal correspondence with a number of oil palm companies in April 1999.

[37] Interview with D.R. Hoare, President Director of PT Tolan Tiga. 14 April 1999.

[38] This was later increased to 60 percent.

[39] The Indonesian Observer, European vegetable oil traders wary of Indonesia, 1 July 1998, p13.

[40] Gatra, 7 February 1998.

[41] Jakarta Post, Interest rate may return to 15%, BI says, 28 June 1999, p1.

[42] Information Memorandum on PT Perkebunan Nusantara IV prepared by Danareksa Sekuritas, Jardine Fleming International Inc and PT Bahana Securities for potential investors, November 1998.

[43] Personal correspondence with the PTPN IV's Production Director, Bapak Soehardjo, in early June 1999.

[44] Personal correspondence with the PTPN IV's Production Director, Bapak Soehardjo, in early June 1999.

[45] http://www.bisnis.com/bisnis/owa/frame.fstoryf_othernewsf?cookie=2&cdate=28-May-1999&inw_id=93314.

[46] http://www.bisnis.com/bisnis/owa/frame.fstoryf_othernewsf?cookie=2&cdate=28-May-1999&inw_id=93314.

[47] http://www.bisnis.com/bisnis/owa/frame.fstoryf_othernewsf?cookie=2&cdate=17-May-1999&inw_id=93314.

[48] Oil World 29 January 1999 and confirmed by interviews with various oil palm companies.

[49] Oil World, September 1997, p 344.

[50] Oil World, various issues

[51] Oil World, 21 May 1999

[52] Production costs in Malaysia now amount to 850 ringgit (US$224) per tonne compared with 450 per tonne about a decade ago (Jakarta Post, 16 July 1999).

[53] Ing Barings, Plantation Sector Review 1998.

[54] Personal correspondence with Soedjai Kartasasmita, Chairman of the Indonesian Planters Association in April 1999.

[55] Personal correspondence with the General Manager of Socfindo in April 1999.

[56] Personal correspondence with D.R. Hoare, President Director of PT Tolan Tiga in April 1999.

[57] Personal correspondence with Derom Bangun in April 1999.

[58] PT Astra Agro Lestari has in fact performed very well during the economic crisis as it recorded a net profit of Rp 223.4 billion in 1998 compared to Rp 90.6 billion in 1997. The company is expected to record a net profit of Rp187.3 billion for 1999.

[59] Miranda Goeltom, Deputy Governor of Bank Indonesia, quoted in Jakarta Post, Interest rate may return to 15%, BI says, 29 June 1999, p1.

[60] Jakarta Post, Interest rate may return to 15%, BI says, 28 June 1999, p1.

[61] Jakarta Post, 18 June 1998.

[62] See Chapter 3, Article 6 of Law No 25.

[63] Plantation Use Permit Regulation, 107/Kpts-II/1999.

[64] (1) Submit an application to the Governor stating an intention to development a plantation in a set area to various provincial bodies; (2) conduct a land survey of the area; (3) submit an application to the Ministry of Forestry and Estate Crops stating a desire to develop a plantation in a set area once the development has been approved by provincial bodies; (4) apply to the Ministry of Forestry and Estate Crops for an agreement in principal (*izin prinsip*); (5) conduct a feasibility study on the development; (6) apply to Kepala Badan Pertanahan Nasional Kabupaten for a location permit (*izin lokasi*); (7) apply for acquisition of land (*pembebasan tanah)* and pay out compensation payments; (8) apply to the Ministry of Forestry and Estate Crops for a permit to release any forest land (*izin pemanfaatan kayu*); (9) apply to the Kepala Badan Pertanahan Nasional for the right to use the land (*Hak Guna Usaha*); (10) conduct an environmental impact statement (AMDAL).

[65] The Jakarta Post, BKPM wants monopoly in plantation permits, June 23, 1999, p8.

[66] Investors must obtain a forest relinquishment permit from the Ministry of Forestry and Estate Crops, the right-to-use land title from the National Land Agency (BPN), a location permit from the local administration and investment approval from BKPN.

[67] Containing less than 20 cubic metres of timber per hectare.

[68] Ministry of Forestry and Estate Crops Regulation, Number 614/Kpts-II/1999 about Directives on the Development of Mixed Forest Plantings.

[69] Jakarta Post, Provinces may issue investment permits, 14 October 1999, p1.

[70] According to BPPN, there are approximately U$65 billion in offshore debts and Rp 150 trillion of domestic unserviced debts outstanding. See the IBRA homepage: http://www.bppn.go.id.

[71] For instance, the Salim Group pledged a mixture of cash, property and assets to IBRA to pay for liquidity injections made by the government to their banks amid bank runs during the early weeks of the crisis. While IBRA could directly manage those assets if it chose to do so, it has instead allowed the previous owner to continue running the company with virtually no supervision.

[72] Whilst PT Astra International is undergoing debt restructuring, the company's plantation subsidiary PT Astra Agro Lestari is performing well and is not involved in the process.

[73] Lazard Asia, part of the Lazard Group, attracted market attention last year when it bought a controlling stake in the listed newspaper company Sing Tao Holdings which runs English and Chinese dailies in Hong Kong. In Indonesia it is the second largest shareholder of Jakarta International Hotel and Development—the owner of the five-star Hotel Borobodur.

[74] Andre Pribadi, Wilson Pribadi, Ibrahim Risjad and Henry Liem resigned from the Board in June 1999. They were replaced by four Lazard Asia executives including Chief Executive Patrick Cheung and Deputy Chief Executive Helen Wong. (The Asian Wall Street Journal, 30 June 1999, p4).

[75] Financial Times, Troubled Indonesian Plantation Owner sells stake to Lazard Asia, 30 June 1999, p 14.

[76] Business Times, Lazard Asia buys 50% stake in London Sumatra, 30 June 1999, p8.

[77] Lazard Asia has, however, stressed that they will only purchase a 50 percent stake in the company if they can be assured of the right to use the land (HGU) for up to 25 years in South Sumatra and East Kalimantan. LonSum are therefore expected to make every effort possible to secure the title to this land in the very near future. They have too much at stake if Lazard Asia does not buy a 50 percent stake in the company. The process to obtain a HGU for these areas is therefore expected to be pushed through quickly in order to secure the deal. While social and environmental due diligence is supposed to be adhered to when restructuring corporate debt, LonSum's expansion plans will undoubtedly increase social conflict and adversely affect the livelihoods of local communities. NGOs and local communities have long been protesting against the planting of oil palm on traditional lands in both of LonSum's expansion areas. LonSum is accused of violating the communities' customary land rights, destroying productive agroforestry gardens, desecrating Dayak burial sites to clear forest land for oil palm, and clearing forest land without an IPK (permit to clear timber). Previous activities in LonSum's expansion areas

have already resulted in local NGO staff being fired on by security forces, the arrest of 12 villagers and the disappearance of four others. For further information on this see Christian Goenner's web site on London Sumatra: http://members.xoom.com/Oilpalm/LonSum.html.

[78] Jakarta Post, Bakrie to complete debt restructuring in September, 25 June 1999, p8.

[79] Among Bakrie & Brothers creditors are: Credit Suisse, Rabobank Nederlands, PT Bank Credit Lyonnais, Japan Asia Investment, Chase Manhattan Bank, Bankers Trust Company, NM Rothschild and Sons, Deutsche Bank, National Australia Bank, HSBC, and American Express Bank. These creditors will eventually own a stake in the company in accordance with the debt restructuring program.

[80] Jakarta Post, Bakrie to complete debt restructuring in September, 25 June 1999, p8.

[81] Personal correspondence with the Director of Finance, Bakrie Sumatra Plantations, in April 1999.

[82] Personal correspondence with Director of Planning, Ministry of Forestry and Estate Crops, in October 1999.

[83] Jakarta Post, Malaysia's help sought for CPO price hike, 28 July 1999, p 9.

[84] Op cit.

[85] Jakarta Post, Malaysian-RI palm oil producers' axis sought, 14 July 1999, p 9.

[86] Op cit.

[87] The Jakarta Post, Irian Jaya attracts 29 local oil palm investors, November 9, 1998, p 11.

[88] They are state plantation company PT Perkebunan Nusantara II, PT Varita Majutama, PT Sinar Mas Group, PT Texmaco and PT Korindo. PT Perkebunan Nusantara II is a BUMN company which in 1982 opened oil palm plantations on 10,000 hectares in the Arso sub-district, Jayapura district, and on 4000 hectares in the Prafi sub-district, Manokwari district. The state company has also developed a CPO processing plant and is currently harvesting. Varita Majutama has opened a 2,500 hectare oil palm plantation in Babo sub-district, Manokwari district. Sinar Mas, one of the country's biggest CPO producers, opened oil palm plantations on 4000 hectares in Lereh, Manokwari district. Texmaco and Korindo opened plantations in the Merauke district, each on 3,000 hectares.

[89] The project is estimated to need Rp 7 trillion in investment.

[90] A number of conglomerates are involved in the pulp and paper as well as the plywood sector. Some of these include Raja Garuda Mas, Sinar Mas, Korindo, Benua Indah, Astra International, Barito Pacific and the Salim Group.

[91] This view was expressed by a number of plantation companies interviewed during the period in which this research took place.

[92] See for instance, the Centre for Remote Imaging, Sensing and Processing (CRISP), National University of Singapore Web site at: http://www.crisp.nus.edu.sg/. This has also been confirmed by field visits conducted by USAID.

[93] The provincial office for plantations. Dinas Perkebunan is answerable to the governor of a given province.

[94] Personal correspondence with the Director of Dinas Perkebunan, Pekanbaru, Riau in October 1999.

[95] It's important to note that this figure includes rubber, coffee, tea and other estate crop plantations, as well as oil palm.

[96] According to the government, limited production forest can only be selectively logged. Only logs more than 50 cm diameter can be extracted from limited production forest.

[97] Production forest is designated for timber extraction.

[98] In accordance with the original Forest Land Use Consensus (TGHK), this category doesn't exist. It seems to have been created in order to accommodate conversion and timber extraction.

[99] Permits for the release of forest land which have been agreed to in principle by the Ministry of Forestry and Estate Crops.

[100] This implies that land already converted to plantations and use for transmigration exceeds forest land designated as conversion forest land in the 1982 Forest Land Use Consensus (TGHK).

[101] Areas of land where a company has been granted a licence for the selective harvest of natural forests over a 20-year period. This licence is renewable for another 15 years. Indonesia has 464 HPHs spread across 51.5 million hectares, with 30 percent licensed to just five conglomerates (Brown 1998: p vi)

[102] Personal correspondence with the Director of Planning, Ministry of Forestry and Estate Crops, Ir. Iman Santoso, October 1999.

[103] This alternative is supported by a number of international institutions including the IMF and World Bank.

[104] Jakarta Post, Indonesia strives to woo investors, 7 November 1999, p1.

[105] Ing Barings and Danareksa.

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- Gatra
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- The Malaysian Star Daily
- The Asian Wall Street Journal
- Business Times

Appendix 1.

List of People Consulted

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- Soedjai Kartasasmita, Director
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- PT Asian Agri - Goh Cheng Beng, Managing Director
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- PT London Sumatra Indonesia Tbk - G.C. Eastaugh, Director Estates
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- PT Perkebunan Nusantara II - Ir. Wisetyo Sasongko, MM
- PT Perkebunan Nusantara IV - Ir. H. Soehardjo, Production Director
- PT Socfin Indonesia - Ir. H. Artas Soewar, General Manager
- PT Socfin Indonesia - Ir. H. Asmady, Head of Agricultural Dept.
- PT Socfin Indonesia - A. Rasep, Sales Manager
- PT Bakrie Sumatera Plantations - Dr Ir. Hari Witono, President Director
- PT Bakrie Sumatera Plantations - R. Wina Johanes, Corporate Secretary
- PT Korindo Group - Lee Lou Tack, General Advisor
- PT Korindo Group - Kim Hoon, General Manager
- PT Plantana Razsindo - Sutyo Suryatno, Estate Manager.
- PT Torganda - Pak Sitorus
- PT Sime Indo Agro - Ahmad Fisol Fadzil, General Manager.
- PT Sinar Mas Group - Simon Lim, Executive Director
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Government officials

- Badan Koordinasi Penanaman Modal - Drs. Djadjat Sudradjat R
- Ministry of Industry and Trade - Sujaya M. Widodo, Expert staff to the Minister
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- Department of Forestry and Plantation Estates - Ali Djajono.
- Department of Forestry and Plantation Estates - Dr. Ir. Yetti Rusli.
- Department of Forestry and Plantation Estates - Ir. Iman Santoso, Director of Forest Change.
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- Ing Barings - Luciana Budiman
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- The World Bank - Jacqueline L. Pomeroy

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- PLASMA - Ir. Niel Makinuddin, MA, Executive Director
- WALHI - Joko Waluyu
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People consulted in Malaysia

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- Austral Enterprises Berhad - Md Tahir Mohammad, President Director
- Austral Enterprises Berhad - Haji Abdul Rashid Salleh, General Manager
- Island and Peninsular Berhad - Haji Abdul Rashid Salleh, General Manager (Plantation)
- Golden Hope Plantations Berhad - Sabri Ahmad, Group Director, Overseas Operations/Marketing.
- Malaysian Palm Oil Promotion Council - Tan Sri Dato' Dr Mohd Yusof Hashim, Chief Executive
- Palm Oil Research Institute of Malaysia - Mohd Tayeh Domat, Head Smallholders Development and Technology Transfer Unit
- Palm Oil Research Institute of Malaysia - Mohd. Nasir Bin Hj. Amiruddin, Head Techno-Economic Unit
- Palm Oil Research Institute of Malaysia - Hamirin Kifli, Director Techno-Economic & Technical Advisory Services Division
- Palm Oil Research Institute of Malaysia - Ab. Aziz Md. Yusof, Head, Publication Unit

Appendix 2.

Area and production of oil palm plantations by owner type, 1967-1997

Year	Area (Hectares)				Production (Tonnes)			
	Small Holders	State-Owned	Private	Total	Small Holders	State-Owned	Private	Total
1967	0	65,573	40,235	105,808	0	108,514	59,155	167,669
1968	0	79,209	40,451	119,660	0	122,369	59,075	181,444
1969	0	84,640	34,880	119,520	0	128,561	60,240	188,801
1970	0	86,640	46,658	133,298	0	147,003	69,824	216,827
1971	0	91,153	47,950	139,103	0	170,304	79,653	249,957
1972	0	96,562	55,497	152,059	0	189,261	80,203	269,464
1973	0	98,033	59,747	157,780	0	207,448	82,229	289,677
1974	0	117,513	64,223	181,736	0	243,641	104,035	347,676
1975	0	120,940	67,885	188,825	0	271,171	126,082	397,253
1976	0	141,333	69,772	211,105	0	286,096	144,910	431,006
1977	0	148,775	71,626	220,401	0	336,891	120,716	457,607
1978	0	163,465	86,651	250,116	0	336,224	165,060	501,284
1979	3,125	176,408	81,406	260,939	760	438,756	201,724	641,240
1980	6,175	199,538	88,847	294,560	770	498,858	221,544	721,172
1981	5,695	213,264	100,008	318,967	1.045	533,399	265,616	800,060
1982	8,537	224,440	96,924	329,901	2,955	598,653	285,212	886,820
1983	37,043	261,339	107,264	405,646	3,454	710,431	269,102	982,987
1984	40,552	340,511	130,958	512,021	4,031	814,015	329,144	1,147,190
1985	118,564	335,195	143,603	597,362	43,016	861,173	339,241	1,243,430
1986	129,904	332,694	144,182	606,780	53,504	912,306	384,919	1,350,729
1987	203,047	365,575	160,040	728,662	165,162	988,480	352,413	1,506,055
1988	196,279	373,409	293,171	862,859	156,148	1,102,692	454,495	1,713,335
1989	223,832	366,028	383,668	973,528	183,689	1,184,226	597,039	1,964,954
1990	291,338	372,246	463,093	1,126,677	376,950	1,127,156	788,506	2,412,612
1991	384,594	395,183	531,219	1,310,996	413,319	1,360,363	883,918	2,657,600
1992	439,468	389,761	638,241	1,467,470	699,605	1,489,745	1,076,900	3,266,250
1993	502,332	380,746	730,109	1,613,187	582,021	1,469,156	1,370,272	3,421,449
1994	572,544	386,309	845,296	1,804,149	839,334	1,571,501	1,597,227	4,008,062
1995	658,536	404,732	961,718	2,024,986	1,001,443	1,613,848	1,734,709	4,350,000
1996	738,887	426,804	1,083,823	2,249,514	1,133,547	1,706,852	1,909,601	4,750,000
1997	813,175	448,735	1,254,169	2,516,079	1,292,829	1,800,252	2,287,366	5,380,447
1998	891,995	484,794	1,403,093	2,779,882	1,245,647	1,698,693	2,061,563	5,005,903
1999*	972,745	489,794	1,494,540	2,957,079	1,326,618	1,830,860	2,501,532	5,659,010

Source: Departemen Pertanian Direktorat Jenderal Perkebunan (1998).

Appendix 3.

Malaysian investment in the Indonesian oil palm sector

Malaysian Plantation Company	Indonesian Partner	Location	Land bank (Ha)
Agro Hope Sdn Bhd	PT Agro Indomas	Kabupaten Kotawaringin Timur, Central Kalimantan	17,500
		Kabupaten Kotawaringin Timur, Central Kalimantan	10,000
Aras Suci Sdn Bhd	PT Aras Malindo Makmur	South Bengkulu	7,200
	PT Andalas Etika Plantation	Sawahlunto-Sijunjung, Sumatra	14,000
Austral Enterprises Berhad	PT Mitra Austral Sejahtera (PT MAS I & II)	Tayan, Hulu, Bonti, Kembayan Sanggau, West Kalimantan	26, 250
Cidar Engineering Sdn Bhd	PT Agroindo Cidar Corporation	Kab Labuhan Batu, Sumatra	5,000
Boustead Holdings Berhad	PT Dandimaka	Lubok Ingau, South Sumatra	17,500
	PT Anam Kotor	Pasaman, West Sumatra	12,300
The Brooklands Selangor	PT Kebunnira	Pontianak, West Kalimantan	40,500
Creative Investor Ltd	PT Nusantara Indah Api-Api		14,000
EPA Management Sendirian Berhad	PT Trimitra Sumber Perkasa	Lahat, South Sumatra	12,000
	PT Trimitra Panquiet	Lahat, South Sumatra	15,600
	PT Sumber Mahardika Graha	Kota, Central Kalimantan	15, 000
	PT Graha Cakramulia	Kota, Central Kalimantan	15,000
	PT Harapan Ibrida KalBar	West/Central Kalimantan	12,500
	PT Bintara Tani Nusantara	Sumatra	7,000
	PT Gonjong Limo	Sumatra	3,000
	PT Salanok Padang Mas	Kalimantan	13,000
	PT Bisma Derma Kencana	Kalimantan	10,000
	PT Subur Sawit Lestari	West Kalimantan	10,000
Dara Lam Soon	PT Bakrie Sumatera Plantations I & II	Simpang Hulu, Ketapang, West Kalimantan	41,750
Geroda Jaya Sdn Bhd	PT Sawit Karmia Seriang	Kapuas Hulu, West Kalimantan	16,000
Golden Hope Plantations Berhad	PT Benua Indah	Kalapang, West Kalimantan	76,000
	PT Budidaya Agro Lestari	Marau, Kabupaten Ketapang, West Kalimantan	22,000
	PT Sandika Natapalma	Kabupaten Ketapang, West Kalimantan.	24,000
Hak Corporation Sdn Bhd	PT Plantana Razsindo	Badau, Kapuas Hulu, West Kalimantan	47,000
Inch Kenneth Kajang	PT Ceria Prima	Sanggau	6,200
	PT Ceria Karya Purnama	Sanggau	4,000
KBS Properties Sdn Bhd of Malaysia	PT Bina Pitri Jaya	Sam-Sam Mandau Bengkalis, Riau	8,500

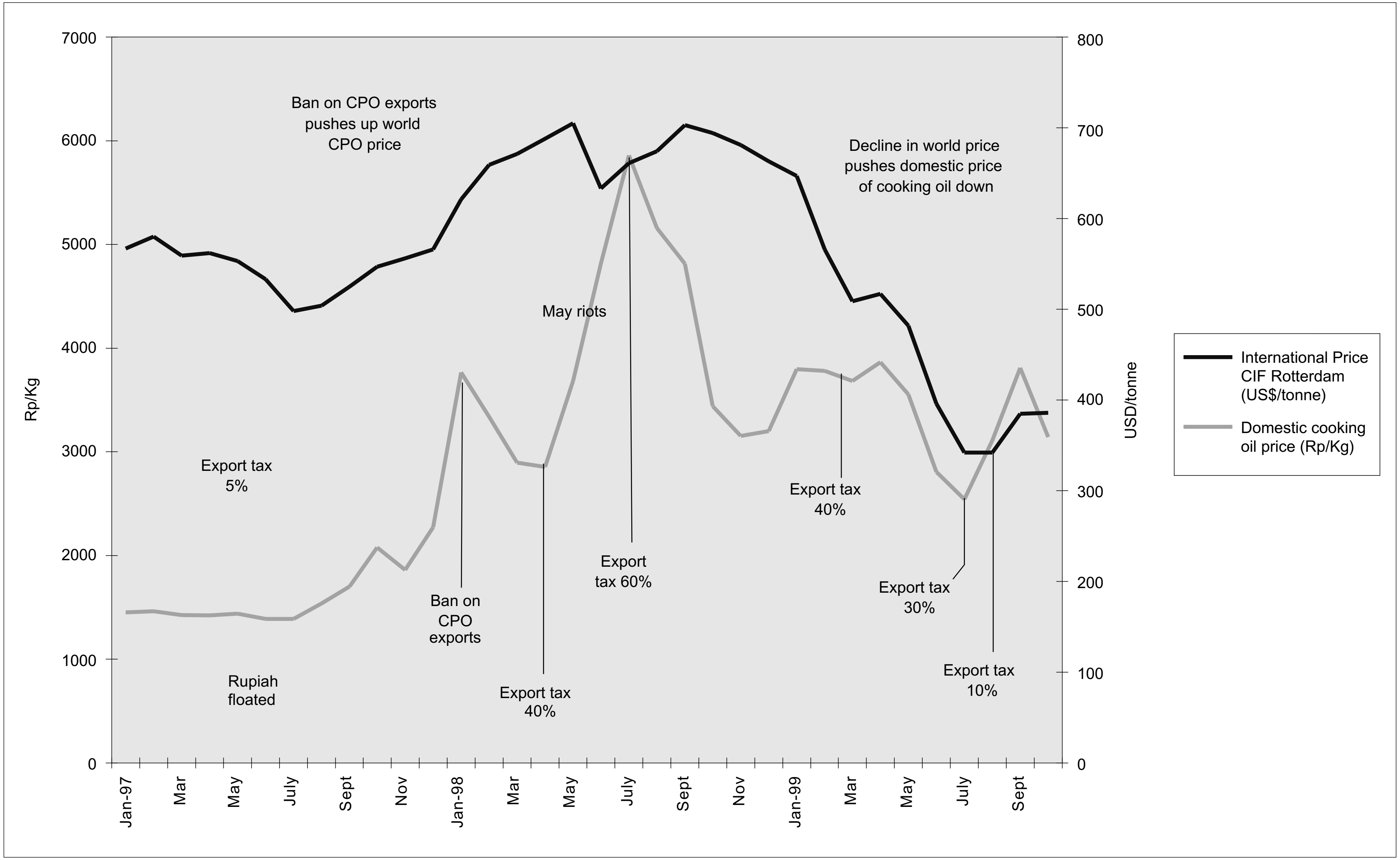
Malaysian Plantation Company	Indonesian Partner	Location	Land bank (Ha)
Klau River Enterprise Sdn Bhd	PT Langgam Inti Hibrino	Kampar, Riau	15,000
KPLB Plantation Sdn Bhd	PT Kebon Ganda Prima	Kampar, Riau	15,000
Kretam Holding	PT Kretam Ira Mondo	Bengkulu	40,000
	PT Terum Citrawara	Sanggau, West Kalimantan	20,000
KUB Agrotech	PT Dirgahayu Palmma	Bengkulu	25,000
Gopeng Bhd	PT Bina Usaha Warga Sejahtera	Jambi, and South Sumatra	35,000
Kuala Lumpur Kepong Bhd	PT Adei Plantation and Industry	Riau	42,000
	PT Steelindo Wahana Perkasa	Belitung	14,000
Kumpulan Guthrie Berhad	PT Guthrie Pecconina Indonesia	Musi Banyuasin, South Sumatra	60,000
Ladang Likir Sdn. Bhd	PT Pinang Witmas Sejati	Banyu Lincir, Kabupaten Musi Banyuasin, South Sumatra	14,000
LKKP Pahang	PT Jambi Tani Tulen	Jambi	25,000
Liminvest Resources Sdn Bhd	PT Sarpindo Graha Sawit Tani	Dumai, Riau	8,500
Minat Warisan Sdn Bhd	PT Anam Koto	Pasaman, West Sumatra	14,000
Nafas Estate Sdn Bhd	PT Ubertico	South Aceh	14,000
Pelaburan Johor Bhd	PT Trimatra Sumber Perkasa	Palembang, Lahat	12,000
Perisind Plantation Bhd	PT Dendymarker Indahlestari	Musi, South Sumatra	40,000
Perlis Plantation Bhd	PT Tidar Sungkai Sawit	Solok, South Sumatra	10,000
Permdalan Perak Bhd	PT Pinang Witmas Sejati	Kalbar, Sanggau, West Kalimantan	15,700
Selasih Permata Sdh Bhd	PT Gunung Maras Lestari	South Sumatra	22,000
Selat Bersatu Sdh Bhd	PT Rebinas Jaya	Belitung, South Sumatra	25,000
Semai Sempurna Sdn Bhd	PT Pusaka Megah Bumi	Pekanbaru	7,000
Sentri Holdings	PT Dutawangsa Keriasi	East Kalimantan	25,000
Tenaga Lestari Sdh (Oriental Holdings)	PT Gunung Sawit Bina Lestari	Bangka Island, South Sumatra	20,000
	PT Bumi Permai Suryalestari	Bangka Island, South Sumatra	8,000
Pahang Enterprise Sdn Bhd	PT Patriot Andalas (Bakrie Plantations)	Belitung Hulu, Sanggau, West Kalimantan	23,000
Sap Holding Bhd	PT Bengkulan Kelapa Sawit	Bengkulu	20,000
Sime Darby Bhd	PT Sime Indo Agro	Sanggau, West Kalimantan	22,000
Suka Chemical Berhad	PT Kalimantan Oleo Industri	Nanga Mahap, Sanggau, West Kalimantan	24,000
	PT Kalimantan Oleo Industri	Simpang Hulu, Ketapang, West Kalimantan	21,500
Tenaga Lestari M Sdn Bhd	PT Bumipermai Suryalestari	Kabupaten Bangka, South Sumatra	8,000

Malaysian Plantation Company	Indonesian Partner	Location	Land bank (Ha)
Tiara Etika Industry	PT Andalas Tuan Sakato	Padang	14,000
Tradewinds Bhd	PT Sadin Tradewinds Indonesia	Kab Bangka, South Sumatra	20,000
	PT Satia Dinamic Corporotama	Kab Bangka, South Sumatra	30,000
Lembaga Tabung Haji Pilgramage Fund Board	PT Tidar Sungkai Sawit	Riau	80,000
		Taloto and Sungai Sungkai, Solok, West Sumatra	10,000
Yayasan Pelaburan Johor	PT Agritasari	Riau	10,700
YPJ Holdings	PT Agritasari Prima	Kampar/Langgar, Riau.	9,000
Total			1,341,200

Sources: Numerous interviews with some of the companies involved, New Strait Times, various annual reports; CIC (1997).

Appendix 4.

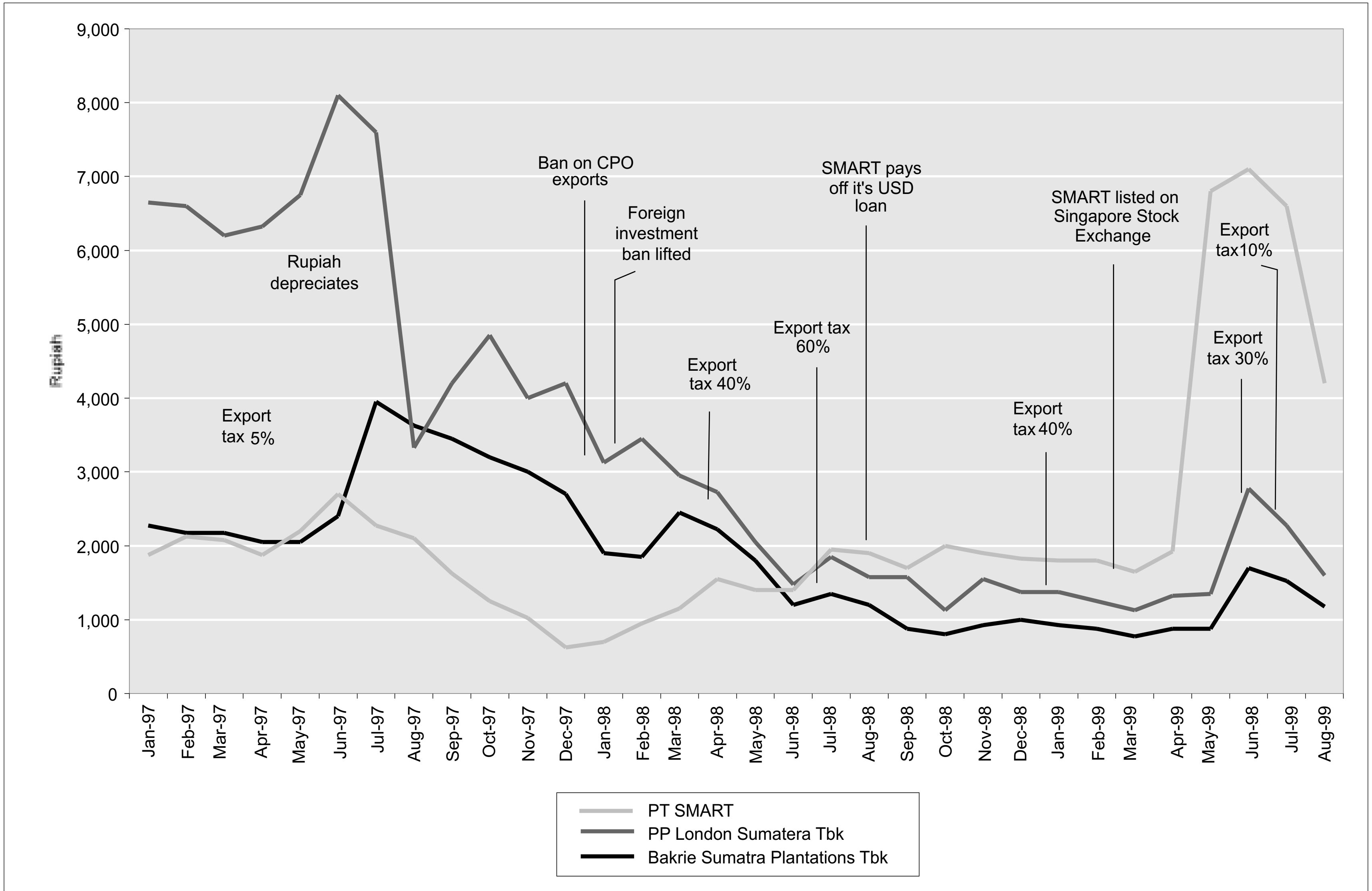
Policy changes affecting domestic and international CPO and cooking oil prices



Source: Joint Marketing Office, PTP Nusantara (Persero), Jakarta.

Appendix 5.

The impact of the economic crisis and various government policies on plantation share prices, 1997-1999



Source: Jakarta Stock Exchange.

Appendix 6.

The government's new schemes for oil palm development

The government has proposed several regulations requiring plantation companies to involve cooperatives in the plantation business. This is part of the government's effort to boost its 'people's economy' campaign by providing more opportunities to small-scale plantation operators and at the same time prevent the build-up of monopolies. While the regulations, after being deliberated, will not affect those who already own *Hak Guna Usaha* (HGU) licences (30-year plantation licences), they will be applicable to companies planning to renew or acquire new HGUs. According to Plantation Use Permit Regulation, 107/Kpts-II/1999, HGU applicants can choose from the following five partnership schemes.

1. *Management operator*. A plantation company is given the mandate to operate the cooperative plantations on a fee basis. The fee and payment structure is still unclear.
2. *35:65 equity ownership.* Cooperatives will buy a 35 percent stake of the plantation owner's equity or will inject money. The government is expected to provide the funds through the social safety net fund. The distribution procedure of the fund, however, is unclear.
3. *20:80 equity ownership.* Instead of injecting funds into plantation companies, cooperatives will provide land. In return, they can own a 20 percent stake in a plantation. Thereafter, cooperatives can increase their ownership by one percent per annum up to 51 percent. How the land will be valued against the equity has yet to be explained.
4. *Build, Operate and Transfer (BOT).* Under this scheme, the plantation company will fully operate the plantation owned by cooperatives from the tree planting stage and transfer the operation to the cooperatives after 15 years. During the 15 years, expenses and income will be recorded by the plantation company.
5. *Mortgage system.* This allows cooperatives to borrow money from banks to finance the acquisition of plantations from developers. The principal along with the interest will be repaid over several years.

Among the five proposed schemes, the second appears to be the most practical form of joint venture as it is closest to the current 'nucleus-plasma program. Many analysts do not consider the other four schemes to be attractive to foreign investors.[105]

Appendix 7. Some incidents of violence on oil palm estates

Company	Location	Issue	Action taken by local communities	Action Taken by the Company
PT PP London Sumatra Indonesia	Muara Pahu, Jempang and Bongan, East Kalimantan	• LonSum has been accused of clearing land and planting oil palm before obtaining a permit to clear timber. • Villagers are unhappy about the compensation payments they have been given. • Villagers are being intimidated with threats of violence by the armed forces. They strongly believe that LonSum is paying the armed forces to intimidate them.	November 1998 Representatives from 9 villages went to LonSum's estate office in East Kalimantan to present their demands for compensation. They requested Rp 250 billion (approximately US$ 25 million) for land, crops and damage to burial sites. December 1998 Villages seized heavy equipment, including bulldozers and trucks and set fire to part of the base camp. Two office buildings, a fertiliser store and some worker accommodation were destroyed in this incident. May 1998 Local NGOs, in collaboration with NGOs based in Bogor, launched a campaign against the company through Sawit Watch—a NGO network specifically established to campaign against further oil palm development.	LonSum is accused of paying the armed forces to disband the communities' occupation of the company's base camp on 7 May 1999. 12 villagers were arrested after this incident. 4 people disappeared and the death of two others is thought to be linked to the incident.
PT Socfindo	Senangan and Lae Butar estates in Aceh province.	Socfindo is presently expanding its plantation estate into Aceh. Local communities in the expansion areas have claimed that they were not paid adequate compensation and that the company acquired the land without their permission. The community is now insisting that the land be returned.	January 1998 Socfindo claim that two of its staff were tortured and three seriously beaten. The company also accused the local community of destroying oil palm plantations and staff houses.	The company is accused of paying the armed forces to control the security problem. Several villagers have died as a result.
PT Torganda	South Tapanuli, North Sumatra Riau	The customary land of a number of communities has been allocated to the company without their consent. Many villagers have also complained about inadequate compensation payments	On 3 August 1998, hundreds of villagers from Ujung Gading Jae village clashed with PT Torganda. The clash resulted in two villagers being wounded and a bulldozer being burnt. The incident occurred after farmers ambushed PT Torganda workers who were clearing land to make way for oil palm plantations in Bukit Harapan, Ujung Gading. The land being cleared by the company was land planted with fruit trees—it was not forested land. The case has been taken up by the North Sumatra SPSU who posted information about the companies practices on the Sawit Watch email list.	The company is accused of manipulating these tensions to acquire land. They are also accused of the following: • Ordering their employees to burn villagers' land. In Mahato village, Riau, over a hundred houses were burnt by PT Torganda and land has been burnt in Sie Piandang, Kecamatan Kualuh Hilir, Labuhan Batu and now in Ujung Gading Tapanuli Selatan. • Sitorus has also being accused of increasing conflict amongst the communities in order to acquire land ownership.
Boustead Holdings	Lubok Lingau, South Sumatra	Boustead is accused of planting oil palm on customary land without adequate compensation. The community is now demanding that land, already planted with oil palm, be returned to it.	In March 1998, villagers occupied the company's base camp in Lublok Lingau, South Sumatra. They then confiscated machinery and burnt some plantations and vehicles. They kept a vigil at the base camp for 45 days before being forced to move by angry estate workers who claimed that the villagers were keeping them from working and therefore getting paid.	The company has tried to organise several meetings with the local Bupati, Minister of Land and Reform and the Governor of Sumatra to settle the land issue. There has been little progress to date and the company has stopped further planting until it is sure that the land will not be taken away.

Appendix 8.

Forest land converted to plantations and conversion forest deficits

Forest land converted to plantations, 1982-1999

Province	Limited production forest already converted to plantations as of March 99	Production forest already converted to plantations by March 1999	Conversion forest alreadyconverted to plantations by March 1999	Forest area designated for other uses	Total forest land already converted to plantations by March 99 acc. to MOFEC	Total oil palm area by 1998	Total rubber area by 1998
Aceh	17,635.00	10,095.00	213,475.90	13,495.70	254,701.60	196,912	410,388
North Sumatra	10,903.80	23,928.19	75,049.69	1,756.80	111,638.48	603,247	678,297
West Sumatra	550.00	30,117.26	101,114.61	3,104.00	134,885.87	131,306	232,421
Riau	94,616.45	140,025.50	1,253,332.74	45,055.65	1,533,030.34	573,621	1,826,954
Bengkulu	0	0	56,843.25	800.00	57,643.25	65,359	122,202
Jambi	27,675.00	19,645.00	256,593.63	11,960.25	315,873.88	222,096	478,690
South Sumatra	0	9,265.00	48,644.40	0.00	57,909.40	278,761	327,405
Lampung	10,510.00	64,484.96	1,104.35	16,221.04	92,320.35	68,530	69,634
Total	161,890.25	297,560.91	2,006,158.57	92,393.44	2,558,003.17	2,139,832	4,145,991
West Java	0	0	0	0	0.	21,502	21,502
Central Java	0	0	0	0	0	0	0
East Java	0	0	0	0	0	0	0
DI Yogyakarta	0	0	0	0	0	0	0
DKI Jakarta	0	0	0	0	0	0	0
Total	0	0	0	0	0	21,502	21,502
North Sulawesi	0	6,887.83	2,000.00	0.00	8,887.83	0	2,000
Central Sulawesi	0	7,740.00	71,733.00	0.00	79,473.00	24,036	95,769
SE Sulawesi	0	0	7,862.00	0.00	7,862.00	0	7,862
South Sulawesi	802.00	0	84,134.50	0.00	84,936.50	77,184	161,319
Total	802	14,627.83	165,729.50	0.00	181,159.33	101,220	266,950
W. Kalimantan	0	0	65,605.06	23,795.00	89,400.06	266,035	331,640
East Kalimantan	0	2,507.00	425,306.00	6,925.37	434,738.37	68,938	494,244
C Kalimantan	0	89,989.54	332,118.35	5,946.00	428,053.89	74,140	406,258
S. Kalimantan	0	26,454.08	162,834.46	390.00	189,678.54	83,538	246,372
Total	0	118950.62	985,863.87	37,056.37	1,141,870.86	492,651	1,478,515
Bali	0	0	0	0	0	0	0
NTB	0	0	753.36	0	753.36	0	753
NTT	0	0	0	0	0	0	0
Maluku	3,840	0	13,566.22	0.00	17,406.22	0	13,566
Irian Jaya	0	23,870.00	139,992.34	0.00	163,862.34	24,677	164,669
East Timor	0	0	0	0	0	0	0
Total	3,840	23870	154311.92	0	182,021.92	24677	178,989
Grand total	166,532.25	455,009.36	3,312,063.86	129,449.81	4,063,055.28	2,779,882	6,091,946

Source: Badan Planologi Kehutanan dan Perkebunan (1999b)

Conversion forest deficits according to the 1982 Forest Land Use Consensus

Province	Available conversion forest acc. to TGHK 1982 (Paduserasi)	Forest land agreed in principle to be converted to plantation as of March 1999	Total forest land converted to plantations by March 99	Conversion forest already converted to plantations by March 1999	Total Conversion forest converted to plantations and transmigration by March 99	Conversion forest remaining in acc. with TGHK 1982	Applications for release of forest land agreed to in principle acc. to March 99 data.
Aceh	188,350	324,661.95	254,701.60	213,475.90	844,571.15	-656,221.15	69,960.35
N. Sumatra	351,548	261,977.00	111,638.48	75,049.69	311,622.25	39,925.75	150,338.52
W. Sumatra	407,849	201,863.90	134,885.87	101,114.61	438,243.34	-30,394.34	66,978.03
Riau	1,866,132	2,010,182.40	1,533,031.14	1,253,332.74	5,006,858.66	-3,140,726.66	477,151.26
Bengkulu	34,965	70,415.00	57,643.25	56,843.25	206,731.35	-171,766.35	12,771.75
Jambi	968,490	412,213.50	315,113.88	256,593.63	1,157,773.36	-189,283.36	97,099.62
S. Sumatra	2,124,000	285,097.50	57,909.40	48,644.40	282,663.71	1,841,336.29	227,188.10
Lampung	192,902	90,625.00	92,320.35	1,104.35	101,147.05	91,754.95	-1,695.35
Total	6,134,236	3,657,036.25	2,557,243.97	2,006,158.57	8,349,610.87	-2,215,374.87	1,099,792.28
West Java	338,653	0	0	0	0	338,653.00	0
Central Java	396,751	0	0	0	0	396,751.00	0
East Java	811,453	0	0	0	0	811,453.00	0
DI Yogya	16,000	0	0	0	0	16,000.00	0
DKI Jakarta	1,000	0	0	0	0	1,000.00	0
Total	1,563,857	0	0	0	0	1,563,857.00	**0**
N. Sulawesi	168,108	10,000.00	8,887.83	2,000.00	23,853.76	144,254.24	1,112.17
C. Sulawesi	491,346	122,955.00	79,473.00	71,733.00	286,624.96	204,721.04	43,482.00
S E Sulawesi	633,431	32,960.00	7,862.00	7,862.00	98,978.70	534,452.30	25,098.00
S. Sulawesi	164,998	128,815.00	84,936.50	84,134.50	299,694.00	-134,696.00	43,878.50
Total	1,457,883	294,730.00	181,159.33	165,729.50	709,151.42	748,731.58	113,570.67
W. Kalimantan	1,323,000	426,589.00	89,400.06	65,605.06	271,693.23	1,051,306.77	337,188.94
E. Kalimantan	5,513,060	891,812.35	434,738.37	425,306.00	1,550,145.82	3,962,914.18	457,073.98
C. Kalimantan	6,088,000	2,294,104.00	428,053.89	332,118.35	1,276,258.61	4,811,741.39	1,866,050.11
S. Kalimantan	1,325,024	282,000.00	189,678.54	162,834.46	653,958.46	671,065.54	92,321.46
Total	14,249,084	3,894,505.35	1,141,870.86	985,863.87	3,752,056.12	10,497,027.88	2,752,634.49
Bali	1,907	0	0	0	0	1,907.00	0
NTB	126,278	643	753.36	753.36	9,938.44	116,339.56	-110.36
NTT	428,360	0	0	0	387.00	427,973.00	0
Maluku	1,053,171	40,801.57	17,406.22	13,566.22	86,348.59	966,822.41	23,395.35
Irian Jaya	7,123,480	665,900.00	163,862.34	139,992.34	706,967.88	6,416,512.12	502,037.66
East Timor	121,690	0	0	0	0	121,690.00	0
Total	8,854,886	707,344.57	182,021.92	154,311.92	803,641.91	8,051,244.09	525,322.65
Grand total	32,259,946	8,553,616.17	4,062,296.08	3,312,063.86	13,614,460.32	18,645,485.68	4,491,320.09

Source: Badan Planologi Kehutanan dan Perkebunan (1999b).

Conversion forest deficits according to the 1999 Provincial Spatial Plan

Province	Conversion forest remaining acc. to March 1999 RTRWP	Applications to be processed within conversion forest as of August 99	Conversion forest remaining acc to RTRWP 99 after August applications processed	Applications for release of forest land agreed to in principle acc to March 99 data.	Conversion forest remaining if existing applications fell into conversion forest
Aceh	0	593	-593	69,960.35	-69,960.35
North Sumatra	37,797	14,662	23,135	150,338.52	-112,541.52
West Sumatra	189,346	13,654	175,692	66,978.03	122,367.97
Riau	334,521	417,503	-82,982	477,151.26	-142,630.26
Bengkulu	70,360		70,360	12,771.75	57,588.25
Jambi	0	6,900	-6,900	97,009.62	-97,009.62
South Sumatra	774,100	7,227.50	766,872.5	227,118.10	546,981.90
Lampung	153,459	74,779	78,680	0	153,459.00
Total	1,559,583	535,318.5	1,024,264.5	1,099,792.28	459,790.72
West Java	0	0	0	0	0
Central Java	0	0	0	0	0
East Java	0	0	0	0	0
DI Yogyakarta	0	0	0	0	0
DKI Jakarta	0	0	0	0	0
Total	0	0	0	0	0
North Sulawesi	34,812	0	3,4812	1,112.17	33,699.83
Central Sulawesi	269,411	9,393	2,60018	43,482.00	225,929.00
SE Sulawesi.	212,123	0	212,123	25,098.00	187,025.00
South Sulawesi	102,073	19,288	82,785	43,878.50	58,194.50
Total	618,419	28,681	589,738	113,570.67	504,848.33
West Kalimantan	582,320	0	582,320	337,188.94	245,131.06
East Kalimantan	0	168,848	-168,848	457,073.98	-457,073.98
C. Kalimantan	0	100,100	-100,100	1,866,050.11	-1,866,050.11
S. Kalimantan	265,638	0	265,638	92,321.46	173,316.54
Total	847,958	268,948	579,010	2,752,634.49	-1,904,676.49
Bali	0	0	0	0	0
NTB	244,062	0	244,062	0	244,062.00
NTT	101,877	0	101,877	0	101,877.00
Maluku	2,034,932	4,064	2,030,868	23,395.35	2,011,536.65
Irian Jaya	2,671,275	6,050	2,665,225	502,037.66	2,169,237.34
East Timor	6,778	0	6,778	0	6,778.00
Total	5,058,924	10,114	5,048,810	525,322.65	4,533,601.35
Grand total	8,084,884	843,061.5	7,241,822.5	4,491,320.09	3,593,563.91

Source: Badan Planologi Kehutanan dan Perkebunan (1999b).