



The Pulp Invasion – Thailand

By Chris Lang, published by WRM, December 2002.

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THAILAND: The fast-growing pulp and paper industry

This report looks at the expansion of the pulp and paper industry in Thailand. It starts with an overview of the industry today. Rather than providing a reliable source of paper needed by the people of Thailand, however, the industry today is dependent on imports, exports and lavish subsidies from the government and international “aid” agencies.

The Thai government has actively supported the development of the industry, through subsidies, pro-cash crop and plantation policies, tax relief and favourable import duties on machinery imports. The second section looks at some of the government support, and includes a brief introduction to some of the background political situation in the country during the early 1990s.

The third section looks at some of the international support to the industry in Thailand, largely through multilateral and bilateral “aid”.

The fourth section looks at some of the Thai companies involved in the pulp and paper sector. While they have made profits, they have also run up enormous debts. This, accompanied by the economic crisis in 1997, has opened the door for international companies to buy up shares in Thai companies. Some of these companies are also profiled in this section, along with international consultants who provide advice and legitimacy for the industry.

Associated with the expansion of the pulp and paper industry, the area of fast-growing tree plantations has also expanded, often with disastrous impacts for many local communities. The fifth section describes some of the problems faced by communities and the protests against the industry in Thailand. Whilst faced with continuing threats of expansion, for example of Phoenix and Advance Agro’s operations, villagers continue to protest, and continue to fight for their rights to decide how they will manage their environment.

1. OVERVIEW OF THE SITUATION TODAY

When the first pulp mill was built in Thailand in 1923, it had a production capacity of one ton a day. Since then, pulp and paper production has massively expanded and today Thailand has 44 paper and board mills with a total capacity of more than 3.8 million tons a year (PPI 1999) (Chatrudee 2000).

Eucalyptus trees provide the most important domestic source of raw material for the pulp industry. The Royal Forest Department planted the first eucalyptus tree in Thailand in 1946, in Phrae province (Pearmsak and Mochida 1999: 36). At first the spread of plantations was slow, and by 1976 only about

12,000 hectares of industrial plantations existed. A recent FAO publication estimates that by 1995 more than 300,000 hectares of industrial plantations had been established in Thailand (Brown 2000: 135).

The FAO's figures (and any other figures of plantation cover in Thailand) are estimates – no national inventory of plantations has ever been carried out (FAO www 1). The Royal Forestry Department has never produced any studies on the impacts of eucalyptus plantations of larger than 160 hectares (Tunya 2000).

Consumption of paper products is dominated by kraft paper, which in 1998 accounted for 47 per cent of consumption. Newsprint accounted for 19 per cent and printing and writing paper 14 per cent. Household and sanitary paper consumption stood at 3 per cent of paper and board consumption (pponline 1999).

The biggest kraft paper producer is Siam Cement Group, with a total annual capacity of 805,000 tons. Second is Panjapol Group with a capacity of 505,000 tons, and Thai Cane Paper is third, with 280,000 tons. The biggest producer of printing and writing paper is Advance Agro, with a capacity of 264,000 tons followed by Thai Cane Paper with 264,000 tons and Central Paper with 68,000 tons (Chatrudee 2000).

The following are the major companies involved in the pulp and paper industry in Thailand:

Pulp and paper mills

Advance Agro (Prachinburi province)
 Phoenix Pulp and Paper (Khon Kaen)
 Siam Pulp and Paper (Ratchaburi)
 Panjapol Pulp and Paper (Ayuthaya)
 Siam Cellulose (Kanchanaburi)

Board

Thai Plywood (Bangkok/Saraburi)
 Metro Fibre (Kanchanaburi)
 Thai Cane Board (Kanchanaburi)

Wood chips

Rung Ruang Kitti (Chachoengsao)
 Siam Forestry (Kanchanaburi)
 Thai Vivat (Surin)
 Kit Thawee (Surin)
 Siam Tree Development (Chon Buri)
 August Chip Woods (Chon Buri)
 K.M.I. Forest (Buriram)

(Source: Siam Tree Development Company, in Tunya 2000)

Several factors have played a role in promoting the eucalyptus boom in Thailand. Developments in shipping, and the changing world pulp and paper economy meant that trees grown in the South could be used to supply a world pulp market. (See Carrere and Lohmann 1996: 41-59.)

The oil crisis of the early 1970s, which led to a rise in the cost of importing pulp to Thailand, was another factor in the development of Thailand's pulp industry. The production of pulp, as opposed to importing it, at least from the financial point of view, suddenly became a much more attractive proposition.

The first mill to produce pulp for the domestic market was the Phoenix pulp and paper mill in Khon Kaen, which came on line in 1982. In order to allow sales of pulp from Phoenix to compete with cheap imports from Brazil and Portugal, in 1982 the Thai government increased import tax on pulp from one per cent to 10 per cent, and forced importers to pay a 15 per cent commercial tax as well a series of other import duties (Pearmsak and Mochida 1999: 68).

Despite these import taxes, and even though domestic production capacity largely met demand for paper in 1992, Thailand imported 73,000 tonnes of paper and pulp simply because it was cheaper (The Nation 15 September 1993). Pulp from Indonesia threatens to flood the Thai market. In 1996, Indonesia produced 7.4 million tons of pulp, but local demand was only 2.6 million tons. Indonesia has lower labour costs than Thailand, so Indonesian companies can sell their paper for less than Thai manufacturers (Yuthana 1997).

In 1997, Thailand imported 349,000 tons of short- and long-fibre pulp mainly from the US, Canada, Chile, Brazil, New Zealand, Sweden, Indonesia and the Czech Republic. As most of Thailand's pulp production uses eucalyptus wood, producing short-fibre pulp, a large proportion of the imports consist of long-fibre pulp. Imports of waste-paper were almost double imports of short- and long-fibre pulp, at 622,000 tons – from the US, Singapore, Germany, Netherlands, New Zealand and Hong Kong. 66 per cent of this was old corrugated containers (FAO 1998).

The Asian economic crisis of 1997 had a serious impact on the pulp and paper industry in Thailand. One result generally was an increase in foreign ownership companies. After the crisis, more foreign investment poured into Thailand than ever before. In the eleven years of economic boom from 1986 to mid-1997, Thailand received a total of US\$19.1 million private foreign direct investment (FDI). In the two years after the crisis, 45 large companies listed on the Stock Exchange of Thailand offered their share to foreign buyers. As a result, US\$14.9 million of FDI flowed into the country between July 1997 and the end of 1999. Almost all the foreign investors were interested in buying up cheap assets (Pasuk and Baker 2000: 218).

Northern companies are moving into the Thai pulp and paper industry by buying into Thai firms. Stora Enso, for example, has a 19.9 per cent share of Advance Agro (Sonnenfeld 1999: 31). New Oji bought up 5.5 per cent of Advance Agro. Norske Skog took over Shin Ho newsprint plant in Thailand.

Another effect of the economic crisis was a reduction in domestic consumption of paper and board. Consumption fell from 2,042,000 tons in 1997, to 1,604,000 tons in 1998. Domestic pulp consumption also fell from 802,000 tons in 1997, to 644,000 tons in 1998 (FAO 1998). Imports of pulp and paper in 1998 decreased to 43 per cent of 1997 levels (pponline 1999).

At the same time, production capacity increased. Exports increased, partly because of the surplus created by reduced domestic demand, but also because companies were desperate to earn hard currency in order to repay foreign loans after the collapse of the value of the baht. In 1997 exports of pulp and paper stood at 525,000 tons. By 1998 this figure had almost doubled, at 971,000 tons (Paperloop 2000).

According to the Thai Pulp and Paper Association, domestic demand stood at 1.9 million tons in 1999, with production capacity of 3.8 million tons. Somboon Chuchawal, the association's chairman concluded that no new investment in the industry was likely in the next decade (Chatrudee 2000).

Advance Agro and Phoenix currently have ambitious plans to increase capacity, driven by their needs to repay debt, and by the demand for cheap pulp internationally.

2. THAI GOVERNMENT SUPPORT TO THE PULP AND PAPER INDUSTRY

Since the 1960s, the government of Thailand (with prodding and support from the World Bank, see below) has promoted cash crops such as corn, cassava, sugar cane and kenaf for export. One of the results has been that farmers expanded their fields into logged-over forest lands (Casson 1997: 11) (Lohmann 1991: 3). In many ways, fast-growing tree plantations are simply another cash crop.

In 1961, Thailand's first National Economic and Social Development Plan (NESDP) specified that 50 per cent of land should be reserved for forest (Apichai et al 1990: 11). The first Plan set a target of 2,000 hectares a year for plantations. The target area increased with subsequent Plans, from 38,000 hectares in the third Plan (1972-1976) to 400,000 in the fourth Plan (1977-1981) (TDRI and TEI 1993: 4-53).

With the fifth NESDP (1982-1986) the government introduced a private sector role in establishing plantations. A target of 48,000 hectares annually was to be planted. The government provided a series of subsidies, including cheap rent for forest land and tax exemption (Pearnrak and Mochida 1999: 26).

In response, twelve companies applied to the Board of Investment for promotion privileges on a proposed total area of 20,000 hectares of plantations. Half of the companies withdrew their applications because of a lack of available land, and the remainder planted up around 8,300 hectares (TDRI and TEI 1993: 4-64).

Under the forestry policy of 1985, the area of "forest" in Thailand was to be increased to 40 per cent of the country's total land area, and this target figure was also included in the sixth NESDP (1987-1991) (Pearnrak and Mochida 1999: 48). The 40 per cent target figure has endured, despite the fact that people live on much of the land required, despite villagers' protests and ever-increasing information about the impacts of fast-growing tree plantations. Government officials frequently quote the target figure as a justification for more plantations. For example, Chittiwat Silapat of the FIO said, "There's no way to force farmers to go out of that area, no way to force them to plant forest. But this [i.e. 40 per cent forest cover] is a must, we must have a forest cover area" (Chittiwat 2000a).

During the late 1980s, the government unofficially allowed companies to clear forest and declare it "degraded", and therefore suitable for "reforestation" with eucalyptus plantations. In January 1990, 156 employees of Suan Kittii, a subsidiary of Suan Hua Seng one of Thailand's foremost plantation companies (see section on [Advance Agro](https://chrislang.org/2002/12/01/the-pulp-invasion-thailand/#AA) (<https://chrislang.org/2002/12/01/the-pulp-invasion-thailand/#AA>) below), were arrested for illegally logging a forest area in eastern Thailand (Carrere and Lohmann 1996: 237). The government of Chatichai Choonhaven was at the time racked by scandals and corruption. Several influential figures in the Chatichai administration were also on Suan Kittii's board (Pye 1997: 4). As a result of the public outcry, in May 1990 the Chatichai administration banned all commercial plantation projects in National Reserve Forests (Carrere and Lohmann 1996: 237).

However, a military coup the following February breathed new life into the plantation industry – particularly through a project known by its Thai initials as Khor Jor Kor (the Land Distribution Programme for the Poor Living in Degraded Forest Areas). Despite the harmless sounding title, the project was carried out by the military's Internal Security Operations Command, and aimed to resettle five million villagers (Carrere and Lohmann 1996: 237) supposedly encroaching in reserve forest areas. The project targeted 2,500 villages in 352 reserve forests over an area of 2.24 million hectares in northeast Thailand. Thai and foreign companies would then be able to lease the land for eucalyptus plantations (PER 1996) (Lohmann 1991: 4).

During 1991 and 1992, the Army and the RFD forcibly evicted hundreds of villagers from their homes. Thousands of villagers including those already evicted called on the government to cancel the project (PER 1996).

A broad-based public protest against the military coup culminated in the biggest demonstration in Thai history in May 1992, with over 500,000 people taking part in a night and day vigil at Sanam Luang and the Democracy Monument in Bangkok. The government's initial response was to order troops to fire into the crowds of unarmed demonstrators. Thousands were wounded and over one hundred people were killed. The protests continued, despite the violent repression and eventually the military dictatorship led by General Suchina Kraprayoon was forced to back down (Pye 1997: 5).

In June and July 1992, thousands of affected villagers protested in Nakhon Ratchasima province. On 24th June, about 300 farmers set off from Khorat on a march to Bangkok, demanding the total scrapping of the Khor Jor Kor programme. More people joined the march until by the end of June, 3000 protesters blocked Highway 2, the main road to the northeast. Eventually, after refusing to negotiate with less important representatives, the protesters met Deputy Interior Minister Anek Sithiprasasana. The seven-hour long meeting resulted in a victory for the farmers, and the Anand-government cancelled the project and allowed the resettled farmers to return to their homes (PER 1996) (Pye 1997).

With the end of the Khor Jor Kor project, the government of then-Prime Minister Anand Panyarachun passed a Cabinet Resolution dated 8 September 1992, which limited the area of national forest reserve that could be planted with eucalyptus to 8 hectares (50 rai). In addition, only farmers who had lived on the land for five years or more could plant trees in national forest reserve land (Krungthep Thurakij 21,22,26 September 1999).

In September 1993, the Council of Economic ministers of the Chuan Leekpai government decided to lift the ban on commercial reforestation that had been imposed by the previous administration (Bello et al 1998: 198) (Carrere and Lohmann 1996: 238).

Since then a series of governments has promoted plantations and approved new pulp mills and expansions of existing mills. New mills have to be approved by the Board of Investment (BoI). Initially established under the aegis of the World Bank, the BoI has played a crucial role in promoting the development of a pulp and paper industry in Thailand. The BoI's approval of Advance Agro's pulp and paper mill indicates the type and value of subsidies the government provides to the industry. With the approval, Advance Agro was awarded:

- exemption from corporate income tax for the first eight years, and 50 per cent reduction for the next five years;
- exemption from import duty on machinery to build the mill;
- a 75 per cent reduction on import duties on raw materials used in production for domestic sales, and a total exemption from import duties on raw materials for export sales of pulp and paper mill 1 for five years; and
- tax deductions for the first ten years of operation (AA www 3).

Coincidentally, Staphorn Kavitanon became a member of the board of Advance Agro in 1996. Staphorn is Secretary General of the Board of Investment (AA www 3).

The two government institutions most directly involved with establishing plantations are the Royal Forest Department and the Forest Industry Organisation. Both institutions are profiled below.

– ROYAL FOREST DEPARTMENT (RFD)

Formed in 1896, the Royal Forest Department is a product of British imperialism. In 1895, Herbert Slade, the Deputy Conservator of Forests in Burma, conducted a six month-long inspection of Siam's forests. He advised the King to nationalise the forest and set up a forestry service to attempt to limit the rate of logging by timber companies. (At the time, the teak trade in northern Thailand was dominated by six companies, three of them British, one French, one Danish and one Chinese.)

Herbert Slade became the first Director-General of the RFD. Until 1923, the succeeding Director-Generals were all British, and the Department was dominated by British forestry officers. In 1899, King Rama V (King Chulalongkorn) of Siam formally claimed ownership of all forest land in the country. In 1932, with the end of absolute monarchy in Thailand, forest lands became the property of the state, with logging concessions leased to corporations. Timber production reached a peak of 4.5 million cubic metres in 1968, after which it declined and in the mid-1980s Thailand became a net importer of timber.

The impact of logging on the forests was disastrous – the area of forest declined from 274,000 square kilometres in 1961 to 143,000 square kilometres in 1989. During the 1980s, villagers protested against the logging companies, blocking roads, obstructing logging operations and occupying logging camps. Villagers set up their own forest protection patrols and planted trees in logged-over forest. As a result of the protest movement, and floods in 1988, which were blamed on logging and which killed more than 300 people, the government declared a nationwide ban on inland logging concessions in January 1989 (logging concessions in mangrove forests remained).

With the logging ban, the RFD shifted its focus from logging to “conservation” and “reforestation”. During the 1980s, the RFD set up a separate office specifically to promote commercial tree farms, with a public relations budget of US\$24 million (Carrere and Lohmann 1996: 233). Post-logging ban, the RFD, the military and private companies have promoted plans to establish four million hectares of fast-growing tree plantations to feed the pulp and paper industry. Meanwhile, many of Thailand’s logging companies simply moved their operations to neighbouring countries: Burma, Cambodia and Laos (Lang and Pye 2000: 30-31).

In 1992, a Reforestation Office was established within the RFD. Two years later the Office accounted for 40 per cent of the RFD’s budget. The Reforestation Office announced three major programmes in 1993 aimed at promoting reforestation:

- the King’s Project, which aimed to plant 800,000 hectares in commemoration of the King’s Golden Jubilee;
- a subsidising fund for private forest tree farms programme, which aimed to plant up 1,300,000 hectares; and
- a programme to replace cassava with fast-growing trees, which aimed to plant 48,000 hectares.

The King’s Project was a dismal failure. After a year, the RFD admitted only 30 per cent of 297 million saplings produced for the campaign had actually been planted. Government officials resorted to cutting down “degraded forest” to meet planting targets. For example, in Udon Thani province, a cemetery forest was cleared and after the district head appeared at a public event to launch the project, villagers spent five days planting eucalyptus saplings. The then-Director General of the RFD, Pong Leng-ee was removed when it emerged that less than twenty per cent of the budget for the King’s Project had actually gone on producing seedlings (Pye forthcoming).

In April 2001, the private reforestation was put on hold. The Budget Bureau scrapped the budget for the year on the grounds that the RFD already had approximately US\$800,000 left over from previous years. By 1999, of the 1,300,000 hectares target, only around 500,000 hectares had been planted with trees. A source told the Bangkok Post in April 2001, “the number has vastly decreased as many participants abandoned the project in the interval” (Ploenpote 2001a).

The RFD is plagued with corruption and illegal logging scandals. In 1996, Yanyong Thanompichai, then-Director-General of the RFD, was removed from his post following an illegal logging scandal in Surat Thani province. Two years later, another RFD Director-General Sathit Sawintara, was removed following the exposure of systematic illegal logging, involving high-level forestry officials, in the Salween National Park (Pye forthcoming).

Today's Director-General of the RFD is Plodprasop Suraswadi. Plodprasop seems happy to continue the RFD's role as an unregulated and unaccountable armed force. In January 2000, he appeared on the cover of the RFD's in house magazine "Vanasarn" in military-looking uniform armed with a knife and a uniform. Such gestures are reflected in some of RFD's recent activities. In May 1999, approximately 500 police and 1,500 forestry officials broke up a peaceful demonstration of farmers in Chiang Mai. In the same month, Karen people living in Thung Yai Naresuan Wildlife Sanctuary accused Plodprasop of threatening three Karen hermits with an assault rifle, and ordering their meditation huts to be burned down. Plodprasop denied any knowledge of the incident, but the previous month a group of "paramilitary rangers" demolished Karen homes, destroyed cooking utensils and farming tools in Thung Yai Naresuan (Uamdao 1999a). In August 2000, the racism and violence of the RFD's "nature conservation" was transparent as RFD officials and police watched as a group of lowland Thais cut down the orchards and burned houses of Hmong people in Pa Klang, Nan province. (See Watershed 2000a.)

– FOREST INDUSTRY ORGANISATION (FIO)

FIO was established on 1 January 1947 as a state-owned forestry enterprise. Until the January 1989 ban on timber concessions in Thailand, FIO's main activity was logging. Today, FIO sells illegally felled logs that have been confiscated by the police, operates sawmills and furniture factories, and has established plantations covering approximately 144,000 hectares (Chittiwat 2000a). The plantations are mainly teak in the North, rubber in the South and eucalyptus *camaldulensis* in the northeast and east of Thailand (Chittiwat 2000a).

Before the 1989 logging ban, logging concessions had accounted for more than 80 per cent of FIO's income (Suphaphan 1994). With the logging ban, "everything collapsed overnight" according to Chittiwat Silapat, of FIO's Office of Budget and Planning. FIO survived by selling timber stockpiled in its yards, and by running up debts. "If we were a private company, I think we would be bankrupt" said Chittiwat (Chittiwat 2000a).

In the early 1990s, FIO planned a US\$168 million joint venture pulp mill in Si Sa Ket in northeast Thailand. A majority share in the project was to have been held by the Siam Cement Group and Advance Agro with a 10 per cent share held by the Industrial Finance Corporation of Thailand. The project was shelved due to local opposition (Carrere and Lohmann 1996: 232). Villagers wrote letters to the FIO, the Science Ministry, the Office of the Prime Minister's Secretariat and to the province's nine MPs, asking for the plan to be reconsidered (Walakkamon 1995). In April 1994, about 200 villagers from Kanthararom district in Si Sa Ket province rallied in front of the provincial hall in protest at the FIO's proposed pulp mill (Bangkok Post 19 April 1994).

Chittiwat's views on the project typify FIO's technocratic approach to forestry: "Once the pulp mill had been established it would have benefitted the local people and they could have had more jobs, and at the same time can create more forest cover. Even if it was eucalyptus" (Chittiwat 2000a).

According to Paper Asia magazine, Jaakko Poyry offered to conduct a preliminary study free-of-charge on the condition that if FIO and the government approve the project, they would have to hire Jaakko Poyry for all further studies on the project. FIO turned Poyry down and asked Poyry to propose prices for the report (Chang 1991: 16).

Over the next few years the organisation's teak plantations will reach maturity, allowing FIO to cash in on logging its plantations (Chittiwat 2000a). FIO has also turned to international aid projects (see section on International "Aid", below) in order to help it survive. SCC Natura has benefited from a series of Swedish-funded contracts to help "finding a new life for FIO". (See section on SCC Natura, below.)

Recently, the Chinese government has offered FIO the possibility of establishing a pulp mill. Three years of talks between Advance Agro and the Chinese government to establish a US\$1 billion plantation and pulp project have come to nothing, and the Chinese government is eyeing FIO's plantations as a source of raw material for the project. The pulp would be exported to China. (See section on Advance Agro, below.)

– CARBON FORESTRY

International discussions, supposedly aimed at addressing the problems of global climate change, have presented plantation proponents with their latest, and perhaps most inequitable, form of support for the plantation industry. In a blatantly imperialist move, some Northern governments, energy companies and forestry consultants are attempting to evade the need to reduce emissions of greenhouse gases in the North, by claiming that planting trees in the South can absorb greenhouse gases.

In 1991, the Asian Development Bank funded a project in Thailand titled, "Preparation of a National Strategy on Global Climate Change". The project was initially focussed on the 1992 UNCED meeting in Rio, but the project was redesigned after Rio "in order to help Thailand meet its international obligations as a signatory to the Framework Convention on Climate Change". Among the project's recommendations is the implementation of "Reforestation programs, leading both to a mitigation of GHG [greenhouse gas] emissions and to the maintenance of biodiversity" (TDRI and TEI 1993: II).

In 1995, the Thai government agreed to accept foreign aid for forestry and energy efficiency projects aimed at preventing global warming. However, the government refused to allow "carbon credit" in return for such investment (The Nation 29 January 1995).

The RFD and the FIO have welcomed the chance of cashing in on carbon forestry. Sonjai Javanond, an official at the RFD, told the Japanese newspaper, the Daily Yomiuri, "There is no doubt that afforestation is one of the most significant measures in controlling global warming. We hope that tree planting will be carried out on a larger scale in the future" (Daily Yomiuri 6 January 2001).

Similarly, Chittiwat Silipat of FIO pointed out the benefits to his institution of carbon forestry, "FIO will be more than happy if we can get some fund for helping us running our plantations" (Chittiwat 2000b).

However, not all Thai government officials offer such unreserved support for helping Northern governments evade their responsibilities. Wanee Samphantharak, deputy secretary general of the Office of Environmental Policy, leads the Thai delegation at the UN Conference on Climate Change. In March 2001, Wanee told the Nation that to rush to accept funding for "reforestation" would cause more damage to Thailand than benefits. He warned that "Free food would be poisonous," and pointed out that Thailand might lose sovereignty over forest areas, as an increasing area must remain green to absorb carbon dioxide from the atmosphere. He added that saying yes to the offer would automatically mean that Thailand agrees that those who are causing global warming need take no action to reduce their own greenhouse gas emissions, but can pay others to act for them (Kamol 2001).

So far there are few carbon forestry projects in Thailand. Problems with Thailand's position of allowing carbon forestry projects, without allowing "carbon credits" to the funding country are already appearing. A joint project, between Kansai Electric Power Co and the RFD, aims to restore mangrove forests at the Khanom River in Nakhon Si Thammarat Province in southern Thailand. The project will also explore the possibility of using mangrove trees to absorb carbon dioxide (Daily Yomiuri 6 January 2001). Since 1975, up to 200,000 hectares of mangrove forests in Thailand have been destroyed to make way for shrimp ponds. The project plans to plant 80 hectares with mangroves over four years (Daily Yomiuri 6 January 2001).

At the COP-6 negotiations, which took place in November 2000 at the Hague, one of the Thai delegates claimed that at 4.00 a.m. a Japanese delegate inserted a claim for carbon credits from the Thai project into a document presented to the president of the negotiations. The Thai delegate added, “How could we argue about that when we were in our hotel beds?” He pointed out that while Thailand sends 10 people to cover the negotiations, countries like Japan and the US sent as many as 150 officials (Kamol 2001).

Kansai Electric Power officials admitted to the Japanese newspaper, the Daily Yomiuri, that the company may pull out of the mangrove project in Thailand, as a result of the confusion over whether Thailand will allow Japan to claim Carbon credits from the project. A Kansai official revealed where the importance of the project lies, at least as far as the company is concerned: “it . . . is important to produce research results that show that afforestation contributes to curbing global warming” (Daily Yomiuri 6 January 2001).

3. INTERNATIONAL SUPPORT

The expansion of plantations and the pulp and paper industry in Thailand is not an accident, nor is it the necessary result of something neutral called “development”. It has happened because a range of institutions (sometimes working deliberately together but also simply working towards their own aims) have promoted the growth of both industry and the industrial plantations necessary to feed that industry.

This section looks at some of these institutions and the ways in which they have ensured that the model of industrial tree plantations has been implemented on the ground. International “aid” agencies, both multilateral and bilateral have worked hand in hand with successive Thai governments to ensure the development of the industry in Thailand. Section 3 looks at the Thai government’s support to the industry.

– WORLD BANK

The World Bank has played a significant role behind the scenes in promoting the development of the pulp and paper industry in Thailand. From the mid-1950s, the Bank promoted the expansion of infrastructure and commercial logging leading to the opening up of many forest areas (Lohmann 1991: 3).

In addition to direct loans to pulp and paper companies through the International Finance Corporation, the Bank’s private finance arm, the World Bank played an important role in establishing a series of semi-autonomous state agencies in Thailand. These include: the Industrial Finance Corporation of Thailand (IFCT); the Thai Board of Investment (BOI); and the National Economic and Social Development Board (NESDB). As well as promoting industrial development in general, both IFCT and BOI have played an important role in promoting the pulp and paper industry in Thailand. The NESDB meanwhile oversees all public investment planning (Rich 1994: 13) and through its promotion of cash crops grown for export, has paved the way large-scale eucalyptus planting. (See section on Thai Government support, above.)

Almost all of Thailand’s pulp and paper mills have been built with international finance – often in the form of cheap concessional loans. Foreign “experts” often come with those loans. Siam Kraft, Thailand’s first modern pulp mill, for example, received financing from the US Export-Import Bank. The engineer was Parsons and Wittemore, a US-based pulp and paper manufacturing company (Sonnenfeld 1998a: 63).

In the 1990s, several new pulp mills started operations in Thailand: Siam Cellulose (1992); Phoenix II (1994); Advance Agro (1996). All three new mills are designed to use eucalyptus as raw material (Sonnenfeld 1998b: 118) and all three use technology and machinery from Northern countries to

produce pulp.

– ASIAN DEVELOPMENT BANK

Northern funders have played a key role in promoting the development of a wood-based pulp and paper industry in Thailand. When the Army Mapping Corps established Thailand's first paper mill in 1923, the raw material used was waste paper.

It is only in the 1990s that wood has become a significant raw material for the pulp and paper industry in Thailand. In 1988, the Asian Development Bank noted that “wood is not a significant source of raw material” for the pulp and paper industry in Thailand. Instead the industry relied on waste paper, rice straw, bagasse, bamboo and kenaf. According to the Bank, “Shortages of raw material keep the pulp and paper industries operating below capacity and prevent expanded capacity” (ADB 1988: 1). The Bank's narrow view of the situation is clearly illustrated here. According to the Bank, the industry must expand. Yet, by the late 1980s there had been several major protests against the development of eucalyptus plantations in Thailand – the ADB appears oblivious to these protests. (See section on Protests, below.)

From 1989, the Asian Development Bank, carried out a “Private Tree Farms Development Study”, which aimed to “prepare for the development of a major resource base which could support new and expanded domestic industries based on wood fibre” (ADB 1988: 5). The US\$320,000 technical assistance was funded through a grant from the Japan Special Fund (ADB 1988: 8). According to the Bank, the project aimed “to determine appropriate mechanisms to develop a meaningful reforestation program relying on the active involvement of the private sector” (ADB 1988: 9). Phase one of the project identified private companies “interested or active in tree plantation development” and determined the level of interest from banks in giving loans to plantation companies (ADB 1988: 6).

The Agricultural Land Reform Office is currently in negotiations with the Asian Development Bank to receive a US\$20 million loan from the ADB for structural adjustment in the agriculture sector. The Four year project would establish a revolving fund to promote commercial tree plantations in land reform areas, and would be carried out in association with the RFD and the FIO (Montri 2000a: 5) (Montri 2000b: 6).

– CANADA

Canada's International Development Agency (CIDA) helped fund the Canadian consultant firm H.A. Simon's work with the Thai company Soon Hua Seng (Carrere and Lohmann 1996: 234) and helped establish the ASEAN Forest Tree Seed Centre in Thailand (ADB 1988: 4). In 1992, Chemetics International Company of Vancouver won a contract with Phoenix to supply engineering services, equipment and materials for an integrated chemicals bleaching plant. The deal was financed with loans from the Export Development Corporation of Canada (US\$5.7 million) and the Canadian Imperial Bank of Commerce (US\$4.3 million) (EDC 1992).

– UK

The British Commonwealth Development Corporation has invested in the following Soon Hua Seng Group companies: Advance Agro Public Company Ltd (Integrated pulp and paper mill); Thailand Advanced Communications Co Ltd (Printing and publishing); and Thailand Soon Hua Seng Company Ltd (Eucalyptus forestry and pulp and paper production) (CDC no date b). (See section on CDC, below.)

– JAPAN

Aid agencies have also supported research into fast-growing tree plantations aimed specifically for the pulp and paper industry. Japan has been particularly active in this field. In 1981, Japan's International Cooperation Agency (JICA) established a trial eucalyptus plantation covering 844 hectares in Sakaerat (JICA no date b: 11) in northeast Thailand. The project aimed to promote research and training of Thai forestry officials.

Funds from Japan's Overseas Economic Cooperation have supported farmers' participation in the Thai-Japan Reforestation and Wood Industry Co. which was designed to supply raw materials to a consortium of Japanese paper makers (Carrere and Lohmann 1996: 233-234).

During the 1980s, JICA also supported the Research and Training in Reforestation Centre based in Bangkok (ADB 1988: 4).

In 1992, JICA funded the "Reforestation and Extension Project in the Northeast of Thailand", a five year project which established four large-scale nursery centres in the northeast and aimed to produce 20 million seedlings a year. The seedlings were distributed to farmers in over 100 selected villages, with extension services also provided by the project. The project also established a demonstration plantation covering 6,400 hectares (JICA no date a) (Carrere and Lohmann 1996: 233).

– AUSTRALIA

During the 1980s, the Australian government promoted eucalyptus plantations in Thailand, through its support of a project in Tung Kula Ronghai in north east Thailand. Tree planting, supposedly to "reforest" upland areas as part of the project led to widespread protests by the communities affected.

The theory was simple: the fast-growing trees would raise the water table, and thus prevent salts being deposited in upper soil layers. Rice yields would therefore increase. The project designers however, completely overlooked the fact that the "degraded" forest, which the project replaced with eucalyptus trees, was actually of vital importance to the villagers and provided a source of firewood as well as pasture for grazing animals (Casson 1997: 13).

Even where the project met its own goals, it failed from the villagers' point of view. In June 1987, project consultants McGowan International reported that 480 hectares of eucalyptus planted in Nam Kham had successfully lowered the water table – unfortunately the plantations had also dried up village wells (Casson 1997: 14).

A 1995 Thai NGO report documents the problems with the project: "Soils where eucalyptus is planted have become sandier, and the ground is crossed by deep cracks in the dry season. In Kampaeng subdistrict, which consists mainly of uplands, soils which have become sandy migrate to lower areas. They have, for example, accumulated in the local natural pools or nong, making them so shallow they are unusable by livestock or people" (Jirawan et al 1995).

Despite the problems, the project won the Australian government's 1988 award for "Excellence in Overseas Development Assistance" (Carrere and Lohmann 1996: 235).

The Australian Agency for International Development (AusAID) has learnt few lessons from its failure at Tung Kula Ronghai. According to Gerard Guthrie, AusAID's Director of Rural Development, Infrastructure and Environment, "AusAID has had almost no activity" in plantation development. AusAID does not have a policy on plantations and does not even have a forest policy. AusAID has not commissioned any research into tree plantations in the last five years, and "given the absence of relevant projects" it does not propose to commission any (Guthrie 2001).

– FINLAND

The case of the Thai Forest Sector Master Plan shows how some of the various actors work together in promoting industrial forestry and the pulp industry. The Master Plan project came about through a series of meetings between Jouko Virta, the president of Jaakko Poyry's consulting division, and members of the Thai government. In May 1988, during a trip to Finland, then-Prime Minister Prem Tinsulanonda signed an agreement for the Finnish government to fund a Thai Forest Sector Master Plan. Not surprisingly, Jaakko Poyry won the contract to carry out the project (Carrere and Lohmann 1996: 243) (Rajesh 1995: 30).

Poyry benefitted further from the Finnish government's generosity in 1988, shortly after the then-Finnish Ambassador to Thailand, Benjamin Bassin, visited the Phoenix pulp and paper mill in northeast Thailand. The Finnish government subsequently agreed to give an interest US\$91 million free pre-mixed concessional credit for the expansion of Phoenix's pulp mill. The Swedish and Austrian governments also contributed concessional loans. Between 1990 and 1994, Jaakko Poyry International was among the Finnish firms that supplied the designs, machinery and technical advice to Phoenix (Watershed 1998b: 52). (See section on Phoenix, below.)

Poyry's Thai Forestry Sector Master Plan had an overwhelming bias towards planning for the development of industrial forestry and the pulp and paper industry and formulating the relevant policies and developing institutions to implement the plan (Montri 2000a: 2). The Plan recommended handing over four million hectares of farmers' land to private companies for tree plantations to feed the pulp and paper industry.

Thai NGOs opposed the plan, asking Finland to withdraw its aid for the plan. In August 1990, representatives from more than 200 Thai NGOs announced their refusal to participate in the TFSMP until it was completely separated from current government forest policy (Lohmann 1991: 16).

In 1995, the Finnish International Development Agency (FINNIDA), commissioned the World Conservation Union (IUCN) to carry out a review of the TFSMP. The review pointed out "serious flaws" in the Plan, and stated "if implemented either partially or in full, the plan would have many widespread, permanent social, economic and environmental impacts." IUCN's review team also pointed out that "the project was established with serious flaws in its design and methodology," with 80 per cent of consultancies going to international consultants who were "almost exclusively Finnish or Swedish and none spoke Thai" (Watershed 1996b: 4). (See Rajesh (1995) for a critique of the TFSMP.)

Although the TFSMP was never adopted by the Thai cabinet, during the project Poyry learnt the ins and outs of Thailand's forestry sector. Finnish machinery exporters also benefitted. During the same trip to Finland in 1988 that he signed the TFSMP agreement, Prem Tinsulanonda also agreed to the establishment of the Thai-Finnish Trade Association (now called the Thai-Finnish Chamber of Commerce). The Association aimed to "serve and promote trade activities between Thailand and Finland" (T-FCC www 1). Between 1989 and 1992, Thai exports to Finland grew four times, while Finnish exports to Thailand grew ten times (T-FCC www 1). Exports of machinery, much of it related to the forestry sector, rose from US\$19 million in 1990 to US\$113 million by 1993 (Carrere and Lohmann 1996: 234).

– SWEDEN

More Scandinavian support to industrial forestry in Thailand came in the form of a Sida-funded project: "Organisational Development of the Forest Industry Organisation (FIO)". Until the 1989 ban on inland logging concessions, FIO was responsible for logging Thailand's forests, through concessions handed out to logging companies. With the logging ban, FIO lost its main source of income and quickly ran up huge debts.

Like the TFSMP, the Swedish-funded FIO project grew out of meetings between a Scandinavian consultant and Thai officials. In 1992, Carl Mossberg, a consultant working in Laos for the Swedish forestry consultants, Swedforest, visited Bangkok and FIO. He met Chittiwat Silapat who was then head of wood products sales at the FIO. At the time Chittiwat was considering ways for FIO to survive in post-logging ban Thailand, and he asked Mossberg whether there was “any possibility for us to have some help from Sweden” (Chittiwat 2000a).

Chittiwat visited Sweden in November 1992, discussed the project with officials at the Board for Investment and Technical Support (BITS), and on his return to Bangkok submitted a proposal which BITS agreed to fund (Chittiwat 2000a). Not surprisingly, Swedforest subsequently won the contract. Tomas Jonsson, the project manager for the project said Swedforest won the project “In an open bidding process” (Jonsson 2001a). Yet, the funding proposal that FIO submitted to BITS in 1993 states, “The project will be carried out in close cooperation between FIO and Doman through Swedforest International AB of Sweden” (FIO 1993: 4). At the time Swedforest was part of the Doman Group, the Swedish state forest enterprise. Swedforest is now called SCC Natura. (See section on SCC Natura, below.)

In what Carl Mossberg described as “finding a new life for FIO” (Mossberg 2000) the project aimed to help FIO change focus to a pulp and paper and plantation agency. Project documents state that “forest plantation [sic] is the only answer for needed wood supply” (FIO 1993: 1) and that the new role of FIO is “to be a forerunner in establishing sustainable economic forests for Thailand’s self-sufficiency” (Usher 1994). As part of FIO’s new image, SCC Natura and FIO spent three years preparing two plantations for assessment for compliance with Forest Stewardship Council’s principles for well managed plantations. SmartWood carried out the assessment in October 2000. In June 2001, Jeff Hayward of SmartWood stated, “we are still in a contracting phase. . . . We are in process of contracting a five year certificate that would include, at the present, only the two units evaluated in October 2000” (Hayward 2001). In 2001, the two plantation areas were awarded FSC certificates. The FSC assessment effectively continued the process started by Swedforest in 1993 – a process that has involved little, if any, discussion with NGOs and no facilitation of public debate about the role of FIO since the logging ban. (See section on FIO, above.)

4. COMPANIES

The real beneficiaries of the support to the pulp and paper industry are the companies. This section profiles some of the Thai and international companies involved in the industry in Thailand.

– ADVANCE AGRO

Advance Agro Public Company Limited is the largest fully integrated pulp and paper manufacturer in Thailand. The company manufactures and distributes pulp and printing and writing paper in Thailand and exports to Europe, Asia, USA, Africa and countries in the Middle East (Wright www 1). Seventy per cent of the company’s production is exported, the two largest markets being China and Japan (Woranuj 2000).

Advance Agro is part of the Soon Hua Seng (SHS) Group. SHS was founded in the 1950s by members of the Dumnernchanvanit family, which still controls the Group (AA www 2). SHS boasts of being the biggest rice and cassava exporter in the world (Mallet 1992) and started growing eucalyptus in 1982 as an alternative to crops such as rice and cassava. The company converted its cassava fields into eucalyptus plantations partly as a result of a European Community decision to reduce cassava imports (Malee 1992). In 1987, SHS started to plant eucalyptus on a commercial scale and formed Advance Agro to produce pulp and paper (AA www 4).

Advance Agro was incorporated in 1989, and listed on the Stock Exchange of Thailand in February 1995. The major shareholders are the Soon Hua Seng Group (47.1 per cent), officers and directors of Advance Agro (8.9 per cent), Stora Enso (19.9 per cent), Oji Paper (5.5 per cent) and the Commonwealth Development Corporation (1.1 per cent) (AA www 2).

Advance Agro's and the SHS Group's management are well connected with Thailand's political elite. Virabongsa Ramangkura, Advance Agro's chairman, served as an economic advisor to General Prem Tinsulanonda, Thailand's prime minister in the 1980s. In the mid-1990s, he was finance minister during General Chatchai Choonhaven's administration and was deputy premier in charge of economic affairs under Prime Minister General Chavalit Yongchaiyudh. Virabongsa is an advisor to Bangkok Bank, which has outstanding loans of approximately US\$850 million with the SHS Group (AA www 3). In November 2000, Virabongsa became chairman of the Thai language newspaper and magazine publisher Siam Rath Co (Achara 2000).

Chanchai Leetavorn, Chairman of Advance Agro's board of directors, has held the posts of Permanent Secretary of the Ministry of Finance, Minister of Commerce and Deputy Minister of Finance (AA www 3).

Kitti Dumnernchanvanit, President of SHS, was a Senator in the Thai Senate, and an economic advisor to the Prime Minister (Sonnenfeld 1998a: 66). Until 2000, he was a director of Bangkok Bank. Kitti's son Yothin Dumnernchanvanit is the General Manager of Advance Agro (Bangkok Post 24 April 2000).

Prasit Kanchanawat, a former commerce minister, held the positions of chairman of SHS and Bangkok Bank simultaneously (Mallet 1992).

Advance Agro's first mill opened in 1996, and the second in 1998, at Tha Toom in Prachinburi province, 120 kilometres from Bangkok (AA www 1). Total production capacity is 430,000 tonnes of pulp per year (Srisamorn 2000). Raw material is eucalyptus and imported long-fibre pulp. (AA www 1) All short-fibre wood comes from eucalyptus trees grown in a 150-kilometre radius of the Tha Toom mills (AA www 3). SHS established a laboratory for conducting research into Eucalyptus camaldulensis and other fast-growing trees in 1982. Today, SHS Group's 67 hectare complex of greenhouses and nursery plots churns out 65 million hybrid clone seedlings every year (AA www 3).

Advance Agro manufactures an office paper called "Envirocopy Premium". Advance Agro markets the paper as elemental chlorine free, not using timber from rainforest, produced in a mill which uses minimum water and uses effluent to irrigate tree plantations. The company describes the plantation areas as old rice growing areas now degraded after generations of rice farming (Hobbs 1998).

Advance Agro exports pulp to mills in Tasmania belonging to AMCOR, the Australian paper and packaging giant (BWC 1999).

Advance Agro mills produce office copy papers marketed as "Speed copy papers". The paper is marketed by The Paper Company as coming from an "environmentally certified factory" using eucalyptus from its own plantations (Paper Company www 1).

In contrast with its internationally projected "green" image, in Thailand Advance Agro is notorious for the 1990 "Suan Kitti scandal", when 156 Soon Hua Seng employees were arrested for illegally logging a forest area in East Thailand. (See [section 2 \(https://chrislang.org/2002/12/01/the-pulp-invasion-thailand/#156\)](https://chrislang.org/2002/12/01/the-pulp-invasion-thailand/#156), above.) After the scandal, SHS hired the Finnish-owned Presko public relations firm for advice, and swiftly changed the name of the proposed mill from "Suan Kitti Pulp Mill" to Advance Agro (Sonnenfeld 1999: 18).

Advance Agro does not actually own any of its own plantations, instead purchasing the wood from Agro Lines, another member of the SHS Group. Agro Lines obtains its wood from four sources:

- from its own plantations (which in 1997 covered 31,000 hectares);
- from plantations owned by the SHS Group;
- from local farmers under contract to Agro Lines (in 1997, 46,000 hectares); and
- from individual farmers (AA www 3).

The logs are transported to the mill either by farmers or by a trucking company which is also part of the SHS Group, working under subcontract to Agro Lines (AA www 3). Yet another SHS Group company owns the trucks which transport much of the finished product from the mills (AA www 3).

Shareholders and finances

In 1994, Advance Agro planned an initial public offering, aiming to raise US\$80 million, part of the US\$650 million required to build a pulp and paper mill. Barclays de Zoete Wedd was the international lead manager for the offering. The project's main backers were Bangkok Bank, Thai Farmers' Bank, Krung Thai Bank and the Commonwealth Development Corporation (see section on CDC, below) (Mallet 1994). The mill was financed with loans from export credit agencies with working capital and guarantee facilities provided by Thai banks (AA www 1). The International Finance Corporation lent Advance Agro US\$10 million in 1994 (IFC 2000).

In April 1994, Mitsubishi Corp, Japan's largest general trading house, and Mitsubishi Heavy Industries Ltd, a major Japanese machinery maker, received an US\$126 million order from Soon Hua Seng to build a paper mill. Under the agreement Mitsubishi Heavy provided the machinery for the plant, and Mitsubishi Corp handled the import and export arrangement (The Nation 14 April 1994).

Advance Agro was hit hard by the economic crisis in 1997. The company breached financial covenants on its loans as a result of foreign exchange losses. As almost all of Advance Agro's debt was in US dollars, the company was very vulnerable when the value of the Thai baht fell by almost half in 1997 (Bangkok Post 8 November 1997).

In November 1997, Advance Agro made a US\$111.35 million bond offering on US markets (Luce and Bardacke 1997). The company was the first from Thailand to issue high-yield bonds. The proceeds from the deal were to be used to build a new pulp mill (see Sino-Thai project, below), to pay off debt and for working capital (Bangkok Post 10 November 1997).

In 1997, Advance Agro posted losses of US\$200 million. To compensate for the losses, in 1998 Advance Agro planned to increase exports to the US, Europe, Australia, the Middle East and Asian countries (Bangkok Post 10 March 1998).

The economic crisis was also behind the sale of 19.9 per cent of Advance Agro shares to Enso (now Stora Enso, see section on Stora Enso, below). The benefits to Stora Enso are huge. For US\$82 million, in addition to the shares, Stora Enso received:

- exclusive international marketing rights outside Thailand and Japan (Burt 1998c);
- two members of Stora Enso on the Board of Advance Agro (Jirajaree 1998);
- a secure market for at least 12,000 tonnes of long-fibre pulp a year from its European mills (AA www 4); and
- Stora Enso has approval rights for major corporate decisions, as long as it holds at least 10 per cent of the company (AA www 4).

In May 1999, Jukka Harmala, the president of Stora Enso group became a board member of Advance Agro (Bangkok Post 7 May 1999).

New Oji Paper, Japan's largest producer of pulp and paper, also bought 5.5 per cent of Advance Agro in 1998, at a cost of US\$22 million (The Nation 29 September 1998). Under the agreement a senior executive of Oji Paper will sit on the Board of Advance Agro (Bangkok Post 29 December 1998). Through the deal Oji Paper won the exclusive right to sell Advance Agro paper in Japan (AA www 4). In May 1999, Masahiko Ohkuni of Oji Paper became a board member of Advance Agro (Bangkok Post 7 May 1999).

Although Advance Agro hoped to make a profit in the year 2000 (which would have been its first profitable year since its pulp and paper mill opened in 1996), Soon Hua Seng Group's creditors were getting increasingly nervous about the Group's debt restructuring. Bangkok Bank has nearly 30 billion baht (approximately US\$850 million) in outstanding loans with SHS. SHS and Bangkok Bank have close links. SHS is a major shareholder of the Bank, and Kitti Dumnernchanvanit only resigned from the Board of Directors of Bangkok Bank in 2000. Bangkok Bank, Krung Thai Bank and Thai Farmers Bank have also offered export credits worth US\$510 million to SHS group, including a US\$300 million line for Advance Agro (Cholada and Darana 2000).

By August 2000, local banks were threatening to file a suit against Kitti Dumnernchanvanit, Advance Agro's General Manager, after talks on debt restructuring broke down. Since June 2000, the Bank of Thailand has required local banks to submit restructuring schedules for non-performing loans. If the talks fail to meet deadlines, the banks are required to press legal suits, or face fines imposed by the Bank of Thailand. An executive at Bangkok Bank said the bank would file suits aimed at the individual companies within the group, starting with Advance Agro. Soon Hua Seng serviced its debt to foreign creditors through its export earnings, while failing to repay loans from Thai banks. SHS used funds from many loans to the group for alternative purposes, leaving no clear trace of where cash was transferred. The Soon Hua Seng case has proved "to be a huge headache for all the creditors", an executive of Thai Farmers Bank told the Bangkok Post (Cholada 2000a).

In 2000, Bangkok Bank, Krung Thai and Thai Farmers Bank paid out four billion baht (about US\$110 million) in guarantees to cover Advance Agro's debt to foreign creditors. The three banks covered Advance Agro's liabilities after the company defaulted on debt repayments (Cholada 2000b).

Related companies

Other SHS Group companies involved in plantations, or the pulp and paper industry include:

- Agro Lines, which as well as selling wood to Advance Agro also uses wood in its own fibreboard plant, sells wood to other pulp producers in Thailand, and exports wood chips to Japan (AA www 3).
- Hi-Tech, which operates a 35,000 tons a year paper mill at Ban Laem Kho Jan in Chachoengsao. The mill started operations in 1993. Surplus pulp from Advance Agro's mills is transported to the Hi-Tech mill (AA www 3) (Mallet 1994).
- Eka Udon Trading Company, which operates a wood processing factory in Chachoengsao province. The factory produces goods used in the rest of the SHS Group. For example, wooden pallets for forklift truck are used to transport paper products around Advance Agro's mills (AA www 3).
- Agro Mats Co., which operates a Medium Density Fibreboard factory (AA www 3).
- Suan Kitti Reforestation Co., which operates a 300,000 tons a year wood chip plant exporting to Korea and Japan, as well as selling to local markets. The company also delivers tree bark and undersized wood chips to the SHS Group's power plants for use as fuel (AA www 3).
- Advance-Alcore, a joint venture between Advance Agro (78 per cent) and Ahlstrom Alcore of Finland (22 per cent) started production in August 1996. The 3,500 tons a year cardboard plant is located in Prachinburi. Eighty per cent of the produce is used by Advance Agro subsidiaries, the remainder sold to other mills in Thailand or exported (Bangkok Post 3 September 1996).

- Advance-Oji Speciality Paper, a joint venture between Advance Agro and Oji Paper formed in October 1996 to produce carbonless copy paper at a new 30,000 tons a year plant in Prachinburi (Bangkok Post 3 October 1996). In February 1997, Advance-Oji Speciality Papers signed a loan agreement of US\$60 million with a group of Japanese banks, led by Sakura Bank, to finance machinery purchases and construction of its new plant (The Nation 18 February 1997). Oji made its decision to invest in the project after a Jaakko Poyry market study on carbonless copy paper. Advance Agro withdrew from the project because of funding difficulties after the 1997 financial crisis, leaving Oji as the sole owner. The mill started production in May 1998. Half the base paper for the mill is supplied by Advance Agro and the rest comes from Japan. The finished paper is marketed under the brandname “Phoenix”, although there is no connection with the Phoenix pulp and paper mill. Seventy per cent of output is exported, mainly to Hong Kong, Malaysia, the Philippines, Singapore, South Korea and Taiwan (Ryan 2001).
- Advance Power Supply, a subsidiary of Advance Agro, received a credit facility in October 1996, to construct two 150 MW power plants. Advance Power Supply arranged the credit facility through the Bangkok Bank, Krung Thai Bank and the Industrial Finance Corporation of Thailand, as well as a group of finance and securities companies. The two new units were to be built by another subsidiary of Advance Agro, National Power Supply (Bangkok Post 11 October 1996). In 1998, National Power Supply reached a deal with Michigan-based CMS energy which bought up US\$60 million in shares. National Power Supply plans to build two 150 MW units – a US\$90 million investment (The Nation 2 May 1998).
- Wood Vision and Scene Co., which produces garden furniture, office furniture, flooring and household furniture in its Eucalyptus Wooden Furniture Plant in Chachoengsao province (AA www 3).

Expansion to China

In 1992, the Soon Hua Seng Group announced a US\$1 billion plantation and pulp and paper project in China’s Guangdong province. On 5 November 1992, SHS signed an agreement with the Chinese state-controlled Forestry and Paper Mill Co. of Shanwei City to plant 32,000 hectares with eucalyptus and acacia trees from 1993, to build a 120,000 tons a year wood chip mill in 1997-98, and to construct a 120,000 tons a year pulp and paper mill in 1999 (Mallet 1992) (Ratchapol 1992). The land is to be rented from the Chinese government for 50 years (Khao Sod 10 July 1998).

Between 3-11 July 1998, Sanan Kachonprasat, Thailand’s former Minister of Interior, led a group of Thai government representatives to China on a visit to SHS Group’s Chinese plantations (Khao Sod 10 July 1998).

Advance Agro and the Sino-Thai pulp project

In March 1997, Virabongsa Ramangkura, chairman of Advance Agro, announced a project to construct a new 700,000 tonnes a year pulp mill in Prachinburi province, with 96,000 hectares of eucalyptus plantations to supply raw material. The Chinese government would hold 51 per cent of the joint venture, with Advance Agro the remaining 49 per cent (Bangkok Post 25 March 1997). At US\$1 billion the project would be China’s largest single overseas investment. The pulp would be produced for export to China (The Nation 25 March 1997).

According to Virabongsa, Advance Agro was awarded the deal because it said it could build the plant in less than two years, compared to three or four years required by other potential partners (The Nation 25 March 1997). After more than four years of negotiations, however, the project is highly controversial in Thailand, land has not been found for the plantations, and China has threatened to move the project to Malaysia where it says land is available at a cheaper price (Woranuj 2001). In

order to rescue the project, in May 2001, the Ministry of Agriculture and Cooperatives ordered the Forest Industry Organisation to look into the possibility of using its plantations to supply the mill (Ploenpote 2001b).

The project has been negotiated at the highest level of government. Chinese representatives met with then-Thailand's Prime Minister General Chavalit Yongchaiyudh on 24 March 1997, and Chavalit visited China in April 1997 (Achara 1998). In May 1998, Supachai Panitchpakdi, then-Thailand's deputy prime minister and commerce minister visited China for five days. The joint venture with Advance Agro was among the projects Supachai discussed with Chinese premier Zhu Rongji (Woranuj 1998) (Achara 1998).

Supachai also met with State Councillor Wu Yi and agreed to set up a joint working group on project investments consisting of government officials from Thailand and China (Achara 1998).

On his return to Thailand Supachai urged the Agriculture Minister Pongpol Adireksen to move ahead with the project. The Agricultural and Land Reform Office (ALRO) was to set aside 200,000 rai (32,000 hectares) for the project (Bangkok Post 21 April 1998).

In July 1998, Major General Sanan Kachornprasat, then-Thailand's interior minister, led another Thai delegation to China. The Bangkok Post reported that Chinese government officials asked Sanan to set aside areas in Thailand for the proposed eucalyptus plantation (Bangkok Post 14 July 1998).

In September 1999, China's President, Jiang Zemin visited Thailand with a 180-person official delegation for a five-day visit. Land allocation for the Sino-Thai project was a key part of the visit (Achara 1999). During the visit, Chuan Leekpai told Jiang Zemin that Thailand could not set aside the 96,000 hectares required for the project, but that 32,000 hectares could probably be found, and he suggested a contract farming agreement between the company and farmers to make up the remaining area (Bhanravee and Yuwadee 1999). The signing of a Memorandum of Understanding on the project scheduled as part of Jiang's visit was put on hold (Piyantart and Marisa 1999).

In the week following Jiang's visit, the Agriculture Ministry announced that land owned by the SHS company, Suan Kitti, would be allocated for the joint venture. The land is owned by former Senator Kitti Dumnernchanvanit, who received a 30 year concession on the land area before the ban on commercial plantations in 1992 (Pennapa 1999). (See section 3, above.)

On 1 February 2000, the Thai cabinet agreed in principle to cooperate on the project. An agreement was signed on 2 February 2000 by Supachai Pantitchpakdi and the Chinese Ambassador to Thailand (Bangkok Post 2 February 2000). The proposal was tabled before cabinet just before Commerce Minister Supachai travelled to China – the approval was apparently intended as a gift to Beijing (Wasant 2000).

Thailand's Royal Forest Department (RFD) has backed the project, and has attempted through the project to evict farmers living on forest land. The RFD also suggested increasing the area of land that could be allocated to individual farmers in degraded forest reserves from 8 hectares to 16 hectares. The Committee on National Forest Policy rejected the RFD's proposals (Matichon 3 September 1999) (Thai Rath 4 September 1999).

In October 1999, the RFD set up a working team of 20 people to search for 200,000 rai (32,000 hectares) of degraded forest reserve in six provinces. The government had already set up a committee – the Committee to Consider the Area for Eucalyptus Plantations within the Sino-Thai Pulp and Paper Project (Matichon 11-12 October 1999).

The RFD attempted to set a condition for the project: China should replant 100,000 rai (16,000 ha). According to Plodprasop Suraswadi, Director-General of the RFD, “We already have designated an area for the project. If China agrees to the area we propose, the project can go ahead but it has to be on condition to replant the forest land” (The Nation 10 September 1999). In January 2000, China accepted the conditions, by which time the area to be replanted appeared to have grown to 400,000 rai (64,000 ha) nationwide. Plodprasop attached six additional conditions, including the use only of degraded land that was already occupied by forest encroachers and that China was to cover all survey and compensation costs (Uamdao 2000a). Dismissing any potential ecological problems, Plodprasop told the Nation, “The trees won’t have any effects on other trees because we will plant only eucalyptus and not mix them with other species. It is likely eucalyptus will scramble for water among themselves” (The Nation 10 September 1999).

RFD sees the project as a means to reasserting its control over forest land. In March 2000, at a panel discussion organised by the Thai Society of Environmental Journalists, Plodprasop stated that the project would help the RFD in solving encroachment problems on forest reserve land in the northeast. The company must negotiate with the villagers, and pay compensation to those agreeing to return land, “the department would get back large tracts of forest land without having to spend its own resources”. Plodprasop argued that eucalyptus trees consumed relatively little nutrients while producing large volumes of wood. Apparently forgetting that the whole point of the project is to export pulp to China, Plodprasop added that the project would help reduce Thailand’s imports of paper (Bangkok Post 20 March 2000).

Several Thai environmental NGOs oppose the scheme. Pakphum Withantiwat, an advisor the Forum of the Poor, Pornpana Kuanchakorn of Project for Ecological Recovery, Surapol Duangkae of Wildlife Fund Thailand and Daycha Siripat, an advisor to the Alternative Farming Network have all expressed their opposition to the scheme to the press. NGOs pointed out the ecological problems as well as the impacts of removing such a large area from farmland (Pennapa 1999) (Uamdao 1999c) (Uamdao 1999b).

Towards the end of September 1999, NGOs organised a seminar entitled “Eucalyptus and the Failure of Thai Forestry”. The China-Advance Agro project was the focus of much of the discussion. NGOs pointed out that despite the scale of the project, the contract signing was not transparent, and no details were released to the public. In addition, the project was in contradiction with two Cabinet resolutions: that of the Chatichai Choonhaven government dated 15 May 1990, which temporarily revoked approval to rent degraded forest reserves for eucalyptus plantations; and that of the Anand Panyarachun dated 8 September 1992 which limited the area of national forest reserve that could be planted with eucalyptus to 8 hectares (50 rai) (Krungthep Thurakij 21,22,26 September 1999).

The “degraded” forest areas that the project would convert to monoculture are home to rare birds such as Rufous-winged Buzzard, White-rumped Falcon, Blossom-headed and Red-breasted Parakeets and Fulvous-breasted Woodpeckers (Round 2000). Although an environmental impact assessment would be required for the pulp mill, no study is planned to be carried out of the environmental and social impacts of the plantations (Montri 2000a: 5).

In addition to the NGOs, several government officials have spoken out against the project. In October 2000, the Chachoengsao Provincial Administration Organisation (PAO) filled a petition against the project with the cabinet. Somchai Asschaisophon, president of the Chachoengsao PAO stated that people living in Takiab district and provincial councillors opposed the project (Bangkok Post 4 October 2000).

Forestry officials at Kao Ang Ruenai Wildlife Sanctuary in Chachoengsao expressed their concern about the project to the Bangkok Post, pointing out that there was no further land available for farmers to resettle in once they were moved to make way for eucalyptus (Uamdao 2000b).

In July 1998, Krit Khongpetch, the former Deputy Minister of Agriculture and Cooperatives was reported in the Thai language newspaper, Khao Sod, disagreeing with the proposed Chinese joint venture. He pointed out the likely impacts on ecosystems, especially the impact on underground water and likelihood of drought. He questioned the motives behind the project and asked why China wanted to use land in Thailand when China has a very large area suitable for plantations (Khao Sod 11 July 1998).

Even the head of the Forest Industry Organisation (see section on FIO, above), Prasit Puaktow, came out against the project. “Nobody here is happy with the project because all the 200,000 rai [32,000 hectares] of degraded forest have owners and its not worth selling the land because the project only lasts for 30 years. After that, there’s nothing they can do to earn a living” he said to the Bangkok Post (Uamdao 2000b).

In August 2000, Chang Noi (a pseudonym) reported in The Nation that Newin Chidchob the Agriculture Minister had disowned the project during a televised debate with the Assembly of the Poor. Newin said the Chavalit government started the project and that the present government (under prime minister Chuan Leekpai) found it a huge embarrassment and would like to get out of it (Chang Noi 2000).

The current status of the project (in January 2002) is not clear. Villagers in Chachoengsao report that the RFD continues to survey the area, apparently in order to allocate land for the project. Neither the Chinese nor the Thai government has issued any statement stating that the project will be relocated to Malaysia (Rajesh 2001). In May 2001, the Bangkok Post reported that the Ministry of Agriculture had instructed the Forest Industry Organisation to look into the possibility of using its plantations to supply the proposed pulp mill. Under this scenario, the mill could be developed either as a state investment or as a joint venture. Advance Agro would be a potential partner if the project goes to the private sector, according to the Post (Ploenpote 2001b).

– PHOENIX PULP AND PAPER COMPANY

Established in 1975, Phoenix is today Thailand’s largest short-fibre pulp producer (Wright www 2). Phoenix Pulp and Paper produces bleached eucalyptus pulp, bleached bamboo pulp, and bleached kenaf pulp (EODC www 1).

Sixty per cent of production is exported to over 25 countries, including Europe, North America, Korea, Australia and Japan. The remaining 40 per cent is for the domestic market (Pearmsak and Mochida 1999: 122) (Davison 1998). The company employs around 1,200 people in its mills in Khon Kaen, about 450 kilometres northeast of Bangkok (EODC www 1).

Phoenix’s first production line went into operation in 1982. The consulting engineer for the 70,000 tons a year mill was the German-Austrian company, Klockner-Voest, and the pulping technology was supplied by the Swedish company, Kamyr (Sonnenfeld 1998a: 67).

In the mid-1980s, Phoenix started to look at the possibility of a second mill, and hired Jaakko Poyry to carry out a feasibility study (Sonnenfeld 1999: 35).

Phoenix’s second mill opened in 1994, and with a capacity of 100,000 tons a year doubled Phoenix’s capacity. Phoenix II cost US\$240 million (EODC www 1) covered in part by a loan of US\$80 million, from several Scandinavian banks, led by Leonia Bank of Finland. The loan was guaranteed by Finnvera, the Finnish Export Credit Agency, and the Industrial Finance Corporation of Thailand. The loan is a concessionary loan under which the Finnish government pays all the loan interest due to Leonia Bank: the largest concessionary loan ever granted by the Finnish government (The Nation 17 June 1999).

Between 1990 and 1994, Scandinavian companies including Ahlstrom, Sunds Defibrator, Nopon Oy, Valmet and Jaakko Poyry delivered machinery, equipment and services for Phoenix II (WRM 1998b).

The first mill was planned to use kenaf, a woody annual similar to jute, as raw material. Before the world market for kenaf collapsed in 1967, up to 70,000 farmers grew the crop in northeastern Thailand, and the mill was supposed to provide a new market for kenaf growers. However, Phoenix's survey, carried out before the mill was built, overestimated the amount of kenaf grown in the region, and many farmers found they could get a better price for their kenaf on the world fibre-market (Watershed 1998b: 54). In addition, during the 1980s, many farmers shifted to growing cassava hoping to profit from rising prices in Europe. The mill was thus left short of raw material, and in 1985, Phoenix started to process bamboo and began contracting with farmers to grow eucalyptus (Sonnenfeld 1998a: 63). In 1988, with funding from USAID and the Thai government, Phoenix launched a programme to select a fast-growing bamboo variety to supply the mill (Lehmer 1997).

In 1988, Phoenix entered into negotiations with the Lao government about a possible 16,000 hectares concession to cut bamboo in Savannakhet province, and about establishing a wood chip factory in Laos. Although these plans came to nothing, they are indicative of the serious shortage of raw material that Phoenix faced, and in 1988 Phoenix was buying bamboo from as far away Kanchanaburi in western Thailand (Bangkok Post 29 August 1988).

The raw material for Phoenix II is eucalyptus. Sudhir Mittal, Deputy Managing Director of Phoenix, explained, "We thought if we build a second line we will have to export part of our product. It can be only eucalyptus because eucalyptus is known worldwide – you can sell eucalyptus pulp anywhere in the world" (Watershed 1998b: 54). Since the mid-1980s when Phoenix began contracting with farmers to grow eucalyptus, the number of farmers supplying the mill has grown to around 60,000 today.

Phoenix supplied six million eucalyptus seedlings to farmers within a 150 kilometre radius of the mill. Farmers are responsible for planting fertilising, weeding and selling the trees. Farmers are also responsible for digging out the trees after the third coppice rotation. According to Mittal, "They want to earn some money, they have to meet the expenses also" (Watershed 1998b: 54).

In fact, the risks of growing the tree crop are simply passed on to the farmers. Phoenix does not need to rent land, worry about crop failures due to diseases, or invest any money into the management of plantations to supply the mill. The contract Phoenix draws up with farmers is simply an attempt to prevent farmers selling their wood to any other companies (Pearmsak and Mochida 1999: 124). When wood prices are high, for example in 1995-96, farmers sell their timber elsewhere, leaving Phoenix facing raw material shortages. Phoenix's extension officers now visit farmers once a month to monitor the tree crops (Pearmsak and Mochida 1999: 142).

Recurrent raw material shortages are not the only problem that Phoenix faces. Government officials have closed down Phoenix mills on several occasions, as a result of pollution from the mill. In March 1992, Thailand's government forced Phoenix to close down, as a result of a massive fish kill in the Phong River downstream of the Phoenix mill. Although it later turned out that a huge spill of molasses from a government-run sugar mill was the likely cause of the fish deaths, before the spill farmers had been arguing with Phoenix management over its effluent emissions into the Phong River. Activists insisted that Phoenix should also remain closed. Phoenix reacted by flying in a new waste water treatment plant from Ahlstrom in Finland. Crews worked 24 hour shifts to install the equipment, and Phoenix reopened within a month (Sonnenfeld 1998a: 69).

Phoenix's pollution problems did not end there, however. In May 1993, officials from the Industrial Works Department of the Ministry of Industry closed down Phoenix again, for about a month, again on the grounds that it had polluted the Nam Phong river, this time killing thousands of fish (Davison 1998).

On 22 July 1994, NGOs submitted a petition to Kavee Supatheera, the Khon Kaen governor asking him to appoint a committee to study the fish deaths in the river, and to find measures to stop the pollution.

One of the Finnish government's arguments for supporting Phoenix II was that effluent discharged into the Phong River from the mill would be reduced. Pirkka Tapiola, the Embassy of Finland's charge d'affaires in Bangkok, told the Nation, "We wanted to finance the acquisition of clean, environmentally-sound technology" (The Nation 17 June 1999).

"Project Green", a scheme designed by Jaakko Poyry, whereby Phoenix's effluent was discharged over eucalyptus plantations, started in 1995 (WRM 1998b). However, the scheme fails to solve the pollution problem. The yellow, frothy waste water spreads to adjoining rice fields, wetlands and groundwater, ruining rice crops and threatening the health of local people. With heavy rains the water overflows into the Phong river.

Rice farmers have repeatedly protested the damage to their crops caused by the waste water discharged through Project Green. As a result, of villagers' for compensation Phoenix has paid out around US\$100,000 to villagers. The company however, refuses to accept responsibility for damaged crops as a result of "Project Green".

Pollution of the Phong River has continued, and in July 1998, the Bangkok Post reported thousands of fish

"floating belly-up" in the Phong River. The Industry Minister, Somsak Thepsuthin, ordered the mill closed again in July 1998 (Watershed 1998b: 56). Once again in June 1999, the Public Works Department ordered the mill shut down again, because flow from the Ubolrat dam, upstream of the pulp mill, had fallen below the required one million cubic metres of water a day. Phoenix argued that the regulation should be scrapped, saying that since March 1997, all the water from the mill has been discharged through Project Green (Reuters 1999).

Despite the mill's pollution problems and the problems faced by farmers because of the huge areas covered with eucalyptus grown for Phoenix, the company attempts to market its products as "entirely environment-friendly" and adds "Phoenix's raw-materials obtained from 'tree-free' pulp gives the company an added edge against its competitors" (Phoenix no date a).

Phoenix has 40 to 45 worldwide customers and only three or four in Thailand (Umesh 1999b). Phoenix's main export markets for eucalyptus pulp are Japan, Korea, Indonesia and Europe, and for bamboo pulp US, Europe, India, Vietnam and Sri Lanka (Phoenix no date b).

A US-based company, Lyons Falls, stopped purchasing bamboo pulp from Phoenix in 1997, after Earth Island Journal launched a consumer campaign aimed at persuading companies not to purchase pulp from Phoenix on the grounds that the mill is polluting and that industrial-scale harvesting of bamboo is not environmentally sound (Lehmer 1998).

Shareholders and the takeovers

Phoenix was launched in 1975 as a joint venture between Ballarpur Industries, the European Overseas Development Corporation, the Thai Ministry of Finance, the Industrial Finance Corporation of Thailand and other Thai partners (Towie 1998) (EODC www 1).

Ballarpur is an Indian-based conglomerate. The group's major activities include engineering, chemicals, textiles, agri-business, electrical equipment, pulp and paper. Ballarpur supplied machinery and equipment for Phoenix (Sasithorn 1999) (BILT www 1).

Despite its impressive sounding name, the European Overseas Development Corporation's (EODC) main activities are its stake in Phoenix and a hotel in the Seychelles (Towie 1998). EODC was established in 1966, and aimed specifically to cash in on consulting contracts in the South, associated with project involving European export credits (Watershed 1998b: 53).

The chairman of EODC is George Davison, a 66 year-old ex-US marine. Until he was forced to resign in 1999, after losing an extended takeover battle, Davison was also chairman and chief executive of Phoenix (Watershed 1998b: 53).

In 1994, a battle for control over Phoenix started. Kirit Shah, one of the company's investors decided that Phoenix management, led by EODC, was not running the company well. Share price was at an all-time low. Shah launched a tender offer for Phoenix, through his family's privately held investment company, Globex Pty Ltd (Towie 1998).

Shah also enlisted the help of a friend, Rakesh Saxena, an advisor to the Bangkok Bank of Commerce (BBC). According to Shah, Saxena agreed to put the bank's resources behind the takeover bid. Saxena would find half the investors required to buy around a 22 per cent share in the company – enough for Shah's group to have a majority (Towie 1998).

Davison argues that the whole takeover was backed by Thailand's political elite and says the takeover "amounts to the expropriation of the assets of major foreign investors" (Davison 1998). According to Davison Members of Parliament Suchart Tancharoen (former Deputy Minister of the Interior), Newin Chidchob (Deputy Minister of Agriculture and former Deputy Minister of Finance) were core members of the "Group of 16" – a group of politicians and businessmen who took over companies, asset-stripped them, and sold them. Suchart Tancharoen controlled Jalaprathan Cement, one of the companies that made a bid for Phoenix in mid-1994. The Saudi arms dealer Adnan Khashoggi, also held a substantial share in Jalaprathan Cement. Other companies behind the bid were a Singaporean dummy company and Globex (Davison 1998).

The Bangkok Bank of Commerce (BBC) funded a series of takeover attempts in the 1990s, partly through loans to local politicians and businessmen. Collateral for these loans was often grossly inflated. Mark Greenwood, a Bangkok-based financial consultant described the process: "Nearly every takeover that the BBC was intended to fraudulently get money out of the piggy bank rather than anything else" (Towie 1998). For many years Thailand's aristocracy had used BBC as their own private bank, arranging low-interest loans for their own projects. In the early 1990s, politicians got in on the act. One of the scams involved setting up dummy companies to take out loans, buying shares with the money, and then borrowing more money against the shares. When BBC finally collapsed in 1996, its bad debts had reached US\$3 billion, much of which was allegedly embezzled. A few days before the Bank's collapse, Saxena slipped out of the country (Towie 1998). He is now in Canada charged with embezzling more than US\$2.2 billion from BBC. In September 2000, the British Columbia Supreme Court ordered Saxena to be extradited to Thailand to face charges. He remains in Canada, living under house arrest in a luxurious apartment he built himself (The Province 6 December 2000).

According to a lawsuit filed by the Bank of Thailand, Chuttawat Mookatamara, a politician from the north of Thailand, received US\$50 million from the BBC to buy Phoenix shares. In another Phoenix related case, an indictment against former deputy interior minister Suchart Tancharoen was withdrawn after Suchart reportedly agreed to repay US\$60 million. BBC is now defunct (Towie 1998).

Shah took his battle with Davison to the Stock Exchange of Thailand, claiming improper financial dealings at Phoenix management. On 19 June 1998, SET suspended trading in Phoenix stock (Reuters 1999) and hired PricewaterhouseCoopers to carry out a special audit into Phoenix accounts (Towie

1998). The PWC audit concluded that Davison should have given more details of the deals to board members, but that the ventures had not caused material damage to Phoenix (Umesh and McAuley 1999).

Davison meanwhile attempted to block Shah's takeover bid by borrowing money through EODC to buy up Phoenix shares on the market (Watershed 1998b: 56). Eventually, EODC simply ran out of cash to service its US\$70 million in debt. Merita Bank of Finland put EODC in technical default on a loan which used 3.8 million Phoenix shares as collateral (Towie 1998). In 1999, EODC transferred 23 million shares to Phatra Thanakit as payment of loans made to EODC (Umesh and Nuntawan 1999).

The 1999 Annual General Meeting ended in farce. The eight hour meeting featured computer crashes, allegations of voting fraud, and a 20-minute period when the lights at the Delta Grand Pacific hotel went out. Globex representatives asked police to detain Davison when he closed the meeting before a final count on a vote. Amid the chaos, Globex succeeded in naming five directors to the 15-member board (Umesh and Nuntawan 1999).

Finally, on 15 June 1999, George Davison resigned as chairman and chief executive of Phoenix (Umesh and McAuley 1999). Two days later, Lalit Mohan Thapar, the chairman of Ballarpur Industries, was appointed chairman of Phoenix (Sharma 2000). Kirit Shah became vice-chairman along with Banyong Pongpanich, executive chairman of Phatra Thanakit Finance (Bangkok Post 18 June 1999).

Phoenix has been aiming to expand again, this time in order to find a solution to its financial problems, with the company's total debts totalling US\$77 million. In June 2000, Phoenix announced a proposal to increase its capacity to 470,000 tons a year, with a US\$450 million new plant. Eighty per cent of the increased output is proposed to be exported, when the new plant comes on line in 2003. Phoenix management was reported to be discussing potential low interest loans with the Finnish and Swedish governments (Busrin and Srisamorn 2000).

In February 2001, rumours circulated in the Thai press about a possible Siam Cement tender offer for Phoenix shares. Thai Farmers Bank, which holds 15.57 per cent of Phoenix expressed an interest in selling to Siam Cement (Oranan 2001).

In October 2001, Siam Pulp and Paper bought 24.98 percent of Phoenix from Janpath Investments. In January 2002, Siam Pulp and Paper bought a 20 per cent stake from Thai Farmers Bank in January 2002 raising its holding to 44.98 per cent. After a tender offer, which finished early in January 2002, Siam Pulp and Paper owned more 61 per cent of Phoenix. Siam Pulp and Paper plans to go ahead with planned expansions of Phoenix – including a US\$30 million upgrade of the pulp mill and US\$60-80 million on new facilities (Reuters 2002b). Phoenix Executive Director Vashi Purswani told Reuters in January 2002, that the proposed doubling of output at Phoenix was on track. "We are still waiting for permission," he said. "Hopefully we should get this in the next three months" (Reuters 2002a).

– SIAM PULP AND PAPER

Siam Pulp and Paper is part of the Siam Cement Group, which was established by Royal decree in 1913 and is today Thailand's largest industrial conglomerate. The Siam Cement Group includes the following companies operating in the pulp and paper industry:

- Siam Pulp and Paper,
- Siam Forestry,
- Siam Cellulose,
- Thai Paper,
- Thai Union Paper,
- Siam Kraft Industry,

Kraft Paper Industry,
 Thai Kraft Paper Industry,
 Thai Union Paper Industry,
 Thai Containers,
 Thai Containers Industry,
 Thai Containers Ratchaburi (1989),
 Thai Containers Songkhla (1994),
 Thai Containers Chonburi (1995),
 Citypack,
 Siam Toppan Packaging
 (Advert in Phoenix no date b).

Siam Pulp and Paper forms the third largest division of Siam Cement, after cement and construction materials. In 1993, Siam Pulp and Paper produced half of all the packaging paper sold in Thailand, and around 40 per cent of all printing and writing paper (Pappens 1993).

However, the Siam Cement Group moved into pulp and paper almost accidentally. In the 1970s, Siam Kraft Paper produced sack kraft for Siam Cement in its 25,000 tons per year mill in Ratchaburi province (Sonnenfeld 1998b: 110). Siam Kraft was Thailand's first modern pulp mill, built in the late 1960s. Raw material for the mill came from bagasse, the residue from sugar cane processing (Sonnenfeld 1998a: 63).

Siam Cement is dependent on a regular supply of cement sacks – without sacks the company cannot sell cement. So Siam Cement loaned money to Siam Kraft Paper to keep the operation afloat. In 1976, Siam Cement took over Siam Kraft Paper, which at the time had a 50,000 tons a year mill at Ratchaburi, and some unused pulp equipment, which Siam Cement restarted. Siam Cement discovered that producing kraft paper from waste paper was cheaper than using bagasse. The company continued to produce bagasse pulp, but with a new bleaching line so that the pulp could be sold (Pappens 1993).

As there was no market at the time in Thailand for bagasse pulp, Siam Pulp and Paper turned to Yuen Foong Yu, a Taiwanese company with experience in producing and selling bagasse pulp. In 1982, Yuen Foong Yu, Siam Cement and Siam Pulp and Paper set up a new company, Thai Paper. In 1983, the three companies bought a 51 per cent share in Thai Union Paper, one of Thailand's oldest paper makers (Pappens 1993).

Siam Pulp and Paper expanded rapidly during the 1980s, establishing other companies, partly for tax reasons (Pappens 1993). In November 1992, Siam Pulp and Paper officially opened three new affiliated pulp and paper mills in Kanchanaburi:

- Siam Cellulose (capacity 50,000 tons of bleached pulp per year);
- Thai Kraft Paper, (capacity 250,000 tons of kraft paper a year); and
- Thai Union Paper, (capacity 70,000 tons coated paper and gypsum paper per year) (Bangkok Post 17 November 1992) (Pappens 1993).

By the mid-1990s Siam Pulp and Paper and its affiliated companies had a capacity of more than one million tons a year of pulp, paper and converted products (Pappens 1993). Industrial paper accounted for 46 per cent of 1999 revenues; printing & writing paper, 36 per cent; packaging & printing, 18 per cent; and a nominal amount from paper pulp (Wright www 3).

Siam Pulp and Paper also looked at expanding abroad and approached the Lao government about a possible US\$250 million project to build a 150,000 tons-per-year pulp mill. The mill was to be supplied from 32,000 hectares of plantations in Savannakhet province in central Laos (Carrere and Lohmann 1996: 241). Siam Pulp and Paper hired Jaakko Poyry to carry out a feasibility study of the

project. The project was shelved in 1993, however, according to the company because of a slump in world pulp prices. Adul Udol, managing director of Siam Kraft Industry, a subsidiary of Siam Cement, told *The Nation* that the project would be feasible only if the Laotian government received external assistance to invest in roads leading to the site (Pichaya 1993).

In 1996, Siam Pulp and Paper made its first overseas investment, with the purchase of 30 per cent of PT Nityasa Prima, a proposed US\$520 million, 350,000 tons a year pulp plant in East Kalimantan, Indonesia. The Indonesian company PT Suryaraya Wahana, part of the PT Astra International Group, owns 60 per cent of the venture, with local investors holding the remaining 10 per cent. Chumpol Nalamlieng, Siam Cement's president told the *Financial Times* his company had to buy pulp overseas because Thailand's supply was limited due to deforestation and government restrictions on tree farming. "Indonesia has huge wood resources – bigger than the (Association of South East Asian Nations) region combined," Mr Chumpol said. "Clearly it is going to be cheaper to produce pulp in Indonesia for the foreseeable future" (Barnes 1996). A year later, this project was also cancelled (Saragosa 1997).

The economic crisis in 1997 was disastrous for Siam Cement. The company was caught with US\$4.2 billion of foreign loans and Siam Cement suffered the biggest ever deficit by a Thai company – recording a loss of US\$1.3 billion in 1997. Only by increasing the valuation of its assets by 75 per cent could the company avoid posting a negative net worth (Barnes 1998a) (Pasuk and Baker 2000: 224).

The group responded by hiring McKinsey Consulting, who drew up a plan to sell off one-third of Siam Cement's assets (Barnes 1998b). Over the next two years, Siam Cement managed to increase its exports, convert some of its dollar loans to baht and managed once again to make a profit. The sell off was scaled down to a 13 per cent asset-sale (Pasuk and Baker 2000: 224). Siam Pulp and Paper exports around 50 per cent of its production to more than 40 countries. About one-third of its industrial and packaging products go to China and another third to Malaysia (Umesh 1999a).

Even with the sell off, in 1999 Siam Cement had more than 120 subsidiaries (Barnes 1999). In 1999, Siam Pulp and Paper was looking for acquisitions or mergers to make it among the largest paper companies in the region, according to president Chaisak Saeng-Xuto in an interview with the *Bangkok Post*. "There is not really anybody who is our direct competitor for industrial paper outside of Japan, in this part of the world. But we are number 10 or so in printing and writing paper." Siam Pulp and Paper appointed Salomon Brothers as its investment banker to search for partners in the printing and writing paper business (Umesh 1999a).

In January 2000, Reuters reported that Siam Cement was to issue up to US\$1.34 billion of domestic bonds. Aviruth Wongbuddhapitak, Siam Cement's chief financial officer, told Reuters "We have a foreign exposure of about US\$1.8 billion, while our foreign exchange revenues are about US\$1 billion. We need to lower this gap to lower the risk of volatility" (Reuters 2000).

In February 2001, Chumpol Nalamlieng, Siam Cement Group's president, announced that the Group was considering buying Phoenix Pulp and Paper. Siam Cement Group planned to sell off its printing and writing-paper business, owned by Siam Pulp and Paper, and hoped that taking over Phoenix would add value to Siam Cement's paper business and improve its price. Siam Pulp and Paper is Phoenix's largest customer for pulp. When combined, Phoenix and Siam Pulp and Paper's output would match that of Advance Agro, currently Thailand's biggest pulp and paper producer (Nareerat 2001).

In October 2001, Siam Pulp and Paper bought 24.98 percent of Phoenix from Janpath Investments. In January 2002, Siam Pulp and Paper bought a 20 per cent stake from Thai Farmers Bank in January 2002 raising its holding to 44.98 per cent. After a tender offer, which finished early in January 2002, Siam Pulp and Paper owned more 61 per cent of Phoenix. Siam Pulp and Paper plans to go ahead

with planned expansions of Phoenix – including a US\$30 million upgrade of the pulp mill and US\$60-80 million on new facilities (Reuters 2002b). Phoenix Executive Director Vashi Purswani told Reuters in January 2002, that the proposed doubling of output at Phoenix was on track. “We are still waiting for permission,” he said. “Hopefully we should get this in the next three months” (Reuters 2002a).

Siam Forestry, another part of the Siam Pulp and Paper Group, carries out plantation management and conducts research in nursery production and tree breeding, and buys all raw materials for all the companies involved in pulp and paper in the Siam Cement Group (Pearmsak and Mochida 1999: 89).

In 1993, after the 50,000 tons a year Siam Cellulose mill opened, Singh Tangtatswas, deputy managing director, explained to the magazine *Pulp and Paper International* the company’s reasoning for building the mill: “Siam Cellulose is an experiment really. We wanted to get farmers interested in growing eucalyptus and bamboo. But they are obviously reluctant to start planting if there is not a guaranteed market for their crop. We decided therefore to build a small pulp mill which could run on the existing wood supply and prove to the farmers that we would buy their wood. Our Siam Forestry subsidiary now distributes seedlings and helps them with technical know-how. If we can persuade the farmers to start planting on a large scale, we could well invest in a larger mill too, between 100,000 and 300,000 tons/yr, hopefully within the next five to 10 years. We are also still lobbying the government to allow the use of degraded land to set up plantations” (Pappens 1993).

Siam Forestry targets farmers in 10 provinces to grow their trees, and since 1996 has aimed to increase areas planted by 9,600 hectares each year. Through contract tree farming, farmers take on risks and selling is limited to Siam Forestry, preventing farmers from selling at higher prices when prices are good (Pearmsak and Mochida 1999: 90). According to Pearmsak Makarabhirom, a forester with the Regional Community Forestry Training Centre in Bangkok, farmers with little money have to take out loans at a high rate of interest to plant eucalyptus, and if the trees fail, the farmers suffer the losses. Pearmsak concludes, “In the present situation, CTF [contract tree farming] is unlikely to be a long-term viable option for farmers” (Pearmsak and Mochida 1999: 104).

– SHIN HO PAPER

Thailand’s first newsprint paper company, Shin Ho Paper was established in March 1991, as a joint venture between Korea’s Shin Ho Group (29 per cent), Bara Winsor Group (16 per cent), the International Finance Corporation, the World Bank’s private investment arm (15 per cent), Vatvharapol, the owner of the Thai Rath newspaper (10 per cent), Korea’s Long Term Credit Bank (10 per cent), CNB Technology Finance (5 per cent) and Joint Venture Capital of Korea (5 per cent). The 120,000 tons a year mill uses waste paper as raw material, 70 per cent of which is imported from the US, the rest coming from local sources (Bangkok Post 31 March 1991). The mill is in Sing Buri, north of Bangkok.

The US\$120 million project was funded with a US\$22 million loan from the World Bank’s International Finance Corporation (IFC), US\$34 million from an IFC led syndicate, US\$22 million from Bangkok Bank and US\$6 million from a Korean source (Chang 1991: 17).

Before the Shin Ho mill came on line in mid-1994, Thailand obtained all of its newsprint from the international market, importing more than 200,000 tons a year (Pornpana and Rajesh 1995: 4). The Thai Rath newspaper is Shin Ho’s main customer (Bangkok Post 18 August 1998).

In October 1998, Norske Skog bought up 70 per cent of the shares in Shin Ho, and took over the operation of the Sing Buri mill (pponline 1999). This is the first step in Norske Skog’s plans to invest US\$1 billion to develop a pulp and paper business in Thailand. Norske Skog plans to increase the production capacity of the mill to meet demand in the region (Bangkok Post 24 June 1998). Norske Skog is the major supplier of printing paper in Asia, and opened a regional office in Singapore in 1997 (Puntasen 1998).

During the 1990s, Norske Skog has doubled its newsprint production capacity, and grown from a medium-sized supplier with mills in Norway to one of the world largest paper manufacturers with a total production capacity of 2.4 million tons a year. With mills in Norway, France, Austria, Czech Republic, Thailand and Korea, more than half the company's newsprint is now produced outside Norway (Norske Skog advert in *Krungtaebturakit* 11 November 1998). In Norway, the company has repeatedly faced criticism from NGOs about its activities in the taiga forests (WRM 1999).

In February 1999, Norske Skog finalised an agreement with Abitibi-Consolidated of Canada and Hansol Paper of Korea, to form the Pan Asia Paper Company (PAPCO). Each company owns one-third of PAPCO, which has a total production capacity of about 1.4 million tons a year, and its sales amount to 40 per cent of the Asian market place outside Japan (CPPA 1998) (CPPA 1999).

– ASIA TECH

Asia Tech is today an almost defunct forestry company. Its plantations Laos are badly maintained or completely neglected, and villagers in northeastern Thailand have won back areas of their forests previously seized by the company for eucalyptus plantations. The company's plans for pulp and paper mills have been shelved.

In 1994, Brierley Investment, an investment company founded in New Zealand, but now registered in Bermuda with its head office in Singapore, established a joint venture with the Thai finance company General Finance. GF-Brierley owns 22 per cent of Asia Tech. John Rodwell, chief executive of GF-Brierley told *The Nation*, that the Thai partner (General Finance) was chosen because General Finance has a good understanding of the Thai and Indochinese business environment. "Brierley recognised that for business prosperity to thrive in this part of the world where business is very much relationship-driven, we had to find a joint venture partner which is a respected company," he said (Wichit and Suwathai 1995).

Brierley's plans back-fired when the Thai government closed General Finance in December 1997, along with 55 other companies, due to mounting bad loans. In 1998, Thailand's central bank filed criminal charges against six executives of General Finance. The company officials were charged with extending US\$8 million in loans without proper valuation of the collateral (*Financial Times* 21 August 1998).

In 1991, Asia Tech started a project to plant 32,000 hectares of plantations in three provinces in Thailand: Nong Khai, Sakorn Nakhorn and Nakhorn Phanom. Asia Tech illegally seized seasonally-flooded forests used as commons by villagers for cattle raising, collecting forest products and as natural fish spawning grounds.

In 1991, aided by local government officials and some villagers Asia Tech moved onto 480 hectares of village land, bulldozed trees and rice crops, burnt bamboo and planted the land with eucalyptus trees. Asia Tech also planted up land surrounding villagers' plots, thus preventing villagers access to their own land. Villagers in Ban Dong San demanded that Asia Tech cut the trees and hand over the land to the villagers so that the community forest could regrow. In July 1996, the villagers won the battle for their land and Asia Tech promised that after the eucalyptus trees were cut (in 1998) the land would be returned to the villagers (Watershed 1996a: 11).

Asia Tech planned to build a pulp mill in Nong Khai, (Carrere and Lohmann 1996: 239) but to date has still not started construction.

Asia Tech has made two attempts to establish plantations in Laos. In 1990, Asia Tech wrote to the Lao government requesting permission to establish 16,000 hectares of plantations in Champasak province. Little of the total area has been planted however, and the area that was planted is today badly

maintained or completely neglected. However, Asia Tech still retains control of the land. (See report on Laos – [Asia Tech. \(https://chrislang.org/2002/12/01/the-pulp-invasion-laos/#asiatech\)](https://chrislang.org/2002/12/01/the-pulp-invasion-laos/#asiatech))

Asia Tech fared no better in its second plantation venture into Laos. Asia Tech was part of the BGA Lao Plantation Forestry consortium, which planned to invest US\$30 million in a 50,000 hectare plantation in Bolikhamxay and Khamouane provinces in central Laos. The other companies in the consortium were General Finance and GF-Brierley, with the Lao government taking a 15 per cent share in the joint venture (Lao Embassy 1997). The 1997 economic crisis led to the closure of General Finance and resulted in Asia Tech pulling out, leaving Brierley and the Lao government as the only investors in the project. (See report on Laos.)

As with other pulp and paper companies in Thailand, Asia Tech has good links with the Thai political elite. When Asia Tech started planting up villagers land in the northeast of Thailand, the company was reportedly helped by politicians from the New Aspiration, Chart Pattana, Nam Thai and Chart Thai political parties (Carrere and Lohmann 1996: 232).

The Chairman and Chief Executive Officer of General Finance, one of the investors in Asia Tech, was Narongchai Akrasanee. Narongchai is also a Director of a number of other Thai companies and has served as a Senator of the Thai Senate. He has been adviser to several Prime Ministers in Thailand (APEC www 1) and was Thai Commerce Minister in 1997 when the economic crisis broke. He is now managing director of a company called Seranee Holdings.

In March 1997, Thailand's cabinet under Prime Minister General Chavalit Yongchaiyudh, approved a proposal to issue 28 new licences for insurance companies – the first since 1982. An independent panel which included insurance industry experts from outside the government was established, overseen by Narongchai Akrasanee, the commerce minister. "We have selected a healthy list of companies here. . . . The best interest of customers and the industry has been served," Narongchai told the Financial Times. Yet, as the Financial Times points out, the companies to gain the licences are dominated by industrial conglomerates, and include companies controlled by Charoen Popkhand, the telecommunications and animal feed giant, Advance Agro, and a consortium led by General Finance, of which Narongchai was the chairman and CEO (Bardacke 1997).

George Davison, former CEO of Phoenix Pulp and Paper alleges that in 1997 the Thai Ministry of Commerce, when Narongchai Akrasanee was Commerce Minister, refused to register the minutes of Phoenix's 1997 AGM. According to Davison, Narongchai was "deeply involved in the BBC [Bangkok Bank of Commerce] matters and therefore can be said to have been a part of the take-over effort" (Davison 1998). (See section on Phoenix, above.)

Also in 1997, then-Commerce Minister Narongchai Akrasanee was part of a three-day government delegation to Vietnam. The delegation witnessed the signing of a memorandum of understanding between Nghe An province and Asia Tech to develop an industrial zone in Nghe An. Negotiations included facilitating transport between Thailand and Vietnam, such as rebuilding roads 8 and 9. Road 8 is crucial in order to export chips from BGA's proposed wood chip mill in Laos (Bangkok Post 14 March 1997).

– STORA ENSO

Stora Enso is one of the world's largest pulp and paper companies, created in 1998 by the merger of Finland's Enso and Sweden's Stora. Stora Enso produces magazine papers, newsprint, fine papers and packaging boards, and runs extensive sawmilling operations. The company also owns 2.6 million hectares of forest land in Finland and Sweden, 0.3 million hectares in the US, and "significant" areas in Canada and Portugal (Stora Enso www 1).

In 1999, Stora Enso had sales of more than US\$11 billion, and employed around 45,000 people in more than 40 countries (Stora Enso [www 1](#)).

In February 2000, Stora Enso became the largest paper and board manufacturer in the world with the US\$4.8 billion purchase of the US-based Consolidated Papers. Stora Enso's total paper and board capacity is around 15 million tonnes ([bitonline www 1](#)).

Shareholders

At the end of 2000, the largest shareholder in Stora Enso was the Finnish State, with 14.8 per cent of shares and 23.8 per cent of votes. Before the merger with Stora, the Finnish state owned 45 per cent of the shares and 66 per cent of the voting rights in Enso (Carnegy 1995).

The second largest shareholder in Stora Enso is the Swedish investment trust, Investor Group, with 8.7 per cent of shares and 23.8 per cent of votes.

Investor Group is the investment vehicle of the Wallenberg family. Described as Europe's foremost business dynasty, the Wallenberg family has dominated Sweden's business life for most of this century. The Wallenbergs founded Investor in 1916, to deal with stocks held by Stockholm's Enskilda Banken, the Wallenberg family-controlled bank (Burt 1999b). Today, Investor holds shares in companies which account for more than 40 per cent of the Swedish stock exchange, including (in addition to Stora Enso): Ericsson (the mobile telephone equipment group), SKF (the world's largest maker of roller bearings) AstraZeneca (the pharmaceutical company), ABB (the engineering group), Electrolux (the world's largest producer of household appliances), Atlas Copco, Gambro, Stockholm Enskilda Banken, Saab Auto and Volvo. The main shareholder in Investor is Franklin Mutual Advisers, a US fund management group (Burt 1999a) (FT 1999) (Brown-Humes 1999b).

When Percy Barnevik became Chairman of Investor, he was the first non-Wallenberg family member to be made chairman. Barnevik is famous in business circles for restructuring the engineering group ABB. According to the Financial Times, Barnevik has introduced his "triple-jump" to Investor: first a business is restructured; if that fails the management is changed; the final option is to sell out or to merge it (Burt 1998b). Barnevik explained, "It is really very simple. We want to improve profitability. That means at each company you set new targets, failing that you change the management, and if that does not work you do the deal" (Burt 1998a).

In 1998, shortly after the merger of Stora and Enso, Jukka Harmala, the new CEO at Stora Enso, explained the company's expansion policy to the Financial Times, "In the years to come one must be present in some of the fast-growing areas, where (wood) fibre is cheaper than it is in this part of the world. Today's economic problems there will be overcome" (McIvor 1998). In 1998, Enso bought up 19.9 per cent of the shares in Advance Agro. Stora Enso has significant control over Advance Agro. Under the deal Stora Enso won:

- exclusive rights to market Advance Agro products outside Japan and Thailand;
- two members on the board of Advance Agro (one of which is Stora Enso president Jukka Harmala);
- the right to approve (or not) major corporate decisions; and
- a secured market for at least 12,000 tons of long-fibre pulp a year from its mills in Europe. (See [Advance Agro](#) section, above.)

Before Enso bought up shares in Advance Agro, both Stora and Enso had shown an interest in expanding to Southeast Asia. In 1995, Stora signed a technology cooperation agreement with Ballarpur Industries, India's biggest paper manufacturer, and one of the major shareholders in Phoenix Pulp and Paper in Thailand (Harding, Brown-Humes and Simon 1995). (See section on Phoenix, above.)

Also in 1995, Enso, backed by the Finnish Fund for Industrial Cooperation (Kerski 1995: 147), announced an investment in a plantation and pulp mill project in East Kalimantan, Indonesia (Harding, Brown-Humes and Simon 1995). The project, called PT Finnantara Intiga, is a joint venture with the Indonesian Inhutani III forestry corporation and the Gudang Garam group. The pulp mill would be export-oriented and raw material would come from the company's own plantations (Sonnenfeld 1999: 34).

The area is inhabited by approximately 60,000 people in 190 villages. According to Finnantara Intiga, the area is "seriously degraded" and the idea is to plant fast growing tree species which will prevent suppress the growth of grass, supply industrial timber, and "perhaps" prepare the soil for the introduction of other tree species. The company claims to have respected the traditional property rights of the people living in the project area.

A 1996 report, carried out by Judith Mayer, presents a somewhat different picture: "The good intentions of plantation planners, and their admirable attempts to ensure that the project is implemented in a culturally and ecologically sensitive manner, cannot compensate for the fundamental problem arising a) from the enormous scale of the plantation project, b) from financial and political pressure that require rapid plantation expansion prior to completion of pulp mill construction, and c) from considerations of industrial silviculture that call for planting only a limited number of fast-growing pulpwood species" (Mayer 1996).

The Asian economic crisis led to Enso putting the Finnintiga pulp mill project on hold (George 1999), but the company still plans to plant up 50,000 hectares with industrial tree plantations. So far they have established 20,000 hectares (Lounela 2001).

In 1997, Stora set up Veracel Cellulose, a joint venture with Odebracht, the Brazilian industrial conglomerate (10 per cent), and Aracruz Cellulose, the pulp and paper company (45 per cent). The joint venture aims to invest up to US\$1.6 billion in what would be the largest single pulp line in the world, with a capacity of 830,000 tons a year, in Bahia, Brazil (Burt 1997). Raw material is to come from the company's own 80,000 hectare eucalyptus plantations, and 90 per cent of the pulp produced will be exported (Veracel www 1).

The Brazilian states of Bahia and Espirito Santo are dominated by three major pulp corporation: Veracel, Aracruz and Bahia Sul, which between them own more than 300,000 hectares of eucalyptus monoculture plantations. A broad coalition of NGOs, indigenous peoples, peasants, fisherfolk, academics and others have formed the "Movement against the Green Desert in Espirito Santo and Bahia" (WRM 2000).

Veracel Cellulose is struggling to find investors interesting in stumping up the US\$1.6 billion needed to build its pulp mill. According to Stora Enso, "implementation of the Veracel pulp mill will be postponed . . . and the decision to build the Veracel pulp mill will be taken in the end of 2002, subject to international pulp market conditions" (WRM 2000).

In China, Stora Enso owns a 61 per cent share in Suzhou Papyrus Paper, acquired in 1998. The other shareholders in Suzhou Papyrus are Purple Charta (20 per cent) and the Suzhou Light Industrial Bureau (19 per cent) and the company is China's largest producer of coated fine paper with an annual capacity of 120,000 tons (Stora Enso www 2). 85 per cent of raw material supplied to the mill is short fibre eucalyptus pulp imported mainly from Brazil and Thailand.

The Suzhou Papyrus mill started up in 1997, and is a good illustration of Stora Enso's global operations. Although Veracel Cellulose in Brazil is currently on hold, in 1999 Bjorn Hagglund, deputy CEO of Stora Enso, told the Financial Times that Stora Enso planned to increase its pulp capacity in

Brazil in order to secure raw materials for its paper mills in China and Thailand. “We have identified two areas of global interest for us, one of them is publication papers in North America, the other is fine papers in Asia and China,” said Hagglund (George 1999).

Rumours circulated in the business press during 2001 that Stora Enso is planning to buy part of the debt-laden Singapore-based holding company Asia Pulp and Paper. In November 2000, Stora Enso’s deputy CEO Bjorn Hagglund led a delegation to China where they visited four APP-owned mills (Paperloop 2001). APP has pulp and paper operations in Indonesia, India and China. APP also has outstanding debts of more than US\$12 billion and in March 2001 APP stopped paying interest and principal to its creditors. One way for APP to repay its debts (perhaps the only way) is to sell off some of its operations, which leaves the door open for multinational giants like Stora Enso (Reuters 2001) (Financial Times 28 March 2001).

Stora Enso has sales offices in Japan, Singapore, Hong Kong and China. In addition to selling its own products and those of associated companies (like Advance Agro) Stora Enso also sells products produced by other companies (such as Eurocan Pulp and Paper). Stora Enso sells almost US\$1 billion worth of paper and paper products to Asia each year, with shipments from Europe accounting for approximately half of this. Stora Enso is the most important European supplier of sawn timber goods in Asia (Hu 1999).

Stora Enso has faced criticism over its operations in plantations and in logging old-growth forests in the North. In 1998, Russian NGOs wrote to Jukka Harmala, then-Enso’s CEO, requesting that Enso stops buying timber from Piaozersky lespromkhoz (a logging company which logs in northwest Karelia), on the grounds that it was constructing a logging road inside an old-growth forest area to the north of Paanojarvi national park (FNL www 2). In June 2000, Taiga Rescue Network reported that Stora Enso was considering withdrawing from a moratorium agreed in 1996 on logging in old-growth forests in Karelia. Stora Enso is the main buyer of timber from Piaozersky lespromkhoz (TRN 2000).

During Stora Enso’s 1999 Annual General Meeting, four shareholders demanded that Stora Enso abandoned procurement of old-growth forest timber, and demanded that the company sought Forest Stewardship Council (FSC) certification for its Finnish forestry operations. All Stora Enso’s forest holdings in Sweden are FSC-certified, but in Finland Stora Enso is the biggest user of Finnish old-growth timber (Taiga-News 1999). In Sweden, the assessor of Stora Enso’s forest holdings is SCC Natura, through a partnership with Scientific Certification Systems (USA). (See section on SCC Natura, below.)

Stora Enso Forest Consulting

The Finland-based Stora Enso Forest Consulting started operation in 1970, as part of Enso’s Forest Division, and in 1988 it became a subsidiary of Enso – Enso Forest Development Oy Ltd. In 1994, the company bought Silvestria Consulting Ltd of Finland and in 1995, established an Indonesian subsidiary PT Enso Forest Indonesia. After Stora and Enso merged the name changed to Stora Enso Forest Consulting Oy Ltd (Stora Enso www 3).

Projects include a timber estate project in West Kalimantan (Finnantara Intiga), the Namibia-Finland forestry programme, a “poverty alleviation” programme in Peru, the provincial forestry action programme in Zambia and the Vietnam-Finland Forest Sector Cooperation Programme in Bac Thai, Vietnam.

In February 2001, Antti Marjokorpi and Antti Otsamo, representatives of Stora Enso Forest Consulting, visited Thailand to investigate the impacts of the proposed Advance Agro Sino-Thai eucalyptus plantation project. (See Advance Agro section, above.) The consultants were carrying out

a study on behalf of Stora Enso looking at the social and environmental impacts of their operations (Rajesh 2001).

In a meeting with Thai NGOs, Marjokorpi and Otsamo refused to comment on the question “would Stora Enso pull out of the Advance Agro mill due to large-scale social and ecological impacts?” They evaded questions about Stora Enso’s accountability in the Sino-Thai project saying that Stora Enso has “jumped on a train that is already running” and has in any case only a minority share in Advance Agro (Rajesh 2001). As explained above, this is simply untrue. The president of Stora Enso, Jukka Harmala, sits on Advance Agro’s board and Stora Enso has the right to approve (or not) major corporate decisions.

– COMMONWEALTH DEVELOPMENT CORPORATION (CDC)

Established in 1948, as the Colonial Development Corporation, CDC’s duty was to carry out projects “for developing resources of colonial territories” (Competition Commission www 1). In 1963 CDC became the Commonwealth Development Corporation and its remit was expanded to apply to the Commonwealth countries. Its remit was later further expanded to cover overseas countries generally and its role was redefined as being “to assist overseas countries in the development of their economies” (Competition Commission www 1).

CDC’s web-site boasts that, “through our extensive network of contacts, [CDC is] well placed to introduce co-investors to, or syndicate, larger deals.” CDC’s current portfolio is valued at over US\$2 billion, invested in more than 400 business in more than 50 countries (CDC www 1).

Until 1994 CDC received grant aid and loans from the UK government’s aid programme which it invested in overseas companies. Of the total sum that CDC invested in 1993 almost half was in the form of interest-free loans from the Overseas Development Agency, the UK’s “aid” agency (CDC 1994: 18).

Not surprisingly, given the interest-free loans and government support it has received, CDC has been a very profitable operation. However, with 15 per cent of CDC’s investments in southeast Asia, the Asian economic crisis led to a 10 per cent fall in pre-tax profits for CDC in 1997 (Holman 1998). In 1998, CDC posted its worst ever results, with a deficit of around US\$60 million – CDC’s first annual deficit since 1954 (Bennett 1999c) (Bennett 1999b).

In November 1991, the Secretary of State of Trade and Industry referred several questions about the efficiency and costs of CDC to the Monopolies and Merger Commission (MMC). The report concluded “we are left in no doubt that CDC is generally held in high regard throughout the world in which it operates.” The MMC’s research involved analysing CDC’s own data, responses from the public in the UK, and government ministers and officials, project sponsors, co-financiers and British Government Posts. Notably absent is any attempt to talk to villagers on the receiving end of the projects, or developing country NGOs. The Commission’s only criticism was that CDC’s business judgment was “sometimes insufficiently supported by quantified analysis, both in its decisions on investments and in monitoring and evaluation” (Competition Commission www 1).

MMC recommended that CDC “should adopt a clear policy that it will not invest in projects if it cannot satisfy itself that the impact of the project on social and environmental factors will be acceptable. It should also establish procedures to check regularly that projects are being operated in accordance with the relevant guidelines dealing with these matters” (Competition Commission www 1).

Privatisation

Prime Minister Tony Blair singled out CDC as the first organisation to be privatised under the newly elected New Labour government in 1997. The government will retain a 40 per cent share in CDC and hoped to raise more than US\$750 million from the privatisation of CDC (Luce 1997). In 1997, CDC owed more than US\$1 billion to the government (Holman and Wighton 1997) and these advances had been interest-free since 1995 (HMSO 1999).

On 27 July 1999, the Commonwealth Development Corporation Act received Royal Assent, allowing the partial privatisation to go ahead. CDC will remain wholly owned by the government for a transition period while CDC restructures financially. The government's share of CDC cannot fall below 25 per cent without parliamentary approval (HMSO 1999).

As a part-privatised company, CDC will continue to receive generous government subsidies. The CDC Act allows CDC exemption from UK corporation tax on its profits as long as the government owns 25 per cent of the shares of the company (HMSO 1999). Clare Short, the UK international development secretary, told the Financial Times that a new category of "development investment corporation" might be established for tax purposes, to prevent CDC moving offshore after its partial privatisation (Halligan 1998). Without preferential tax treatment, government ministers were worried that CDC would not be attractive to institutional investors. The tax treatment would only apply to CDC (Bennett 1999a).

After privatisation, CDC will still be able to borrow money from the government. The government will also continue to give guarantees to CDC or its subsidiaries. The guarantees ensure that the UK government will repay CDC's third party debts, if CDC defaults. This government backing allows CDC to borrow at lower interest rates, as lenders are confident that the debt will be repaid (HMSO 1999).

In December 1999, CDC became a public limited company, registered as CDC Group plc (CDC www 1). As a private company, CDC Group will operate under the 1985 Companies Act and documents will be filed in Companies House, London, where they are available to the public (HMSO 1999).

Management

Sir William Ryrie, deputy chairman of CDC is a former British civil servant and from 1984 to 1993 was chief executive of the International Finance Corporation, the World Bank's private lending arm (Gooding 1995).

Sir Peter Leslie, a former chairman of CDC, retired in June 1995. (He became non-executive chairman of NCM Credit Insurance, the export credit insurer. NCM used to be the short term insurance division of the Export Credits Guarantee Department but was privatised under the 1979 to 1997 Conservative Government.) Leslie chaired the Export Guarantees Advisory Council (which advises ECGD) from 1987 to 1992. He was replaced at CDC by Lord Cairns, former chief executive and deputy chairman of SG Warburg. Cairns was treasurer of Voluntary Services Overseas from 1974 to 1981 and chairman from 1981 to 1992. He told the Financial Times that this has given him an understanding of "many of the development angles that CDC deals with" (Caswell and Kibazo 1995).

CDC's investments

CDC has invested in a wide range of businesses, including a bauxite mine and the power sector in Guyana, cocoa plantations in Malaysia, a hotel in Cuba, a tin mine in Malaysia, tree plantations in the Solomon Islands, a copper mine in Zambia, a gas-fired power station in Ivory Coast, a cellular phone company in India, a gas pipeline in Tanzania and palm oil businesses throughout the Asia-Pacific region. Its main investment sector is agribusiness.

In August 1999, CDC signed a US\$32 million agreement with PT Harapan Sawit Lestari, an oil palm plantation and processing company operating a 25,400 hectare plantation in West Kalimantan. CDC will own 65 per cent of the business and manage the operation (CDC www 1).

In Papua New Guinea, CDC is involved in about 23,000 hectares of palm oil plantations, through its 76 per cent share in Pacific Rim Plantations. In 2000, the company started renting land from villagers. One year later, villagers were unhappy with the arrangement as the company had failed to provide the benefits promised when it leased the land (Peel 2001).

CDC was one of the financiers of the Lesotho Highland Water Development Project. CDC loaned US\$36 million to the project, which will cost US\$8 billion in total. Consisting of five dams and a complex series of tunnels, the project will divert water from the Senqu river basin to South Africa's Ash river and from there into the Vaal dam 70 kilometres south of Johannesburg. Work began in 1986 and is due to be completed in 2020. The project has already resulted in loss of livelihoods, increased soil erosion, loss of farmland and the eviction of 24,000 people from their homes. Villagers complain that compensation payments have been inadequate or remain unpaid (Lang et al 2000: 110).

LHDP hit the business headlines in 1999, when the Lesotho government accused Marsupha Sole, the former head of the Lesotho Highland Development Corporation, of taking nearly US\$2 million in bribes from ten companies and two consortia associated with the project (Lang et al 2000: 108).

In Thailand, CDC has shares in the following companies:

- Advance Agro Public Company Ltd (Integrated pulp and paper mill);
- Thailand Soon Hua Seng Company Ltd (Eucalyptus forestry and pulp and paper production);
- Industrial Finance Corporation of Thailand (Development finance);
- Global Leasing Co Ltd (Leasing finance);
- Industrial Venture Company Ltd (Venture capital);
- Sinkahakan Credit Foncier Co Ltd (Mortgage finance);
- Thai Rural Equity Fund (Small enterprise development finance);
- Thailand Advanced Communications Co Ltd (Printing and publishing);
- Thailand Mah Boonkrong Sirichai 25 Co Ltd (Cashew nut processing);
- Thailand Mongkolwat Co Ltd (Prawn farming);
- Thailand Thailand Rubber Replanting Aid Fund (Rubber replanting and extension services); and
- Thailand United Palm Oil (Oil palm cultivation). (CDC no date b)

Pulp and paper

CDC's first investment in the pulp and paper sector was in 1949, for Usutu Pulp Co, Swaziland.

CDC was one of the financial backers of Advance Agro, and CDC owns a one per cent share in Advance Agro. (See section on Advance Agro, above.)

CDC aims to fund more projects in the pulp and paper sector in the South. In 1998, Peter Massey, the head of CDC's wood products team told the Financial Times, "Production from the boreal forests of the northern hemisphere takes too long to mature and is often inaccessible. . . . There is a general shift in pulp and paper production from north to south and west to east," he said. "Equatorial regions offer a much better yield. The time from planting to harvesting can be as short as five years, as opposed to at least 20 years in Europe or North America" (Soloman 1998).

CDC promotes contract tree farming schemes whereby villagers plant trees to be sold to pulp mills. According to Massey, "It's a win-win situation. The local communities move to a new and reliable source of income, while the pulp and paper companies cut down their capital costs" (Soloman 1998).

This contrasts dramatically with the reality for villagers. A recent detailed study of contract tree farming in Thailand concludes, “In the present situation, CTF [contract tree farming] is unlikely to be a long-term viable option for farmers” (Pearmsak and Mochida 1999: 104).

Among CDC’s business principles and policies is the statement that CDC will “avoid investments where impacts on communities and the environment have not been properly considered and mitigated in their design” (CDC no date a).

– SHELL

Best known for its activities in the oil and gas sector, Shell’s operations also include chemicals, coal and metals, and since the late 1970s it has moved into the forestry sector. The move came partly as a result of the oil crisis and hikes in the price of oil during the 1970s. The initial aim was to produce energy from wood biomass, but Shell now is now involved in plantations for the pulp and paper industry (van Ginneken 1991: 107).

Shell’s first venture into plantations was in 1980 when it bought up land in Brazil and planted pine trees. Shell has since expanded its plantation operations to Argentina, Chile, Paraguay, Uruguay, New Zealand, South Africa and Congo.

In 1987, Shell started preparations for a 17,600 hectare eucalyptus plantation planned for the Khun Song forest reserve in Chanthaburi province, Thailand. The trees were to be exported as wood chips to the pulp and paper industries of Taiwan, Korea and Japan (Bangkok Post 28 December 1987).

Shell chose the site for the US\$70 million project for two reasons: its proximity to Laem Chabang deep-sea port in Rayong province, and because the 800 families living on the land had no formal land-use rights (Usher 1989). In the terminology of the Royal Forest Department (RFD), they were “squatters”.

Although the RFD jumped at the opportunity to hand over “degraded forest” to a commercial eucalyptus plantation, and approved Shell’s request to plant the land, the Thai cabinet also had to approve the project (Lohmann 1991: 9).

In 1990, Shell was forced to drop the plantation proposals in Thailand as protests increased against the project and scandals forced delays in governmental approval for the project (Carrere and Lohmann 1996: 237). RFD officials warned villagers of forcible eviction, houses were burned down, and villagers arrested for forest encroachment. Villagers meanwhile burned down eucalyptus in experimental plantation plots. In February 1988, after the governor of Chanthaburi opposed the project, unknown gunmen fired at his house, apparently in an attempt to persuade him to drop his opposition to the scheme (Lohmann 1991: 9).

This failed project provides a blatant example of support to the pulp and paper industry, in this case from the UK-based International Institute for Environment and Development (IIED). Caroline Sargent, then director of IIED’s Forestry and Land Use programme accepted a consultancy from Shell. Rather than questioning whether the project should go ahead, Sargent’s report attempted to find ways of implementing the plantation, through public relations, demonstration plots, extension projects in bee-keeping and mushroom growing, a guaranteed price for eucalyptus, technical and financial support for Shell to build villages and a system of contract farming (Lang 1996: 30).

Three years later, another NGO, this time the World Wide Fund for Nature provided further support for Shell’s plantation efforts, with a collaboration with Shell on a Tree Plantation Review. One of the aims of the study was to “highlight the need for tree plantations” (Lang 1996: 35). The study resulted in a series of guidelines for plantation development, as “A contribution to the debate on environmentally and socially responsible planning and management practices for tree plantations”

(Shell/WWF 1993). The level of the debate is illustrated in the principles for the guidelines: Section 2.1 describes the “need for guidelines” followed by, in Section 2.2, the “need for plantations” (Shell/WWF 1993: 3).

– JAAKKO POYRY

Founded in 1958 by Dr. Jaakko Poyry, a pulp and paper engineer, the Jaakko Poyry Group is a Finnish consulting and engineering group. Today Poyry is the world’s largest forestry and engineering consulting firm, with 4,500 employees and a turnover in 1998 of around US\$400 million (Lang et al 2000: 42).

Poyry’s main shareholder is Finvest, a Finnish investment group. In 1995, Poyry agreed to a takeover by Finvest, which was in effect a reverse takeover. Under the deal Poyry’s shareholders and senior management gained control of 52 per cent of Finvest’s votes (Brown-Humes 1995a).

Poyry has played a key role in promoting pulp mill operations, logging and fast-growing tree plantations in the South, and has carried out over 6,000 contracts in more than 100 countries including 300 “major pulp and paper mill projects” (Lang et al 2000: 42).

In 1978, Dr. Poyry was responsible for the engineering work, wood supply planning and construction management for the world’s largest single line pulp mill: Aracruz Cellulose in Brazil. Dr. Poyry was also the consultant for the expansion of the mill in 1991. In 2000, the Jaakko Poyry Group won a further contract for yet another expansion of the Aracruz mills (Paperhall www 1).

The firm began working in southeast Asia in the early 1970s and played a key role in setting up deals in the pulp and paper industry, acting as a go-between for Scandinavian industry with the governments of the region and in brokering soft loans from governments at home. Poyry meanwhile has benefitted from Finnish and Swedish aid-funded consultancies in Laos, Vietnam and Thailand.

Poyry established its presence in Asia through Jaakko Poyry Consulting, working as a consulting firm on projects funded by the ADB and other international finance organisations. Poyry has carried out forest inventories and developed forestry management plans for the governments of Indonesia, Thailand and other southeast Asian countries (Sonnenfeld 1999: 31).

David Sonnenfeld, an academic at Washington State University, states, “the Jaakko Poyry group played a critical role in brokering the sale of pulp and paper technology in Southeast Asia” (Sonnenfeld 1999: 31). Almost all bleached kraft pulp mills built in Southeast Asia between 1981 and 1996, used Nordic pulping and bleaching technology. Jaakko Poyry won the contracts as consulting engineer for around two-thirds of these projects (Sonnenfeld 1999: 36).

Poyry’s projects in Thailand (between 1971 and 1994) include the following:

- 1993: Advance Agro – Engineering and construction management of pulp mill;
- 1992: Hi-Tech Paper – Project management services;
- 1992: Phoenix – Design and procurement of effluent treatment plant;
- 1991: Ban Wat Chan – Preparation of a plan for integrated rural development (Nordic Project Export Fund);
- 1991: Thai Paper – Pre-engineering of a paper mill;
- 1991: Phoenix – Feasibility study for paper mill in Laos;
- 1990: Thai Forestry Sector Master Plan (UNDP/FINNIDA-funded);
- 1990: Phoenix – Technological review of environmental control measures;
- 1989: Lanna Lignite – Prefeasibility and feasibility study for bagasse pulp mill;
- 1989: Siam Pulp and Paper – Procurement assistance;
- 1989: Suan Kittu – Prefeasibility study for pulp mill (later renamed Advance Agro);

1987: Siam Pulp and Paper – Work plan for kraft pulp mill, plantation establishment, and assistance in evaluating tenders;
 1984: RFD and FIO – Forestry development plan (FINNIDA-funded)
 (Jaakko Poyry no date).

Master Plans provide an opportunity for Poyry to shape the forestry sector to their liking, by increasing the focus on industrial forestry. Such contracts also provide an means for the consultants to learn the ropes, and gain contacts within the forestry sector in the country in which they are operating. In Thailand, Poyry won the contract for the Thai Forestry Sector Master Plan (see section on International Support, above) and Poyry's consultant on the TFSMP admitted that his work included bringing Thailand's "institutional and social frame into shape" thus allowing the wider application of Western techniques of industrial forestry (Laitalainen 1992).

In Laos, Poyry carried out the US\$20 million World Bank, FINNIDA and GEF funded Forest Management and Conservation Project. The Lao government halted the project in September 2000 after the first five year phase, amid floods of rumours of corruption in the logging industry. Poyry's subsidiary Interforest AB has won several contracts in the forestry sector in Vietnam. (See report on Vietnam.)

Poyry's record in Indonesia is spectacular, even by Poyry's standards. Between 1979 and 1993, the company won more than 110 contracts in Indonesia, ranging from industrial forest plantation projects to a contract for overseas training in Brazil. In 1984, Poyry carried out a World Bank-funded contract aimed at "strengthening the structure of the Indonesian pulp and paper industry" (Lang 1996: 12). Four years later, Poyry won a contract from the Asian Development Bank to identify sites for the development of the pulp industry in Indonesia. Jaakko Poyry won further contracts on the pulp mills projects it had recommended, including Indorayan, Indah Kiat, Riau Andalan, PT TEL all in Sumatra and the Finantara Intiga project in East Kalimantan. (WRM 1998a) A recent award-winning video by Inge Altemeier and Reinhart Hortnung, documents the impact of the projects in Sumatra, caused by the pollution from these mills. Hundreds of villagers suffer skin diseases, fruit trees produce inedible fruit and fish in the rivers have died. The mills in Sumatra use natural forest as raw material, and in several cases the acacia plantations established on the logged-over forest land, which were supposed to feed the pulp mills have failed. One of the companies, PT TEL is reported to be planting oil palm on the failed tree plantation land, exporting the kernels to Europe as livestock feed.

– SCC NATURA

SCC Natura was founded in 1973 as Swedforest, by the Swedish forestry board, as a mechanism for transferring Swedish forestry expertise to the South (Usher 1994). Swedforest was part of the Doman Konsult AB, which in turn was part of the Doman Group, Sweden's state-owned forestry enterprise.

Doman merged with Assi in 1993, one of Sweden's Largest forest products companies, with a turnover of around US\$1 billion. Doman was Sweden's largest forest owner, with 3.4 million hectares of forest land. Assi was one of Doman's biggest customers, buying 37 per cent of its wood requirement from Doman (PPI 1993). The Swedish state is the largest shareholder in AssiDoman. AssiDoman "has been one of the front-runners in promoting forest certification and FSC" according to CEO Gunnar Palme (Palme 2000). Since 1998, all of AssiDoman's forest holdings have been certified under the Forest Stewardship Council (FSC), and a representative from AssiDoman currently sits on the board of FSC.

Swedforest was renamed as Scandiaconsult Natura (SCC Natura) in 1998, and is now fully owned by Scandiaconsult. Scandiaconsult is one of Scandinavia's largest consulting companies, employing more than 2,000 people. SCC Natura has offices in Bolivia, the Dominican Republic, India, Laos,

Lesotho and Vietnam (SCC Natura www 1).

SCC Natura is tiny in comparison to Jaakko Poyry, employing only 25 core staff and around 25 long-term contract staff abroad. Although in its publicity material the company makes claims stressing the importance of “local empowerment” and “sustainable development”, its work areas include industrial forestry: saw mills, pulp mills, plantations and logging.

SCC Natura has benefited from contracts from, among others, the World Bank, the Asian Development Bank, Sida, the International Finance Corporation, UNDP, FAO, and the Nordic Investment Fund (SCC Natura www 1). SCC Natura has worked in a wide range of countries including Laos, Thailand, Vietnam, Nicaragua, Bolivia, Indonesia, Tanzania, Chile, Ukraine and Sweden.

Since 1991, SCC Natura has had the contract for the Sida-funded Laos-Swedish Forestry Programme. (See report on Laos.) In Vietnam, SCC Natura is the consultant for the Sida-funded Vietnam-Sweden Mountain Rural Development Project. (See report on Vietnam.)

In Thailand, the company managed to win a seven-year long consultancy aiming to provide a “new role” for the Forest Industry Organisation. (See section on FIO, above.) Thai NGOs and villagers meanwhile are actively campaigning to limit the role of FIO or even to close the institution down completely. (See Watershed 2000b.)

On the company’s web-site, SCC Natura lists another Sida-funded consultancy project in Thailand. Titled “Sustainable Forest Plantation Management”, the project ran from 1997 to 2000. Karl Hagstrom of Sida stated that apart from the Sida support to the FIO project (mentioned above) he was “not aware of any project support from Sida during the period which you mention as far as forestry in Thailand” (Hagstrom 2001).

Chitiwat Silapat of the FIO confirmed that the project is in fact Phase III of the FIO project, and plantation management was one part of the project. SCC Natura, however, will give no information about the project. When asked for a brief description of the project, and a list of the reports produced for the project Tomas Jonsson, of SCC Natura, responded (quoted here in full), “You have to contact the client and ask for documents. Natura has no right to distribute reports” (Jonsson 2001b).

The Swedish-funded “Organisational Development of the Forest Industry Organisation” project included preparing methods and criteria for management of FIO’s plantations in accordance with Forest Stewardship Council Principles. According to FIO’s 1997 request to Sida for further funding of the project, “A process has been started, with FIO as lead agent, to develop national criteria for sustainable management of forests in Thailand” (FIO 1997: 6).

According to the project’s “logical framework analysis matrix”, one of the results expected from the project was to start a process “to develop Thai national criteria for forest management”. A “verifiable indicator” of this, according to the matrix is “A national committee established for development of national forest management criteria”. An “important assumption” in the matrix is that “NGOs, local government groups etc. are interested to participate and cooperate” (FIO 1997: annex).

The setting up of national committees to discuss national standards for forest management is an important part of the forest certification process. In theory at least, it can involve a wide range of actors in a discussion about the management of the country’s forests. However, the reality in Thailand is that such a discussion has been raging for at least the last twenty years. Villagers have protested logging operations and large-scale plantation developments. The 1989 logging ban was partly the result of protests against the timber industry in Thailand. Problems with the development of fast-growing tree plantations have led to many protests and Thailand’s newspapers frequently feature discussions of the issues surrounding plantation development. Villagers have also

consistently demanded the rights to manage their own resources. Thailand's 1997 constitution was preceded by a long public discussion and included in the constitution is the right of communities to manage their resources. Community forestry has been another focus of discussion for many years, with villagers, NGOs and academics working together to write a draft Community Forestry Bill.

FIO and SCC Natura's consultants failed to establish a broad-based discussion. Indeed, they operated in almost total silence. Until a small article appeared in the Bangkok Post in August 2000, many Thai NGOs were unaware that FIO had been planning for at least three years to have its plantations certified.

In October 2000, when interviewers from Watershed magazine met Jay Blakeney, one of the consultants hired by SmartWood to carry out the FSC assessment of two of FIO's plantations, he told them, with a straight face, that TERRA was one of the NGOs SmartWood had consulted. This was the first that anyone in TERRA knew of such consultation.

Although not accredited as an Forest Stewardship Council assessor, SCC Natura performs FSC assessments in Sweden through a partnership with Scientific Certification Systems (USA). Through this arrangement, SCC Natura has assessed and certified Stora Enso's four million hectares of forestry operations in Sweden. According to a report in *Sveriges natur*, the Swedish Society for Nature Conservation magazine, SCC Natura's annual revisions of Stora Enso's operations are carried out without making any checks in the field. In the six days allocated for the annual check, SCC Natura's representative "stops at the district offices, reads the environmental audit report and talks with the staff" (Klefbom and Olsson no date).

– SCANDINAVIAN MACHINERY SUPPLIERS

Machinery and equipment suppliers, many based in Scandinavia, are also among the beneficiaries of Thailand's pulp and paper boom. Three of these companies, Sunds-Defibrator, Kvaerner Pulping and Ahlstrom are outlined below.

Sunds-Defibrator

Until 1997, Sunds-Defibrator was a subsidiary of the Finnish Rauma-Repola group. In 1997, Rauma-Repola merged with the Kymmene Corporation to become UPM-Kymmene. The following year, UPM-Kymmene launched a joint venture between Rauma and Valmet (a semi-privatised technology company, with the Finnish state as largest shareholder). Sunds-Defibrator in 1999, was a subsidiary of the new Rauma-Valmet Corporation, jointly owned by UPM-Kymmene and the Finnish state (Sonnenfeld 1999: 40). Valmet, Sunds-Defibrator and Beloit have now merged to form Valmet Corporation. Valmet Corporation is a member of Metso Corporation (Advert in Phoenix no date a). Metso is one of Europe's biggest engineering companies.

Based in Sweden, Sunds-Defibrator supplies entire fibre lines, and supplied pulping and bleaching technology for Phoenix II and Advance Agro mills. The contract to supply machinery to Advance Agro was worth US\$64.6 million (Sonnenfeld 1999: 32).

Sunds-Defibrator has also supplied machinery to Riau Andalan Pulp and Paper, PT Kertas Leces, PT Pakerin and PT Bekasi Tegah in Indonesia, and the Sabah Forestry Industry pulp mill in Malaysia (Sonnenfeld 1999: 32).

Kvaerner Pulp and Paper

Kvaerner Pulp and Paper is part of Anglo-Norwegian Kvaerner Group, which is involved in ship building, engineering, oil and gas exploration, construction, mining, property and power development, as well as the pulp and paper industry (Lang et al 2000: 63).

In the early 1970s Kvaerner joined Ahlstrom and Myrens Verksted to form Kamy AB. In 1989 Myrens Verksted sold its share to the other two companies. Ahlstrom had the rights to sales in North America, while Kvaerner could use the Kamy name everywhere else. In 1993, Kvaerner and Ahlstrom dissolved their partnership and Kvaerner reverted to using its own name (Sonnenfeld 1999: 32).

1998 was a disastrous year for Kvaerner. It posted a huge loss, its share price dropped and the Board of Directors sacked the CEO Erik Tonseth. The replacement CEO, Kjell Almskog, started a major restructuring and today many of the 240 or more subsidiary companies that formed the Kvaerner Group are being sold off (Lang et al 2000: 63).

In 1999 the Kvaerner group remerged its Kvaerner Pulp and Paper division with Ahlstrom's Machinery division (Sonnenfeld 1999: 34).

Kvaerner has supplied pulping equipment to Siam Cellulose, a fibreline to Advance Agro in Thailand; won contracts to supply equipment to the Sabah Forest Industry pulp mill in Malaysia; and has supplied PT Indah Kiat and PT Wira Karya Skati in Indonesia (Sonnenfeld 1999: 32).

Ahlstrom

The Ahlstrom company was one of the largest privately held firms in Finland. At the end of 1994, Ahlstrom family members held 74.7 per cent of the shares in the company (Sonnenfeld 1999: 33). In the late 1980s Ahlstrom sold most of its holdings in forestry and forest industries, focussing on technology and services. Since the split with Kvaerner in the Kamy partnership, (see above) Ahlstrom has expanded sales in South Africa, Russia, Japan, China, India and has opened a new office in Thailand (Sonnenfeld 1999: 33).

Ahlstrom supplied the waste water treatment and chemical recovery facilities to Phoenix II in Thailand, and has supplied equipment to Indorayon, Indah Kiat and PT Kiani Kertas in Indonesia (Sonnenfeld 1999: 34).

5. IMPACTS AND PROTESTS

The impact of the fast-growing pulp and paper industry, and its associated plantations, on the people and forests in Thailand has been severe. When forests and woodlands are converted to eucalyptus plantations, villagers lose a source of food, medicine and firewood. A 1995 report documents in detail the problems villagers faced as a result of the Australian-funded Tung Kula Ronghai project:

“The replacement of diverse native forests and other vegetation with eucalyptus monocultures has diminished the land's ability to support human and animal life. It has also reduced local water supplies on public lands in Kampaeng subdistrict [Roi Et province], where there had been permanent one-metre-deep natural pools or marshes (nong) on public (forested and nonforested) lands. Today water levels have retreated to 10 metres or more beneath the surface, and there is not enough water to use year round” (Jirawan et al 1995).

The report details what was lost to local economies as a result of planting up the land with eucalyptus trees:

“The destructive effects of this deprivation on the local economy are immediate and clear. For examples, we need only look at Kampaeng subdistrict villagers who had previously been able to earn 200-300 baht per day per individual from gathering and selling forest mushrooms; or who had grazed some 900 cows and buffalo, each carrying a price of 5,000-8000 baht, in local woodlands; or who had earned 3,000-4,000 baht per year by making charcoal from branches and fallen wood” (Jirawan et al 1995).

The report also notes that villagers have had to migrate to find work elsewhere. Rice fields have dried up. Water must be collected from further away. Villagers have been forced to sell their cows and buffaloes as they lost their grazing lands. Younger people have thus been deprived of an income, forcing them to look for alternative livelihoods and forcing families to split up (Jirawan et al 1995).

In 1989, a report funded by USAID and the Khon Kaen-based Rural Development Institute looked at the effect of eucalyptus plantations in several northeastern provinces. The report concludes that large eucalyptus plantations can deplete underground water sources; eucalyptus leaves decompose slowly and fall in greater numbers than other crops; toxins in the leaves inhibit the growth of other crops; and a eucalyptus plantation uses a higher overall volume of water than other crops (Usher 1990).

In 1990, a research team from the Thai Development Research Institute, led by Dr Dhira Phantumvanit, concluded, “the promotion of fast-growing trees, particularly the eucalyptus, will not help solve rural poverty nor improve distribution problems. Concessions for large-scale planters to grow commercial forests in degraded forests will aggravate rural poverty rather than easing it” (Bangkok Post 12 January 1991).

In the east of Thailand, the plantation boom caused by the proximity to seaports and roads led in turn to a land speculation boom. Businessmen sent representatives to buy up land from indebted villagers. Villagers may have been willing to sell for a variety of reasons: the land around them may already have been bought up, thus denying them access to their own fields; forestry officials may attempt to clear them off the land as “illegal squatters”; neighbours may have already sold their land and be temporarily well off; violence, threats and even murder may be used; and the fact that local officials collect bribes for issuing land documents means that establishing rights to land is easier for companies who can afford the bribes, than for villagers who cannot.

Once their land is lost, villagers have no choice other than to encroach on forests in other areas. Often they remain on their new fields only until the next wave of land speculation appears (Lohmann 1991: 8).

One of the pulp and paper industry’s ‘solutions’ to problems of large-scale plantations, is to encourage contract tree farming, whereby farmers grow the trees on their own land. This has several benefits for the industry. Companies can secure raw material supplies, through contracts which prevent farmers selling wood to anyone else. Companies avoid the problem of renting state land that is already occupied by villagers (Lohmann 1991: 9). The company does not need to employ plantation workers, and therefore does not need to worry about social security or labour problems (Pearmsak and Mochida 1999: 55).

Contract tree farming effectively passes on risks associated with growing fast-growing tree plantations from pulp and paper companies to farmers. Pearmsak Makarabhirom, a forester with the Regional Community Forestry Training Centre in Bangkok, in a recent study of contract tree farming in Thailand argues “farmers have been facing many problems in every step of the operation, particularly in tree cutting, wood yield estimating or weighing, and transportation, in which farmer[s] are unable to negotiate for a reasonable cost, only receiv[ing] payment after all costs incurred are deducted” (Pearmsak and Mochida 1999: 86).

In 1999, Pitaya Petmark, an official at the RFD, told the Bangkok Post, “To me, between eucalyptus and rice, it’s better to grow eucalyptus because they grow fast and need no care. Northerners may disagree because of their old-fashioned thinking that they should be able to reap their crop every year” (Onnucha 1999a). Samran Udonsak, a former eucalyptus grower who has uprooted his trees in favour of rice, explains some of the problems he faced trying to live off income from eucalyptus trees,

“It’s better to grow rice because we can sell it right away or keep it for our own consumption. Growing eucalyptus, we must wait three to four years before they are big enough to cut. What will eat while waiting for the trees?” (Onnucha 1999b).

The RFD appears oblivious to these problems and has never produced a study of the environmental impacts of eucalyptus plantations on an area larger than 160 hectares (Tunya 2000).

Since the mid-1980s, villagers and NGOs have protested the development of the pulp and paper industry and the fast-growing plantations associated with it. Villagers have petitioned government officials, held rallies, spoken out at seminars, given television interviews, blocked roads, marched on government offices, ripped out eucalyptus seedlings, chopped down trees, stopped bulldozers and burned down nurseries and equipment. They have planted fruit trees, regenerated community forests on land reclaimed from eucalyptus plantations and explained to journalists the methods they use to preserve patches of community forests between their fields (Lohmann 1991: 4) (Casson 1997: 11).

A chronology of some of the protests against fast-growing tree plantations gives an indication of the scale of the problem (although this chronology is by no means complete):

September 1985: More than 2,000 villagers in Si Sa Ket province dug up eucalyptus sapling, burnt nurseries and asked the government to stop the eucalyptus planting at the Nonlan Forest (Suda 1989).

February 1987: Villagers from Ban Namkam in Roi Et province grouped together with eight other villages to sign a letter to the provincial authorities asking for companies to stop cutting forests for eucalyptus plantations (Suda 1989).

May 1987: Villagers of Tambon Yangkam in Roi Et requested that officials prevent companies from buying forest at Dongbang Forest (Suda 1989).

April 1987: Villagers from Tambon Kaampia in Ubon Ratchathani requested the authorities to stop companies planting eucalyptus and asked the government to give them land-use rights (Suda 1989).

June 1987: Villagers from Tombon Ponsai, Roi Et province asked officials to stop companies planting eucalyptus and to stop land eviction (Suda 1989).

July 1987: Villagers from Ban Tuey, Tambon Tung Kula Ronghai in Roi Et, held demonstrations and asked for an end to eucalyptus planting on their land (Suda 1989).

February 1988: Villagers from 15 villages in Surin province demonstrated at the provincial office demanding land-use rights, after the Tambon council made an agreement to stop planting eucalyptus (Suda 1989).

March 1988: Villagers cut down eucalyptus trees at a village forestry office in Pakhaam District, Buriram province (Lohmann 1990).

March 1988: 2,000 villagers in Nong Khai province protested at Buengkan district office against eucalyptus planting companies who were attempting to buy their lands to plant eucalyptus. The authorities gave no response. Finally, villagers cut down 400 eucalyptus trees and burnt saplings in a nursery (Suda 1989).

June 1988: Villagers of Ban Nongka, Surin province, dug up eucalyptus trees, arguing that they wanted the land to plant other crops (Suda 1989).

June 1988: In Surin province, during a protest on 2 June 1988, villagers set fire to eucalyptus leaves and branches outside Tha Tum district police station. Police had issued arrest warrants for two villagers accused of cutting eucalyptus trees planted by the forestry office (Bangkok Post 4 June 1988).

June 1988: About 3,500 villagers in from Tambon Namsab and Tambon Sabsomboon in Prachinburi province burnt down forestry officials' houses in a protest against the government's eucalyptus policy. The villagers also set fire to a garage, two motorcycles, a home made truck, two greenhouses, a water pump and a dynamo (The Nation 14 June 1988).

August 1990: Representatives from more than 200 Thai NGOs announced their refusal to participate in the Jaakko Poyry led-Thai Forestry Sector Master Plan until it was completely separated from current government forest policy (Lohmann 1991: 16).

1991: The former monk Phra Prachak Kuttjitto, led villagers in Buriram province in opposing eucalyptus plantations. Among the tactics used was that of "ordaining" trees to prevent them from being cut down (Kulcharee 1997). The Pa Kham district of Buriram province was a special target of repression under the Khor Jor Kor campaign. Villages were surrounded by troops, houses dismantled, leaders detained and Phra Prachak Kuttjitto and others were attacked and arrested (Lohmann 1991: 17).

May 1992: A broad-based popular movement overthrew the military junta and resistance to fast-growing tree plantations continued. Following protests including blockades of major highways and long negotiations with farmers' leaders, the government scrapped Khor Jor Kor, the military eviction programme, and imposed a maximum area of 8 hectares on any type of commercial tree plantation (Carrere and Lohmann 1996: 237).

1993: Villagers at Dong Kheng forest began to pull up eucalyptus saplings and trees, established as part of the Australian-funded Tung Kula Ronghai project. In April 1994, villagers drew up a forest restoration and conservation plan, including setting aside 240 hectares as conservation forest, on land recovered from eucalyptus plantation (Jirawan et al 1995).

September 1993: About 300 villagers from Tambon Sen Suk destroyed more than 1,000 rai (160 hectares) of eucalyptus trees in Phanom Phrai district, Roi Et province (Bangkok Post 21 September 1993).

April 1994: About 200 villagers from Kanthararom district in Si Sa Ket province rallied in front of the provincial hall to protest at the FIO's proposed pulp mill (Bangkok Post 19 April 1994).

March 1995: Villagers in Si Sa Ket sent a letter to the FIO, the Science Ministry, the Office of the Prime Minister's Secretariat and to the provinces nine MPs, asking the government to reconsider FIO's planned pulp mill (Walakkamon 1995).

February 1996: Around 1,700 villagers protested against eucalyptus plantations at the provincial office in Roi Et. At the time the Minister of Agriculture was out of the country. Villagers decided to continue their sit-in until the Minister met with them on his return to Thailand (PER 1996).

1997: From the mid-1990s, the Assembly of the Poor, a coalition of local organisations and villagers, held a series of protests in front of Government House in Bangkok. In 1997, the Assembly held a 99-day protest, which won a series of concessions from the government. However, after the economic crisis, the government changed and the new government under Chuan Leekpai refused to acknowledge the previous government's agreements with the Forum.

April 1999: A protest lasting two weeks, involving a total of around 40,000 farmers from the uplands of northern Thailand, took place outside the provincial office in Chiang Mai. The farmers, many from ethnic groups, demanded citizenship for ethnic groups and a reduction in reforestation. Approximately 500 Police and 1,500 forestry officials broke up the protest on 19 May 1999 (Forsyth 2001: 140) (Northern Farmers Network et al 1999).

September 1999: NGOs organised a seminar entitled “Eucalyptus and the Failure of Thai Forestry”. The China-Advance Agro project was the focus of much of the discussion (Krungthep Thurakij 21,22,26 September 1999).

March 2000: RFD director Plodprasop Suraswadi threatened 1,000 families in Somdej district of Kalasin with eviction if they did not move voluntarily. A few months earlier, in a protest about the government’s failure to find them new land to live on, the villagers felled most eucalyptus trees in a plantation established by the FIO about 26 years ago (Uamdao and Ploenpote 2000).

April 2000: The Thai Society of Environmental Journalists visited Tha Takiab subdistrict. Kamnan Thawee Sathuchart told the journalists that a number of villages were against the project. Another villager pointed out that local people had been trying for decades to get ownership papers for the land, but had failed (Kamol 2000).

July 2000: 10,000 people converged on Sanam Luang in Bangkok as a show of support for the Assembly of the Poor, which was once again protesting outside Government House in Bangkok (Supahatra 2000).

October 2000: The Chachoengsao Provincial Administration Organisation (PAO) filled a petition with the cabinet protesting the Sino-Thai plantation project. Somchai Asschaisophon, president of the Chachoengsao PAO stated that people living in Takiab district and provincial councillors opposed the project (Bangkok Post 4 October 2000).

As a result of these protests villagers have won some concessions from the government, and have in several instances regenerated their community forests on land previously planted up with eucalyptus. In Nong Yak village in Surin province, eight communities grouped together to re-establish community forest on land reclaimed from an FIO eucalyptus plantation. The forest has regenerated and today provides many services and products to villagers. In addition to such success stories, villagers have also, in association with academics and NGOs, attempted to influence the policy-level debate in Thailand.

In November 1997, Thailand’s new constitution was passed, which allows communities the right to manage their natural resources. Despite such a progressive constitution, state institutions, especially the Royal Forest Department, continue to threaten villagers with eviction to make way for fast-growing tree plantations.

For the past ten years, villagers, NGOs and academics have worked together to produce a Community Forest Bill, which recognises communities rights to manage their forests. The Bill has been stalled by the RFD and their supporters in some nature conservation NGOs, and currently six versions of the Bill are awaiting a cabinet decision.

Although these protests and discussions about forests and plantations, are widely reported (in the English and Thai press), and are an expression of the serious problems faced by villagers threatened with losing their land to tree plantations, such protests are either ignored or simply dismissed by plantation proponents, and the forestry consultants acting as the hired guns of the pulp and paper industry.

For example, Jouko Virta, President of Jaakko Poyry's consulting division, although aware of the level of debate in Thailand about Poyry's proposed Forest Master Plan attempted to marginalise protests. He claimed that protests and criticisms of the plan were a result of only two or three "extremist individuals", and added "I think they are anarchists" (Carrere and Lohmann 1996: 245).

When employees of the Soon Hua Seng (SHS) subsidiary Suan Kittu were arrested in 1990, for clearing forest to make way for eucalyptus plantations, the resulting uproar prompted then-Prime Minister Chatichai Choonhavan to prohibit all commercial plantations in National Forest Reserves. Rather than facing up to the issues raised, SHS attempting to dodge public debate, by renaming its proposed pulp and paper mill "Advance Agro", instead of the originally proposed name, "Suan Kittu Pulp Mill". SHS then hired the Finnish-owned, Bangkok-based Presko public relations firm for advice on minimising any further environmental criticism (Sonnenfeld 1999: 35).

Although protests eventually led to the cancelling of Shell's proposed plantations in Thailand, Shell Company of Thailand's Managing Director, Sarisdiguna Kittiyakara, attempted to confuse the issue, claiming that the objections to the proposed plantations originated with tapioca mill owners whose land would be subsumed under Shell's project. He also accused Thai environmentalists of being co-opted by Western paper-producing countries that felt threatened by the prospect of a local paper industry (Usher 1989).

In a similar vein, a consultant with Vientiane-based Burapha Development Consultants, claimed that protests in Thailand against eucalyptus plantations started when a Thai-Chinese pulp importing company launched a "smear campaign" against eucalyptus plantations. According to the consultant, the campaign was an attempt to safeguard its position as a pulp importer and to prevent Thailand from developing its own pulp producing industry.

Throughout the 1990s, the then-management of Phoenix Pulp and Paper alleged that accusations of pollution from the Phoenix mill in Khon Kaen were simply part of the campaign to take over the company. Sudhir Mittal, Phoenix's Deputy Managing Director told Watershed magazine in 1998, after the mill had been closed for polluting the Phong River, "The closure is in the name of environment, but it is not because of environment. There has been a lot of pressure on the Phoenix management – there is a certain group of people who want to take over the company" (Watershed 1998b: 55).

In October 2000, Chittiwat Silapat of FIO argued that today there are few protests about eucalyptus, "Because it is not so bad as they [villagers] said" (Chittiwat 2000a). Chittiwat appears oblivious to the ongoing discussion about the proposed Sino-Thai plantation project. He is also apparently unaware that Prasit Puaktow, the head of the FIO and Chittiwat's boss, six months earlier announced publicly, "nobody here is happy with the project because all the 200,000 rai [32,000 hectares] of degraded forests have owners" (Uamdao 2000b).

Clearly, villagers will continue to protest what is a serious threat to their livelihoods. Sa-ad Koonchat, spokesperson of Nong Yak village's community Forest Recovery Committee in Surin province, sums up the problem well in an interview in Watershed magazine:

"We began to protest when we realised that a eucalyptus plantation is not a forest. Before, the natural forest was very important for us. We gathered mushrooms, bamboo shoots, insects and herbs for food. There was water, and there were animals and birds. The forest was cool and peaceful. Eucalyptus plantations gave us no benefits, there was nothing to eat. . . .

"For fifteen years, we lived with the eucalyptus, protesting against it. We went to the subdistrict council, to the district chief, to the provincial government, and then to Bangkok. We told them the problems. They said they understood the problems, but couldn't see a solution. They said they

would solve the problems, then they did nothing. For 15 years we had this problem. I wondered, were they stupid? They could not see simple solutions.

“Most of the officials have never been in a forest, so they don’t know the important benefits of a forest. They have never seen a eucalyptus plantation and don’t understand the problems. They only know it makes paper and money. If there’s no forest, we can’t live” (Watershed 1998a: 35).

Next section: Vietnam » (<https://chrislang.org/2002/12/01/the-pulp-invasion-vietnam/>)

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