

# Palm oil: the biofuel of the future driving an ecological disaster now

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The numbers are damning. Within 15 years 98% of the rainforests of Indonesia and Malaysia will be gone, little more than a footnote in history. With them will disappear some of the world's most important wildlife species, victims of the rapacious destruction of their habitat in what conservationists see as a lost cause.

Yet this gloomy script was supposed to have included a small but significant glimmer of hope. Oil palm for biofuel was to have been one of the best solutions in saving the planet from greenhouse gases and global warming. Instead the forests are being torn down in the headlong rush to boost palm oil production.

More startling is that conservationists believe the move to clear land for this "green fuel" is often little more than a conspiracy, providing cover to strip out the last stands of timber not already lost to illegal loggers. In one corner of Kalimantan, the Indonesian part of Borneo, a mere 250,000 hectares or 1,000 sq miles...-... almost twice the size of Greater London...-...of the 6m hectares of forest allocated for palm oil by the government have actually been planted.

"When you look closely the areas where companies are getting permission for oil palm plantations are those of high-conservation forest," said Willie Smits, who set up SarVision, a satellite mapping service that charts the rainforest's decline. "What they're really doing is stealing the timber because they get to clear it before they plant. But the timber's all they want; hit and run with no intention of ever planting. It's a conspiracy."

The fear is that Indonesia's aim of almost doubling the 6.5m hectares under oil palm plantation in the next five to eight years - tripling it by 2020 - to meet rocketing worldwide demand will afford ever-greater opportunities for the timber thieves. An estimated 2.8m hectares of forest is already lost every year.

Until now palm oil - of which 83% is produced in Indonesia and Malaysia - was produced for food. But the European Union's aim of cutting greenhouse gas emissions by 20% by 2020, partly by demanding that 10% of vehicles be fuelled by biofuels, will see a fresh surge in palm oil demand that could doom the rainforests.

That is likely to kill off the "flagship species" of wildlife such as the Asian elephant, the Sumatran tiger and the orang-utan of Borneo which are already under enormous pressure from habitat loss. Plantation owners regard the orang-utan as pests because it eats the young palm oil plants and hunt them down ruthlessly.

"In reality it's over for the tiger, the elephant and the orang-utan," said Mr Smits, who founded the Borneo Orang-utan Survival Foundation. "Their entire lowland forest habitat is essentially gone already. We find orang-utan burned, or their heads cut off. Hunters are paid 150,000 rupiah [£8.30] for the right hand of an orang-utan to prove they've killed them."

Two orang-utan rehabilitation centres run by the foundation on Indonesian Borneo are overflowing with more than 800 of the primates, most rescued from oil palm plantations. But the east Kalimantan centre, where rescued babies are reared by hand, has been unable to release any rescued orang-utan into the wild for four years because suitable habitat has proved impossible to find. In central Kalimantan the picture is worse: it has never staged a release in almost a decade.

A new UN report *The Last Stand of the Orangutan: State of Emergency* found that forests in Indonesia and Malaysia are being felled so quickly that 98% could be gone by 2022. Yet the orang-utan's lowland forest could disappear much sooner.

"We're looking at the virtual extinction of the orang-utan in 15 years, or less," said Raffaella Commitante, primatologist

at the foundation's east Kalimantan centre. "There are between 50,000 and 60,000 on Borneo and 7,000 on Sumatra. But 5,000 -10,000 are killed each year."

Yet palm oil, mixed with diesel to produce biofuel, was hailed as a potential saviour for the environment. Put simply, the argument runs that the palm oil plants produce organic compounds that when burned in engines do not add to overall carbon dioxide levels. The CO<sub>2</sub> absorbed by the plant in its life-cycle should balance the amount it gives out when burned.

However, the more the ecological fairytale is scrutinised the more it begins to look like a bad dream. Researchers from the Dutch pressure group Wetlands International found that as much as half the space created for new palm oil plantations was cleared by draining and burning peat-land, sending huge amounts of carbon dioxide into the atmosphere.

The sodden peat of central Kalimantan acts as a vast organic sponge that stores huge amounts of carbon. But as it dries while being drained for plantation, or by roads being cut through to remove timber, it releases the stored carbon. In Indonesia alone, the peat releases 600m tonnes of carbon a year. Worse, it is often set alight to speed clearing, adding to the CO<sub>2</sub> from the huge forest fires that blanket much of south-east Asia in haze. Estimates say Indonesia's fires generate 1,400m tonnes of carbon dioxide each year, pushing it to the world's third-largest producer of CO<sub>2</sub> from 26th, if both factors are considered.

Conservationists also fear that placing all eggs in one basket could prompt an ecological disaster. A palm oil monoculture would be unable to support the rich diversity of wildlife and leave the environment vulnerable to catastrophic disease, while local people dependent on the crop could be left high and dry if it fell out of favour.

"There are bad biofuels in the world and palm oil is often the very 'baddest'," said Ed Matthew, biofuel specialist at Friends of the Earth. "Europe shouldn't be setting targets until it's put a mechanism in place to block bad biofuels. Palm oil is one of the cheapest biofuels in the field, but by

setting targets it sends the wrong signal for businessmen."

As the risks become more obvious there has been a growing clamour for eco-labelling of "sustainable" palm oil. A "round table" of buyers, producers and environmentalists has established several key criteria that would prevent conversion of high-conservation rainforest to palm oil plantations, cut the use of fires to clear land, and mitigate the conflict of plantations with wildlife and rural communities, though it has yet to be ratified. "It's vital we find financial backing for this now," said Fitriani Ardiansyah, a Worldwide Fund for Nature-Indonesia programme officer.

Jakarta is increasingly aware of the dangers, highlighted by its inability to prevent continuing illegal logging. But it is keen to grab the chance and is pledging to put in place regulations to seize allocated palm oil land not planted within a time limit.

Yet as a developing country it also believes Europe must help out financially if it wants the safeguards against the downside of palm oil production that will assist in cutting greenhouse gas.

"The Indonesian government simply doesn't have the capability or the capacity to do this alone without the support of the Europeans, the US, Japanese, or whoever," said Alhilar Hamdi, chief executive of Indonesia's biofuels development board. "It's no good other countries looking to us to help cut their CO<sub>2</sub> emissions without helping to support us in that effort."