

# INTERNATIONAL DRIVERS OF ILLEGAL LOGGING

## GLOBAL AND DOMESTIC DEMAND EXCEEDS SUPPLY

The present reality is that domestic demand for timber from Indonesian industries exceeds the supply that can be met from the legal and licensed harvest. This domestic timber shortage is exacerbated by the fact that trading logs on the international market is more profitable than trading logs within Indonesia. As many pulp, saw and paper mills in Indonesia are largely owned or controlled through multinational parent companies (Schroeder-Wildberg and Carius 2003), the products of illegal logging easily find their way to the international market.

The combined annual raw demand of wood by the approximately 1 600 mills in Indonesia is at least 70–80 million m<sup>3</sup>, which far exceeds the legal cut by a factor of two to five (Schroeder-Wildberg and Carius 2003).

## INDONESIAN TIMBER MILLS HAVE EXCESS CAPACITY

A related problem is the fact that many of the mills are designed to process much larger volumes of timber than what can possi-

bly be sustainably harvested from Indonesia's forests. In order to operate at a profit, timber companies are forced to seek out cheap and readily available sources of wood. This means that illegal logging has, in recent years, spread to protected areas, as they are among the few places left with valuable timber in commercial volumes (Wardojo *et al.* 2001, Curran *et al.* 2004). These areas are protected for their high biodiversity value, so enforcement is critical but generally lacking to a large extent.

## TIMBER PROCESSING COMPANY DEBT COMPLETES THE CIRCLE

There is a serious debt problem associated with investments in the Indonesian industrial forestry sector. Unless the financial problems linked to the timber industry are somehow resolved, the need to get returns on these investments will remain a driving factor in the unsustainable use of forests.

One consequence of this burgeoning international trade is that Indonesia cannot address the growing problem of illegal logging alone. It requires the full assistance and co-operation of timber importing countries, including other countries in the region.

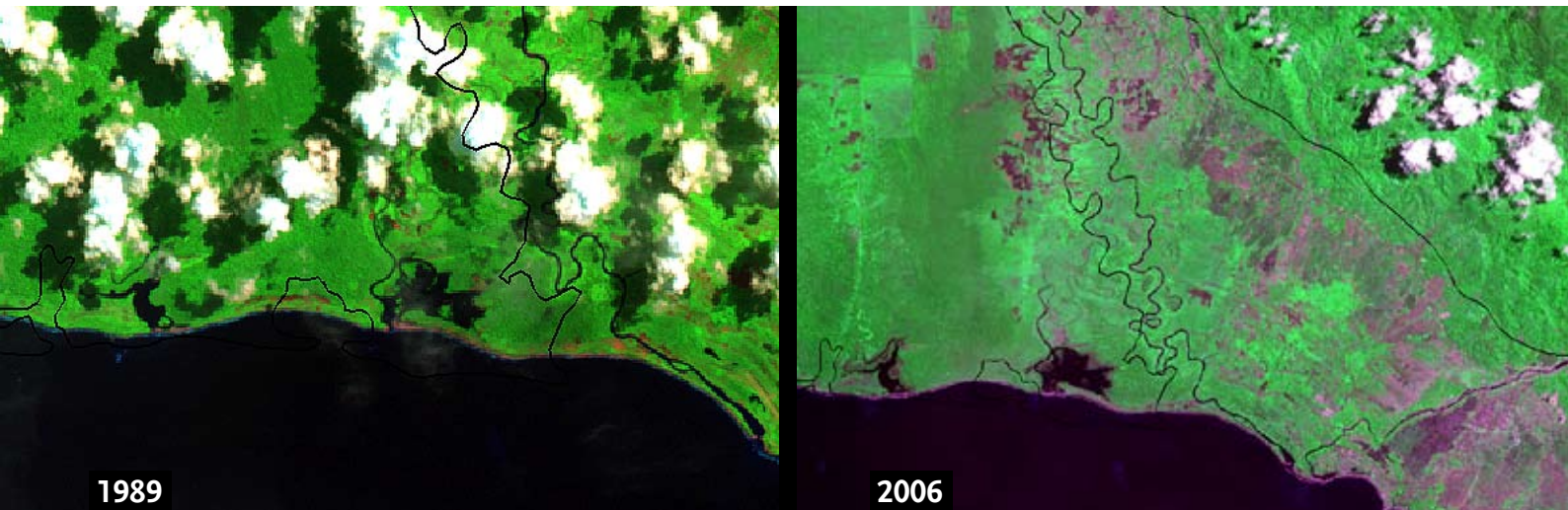


Figure 11: Loss of critical orangutan forest in the Leuser Ecosystem, Sumatra from satellite (Landsat 1989 and ASTER 2006).

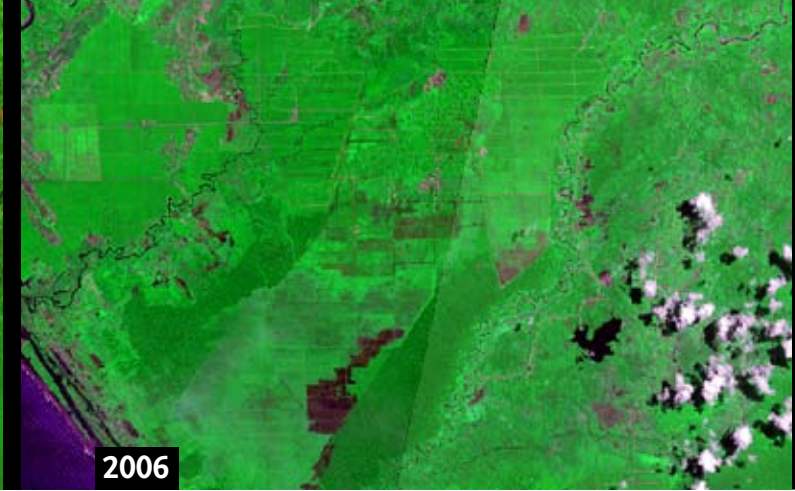
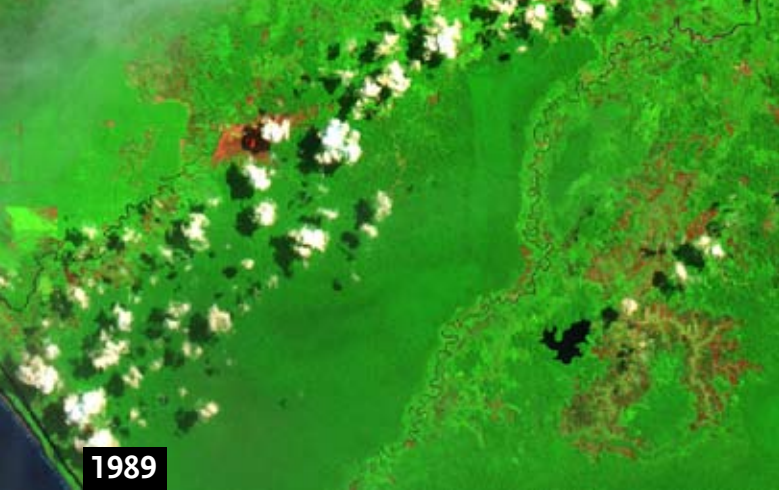
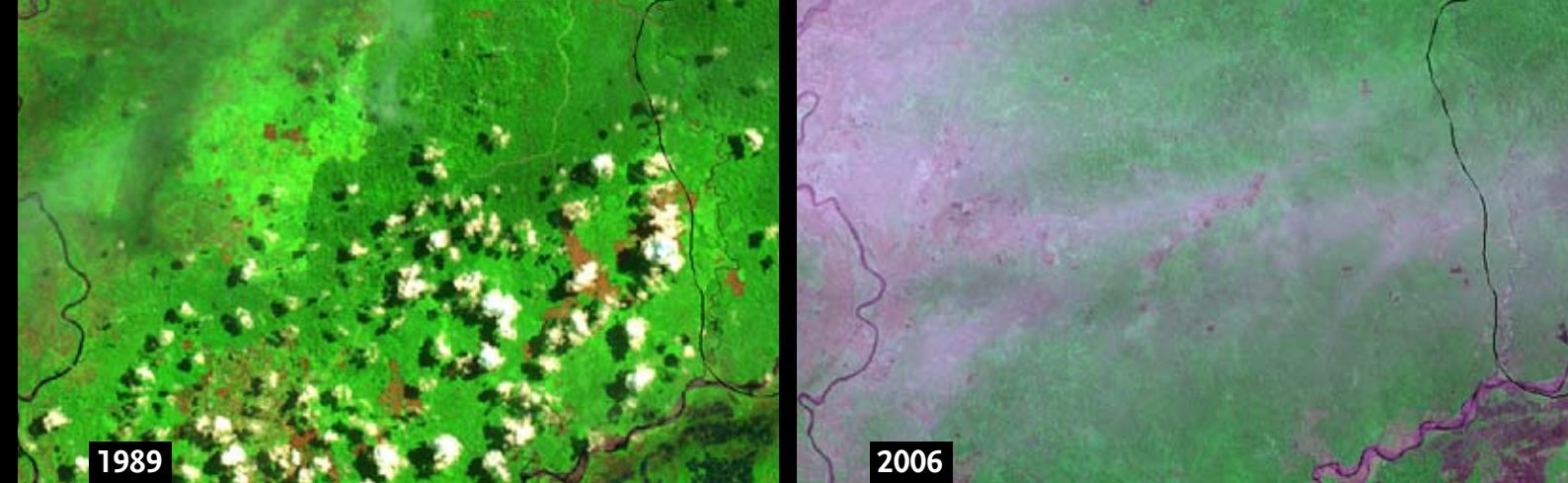


Figure 12: Loss of critical orangutan forest in the Leuser Ecosystem, Sumatra from satellite (Landsat 1989 and ASTER 2006).





**Figure 13: Loss of critical orangutan forest in the Leuser Ecosystem, Sumatra from satellite (Landsat 1989 and ASTER 2006).**

## MULTINATIONAL NETWORKS

The forestry sector in Indonesia includes a number of actors, including concession holders, mill operators and wood manufacturers. Most of the logging companies operating on Borneo and Sumatra are subsidiaries or contractors of multinationals or their networks, some changing names and ownership fairly rapidly, thus eluding monitoring. While many contractors are Indonesian based or owned, multinational networks, foreign investors and recipients play a crucial role in the industry.

Several mills, for example, are owned by or through subsidiaries of UFS (United Fiber System), a consortium of companies from eight countries, with its headquarters in Singapore. In 2002, ten companies controlled 45% of the total logging concessions in Indonesia (WRI 2002). And in 2005, logging concessions on 11.6 million hectares of forests in Papua province alone were granted to 65 different logging companies.

A considerable share of the timber and pulp mills are subsidiaries of multinational companies and processed in Indonesia, but 10–15% of the logs are exported directly to Malaysia or other Asian destinations (Figure 147) (Schroeder-Wildberg and Carius 2003; Currey *et al.* 2001). The remaining large share of timber, most of it illegally logged, is processed in sawmills, plywood mills, pulp mills and chip mills prior to export.

The forestry and wood-processing industry of Indonesia make up around 10% of the GDP and plywood, pulp and paper exports account for 10–20% of the total export earnings. China and Japan receive near half of all the wood products exported from Indonesia. Other Asian countries, Europe and North America account for the rest. China's import of wood products overall increased from 40 million m<sup>3</sup> in 1997 to over 140 million m<sup>3</sup> in 2005 (White *et al.* 2006).



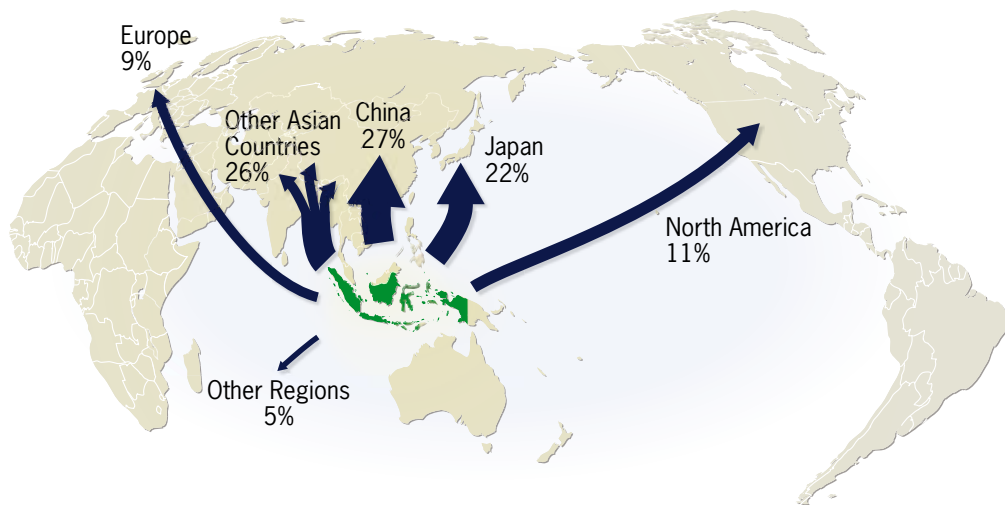
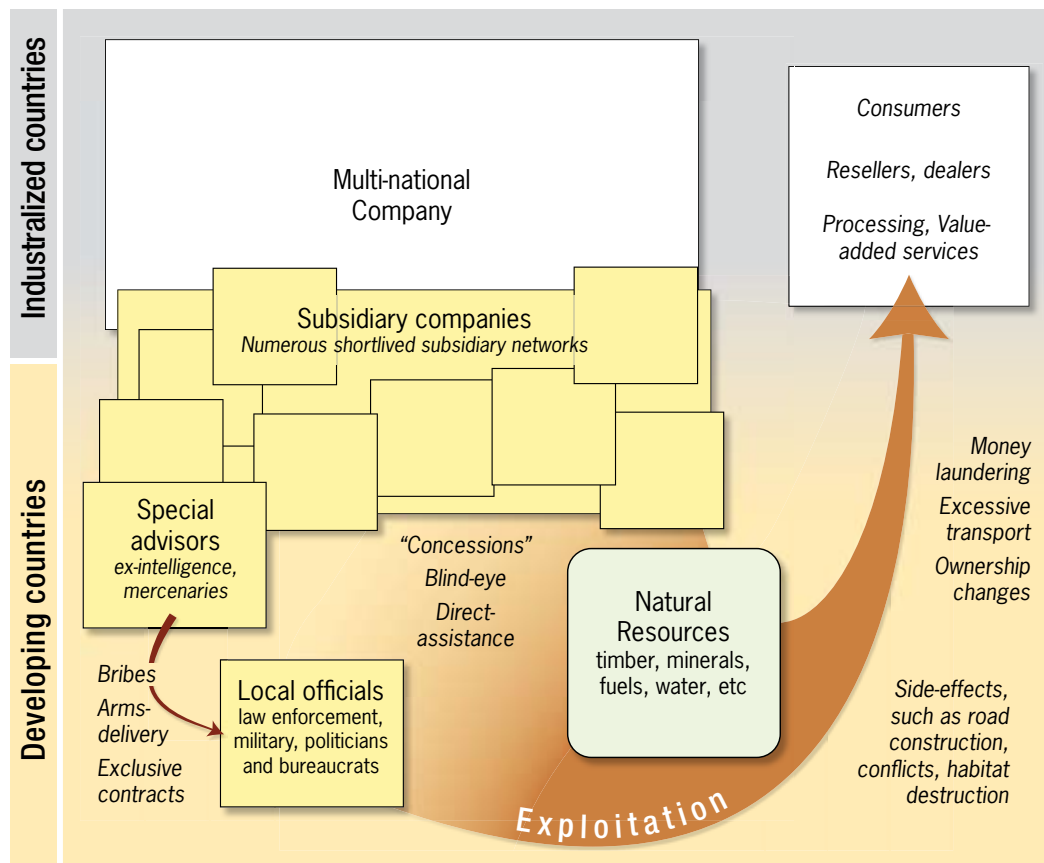


Figure 14: Export of wood products from Indonesia, a large proportion travels through Malaysia.



Figure 15: Smuggling routes of illegally logged ramin timber from Indonesia, including from national parks and protected areas (Currey *et al.*, 2005).



**Figure 16: A generalized diagram of how multinational networks exploit natural resources** by developing numerous temporary subsidiaries and use corruption and security firms to ensure rapid exploitation and maximum profits. Arms trading has been reported from the Democratic Republic of the Congo, while the bribes and “security firms” also play a major role in Indonesia.

Illegal logging may be conducted by companies with no right to be in the area, but also by legal concession holders, operating in several ways. Concession holders may over-harvest from the lands granted to them, or they may exploit areas outside these lands. In a 2001 survey, loggers from 14 out of 18 surveyed concessions illegally expanded their operations into protected areas (Curran *et al.* 2004). The timber or processed wood products may be smuggled secretly from the country, or sold and transported as if produced from a legal concession. To avoid international tracking of the timber or wood products, the products often change ownership multiple times in transit. Hence, when the wood products arrive in port in another country, it is no longer recorded as Indonesian timber.

The extent to which smuggling poses a problem can be seen in official trade data. Import figures from many countries including China, Taiwan and Malaysia, to mention a few, are generally far above that of officially reported exports from Indonesia (Schroeder-Wildberg and Carius 2005). A comparison of the official import data for a series of countries compared with Indonesia’s export figures suggests discrepancies in magnitudes of up to a hundred, typically a factor of three to five. Once again, the looting and destruction of Indonesia’s rainforests is an international concern, with multinational networks operating openly, while the protection of the parks is a primary law enforcement issue of Indonesia.

# OIL PALM PLANTATIONS

Large areas of Indonesian and Malaysian forest have been converted to oil palm plantations, in which multinational networks are also implicated. The cheap vegetable oil is becoming increasingly popular, because, despite being high in saturated fats, it is an alternative to trans fats, which are more closely associated with heart disease, and increasingly being banned in Western countries. It is stable at high temperatures, making it very popular with food manufacturers. Already, it is found in one in ten supermarket products, including margarine, baked goods, sweets, detergents and lipsticks.

There is also an increasing market for vegetable oil as a renewable fuel (biofuel), in response to the need to reduce global carbon dioxide (CO<sub>2</sub>) emissions. In Europe, this market was stimulated by the Biofuels Directive of 2003, which aims to reduce greenhouse gas emissions and dependence on fossil fuels. This directive promotes the use of renewable fuels for transport. Palm oil is currently considered the most productive source of biodiesel fuel.

Palm oil and palm kernel oil now make up one of the largest shares of global vegetable oil supply. Indonesia and Malaysia account for 83% of the global production of palm oil. Several African countries are also developing palm plantations to meet the expected biofuel demand. Experiences from Indonesia in improving environmental management may therefore be relevant to the sustainable development of oil palm plantations in other countries.

Today, the rapid increase in plantation acreage is one of the greatest threats to orangutans and the forests on which they depend. In Malaysia and Indonesia, it is now the primary cause of permanent rainforest loss. The huge demand for this versatile product makes it very difficult to curb the spread of plantations. Palms tend to be planted on newly-cleared forest land, rather than abandoned agricultural land, despite the availability of large amounts of suitable cleared areas. As palms do not begin to produce a crop for five years after the area is planted, the ability to sell the timber to subsidize these first non-productive years is attractive. Between 1967 and 2000, the total oil palm area in Indonesia grew from less than 2 000 km<sup>2</sup> to over 30 000 km<sup>2</sup> (FWI/GWF 2002)]. The



## Plantation development in Ketapang

In Ketapang regency (kabupaten), on the south coast of western Kalimantan, there are ten large oil palm companies operating, mainly the southern part of the regency (Dinas Perkebunan pers. comm.). Eight of these companies will soon be operating around Gunung Palung National Park. The planned oil palm plantations will be developed on various habitats, such as logged over areas and peat swamp forest. These companies have been granted permission from the Ketapang regency since 2004. The oil palm plantations may increase human-orangutan conflict, locust plagues, river pollution levels and the risk of flooding.

Human – orangutan conflicts are reportedly widespread. As forests are cleared for plantations, confused orangutans can be found wandering in the newly planted areas that used to form part of their range. An adult orangutan can be intimidating to humans, so it is common for them to be killed by plantation workers. With their habitat gone, hungry orangutans will turn their attention to the young palm trees, where they can cause considerable damage, thus exacerbating the conflict.

*“There’s human – orangutan conflict indications in Nanga Tayap district. According to local people and workers, there were two orangutans shot last year because they entered the nursery area. The company also pays local hunters to kill sun bears and wild pigs that enter the plantation area.”*

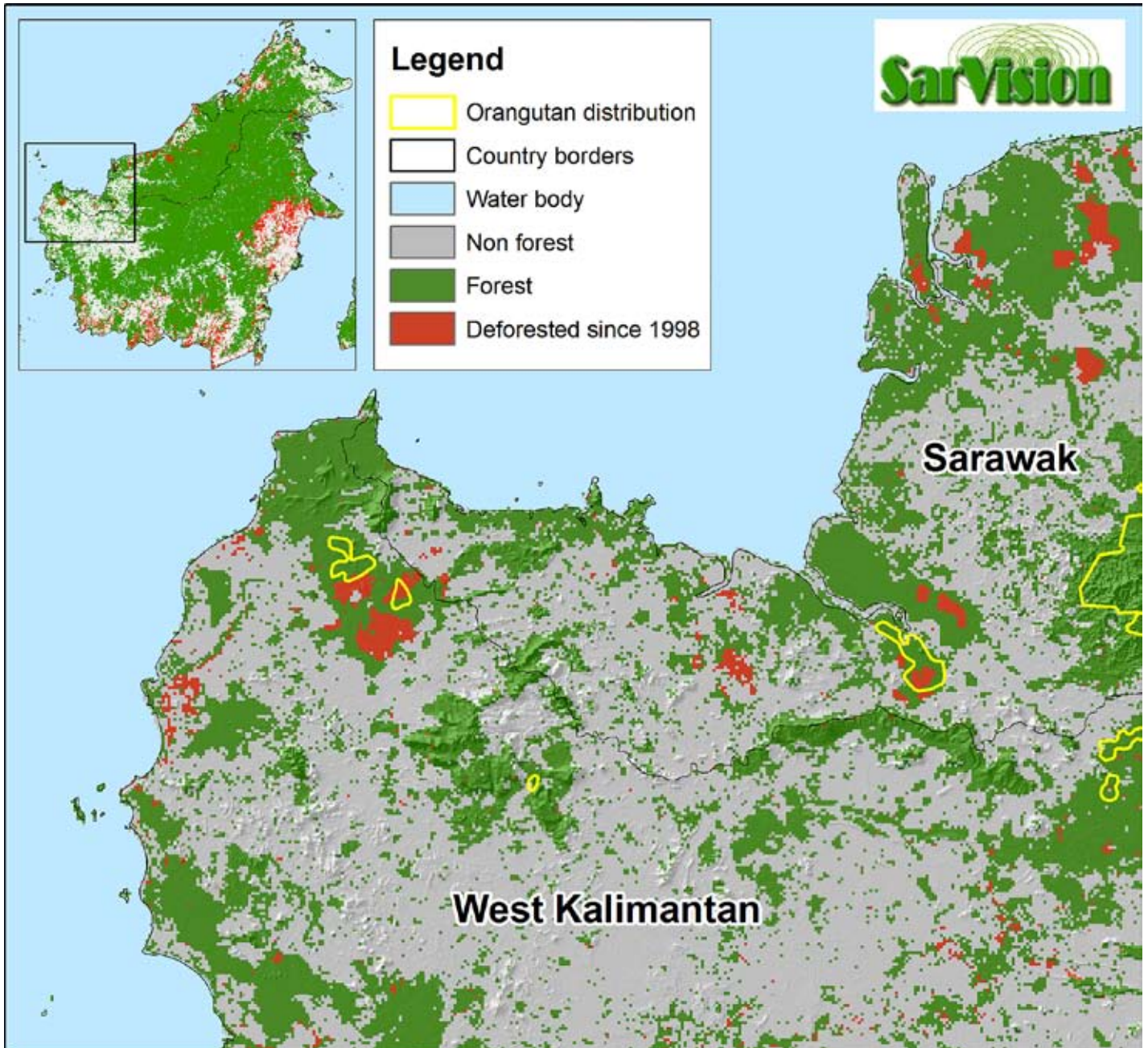


Figure 17: Deforestation and plantation development in western Borneo.

demand for palm oil is expected to double this area by 2020, which implies the annual conversion of another 30 000 km<sup>2</sup> of forest.

The ongoing conversion of tropical rainforest for biofuel production has been a cause of concern for conservationists (Buckland 2005). But new analysis shows that CO<sub>2</sub> emissions from conversion of peat swamp forest in particular are far greater than gains from substitution of fossil fuels with palm oil (Hooijer *et al.* 2006). The land is drained, the trees are cut, and the peat soil that has built up over thousands of years breaks down. When fire used to clear forests for biofuel spreads into additional forest land, even more CO<sub>2</sub> is released. While fire fighting and emergency measures are helpful in the short-term, long-term change in the management of peatlands in Indonesia is required if the CO<sub>2</sub> is to remain stored in peatlands.

Ironically, in the desire to cut CO<sub>2</sub> emissions, western markets are driving ecosystem destruction and producing vast and significant CO<sub>2</sub> emissions through forest burning and peat swamp drainage. The most effective measure to achieve this is conservation of remaining peatland forests, alongside rehabilitation of degraded peatlands and improved management of plantations and agricultural areas (Hooijer *et al.* 2006).

There are signs that the world is waking up to this issue. While no certification mechanism yet exists to identify sustainably-produced palm oil, the Roundtable on Sustainable Palm Oil has been set up to bring the commercial sector together with conservation organisations, civil society groups, governments and other stakeholders. So far it has devised Principles and Criteria for sustainable palm oil production (RSPO 2006), and a broad code of conduct for members. In late 2006, there were some signs of response in the energy industry. The Dutch power company Essent has pledged to stop using palm oil (Wetlands International 2006), and one British power company in the UK that was testing the use of palm oil has dropped its plans. But the legal and illegal spread of oil palm plantations, and development of biodiesel refineries, continues.

