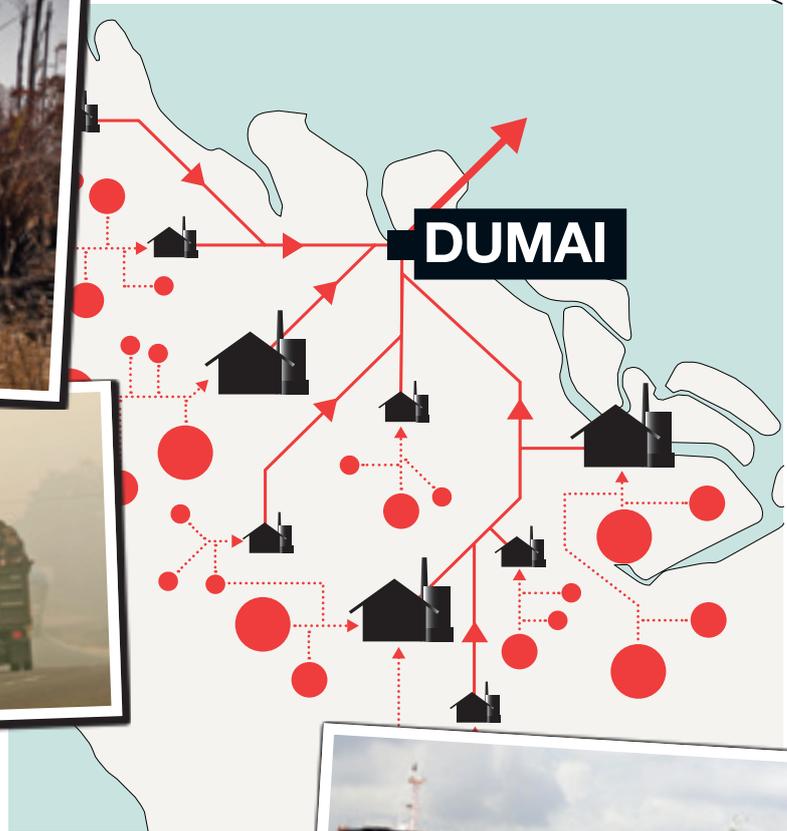


**How deforestation
for palm oil is driving
Sumatran tigers
toward extinction**

Licence to Kill

GREENPEACE

How dirty palm oil reaches the global market



Executive Summary

As few as 400 tigers are thought to remain in the rainforests of Sumatra, which are vanishing at a staggering rate – a quarter of a million hectares every year. Expansion of oil palm and pulpwood plantations was responsible for nearly two-thirds of the destruction of tiger habitat from 2009 to 2011, the most recent period for which official Indonesian government data are available. Such destruction fragments the extensive tracts of rainforest over which tigers need to range in order to hunt. It also increases their contact with humans; this leads to more poaching for tiger skins and traditional medicines and more tiger attacks, resulting in both tiger and human deaths.

The decline of Sumatran tigers is a measure of the loss of rainforest, biodiversity and also climate stability. This summer huge fires, both accidental and deliberate, raged across the Sumatran province of Riau, destroying hundreds of thousands of hectares of rainforests – including the deep peatland forests that are a last stand of tiger habitat in the province. The fires released record amounts of greenhouse gas (GHG) emissions and pollutants in a haze that stretched as far as Thailand.

According to the Indonesian government, 85% of the country's GHG emissions typically come from land-use changes (principally related to deforestation for plantations or agriculture), and around half of this is peat-related. Even Sumatran tiger habitat in protected areas such as the world-famous Tesso Nilo National Park has been virtually destroyed by encroachment for illegal palm oil production, and government officials acknowledge that protection for such areas exists only on paper.

Forested tiger habitat in licensed plantation concessions has no protection at all. One million hectares – 10% of all remaining forested tiger habitat – remained at risk of clearance in pulp and oil palm concessions in 2011. Over the 2009–2011 period, the APRIL pulp and paper group was responsible for a sixth of the deforestation of tiger habitat. Over the same period, the palm oil sector cleared a quarter of the tiger habitat remaining in its concessions.

These failures expose how unregulated and irresponsible expansion, notably of oil palm and pulpwood plantations,

undermines the Indonesian government's commitments to stop deforestation and to save the tiger and other endangered wildlife.

Greenpeace's investigations have revealed that household names including Colgate Palmolive, Mondelez International (formerly Kraft), Nestle Oil, Procter & Gamble, Reckitt Benckiser and a host of other companies are linked to Singapore-based Wilmar International Ltd and its international trade in dirty palm oil. Wilmar is the world's largest palm oil processor, accounting for over one-third of the global palm oil processing market and with a distribution network covering over 50 countries.

Although Wilmar has undertaken to preserve high conservation value (HCV) forests and peatland on its own concessions, these areas supply less than 4% of the palm oil it trades and refines, with the remainder being produced by third-party suppliers. In relation to Wilmar, Greenpeace has documented deep peatland fires in oil palm concessions; wholesale rainforest destruction and illegal oil palm plantations within the Tesso Nilo National Park, harvests from which have previously been tracked to Wilmar's own mills and which continue to feed into Indonesia's palm oil supply chain; and extensive clearance of both tiger and orang-utan habitat. Wilmar is known to own, have a significant stake in or trade with most of the producers Greenpeace has documented as engaging in such irresponsible or illegal activities.

Palm oil has many uses and many benefits, and Greenpeace recognises this; but palm oil production can also have unjustifiable costs. In Indonesia, the costs of irresponsible, unregulated palm oil production include the destruction of the rainforests and peatlands that are the life-blood of endangered species such as the Sumatran tiger and the orang-utan.

Greenpeace believes that Wilmar and the household brands that buy its palm oil must recognise the true costs of irresponsible palm oil production. They need to ensure that their palm oil supply makes a genuine contribution to Indonesia's development, rather than destroying the future for its people, its wildlife and the global climate on which we all depend.

'I would like to express my gratitude to Greenpeace for your continuous hard work and dedication to the world in trying to save not only the environment but also our lives and our future. Thanks also for partnering with Indonesia. Being a partner means you criticise us if we are doing something wrong, you give us your suggestions, you offer solutions and you say positive things if Indonesia is doing the right things. And I personally view that our collaboration is producing good results [...] I want to guarantee my grandchildren a clean and peaceful environment in the future.'

President Susilo Bambang Yudhoyono, 7 June 2013

PT Rokan Adiraya
1°9'57.46"N 100°51'13.14"E



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◀ Open flames on dry tree branches in an area of recently deforested peatland in the PT Rokan Adiraya oil palm concession. ©Ifansasti/Greenpeace



PT Tungal Perkasa Plantations
0°17'58.80"S 102°11'3.60"E

Indonesia's disappearing forests

According to official Ministry of Forestry maps supplied to Greenpeace in 2013, Indonesia lost at least 1,240,000 hectares (ha) of forest over the period from 2009 to 2011, equivalent to 620,000ha per year:¹ 40% of this loss took place in Sumatra, with the province of Riau alone accounting for 230,000ha, or one-fifth of total deforestation.

The palm oil sector was the single largest driver of deforestation in the 2009–2011 period, with identified concessions accounting for about a quarter (300,000ha) of forest loss.²

▲ Access roads and facilities within a recently planted area of the PT Tungal Perkasa Plantations (Astra Agro Lestari) oil palm concession in Indragiri Hulu. ©Jufri/Greenpeace

Last stand of Sumatran tigers

Today, Sumatran tigers are classed as 'critically endangered' on the IUCN Red List of Threatened Species – the world's most comprehensive inventory of the global conservation status of wildlife species.³ As few as 400 Sumatran tigers are thought to remain in the wild.⁴ Tigers are an indicator species, a vital marker of the health of the forest. When tigers can no longer live within it, the survival of the forest itself and the many other species that depend upon it is also at risk.

Tigers once roamed across most of Sumatra, but plantation expansion and logging have reduced their prime habitat to isolated forest landscapes and a handful of national parks. Between 1985 and 2011, half of Sumatra's 25 million ha of natural forest was cleared.⁵ About 80% of that loss was lowland forest – vital habitat for not only Sumatran tigers but also other critically endangered wildlife.⁶ While

Sumatran tigers have been found at altitudes up to 3,200m,⁷ lowland forests can support more tigers.⁸ In 2009, a total area of 10.5 million ha of forested tiger habitat remained in Sumatra,⁹ however, much of this area is highlands.

Such fragmentation of their habitat is bad for tigers, which need large areas to roam and hunt;¹⁰ it increases conflict between tigers and humans¹¹ and makes tigers more vulnerable to poaching.¹² Fragmentation leads to more fragmentation as increasing human settlement and road building make the forests themselves more vulnerable to encroachment and clearance.¹³

Between 2009 and 2011, 382,000ha of tiger habitat were cleared, most of it lowland forest.¹⁴ The province of Riau accounted for just over half of this destruction,¹⁵ losing 10% of its forested tiger habitat in just two years.

- ▼ A Sumatran tiger at the Melbourne zoo. In Indonesia, forest destruction for palm oil production is pushing Sumatran tigers to the edge of extinction, with as few as 400 left in the wild. Companies must commit to zero deforestation and end their role in tiger habitat loss. © Greenpeace / Tom Jefferson



Melbourne Zoo
Australia

The plantation sector is leading the clearance of Sumatran tiger habitat

Nearly two-thirds of the loss of forested Sumatran tiger habitat from 2009 to 2011 was in areas identified as industrial plantation sector (pulp and oil palm) concessions.¹⁶ A further one million hectares – 10% of the remaining forested tiger habitat – remained at risk of clearance in these concessions as of 2011. Much of this habitat is made up of small patches of forest that can form important stepping-stones for tigers between their larger landscapes.¹⁷ Field investigations and satellite analysis have also shown significant illegal clearance of forested tiger habitat for palm oil outside licensed concessions.¹⁸

Palm oil alone was responsible for 15% of the loss of tiger habitat, and the vast majority of the forest cleared in identified oil palm concessions in Sumatra during 2009–2011 was tiger habitat.¹⁹ Over the two-year period, the sector cleared a quarter of the tiger habitat remaining in its concessions.²⁰ Nearly three-quarters of tiger habitat cleared on oil palm concessions was in Riau.²¹

The largest area of identified deforestation in tiger habitat was in concessions currently held by the palm oil groups Surya Dumai, Duta Palma, the Incasi Raya Group and Danitama Makmur. Two of these companies

– Surya Dumai and Duta Palma – were members of the Roundtable on Sustainable Palm Oil (RSPO).²²

While nearly two-thirds²³ of the forested tiger habitat remaining in Sumatra in 2011 was protected, little of this is lowland forest, which is prime tiger habitat.



◀ Sumatran tiger missing part of one of its legs captured by camera trap in Tesso Nilo National Park. ©WWF-Indonesia/Tiger Research Team

▼ Patches of rainforest are all that remain of the tiger habitat across much of the Tesso Nilo National Park. Today, less than a quarter of the area remains forested, with illegal oil palm plantations covering much of the deforested land. ©Jufri/Greenpeace



Tesso Nilo National Park
0°11'52.80"S 101°50'30.00"E



▼ Transport of oil palm fruit by truck from PT Inti Indosawit Subur, an oil palm plantation owned by Asian Agri, the palm oil division of the RGE group. A recent WWF investigation documented trade from illegal oil palm plantations in Tesso Nilo National Park to the RSPO-certified PT Inti Indosawit Subur mill. ©Jufri/ Greenpeace

What is the RSPO?

The Roundtable on Sustainable Palm Oil (RSPO) was formed in 2004 to promote the use of sustainable palm oil through credible global standards and engagement of stakeholders.²⁴ It is a voluntary association including palm oil producers, processors and traders, consumer goods manufacturers and other organisations. RSPO members account for around 40% of global palm oil production;²⁵ as of late 2012, 15% of palm oil was RSPO-certified.²⁶

RSPO is the largest 'sustainability' organisation in the palm oil sector, but its standards do not ban deforestation for plantations or peatland clearance.



PT Inti Indosawit Subur
Riau

Orang-utans also at risk from forest destruction

While plantations threaten tiger habitat in Sumatra, a similar situation is unfolding for orang-utans in both Sumatra and Kalimantan. All orang-utans are endangered, and Sumatran orang-utans critically so.²⁷ Habitat destruction is most acute in Kalimantan, where 141,000ha of forested orang-utan habitat were cleared between 2009 and 2011. Over a third of this clearance was within areas identified as licensed to oil palm concessionaires.²⁸

The Indonesian Ministry of Forestry's orang-utan action plan for the years 2007–2017²⁹ is much firmer than its action plan for the Sumatran tiger³⁰ in its recommendations for appropriate action, including 'Prohibiting conversion of orang-utan habitats into other uses' and 'Promoting the enactment of laws against mining activities in orang-utan habitats'.³¹

However, there appears to be no political will even to take account of this action plan at any level of government involved in the development of land use or spatial plans or in the allocation of concession licences. Much orang-utan habitat lies within existing concessions.



PT Mestika Prima Lestari Indah
4°10'57.60"N 97°49'44.40"E

▲ A young male orang-utan and his mother are evacuated from a patch of forest being cleared for oil palm plantation by PT Mestika Prima Lestari Indah in Aceh Tamiang district, Sumatra, by the Orangutan Information Centre (OIC). The pair were safely relocated into the Leuser Ecosystem, but more orang-utans are at risk if from palm oil expansion in this critical region. ©Orangutan Information Centre

Broken homes – forest fragmentation is bad for tigers

Tigers need large areas of forest with minimal disturbance, and wildlife corridors to connect different populations. A recent survey of tiger conservation landscapes across Sumatra showed that habitat areas fragmented by clearance for plantations or by road building were much less likely to contain tigers.³²

Areas near recent deforestation were also less likely to contain tigers. The Northern Riau tiger landscape had an average deforestation rate of nearly 10% per year and by far the lowest tiger occupancy. The researchers argue that ‘maintaining forest integrity is critical for the long term survival of tigers [...] stopping further fragmentation and maximizing chances for tiger dispersal between remaining forest blocks would be considered a significant achievement’.³³

One of the most serious impacts of the growing fragmentation of tiger habitat is an increase in poaching and human-tiger conflicts. Rapid deforestation, human population growth and economic development within and around Sumatran tiger habitat have forced tigers into increasing contact with humans.³⁴ Tigers leave the shrinking forests to seek food, often preying on livestock,³⁵ or have to cross inhabited areas to reach separated patches of forest. Conflicts have been known to occur in and around palm oil plantations; for example, in February

2013 a tiger in Jambi injured two workers at the PT Dasa Anugerah Sejati oil palm plantation.³⁶

Tiger-human conflicts are a significant danger to both tigers and people. Between 1998 and 2011, 638 human-tiger conflicts were recorded in Sumatra,³⁷ in which tigers killed 72 people and wounded 63 more.³⁸ Both conflicts and fatalities were most frequent in Riau.³⁹ These conflicts resulted in the deaths of 59 tigers⁴⁰ – a significant loss considering that only an estimated 400 Sumatran tigers remain in the wild today.⁴¹

Tigers are also severely threatened by poaching for the illegal supply of their body parts to international markets.⁴² Numbers are difficult to determine, but a 2004 study estimated that some 253 tigers were killed or live-trapped between 1998 and 2002.⁴³ Investigations found tiger parts openly on sale in cities across Sumatra.⁴⁴ Habitat loss and fragmentation increase tigers’ vulnerability to poaching by increasing human access to tiger habitat.⁴⁵

Urgent action is needed to stop this fragmentation and to reconnect habitat patches into larger areas capable of supporting viable breeding populations. Without this, most current tiger habitat areas experiencing industrial development are unlikely to sustain independent populations.⁴⁶ Tigers could disappear entirely from lowland Sumatra, and their survival even in rugged mountain areas is at risk unless connections between landscapes can be maintained to prevent isolated populations becoming inbred.⁴⁷



◀ A forestry official holds the ring of steel cable, often used as a simple trap to snare wild animals.
©Priyananda/Greenpeace

Plantation sector destruction of tiger habitat compromises Indonesia's international conservation and climate commitments



◀ A eucalyptus pulpwood plantation adjoining natural forest to the east of Pekanbaru.
©Greenpeace/Beltra

In 2010, Indonesia committed to doubling tiger numbers by 2022 as part of the St. Petersburg Declaration, a joint initiative by tiger range countries.⁴⁸ This agreement includes:

- ensuring all development within tiger conservation landscapes is 'tiger- and biodiversity- compatible';
- protecting or rehabilitating corridors between these landscapes;
- mainstreaming biodiversity conservation in planning and development processes in tiger habitat.

The 2010 National Tiger Recovery Program for Indonesia backs these commitments and includes more specific goals, including creating and implementing 'a legal basis to protect tiger habitat outside of protected areas'.⁴⁹

In 2009, Indonesia's President Susilo Bambang Yudhoyono made a commitment to reduce Indonesia's greenhouse gas (GHG) emissions by 26% by 2020⁵⁰ compared to 'business as usual' projections, largely through efforts to address deforestation and peatland degradation.⁵¹ In 2010, Indonesia entered into a REDD+

partnership with Norway with the signing of a Letter of Intent that envisaged, among other important reforms, a two-year moratorium on new concession licences on forested land.⁵²

In May 2011, President Yudhoyono introduced this promised moratorium on permits for new concessions in primary forests and peatlands.⁵³ The moratorium was renewed in 2013 for a further two years.⁵⁴ While this moratorium has been an important step, in practice most of the primary forests it covers are already legally protected, and the remainder are largely inaccessible and not under immediate threat of development. Further, it leaves almost 50% of Indonesia's primary forests and peatlands without any protection, as they lie within already designated concessions; other significant areas of high carbon forest are not covered by the moratorium, as they are classed as secondary (not pristine) forests by the Ministry of Forestry.⁵⁵ Such forests are not only important for the climate, but also critical for wildlife.⁵⁶

Mapping evidence shows the extent to which the plantation sector is undermining the Indonesian government's wildlife and climate commitments through continued forest and peatland destruction.

The government's conflicting priorities

Indonesia's commitments to reductions in greenhouse gas emissions and protection of wildlife habitats sit uncomfortably with its Masterplan for the Acceleration and Expansion of Economic Development (known as MP3EI).⁵⁷ This plan sets the stage for the clearance of hundreds of thousands of hectares of forest across Sumatra, Kalimantan and Papua in the name of economic expansion of palm oil, mining and other sectors; it does not take into account the need to reconcile economic growth strategies with forest and peatland protection.



Jakarta
7 June 2013

As a result of these conflicting priorities, Indonesian authorities struggle to implement relevant legislation and policies.

The Ministry of Forestry is responsible for both forest protection and forestry sector exploitation. This means it plays two roles in relation to the companies involved in the forestry sector and their compliance with laws governing the protection of tigers. On the one hand, the Ministry's remit covers commitments to protect and expand tiger habitat, for example via the 2007 'Conservation strategy and action plan for the Sumatran tiger'.⁵⁸ On the other hand, the Ministry of Forestry is the licensing body to forest concessionaires through the Directorate General for Forest Production. As well as awarding selective logging and tree plantation concessions, the Directorate releases extensive areas of Production Forest – land zoned for exploitation by the forestry sector – for clearance and conversion to oil palm or other plantations.

Where these objectives conflict, the Ministry of Forestry is largely failing in its commitments to protect forests and peatland, including endangered wildlife habitats, as a result of prioritising forest conversion for industrial development.

The Ministry of Agriculture, however, is ultimately the licensing body that awards concession licences and other permits for agricultural plantations such as oil palm plantations – signing away tiger habitat in the process. The Ministry of Agriculture's commitment⁵⁹ to review all

palm oil concessions by 2014 presents an important opportunity to integrate environmental and economic policy at the national level. Joining up the two policy visions into one effective implementation plan requires landscape-level thinking, not ad hoc development. However, evidence of ministers' commitments to a consistent policy approach has yet to materialise.

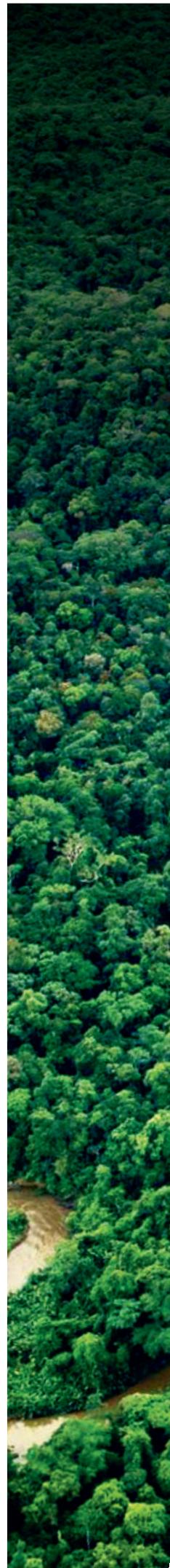
Provincial authorities further exacerbate the problem. They are responsible for not only issuing concession permits, but also developing spatial and land-use plans for their territories. Perhaps unsurprisingly, industrial economic growth is being pursued without effective landscape-level plans to ensure forest, peatland and wildlife habitat protection. A case in point is the public controversy surrounding Aceh's spatial plan:⁶⁰ the province contains vital habitat for Sumatran tigers and orang-utans, but provincial authorities are unwilling to make public detailed land-use plans and concession data and appear to be prioritising forest conversion and road building, which will further fragment vulnerable tiger and orang-utan habitat.

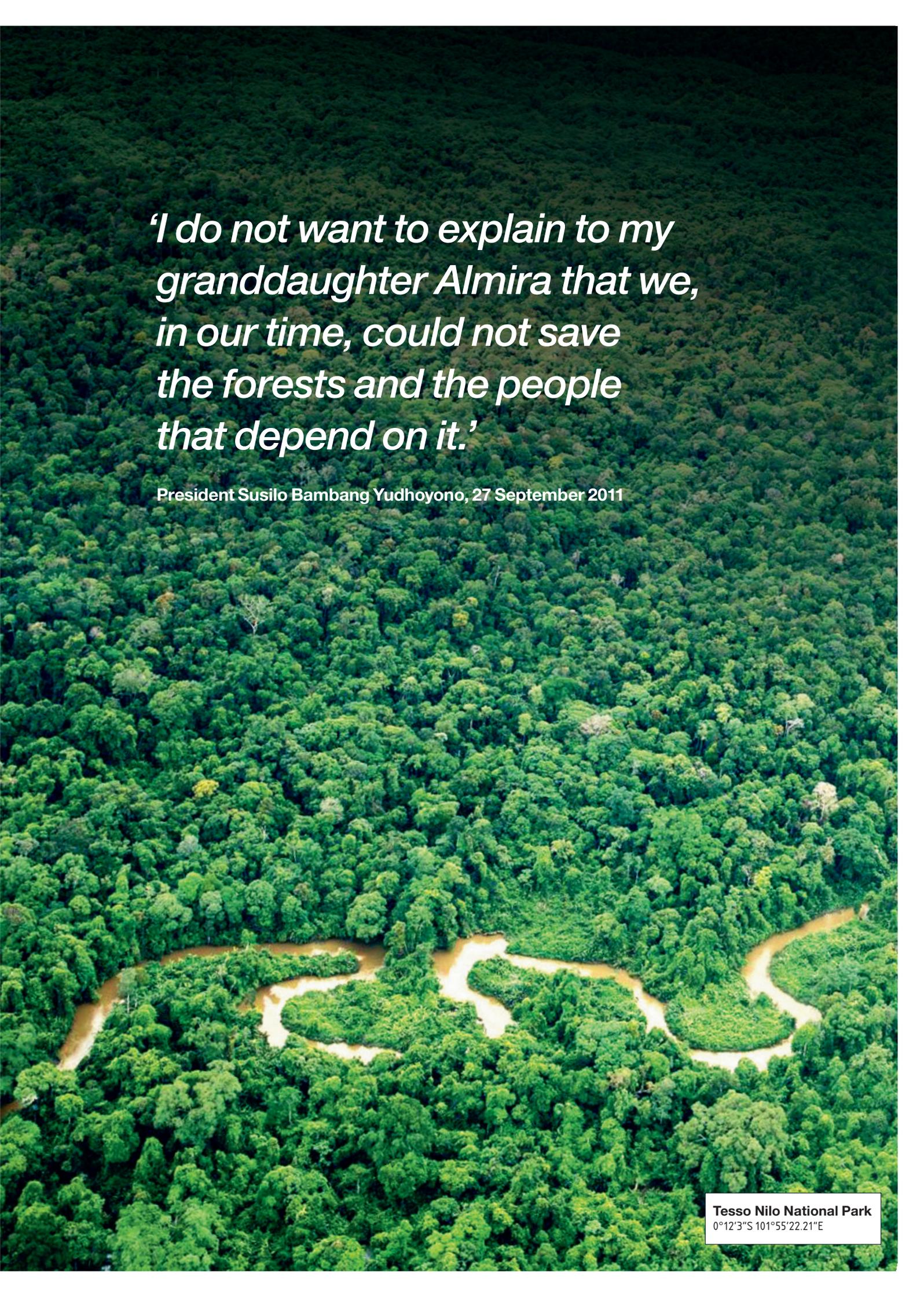
As a consequence, while President Yudhoyono's legacy may include a solid track record of environmental commitments at international level – including the historic REDD agreement with Norway in 2010 – he has been unable to secure concrete delivery from his government.

Conservation efforts in Indonesia face the additional obstacle of entrenched corruption at all levels of government. A risk assessment of the Indonesian forest sector by the government's Corruption Eradication Commission (Komisi Pemberantasan Korupsi – KPK) in 2010 found a variety of problems from the national through to local levels, including limited capacity and integrity of forest management bodies. This led to the conclusions that 'all activities in forest zones had a very high risk of corruption' and 'Officials and civil servants may ... actively misuse their positions to determine forestry concessions'.⁶¹ In June 2013, Riau's governor Rusli Zainal was detained by the KPK for alleged involvement in corruption in forest permit allocations, including 'abusing his authority in approving the annual work plans of a number of private companies'.⁶² He is the sixth Riau government official to be charged by the KPK in recent years for forestry corruption – the other five have now been jailed.⁶³

▲ Greenpeace International Executive Director Kumi Naidoo meets with Indonesian President Susilo Bambang Yudhoyono on board the Greenpeace ship, Rainbow Warrior. ©Rante/Greenpeace

▶ A river runs through rainforest in Tesso Nilo National Park. ©Jufri/Greenpeace



An aerial photograph of a vast, dense green forest. A winding river with a light brown, muddy appearance flows through the forest, creating several meanders and small islands of forest. The forest canopy is a rich, vibrant green, and the river's path is clearly visible against the surrounding trees.

'I do not want to explain to my granddaughter Almira that we, in our time, could not save the forests and the people that depend on it.'

President Susilo Bambang Yudhoyono, 27 September 2011



PT Raja Garuda Mas Sejati
0°19'7"N 101°37'35"E

Case Studies

1. Loss of tiger habitat has made Riau a tinderbox

Sumatra's fastest forest loss over recent times has been in Riau. In 1985, forests covered more than three-quarters of Riau, or some 7 million ha.⁶⁴ By 2011, more than two-thirds of this had been cleared.⁶⁵

▼ Trucks loaded with FFBs drive through the haze in Rokan Hilir Regency. ©lfansasti/Greenpeace



A target for plantation expansion

Indonesia is the world's largest producer of palm oil.⁶⁶ Riau is the largest producer in Indonesia, accounting for about one-fifth of national oil palm plantation area⁶⁷ and two-fifths of exports in 2012.⁶⁸ Dumai is the major hub for the international palm oil trade; traders such as Asian Agri, Musim Mas and Cargill operate out of the city's main

port and Wilmar operates from its own port facility at Dumai-Pelintung.⁶⁹

Indonesia is also a leading producer of pulp and paper, with two of the world's largest pulp producers – Asia Pulp & Paper (APP) and APRIL – based in the province.

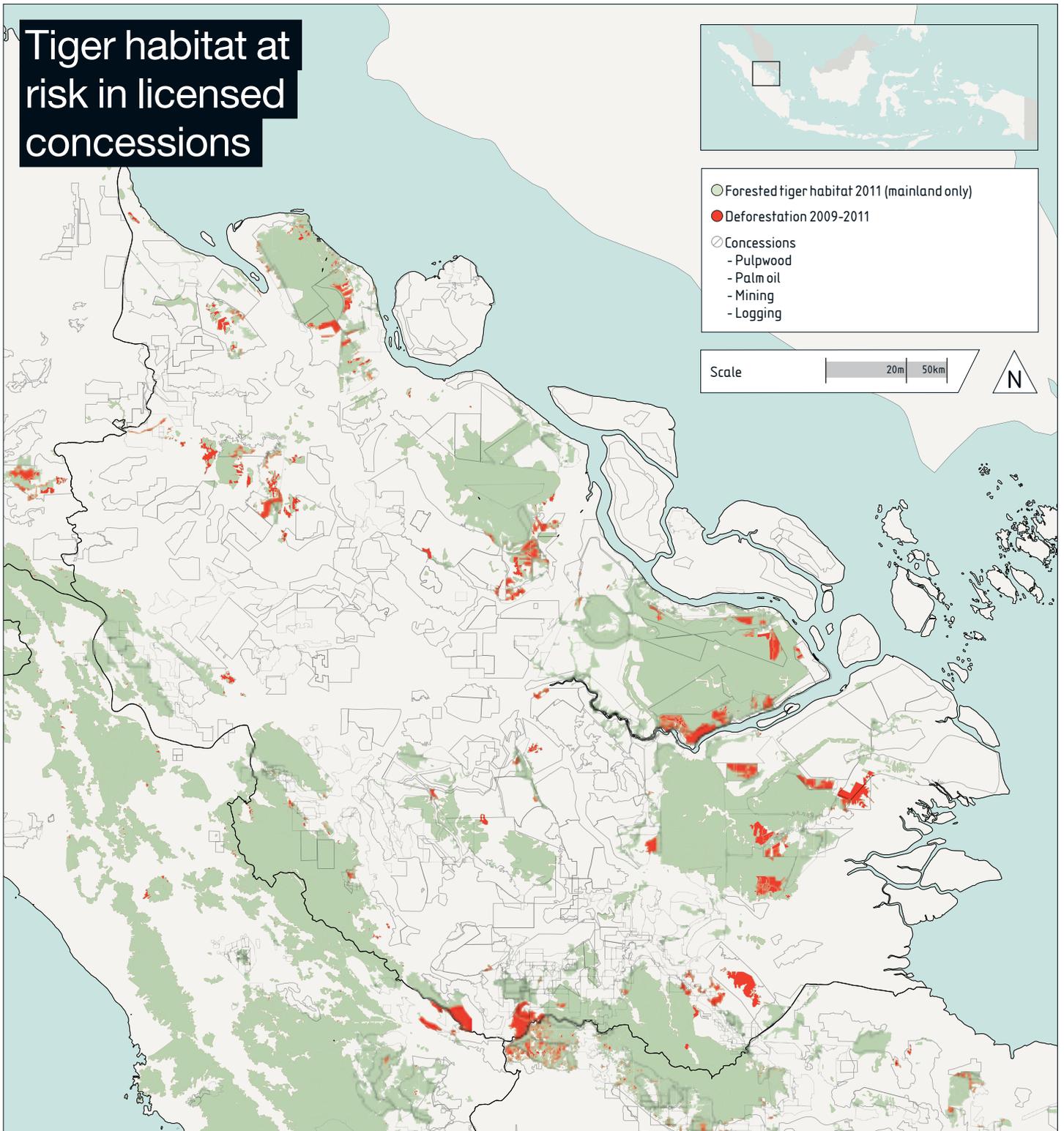
◀ Smoke rising from smouldering peatland in PT Raja Garuda Mas Sejati. ©lfansasti/Greenpeace

▶ Dumai is the largest port of export for palm oil in Indonesia, accounting for about 40% of trade. ©Aslund/Greenpeace



Licence to Kill

Tiger habitat at risk in licensed concessions



Threatening tigers and peatland

Riau's dominance of Indonesia's plantation sectors has come at the expense of tigers, with huge areas of lowland and peatland forest replaced with plantations. The province, with its critical reserves of lowland rainforest, held about one-fifth of all remaining forested tiger habitat in 2009,⁷⁰ yet less than one-third⁷¹ of this is protected. By contrast, more than half is in convertible and production forest,⁷² or zones available for pulp and palm oil plantations: much of this has already been allocated.

In just two years, between 2009 and 2011, 10% of forested tiger habitat in Riau was destroyed. Habitat within palm oil concessions suffered particularly; nearly 90% of all forest cleared in oil palm concessions in Riau between 2009 and 2011 was tiger habitat.⁷³ Of the 150,000ha of forested tiger habitat in palm oil concessions in 2009, nearly 30% had been cleared by 2011.⁷⁴

Much deforestation was on peatland; by 2011, only one-third of Riau's 4 million ha of peatland was forested.⁷⁵ Peatlands are not only important habitat for tigers, but also one of the world's richest carbon stores. Riau is estimated to hold 40% of Indonesia's peatland carbon stores,⁷⁶ equivalent to more than a year's worth of global greenhouse gas emissions,⁷⁷ with peat reaching depths of 14 metres or more in some locations.⁷⁸

▼ Covering 1.3 million hectares, the Kerumutan Peat Swamp Forest has been designated one of the regional priority landscapes for conserving tigers. ©Greenpeace



Kerumutan Peat Swamp Forest
0°13'26"S 102°52'43"E

▼ Burnt stumps in recently deforested peatland tiger habitat. Local witnesses allege the area was cleared by the neighbouring palm oil company PT Palma Satu (Duta Palma Group). The area is covered by the Indonesia government's moratorium. Duta Palma has recently been expelled from the RSPO. ©Jufri/Greenpeace



PT Palma Satu Annex
0°31'30.15"S 102°41'49.77"E

Leading to fire, haze and carbon emissions

Peatlands under plantation are drained to provide suitable conditions for palm trees. This causes significant carbon emissions – either slowly through decomposition or rapidly, as the dry peat becomes susceptible to deliberate or accidental fire. 85% of Indonesia’s greenhouse gas emissions come from land-use activities, around half of this peat-related.⁷⁹

The destruction of Riau’s forests is not just detrimental for tigers; it is catastrophic for the global climate. More tangibly, the impact of the fires on the health and livelihood of people in the region has been devastating.

The impact of the plantation sector on the global climate is also clear. The widespread fires in Riau in June 2013, which led to blankets of haze reaching as far as Thailand, have been the most dramatic and visible sign of the rapid emissions rising from the destruction of Indonesia’s peatlands. But fighting peat fires does not stop the continuous invisible emissions resulting from the drying and decomposition of peat through plantation development. Nor does stopping the fires give tigers back the healthy forest that is their rightful home.



Dumai

▲ A woman in Dumai wears a mask to protect herself from the air pollution caused by extensive forest fires.
©lfansasti/Greenpeace



PT Rokan Adiraya
1°9'57.46"N 100°51'13.14"E

2. PT Rokan Adiraya

Concession background:

PT Rokan Adiraya (PT RAR) is a 10,000ha oil palm concession in North Riau.

Mapping analysis and field investigations:

The concession sits within a tiger conservation landscape (TCL) – an identified ecosystem area of international importance that should provide high-value tiger habitat.⁸⁰ The concession contains extensive forested tiger habitat on peatland; while planting on peat over 3 metres deep is illegal, maps indicate that in places the peat may range to depths of up to 4 metres.⁸¹ Over half of the 4,400ha of forested tiger habitat remaining within the concession in 2009 had been cleared by 2011.⁸²

FORMA data made available through Global Forest Watch suggest that large-scale forest clearance within PT RAR continued until May 2013.⁸³

In June 2013, 151 fire hotspots were recorded within the concession.⁸⁴

CIFOR satellite analysis⁸⁵ shows extensive burn scars covering much of the area that remained forested in the PT RAR concession as of 2011; FORMA data show that most of the burned areas were cleared of forest during 2011–2013, and CIFOR analysis links these areas to industrial plantation development.

Greenpeace field investigations in June 2013 documented an excavator continuing construction of a drainage canal through the peatland within the concession even as fires raged around it.

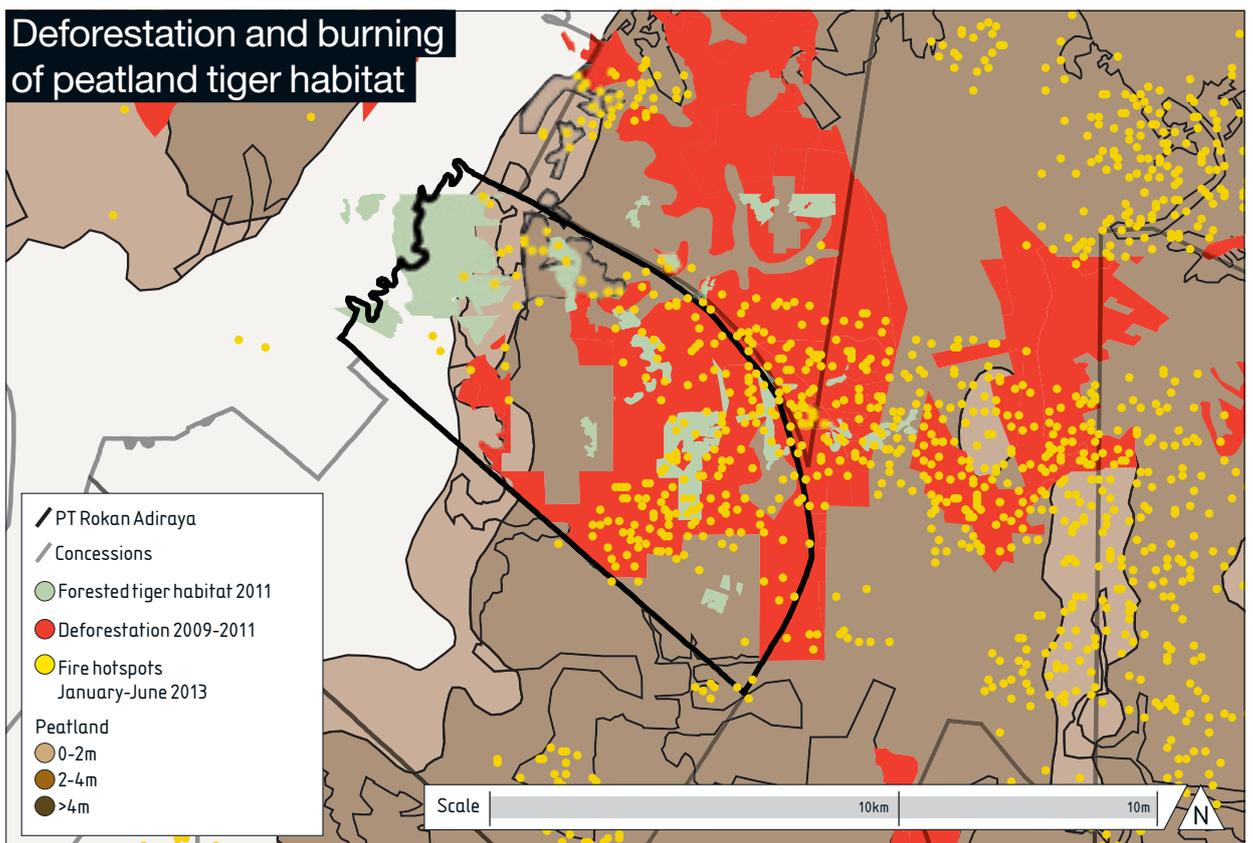
Plantation of oil palms on this concession only began within the last few years. Greenpeace has not identified any trade from this concession to crude palm oil (CPO) mills. The concession is indicative of the problems facing the sector, including for companies like Wilmar that are heavily reliant on third-party supplies that may include harvests from operations such as this.

In October 2013, Greenpeace informed the company of findings in relation to PT RAR.

PT Rokan Adiraya concession



Deforestation and burning of peatland tiger habitat



3. PT Jatim Jaya Perkasa

Concession background:

PT Jatim Jaya Perkasa (PT JJP) is a member of the RSPO.⁸⁶ PT JJP is currently owned by the Ganda Group,⁸⁷ having been sold to the group by Wilmar in 2005.⁸⁸ The two groups are closely tied.⁸⁹

Mapping analysis and field investigations:

Concession boundary maps provided to the RSPO by the company⁹⁰ show that the PT Jatim Jaya Perkasa concession covers about 12,500ha. All of the concession was originally tiger habitat, although no forest remained by 2013; indeed, the concession was almost completely deforested by the time Wilmar sold it.⁹¹ The entire concession is mapped as peatland, most of it very deep peat (over 4 metres).⁹² Planting on peat over 3 metres deep is illegal.⁹³ Despite the absence of definitive peatland maps, the legal protected status of peat over 3 metres is recognised in the Indonesian guidelines for classifying high conservation value (HCV) areas.⁹⁴ This means plantation development on these areas violates the RSPO's standards, which require both legal compliance and protection of HCV areas.⁹⁵

In June 2013, 75 fire hotspots were recorded within the concession in areas that were under development beside the established plantation area.⁹⁶ Landsat analysis from early August shows that the fire scars within the concession cover nearly 1,000ha, primarily in two locations, both on very deep peat.⁹⁷

Following media coverage of fires in June 2013, the RSPO executive took the unusual step of launching its own complaint against PT JJP.⁹⁸

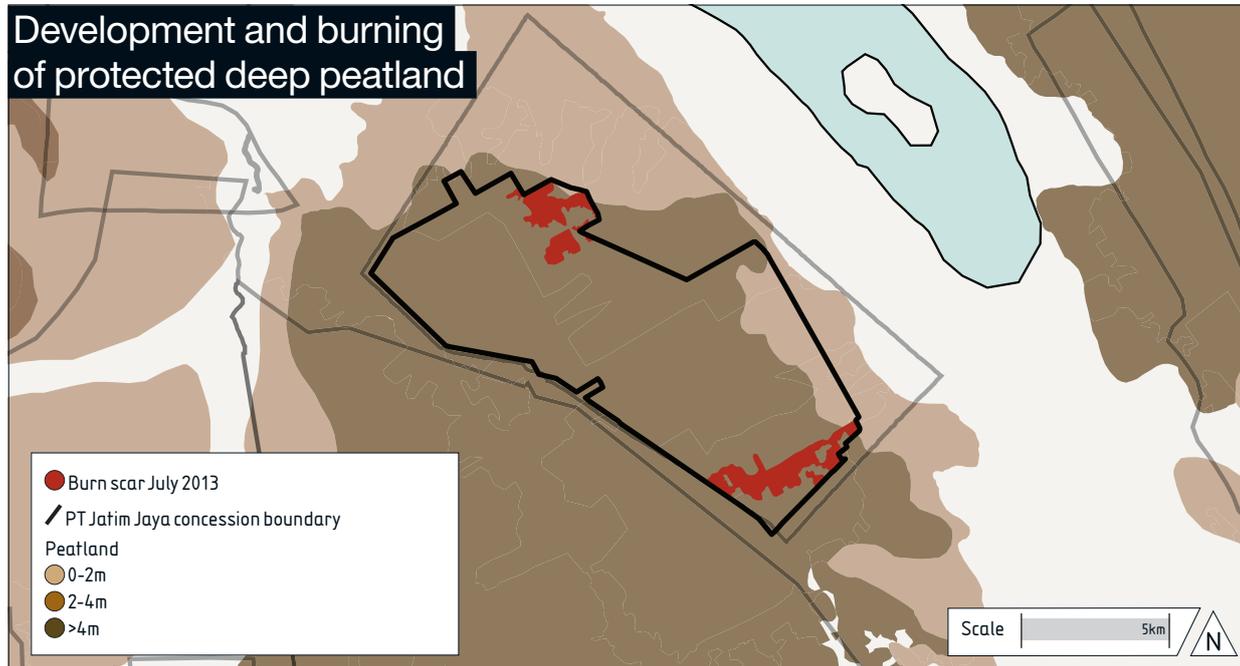
Confidential information obtained by Greenpeace indicates that palm oil from Ganda plantations, including PT JJP, is processed by Wilmar and traded to global markets.

Wilmar stated in July 2013 that 'In response to the recent haze ... we will terminate our business relationship with any suppliers found to be flouting the law against forest burning. This is a strong demonstration of our effort to influence the industry.'⁹⁹

In October 2013, Greenpeace informed Wilmar and Ganda of findings in relation to PT JJP. Wilmar responded by saying that the case appeared to be one of 'negligence' and peatland mismanagement rather than deliberate burning.¹⁰⁰ It is clear from the letter that the company has taken few if any steps to investigate itself the cause of any fires in its suppliers' concessions. Instead, it appears to be relying on others, such as the RSPO, to prove supplier responsibility. No mention is made of contracts being cancelled. The letter makes no comment on the evidence that most of the concession is mapped as deep peat and therefore legally off-limits to oil palm plantation development.

Greenpeace's investigation shows that Wilmar is prioritising trade over a legal, responsible supply chain through its failure to hold suppliers to account for the impact of negligent operations.

PT Jatim Jaya concession





PT Jatim Jaya Perkasa
1°55'55.41"N 100°49'33.19"E

- ▲ Workers on the PT Jatim Jaya Perkasa concession use excavators to clear away fire damage within the concession.
©Tambunan/Greenpeace

4. APRIL is the largest driver of deforestation for pulp

▼ Piles of rainforest logs on recently cleared deep peatland in the PT RAPP pulpwood concession on the Kampar peninsula.
©lfansasti/Greenpeace



Nearly half¹⁰¹ of the deforestation of Sumatran tiger habitat between 2009 and 2011 was in pulp concessions. The Asia-Pacific Resources International Ltd (APRIL) group and affiliated concessions¹⁰² were responsible for a sixth of all forested tiger habitat loss over the period.¹⁰³

APRIL's main competitor, Asia Pulp and Paper (APP), and its associated plantation group Sinarماس Forestry were responsible for a similar amount of deforestation of tiger habitat during the 2009–2011 period.¹⁰⁴ However, in February 2013 APP introduced a forest conservation policy that included an immediate end to the clearance of rainforests throughout its supply chain in Indonesia;¹⁰⁵ early indications are that the company is making a serious effort to adhere to its commitments, and if this effort is maintained the continued impact from this group should be minimal.

APRIL, however, continues to rely on rainforest clearance to feed its pulp mill. Recent government data reveal that more than half the fibre supplied to APRIL's Riau Andalan Pulp & Paper (RAPP) pulp mill is rainforest wood.¹⁰⁶ In 2012, APRIL planned to clear some 60,000 hectares of rainforest¹⁰⁷ – an area nearly the size of Singapore – to support production at this mill.

Analysis of satellite images of three APRIL-affiliated concessions on Kampar Peninsula, part of the wider Kampar-Kerumutan regional priority TCL, showed ongoing deforestation of tiger habitat in 2013. The three concessions, two belonging to PT Riau Andalan Pulp & Paper and the third to PT Uniserya, cover a total area of 163,000ha. Over half of this area was forested in 2009; all of the concessions were

mapped as tiger habitat and peatland, and much of their area was mapped as deep peat (>4m). Peat over 3 metres deep is protected by Presidential Decree.¹⁰⁸

Across these three concessions, a total of 39,000ha were cleared over the period between 2009 and 2013 – a quarter of their total area. The cleared area was mostly secondary swamp forest, but included over 2,000ha of primary swamp forest on the Uniserya concession.¹⁰⁹

APRIL is part of the Royal Golden Eagle (RGE) group, controlled by the Indonesian business tycoon Sukanto Tanoto.¹¹⁰ Beyond APRIL, Tanoto has been responsible for considerable deforestation for pulp through Toba Pulp Lestari¹¹¹ and for oil palm plantations through Asian Agri.¹¹² Tanoto, through his business empire, carries the dubious distinction of being the single largest driver of deforestation in the world identified by Greenpeace.

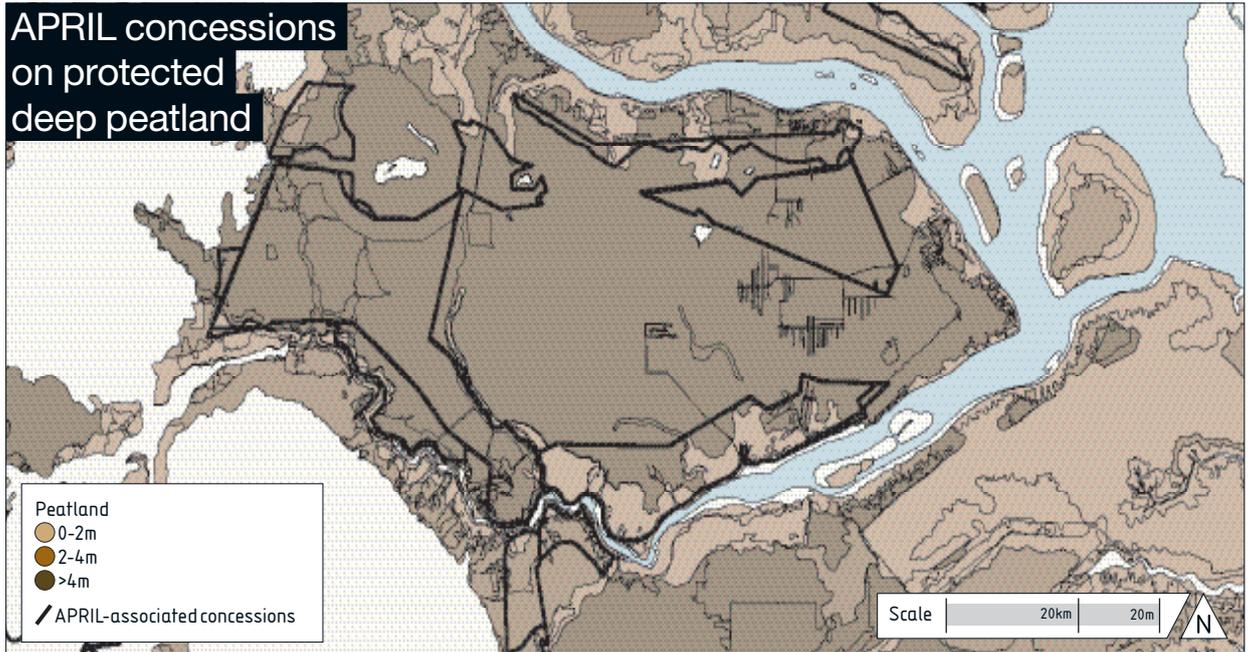
Across his business interests, Tanoto should follow the lead of progressive pulp and palm oil companies and introduce a forest conservation policy that ensures that the company's operations have no deforestation footprint; this must start with an immediate moratorium on all further forest clearance and peatland development by the company itself and its suppliers.

Throughout 2013 Greenpeace has informed APRIL of concerns in relation to its operations, both directly and through organisations of which it is a member, including the World Business Council for Sustainable Development (WBCSD). Greenpeace is currently waiting for a formal response on how APRIL plans to end its role in deforestation.

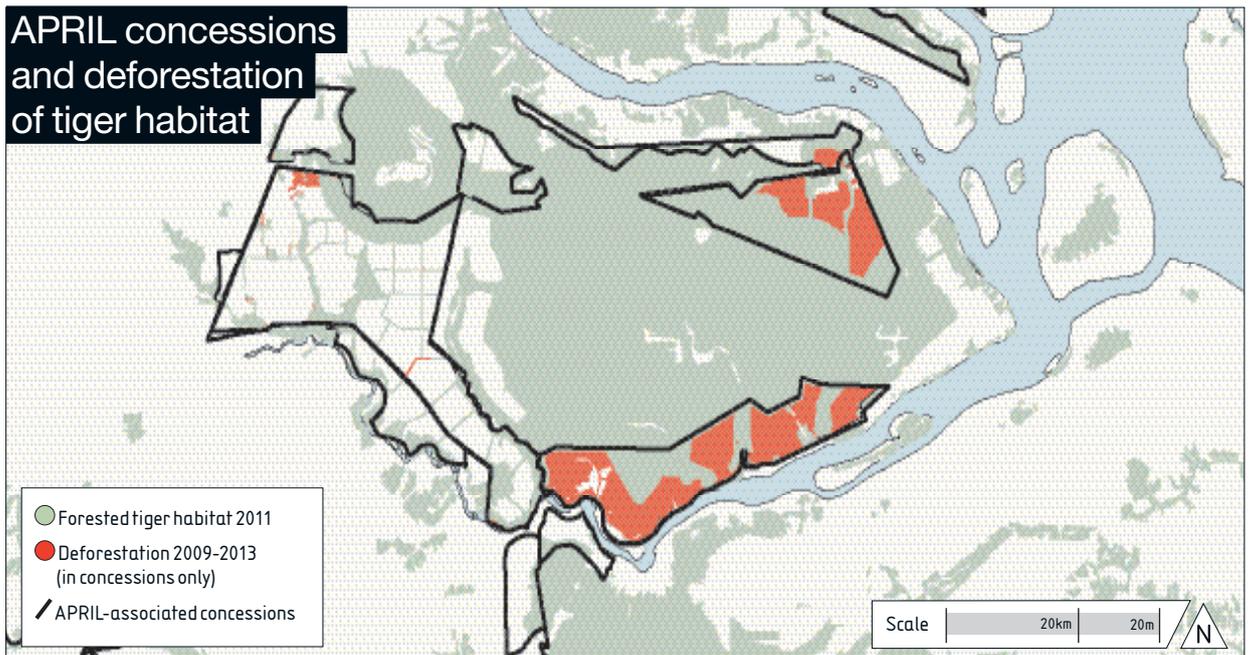
APRIL concessions



APRIL concessions on protected deep peatland



APRIL concessions and deforestation of tiger habitat



► APRIL's PT RAPP pulp mill, part of the pulpwood division of the RGE group. ©Beltra/ Greenpeace

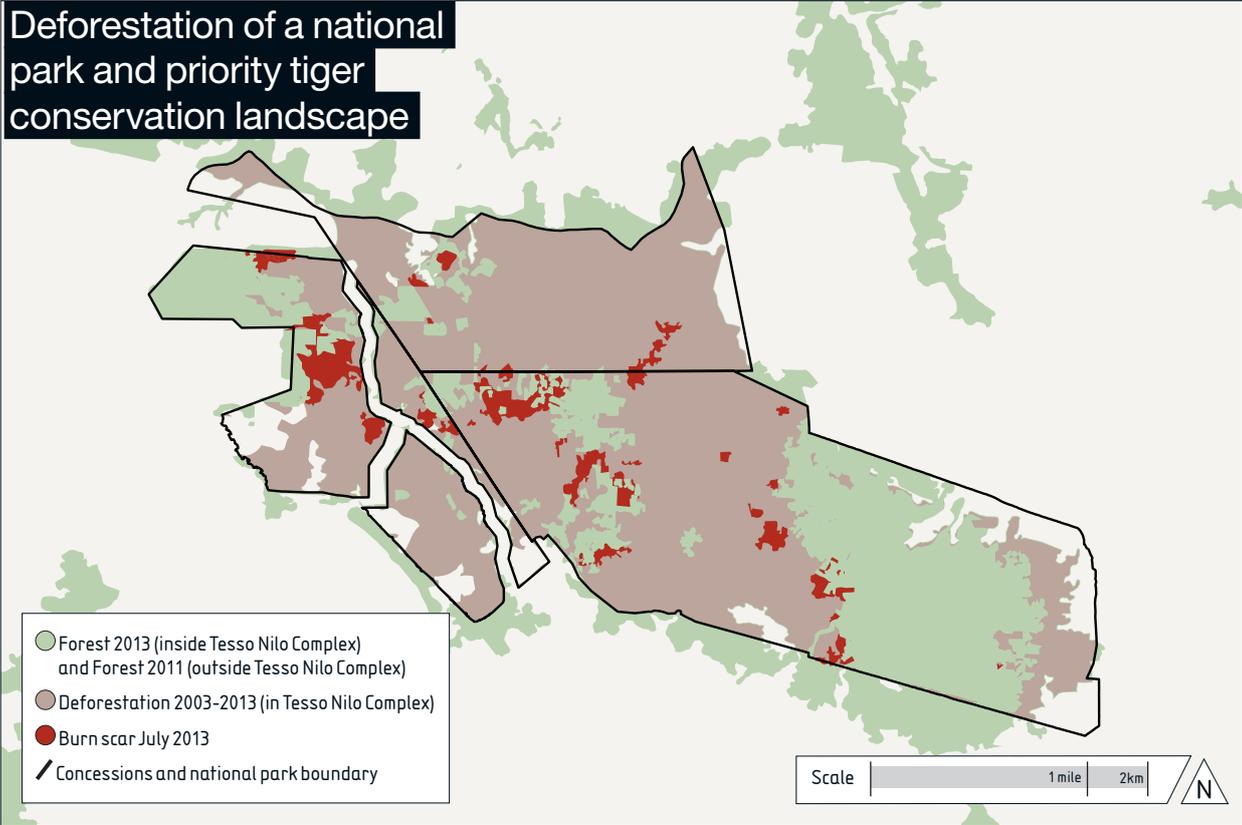


PT Riau Pulp & Paper
Riau

Tesso Nilo national park complex



Deforestation of a national park and priority tiger conservation landscape



◀ Smallholder oil palm plantation development in the Tesso Nilo forest complex. With very limited exception, this development is illegal. ©Jufri/ Greenpeace

Tesso Nilo Forest Complex
0°12'47.40"S 101°48'30.61"E

5. Tesso Nilo Forest Complex

► A Greenpeace investigator measures the footprint of a Sumatran tiger inside the Tesso Nilo National Park. ©Rante/Greenpeace



Tesso Nilo National Park
0°10'58.20"S 101°58'9.01"E

The Tesso Nilo tiger conservation landscape is a long-term priority TCL¹¹³ covering around 233,000ha.¹¹⁴ At the core of this TCL is the Tesso Nilo forest complex,¹¹⁵ which consists of Tesso Nilo National Park and two selective logging concessions, together covering about 170,000ha. The Indonesian Ministry of Forestry established the Tesso Nilo National Park in 2004 and expanded it in 2009 because of its biodiversity value.¹¹⁶ The forest complex¹¹⁷ has one of the world's highest recorded diversities of plants¹¹⁸ and supports key populations of critically endangered Sumatran elephants and tigers.

Most of the natural forest around the Tesso Nilo TCL has already been replaced by industrial pulp and palm oil plantations, and the TCL itself is in dire condition.¹¹⁹ Since 2011, the forest complex has lost almost half of its remaining forest cover;¹²⁰ in June 2013, only 39,000ha of natural forest remained – a mere quarter of the area of the forest complex.

In June 2013, 446 fire hotspots were recorded within the forest complex, primarily in areas that had been cleared over the 2011–2013 period. Landsat analysis from August 2013 shows 7,600ha covered by fire scars, ranging in size from a few hectares to several hundred hectares, with most of the larger scars inside the national park itself. The images show a pattern of fire scars on recently cleared land surrounding shrinking oases of forest.¹²¹

Such rapid forest loss will have a devastating impact on tigers and other wildlife. Tesso Nilo has an estimated 1.2 tigers per 100km² (10,000ha).¹²² The two largest remaining forest patches in the Tesso Nilo forest complex cover 23,000ha and 5,000ha,¹²³ meaning they are now marginal for supporting tigers at all.¹²⁴ The small number of tigers that may survive here in the long term does not represent a sustainable breeding population:¹²⁵ they would rely on

long-distance migration to other areas of forested tiger habitat to maintain the population. Habitat corridors allowing tigers to reach other areas are themselves under threat. Human encroachment in Tesso Nilo is likely to be accompanied by poaching of tigers and hunting of tiger prey species such as deer and wild pigs, further challenging tiger survival in the area.

According to a World Wildlife Fund (WWF) field survey of more than 50,000ha of encroachment areas inside the Tesso Nilo forest complex in 2011, 70% (~36,000ha) of that land had been converted to oil palm plantations.¹²⁶

Development of oil palm plantations inside the Tesso Nilo forest complex is considered illegal. All land inside the complex is categorised as 'Forest Estate' under national law, which does not allow development for agricultural commodities such as oil palm plantations. Transactions of palm fresh fruit bunches (FFB) originating from the Tesso Nilo forest complex must be considered illegal, with a special exception for 'adat' (customary land tenure) forest. However, WWF investigations found that the average plantation size per individual was 50 hectares,¹²⁷ far above the typical size for a smallholder,¹²⁸ suggesting availability of significant capital. Field surveys found that more than 95% of the encroachers settling inside the park had come from outside the area, with the majority from outside Riau,¹²⁹ meaning 'adat' customary rights would not apply.

The head of Indonesia's Presidential Unit for Development Supervision and Control, Kuntoro Mangkusubroto, visited Tesso Nilo in September 2013 and viewed the destruction. In an interview with *Tempo* magazine he commented, 'I think the root of the problem is our inability to protect the area from major looting, our inability to prevent poachers from

destroying the land [...] How is it possible for a national park to be protected by only a few ill-equipped people? The Tesso Nilo National Park has only one operational vehicle and only two outposts. And even those are normally unmanned. The government seems to lack seriousness in protecting the forests.¹³⁰

A number of crude palm oil mills operate around the Tesso Nilo forest complex, many of which accept FFB from third parties as well as processing their own FFB. Some of the mills do not have their own plantations and are wholly reliant on FFB from independent plantations.

WWF's 2011–2012 investigation¹³¹ exposed how two international palm oil traders – Asian Agri and Wilmar – were involved in the trade of palm oil from the illegal destruction of the Tesso Nilo forest complex. Several of these companies' mills, including an Asian Agri mill certified by the RSPO in 2011,¹³² bought FFB grown illegally inside the forest complex.¹³³ Additionally, some of the producer groups were funded by RSPO member Asian Agri or supported by RSPO member Wilmar.¹³⁴

CPO from these mills is traded to Dumai Port,¹³⁵ Riau's export hub for palm oil, and from there to some 130 countries around the world, with The Netherlands, China and India the largest importers.¹³⁶

Kuntoro Mangkusubroto, Chairman of the National REDD+ Task Force, said that Indonesia 'should also not close our eyes to companies, like Wilmar, which open their processing plants to palm kernels harvested illegally from the Tesso Nilo park [...] Why should a big company like Wilmar be willing to take in palm kernels from unknown sources?'¹³⁷

The Roundtable on Sustainable Palm Oil responded to WWF's revelations by emphasising a rule that says oil mills must 'record the origins of all third-party sourced Fresh Fruit Bunches... [The revised RSPO Principles and Criteria 2013] allows for a thorough and complete transparent control right from the field to the factory.'¹³⁸

The RSPO said Asian Agri and Wilmar were cooperating and would stop buying FFB from illegally cleared land. Assuming continued cooperation on the matter, the organisation said, no official complaint against these companies would be lodged for the time being.¹³⁹

In July 2013, Wilmar informed Greenpeace that it has 'committed to not buying fresh fruit bunches (FFB) derived from forest encroachment areas with unclear land status; and as a follow-up to that commitment, we have since stopped buying fruits from the Tesso Nilo complex and its surrounding area'.¹⁴⁰

In September-October 2013, however, Greenpeace documented the continued trade of FFB from within the national park.

In October 2013, Greenpeace informed Wilmar of these findings. The company responded by stating that it 'cannot unequivocally guarantee that there is no possibility of mixing of crop or contamination from these contentious sources by our suppliers'¹⁴¹ and affirming that it is making efforts to establish a fully traceable system through a reduction in the volume of supply it receives through agents. However, the data it provides indicate that nearly one-third of the FFB received by its three mills in the area of the Tesso Nilo forest complex continue to be supplied by agents in 2013. In addition, the company concedes that it is supplied by a number of other non-Wilmar mills in the area of the national park. It is not clear if Wilmar has knowledge of the suppliers to these mills or if the company has informed these mills of its policy on FFB from controversial or illegal sources.

Greenpeace's investigation and the company's response show that Wilmar's existing systems and management oversight of its FFB supply chain – both to its own mills and to the third-party mills that make up the vast majority of its CPO supply – remains inadequate.



◀ Greenpeace investigation documents FFB loaded onto a truck inside the Tesso Nilo National Park prior to its departure for processing. ©Greenpeace

Tesso Nilo National Park
0°15'02.4\"/>



Riau
15 May 2012

Independent suppliers – uncertain origins

Smallholders control 40% of oil palm plantation area in Indonesia,¹⁴² and specifically in Riau.¹⁴³ They are important suppliers to international traders via dealers, independent palm oil mills and mills attached to large industrial plantations. The sector must address the challenge of ensuring that independent supply comes from legal and responsibly managed plantations.

CIFOR analysis of the June 2013 fires indicated that 80% of fires took place on small and medium-sized plantation holdings.¹⁴⁴ Encroachment by palm oil plantations into tiger conservation landscapes and protected areas continues, severely endangering the long-term health of the forest. With very limited exception, encroachment is illegal – yet the harvest from these plantations has been making its way into the international palm oil trade.

▲ A palm oil harvest from a community oil palm plantation.
©Novis/Greenpeace

6. Wilmar / PT Agrindo Indah Persada

▼ Stumps in a newly planted area inside Wilmar's PT AIP oil palm concession. Greenpeace investigation documented clearance of HCV forest and tiger habitat. ©Ifansasti/Greenpeace



Concession background:

PT Agrindo Indah Persada (PT AIP), a subsidiary of Wilmar, holds a concession covering 1,280ha in the Merangin district of Jambi. Planting of 500ha within that area has been approved, according to the RSPO's 'New planting procedures: Summary report of assessment'.¹⁴⁵ Half of the concession is mapped as tiger habitat.¹⁴⁶

HCV assessment findings:

Areas classed as having high conservation value (HCV) cover around a third (417ha) of the concession.¹⁴⁷ This includes areas with important levels of biodiversity (HCV 1)¹⁴⁸ that act as a corridor for the Sumatran tiger and other endangered or vulnerable species, including the agile gibbon, the Sumatran cloud leopard and the Malayan sun bear.¹⁴⁹

The assessment also identified areas providing important environmental services (HCV 4),¹⁵⁰ including steep slopes needing protection from erosion and buffer areas around freshwater springs, streams and rivers that also functioned as effective fire barriers.¹⁵¹

The assessment identified areas critical for maintaining the cultural identity of local communities (HCV 6),¹⁵² notably the 46ha Bukit Murau customary forest, considered sacred by the Suku Anak Dalam (a local indigenous group).¹⁵³ PT AIP's 2009

management plan also undertook to fully reforest the 370ha HCV area,¹⁵⁴ yet recent field investigation found extensive clearance.

Mapping analysis and field investigations:

Forest covered about 10% (124ha) of the concession in 2009, of which nearly 40% (48ha) was HCV forest. By 2013, less than 20ha of forest remained in the concession. One-third of the clearance (35ha) was HCV forest. Field investigations document clearance for roads and plantations on areas documented as HCV steep slopes. Erosion and treefall as a consequence of the development are notable.

Virtually all deforestation within PT AIP over the 2009–2013 period was tiger habitat. A local resident testified to Greenpeace that he had stumbled upon a tiger family (including cubs) coming from an area next to the PT AIP concession.

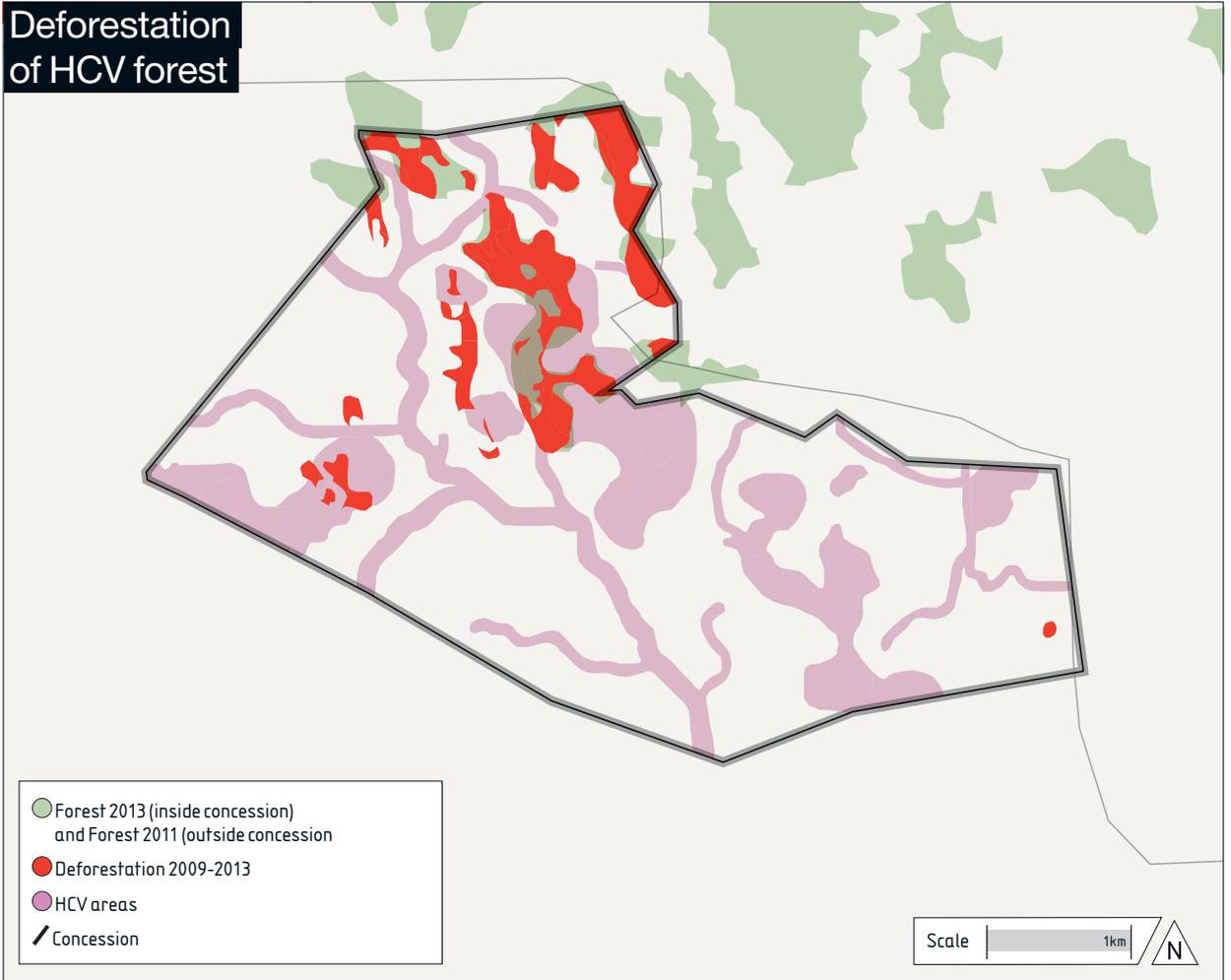
In October 2013, Greenpeace informed Wilmar of these findings. The company responded by saying that it had strict procedures on plantation establishment and that any clearance of HCV areas would be the fault of the contractors.¹⁵⁵ Greenpeace's investigation shows that Wilmar's existing systems and management oversight of its own operations are inadequate.



PT Agrindo Indah Persada concession



Deforestation of HCV forest





Wilmar Group overview

Singapore-based RSPO member Wilmar International Ltd describes itself as 'Asia's leading agribusiness group', with 450 manufacturing plants;¹⁵⁶ it is said to operate in more than 20 countries across four continents,¹⁵⁷ while its distribution network covers over 50 countries.¹⁵⁸ As well as having substantial plantation and milling interests in Indonesia and Malaysia, it claims to be the largest palm oil refiner in both countries and the world's largest processor and merchandiser of palm and lauric oils,¹⁵⁹ with a roughly 35% global market share of palm oil processing.¹⁶⁰

Wilmar International Ltd is effectively an alliance between the US commodities company Archer Daniels Midland (ADM – 16% shareholding) and the Malaysian Kuok family (44% shareholding).¹⁶¹

As of the end of 2012 Wilmar International Ltd had a total of 256,00ha of oil palm plantations, nearly three-quarters (190,000ha) of which were in Indonesia.¹⁶² However, as of 2007 Wilmar controlled approximately 500,000ha of plantation land, of which 230,000ha were planted – over half of this in Indonesia.¹⁶³ This implies that the company has a landbank of almost 250,000ha yet to be planted.

The group is also rapidly expanding its oil palm plantation operations in Africa. Its 2012 annual report gives its total planted area in Uganda and West Africa as approximately 6,000ha and 39,000ha, respectively, in addition to over 140,000ha managed under an outgrower scheme.¹⁶⁴ According to this report, in 2013 it aims to start replanting 30,000ha of newly acquired land in Nigeria.¹⁶⁵

Wilmar is also an important processor of oil palm fruit into crude palm oil. The company's mills produced 3.5% of the global supply of crude palm oil in 2012.¹⁶⁶ Over 50% of this originated with smallholders and other third-party growers.¹⁶⁷

However, the company is even more important as a refiner of crude palm oil and downstream processor of refined oil into fats and oleochemicals used by the food, biofuel, household and personal care sectors.¹⁶⁸ Beyond Indonesia and Malaysia, it has refining and processing facilities in China,¹⁶⁹ India,¹⁷⁰ Europe,¹⁷¹ the USA¹⁷² and elsewhere. The vast majority of the CPO Wilmar refines is supplied by other processors, and ultimately less than 4% of the of the palm

oil and laurics products Wilmar trades originate from its own oil palm plantations.¹⁷³

In 2012, the group's main markets across all business sectors were China (47%) and Southeast Asia (26%), followed by Europe (8%), Australia and New Zealand (4%), India (4%) and Africa (3%).¹⁷⁴ Wilmar is a market leader in packed consumer edible oils in China and also has significant market shares in India, Indonesia, Vietnam and Bangladesh.¹⁷⁵

Wilmar's products – not just refined oils and ingredients but also branded consumer goods (especially in Asia, the Middle East and Africa¹⁷⁶) – are marketed worldwide by a network of subsidiaries and joint ventures. These include joint ventures with Adani of India ('Adani Wilmar'),¹⁷⁷ US agro-commodities giant ADM (eg Olenex),¹⁷⁸ German chemical company Clariant ('the global amines company'),¹⁷⁹ US chemical company Huntsman,¹⁸⁰ UK consumer goods company PZ Cussons ('PZ Wilmar')¹⁸¹ and South-African chemical company Sasol ('Sasol Yihai')¹⁸².

Wilmar has entered into a 50-50 joint venture with Kellogg's in China,¹⁸³ with Kellogg's profiting from Wilmar's extensive distribution network to market its brands including cereals and snacks such as Pringles.

Many leading consumer goods companies lack adequate policies to ensure that the palm oil they buy is not driving deforestation. Greenpeace has identified trade in palm oil-based products from Wilmar to companies including Amway (USA)¹⁸⁴, Arnott's Biscuits (Aus)¹⁸⁵, Colgate Palmolive (USA),¹⁸⁶ Godrej (India)¹⁸⁷, Mondelez International¹⁸⁸ (formerly Kraft Foods Inc.; USA), Neste Oil (Finland)¹⁸⁹, Procter & Gamble (USA),¹⁹⁰ Reckitt Benckiser (UK)¹⁹¹ and Twincraft Soap (USA).¹⁹²

Although Wilmar has undertaken not to clear HCV forest¹⁹³ or peatland of any depth¹⁹⁴ and to avoid using fire in its concessions,¹⁹⁵ Greenpeace has documented the clearance of tiger habitat identified as HCV within one of Wilmar's own concessions in Jambi. The Group is also reportedly in violation of the Principles and Criteria of the RSPO,¹⁹⁶ of which it is a member, and in violation of the RSPO's Code of Conduct¹⁹⁷ as a result of its handover of PT Asiatic Persada; the transfer to the Ganda Group, closely related to Wilmar,¹⁹⁸ took place without any prior consultation of the communities involved in a conflict-resolution process.¹⁹⁹

Further, Wilmar has not imposed similar environmental and social policies on the activities of its third-party suppliers from which it buys oil palm fresh fruit bunches or crude palm oil. Two suppliers – the Ganda Group and Surya Dumai (First Resources)²⁰⁰ – were implicated in the recent fires in Riau.²⁰¹ Another supplier – Bumitama,²⁰² in which Wilmar is a 'cornerstone' investor²⁰³ – has cleared orang-utan habitat in two separate areas of Kalimantan²⁰⁴ and is poised to clear more in a newly acquired concession abutting the world-famous Tanjung Puting National Park.²⁰⁵ Wilmar has previously been implicated in trade from illegal plantations within the Tesso Nilo forest complex²⁰⁶ and supported illegal producers there.²⁰⁷ Trade from illegal plantations within the Tesso Nilo National Park to palm oil mills continues.



PT Rokan Adiraya
1°9'57.42"N 100°51'13.14"E

◀ Burnt palm trees in
PT Rokan Adiraya
©Ifansasti/Greenpeace



PT Ladang Sawit Mas
West Kalimantan

▶ Rescue of orang-utan from PT Ladang Sawit Mas oil palm plantation. The orang-utan is on a drip feed. PT LSM is a subsidiary of Bumitama. Wilmar International is a 'cornerstone' investor in Bumitama and accounts for more than half of its palm oil sales.
© Sabugo/IAR Indonesia

RSPO palm oil fails to protect Consumer Goods Forum members from forest destruction

The Consumer Goods Forum (CGF) is a global industry network including over 400 retailers, manufacturers and other companies. In 2010, the CGF passed a resolution pledging to work for zero deforestation by 2020 in its members' commodity supply chains, including palm oil.²⁰⁸ At present, the CGF relies upon the RSPO to fulfil this commitment.

Greenpeace has written to over 250 palm oil consumer companies – many of them CGF members – asking how they intend to ensure that their supply chains are not linked to deforestation. The majority of respondent companies are relying on RSPO certification to meet their sustainability commitments. Very few have time-bound commitments for establishing traceability or removing deforestation from their supply chains.

RSPO standards fail to ban deforestation and peatland conversion. As Greenpeace investigations reveal, prominent

RSPO members are involved in the destruction of tiger habitat, including conversion of peatland, and are implicated in the catastrophic fires of June 2013.

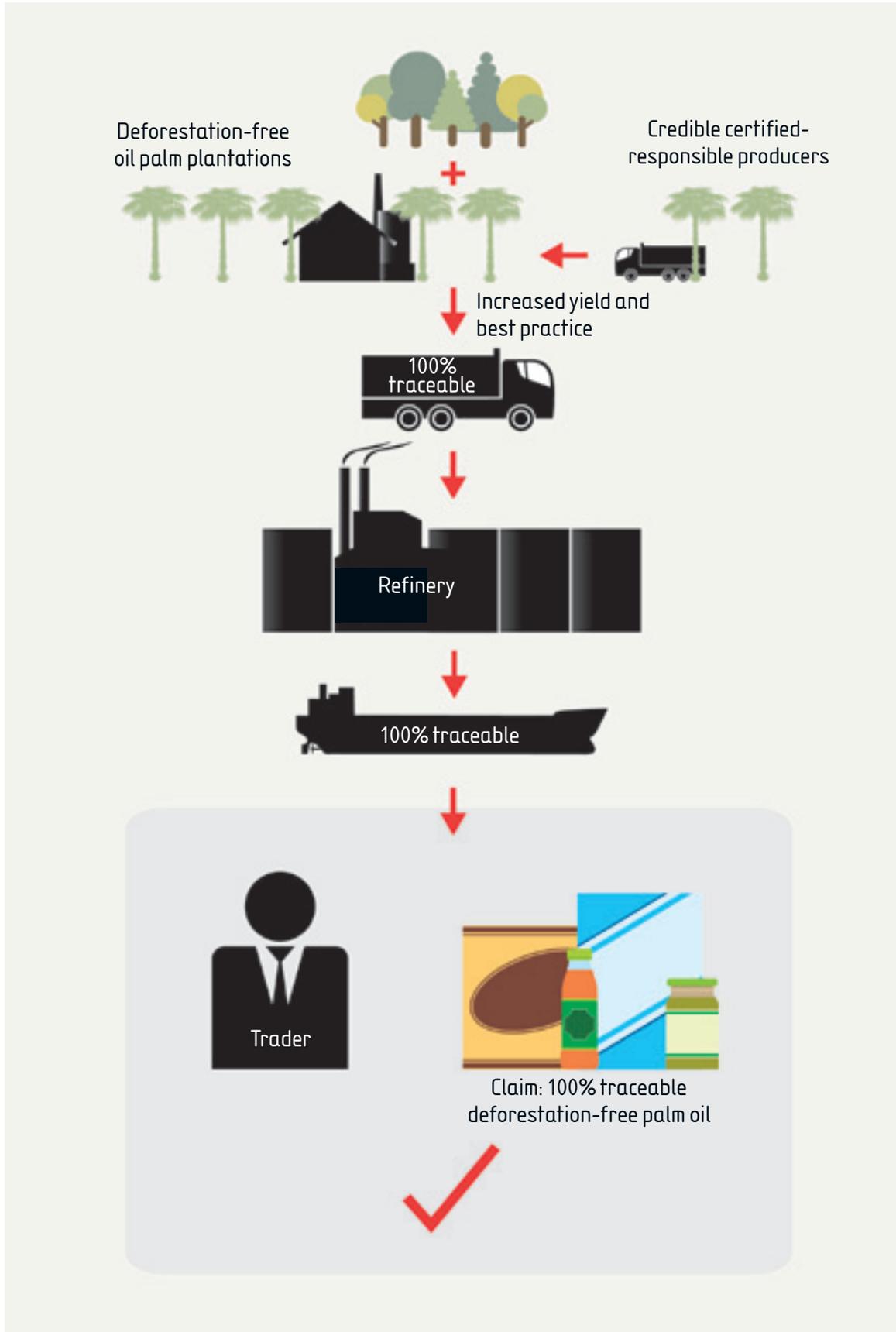
The CGF, its members and other major palm oil users will need to go beyond current RSPO standards to achieve zero deforestation and remove the risk that their operations are supporting the destruction of tiger habitat.

Wilmar is a key palm oil supplier to many CGF members, including Colgate Palmolive²⁰⁹, Mondelez International (formerly Kraft Foods Inc),²¹⁰ Procter & Gamble²¹¹ and Reckitt Benckiser.²¹² Kellogg's – another CGF member and palm oil user – has entered into a 50-50 joint venture with the company in China.²¹³



Solutions

Fully traceable supply from deforestation-free producers



Time for action

All stakeholders in the Indonesian palm oil industry need to take action now to stop the industry destroying vital rainforest, jeopardising the future of critically endangered wildlife, dispossessing local communities and fuelling climate change. This report gives a few examples of practices that the industry should put behind it. Other stakeholders, from governments to end users, must show that they will no longer tolerate such destruction. As the world's leading producer, Indonesia must seize the opportunity to play a leading role in turning the sector around.

Greenpeace calls upon stakeholders in the global palm oil, pulp and other commodity industries to take the following urgent steps to end deforestation and improve governance and transparency:

1. Plantation sectors: stop destroying Indonesian rainforest, including tiger habitat

- Implement an immediate moratorium on plantation development in all concessions in which you have interests until forests and peatlands are identified and protected through a Forest Conservation Policy.²¹⁴
- Support landscape-level measures to protect and enhance ecologically important sites, including habitat for tigers and other endangered species.

2. Traders: don't deal with dirty producers; support progressive companies and responsible production by smallholders

- Suspend trade with any producer involved in deforestation or peatland clearance.
- Support producers with clear no deforestation policies such as those adopted by the members of the Palm Oil Innovations Group (POIG).²¹⁵

3. Corporate consumers: make sure your supply chains are tiger friendly

- Commit to ensuring that your supply of commodities including palm oil, paper and packaging are deforestation-free.
- Start by ensuring full traceability in your supply chains and supporting companies that commit to clear no deforestation policies such as those adopted by the members of the POIG.

4. Financial sector: don't bankroll deforestation

- Refuse to provide financial support or services to palm oil and other commodity companies with links to deforestation.

5. Indonesian government: give tiger protection some teeth

- Ensure strong governance, prioritising forest protection and rewarding industry leadership.
- Enforce the moratorium and ensure that new oil palm, pulp and other plantations are developed on low-carbon land.
- Enact additional laws and policies to guarantee the full protection of all forests and peatlands, including those within concession boundaries.
- Review existing concession permits. Crack down on illegality, including failure to follow due process in licensing and failure to respect peatland regulations or prohibition of burning. Revoke the concessions of persistent offenders as well as those obtained in violation of legislation.
- Develop and implement a government plan for protection and rehabilitation of forest and peatland landscapes and wildlife corridors.
- Create a national public register of all concession types – including palm oil, pulp and coal – and publish the One Map.²¹⁶ Develop an independent national deforestation monitoring system to bring greater transparency to the process, ensure effective monitoring and enforcement and empower local communities and other stakeholders. This would enable stakeholders to monitor the impact of operations, expose and make accountable those responsible for environmental destruction such as fires, and improve governance by enhancing enforcement efforts against those responsible for violations.
- Develop a database of degraded lands²¹⁷ to allow for an effective land swap process enabling legal concessions in forest and peatland areas to be exchanged for concessions in low carbon value areas unencumbered with social, environmental or economic concerns.
- Reward industry leadership. Incentivise improved productivity on existing plantations (for example, through tax incentives).

Endnotes

- 1 Greenpeace (meaning Greenpeace International unless otherwise specified) analysis based on landcover maps for 2009 and 2011, provided by the Ministry of Forestry to Greenpeace Southeast Asia in 2013. The 2009 data set contained obvious errors, eg showing extensive forest areas in East Java that are absent from the 2009 landcover map made available from the same Ministry's online server (<http://nfms.dephut.go.id/ArcGis/services>). These areas amount to 540,000ha and have been disregarded in this analysis, in order to avoid an overestimate of deforestation rates. A similar error was detected for Central Sulawesi, leading to the deduction of a further 120,000ha. Figures presented relate to gross deforestation of primary and secondary forests as identified on Ministry maps.
- 2 Greenpeace mapping analysis. This analysis is likely to be incomplete – some concessions will not have been identified, meaning the true impact of the sector on tiger habitat is likely to be even larger.
- 3 Linkie et al (2008)
- 4 Estimating tiger populations in dense forest and inaccessible landscapes is extremely difficult. The figure of 400 is based on Linkie et al (2008), citing Government of Indonesia (2007). It is possible that initial tiger numbers are higher than this, but the population decline resulting from habitat loss and other issues outlined in this report is acute.
- 5 WWF Indonesia (2010): 5 shows 25.6 million ha in 1985 and Greenpeace mapping analysis shows 12.4 million ha in 2011. For the purposes of this report, Sumatra includes the eight mainland provinces and excludes the island provinces of Bangka Belitung and Kepulauan Riau (Riau Islands), as these do not include any tiger habitat.
- 6 WWF Indonesia (2010): 5
- 7 Wibisono & Pusparini (2010)
- 8 Government of Indonesia (2007): 162
- 9 Greenpeace mapping analysis
- 10 Sunarto et al (2012)
- 11 Government of Indonesia (2007): 165
- 12 Shepherd & Magnus (2004): 22
- 13 See eg Global Tiger Initiative (2012): 16-17
- 14 Greenpeace mapping analysis
- 15 196,000ha (51%). Source: Greenpeace mapping analysis.
- 16 233,000ha (61%): 15% (58,000ha) palm oil concessions, 46% (175,000ha) pulp and paper. Source: Greenpeace mapping analysis. This analysis is likely to be incomplete: there is no central registry for palm oil concessions. Lack of transparency makes it difficult to establish precise concession boundaries and group-level ownership of concessions: the area covered by palm oil concessions is likely to be underestimated since it includes only known concessions and some concession information may be out of date. This means the true impact of the plantation sectors on tiger habitat is likely to be even larger. One of the two large pulp and paper plantation groups operating in Indonesia, consisting of companies associated with Asia Pulp & Paper (APP) and Sinar Mas Forestry (SMF), introduced a forest conservation policy in February 2013 that included an immediate end to the clearance of rainforests throughout its supply chain in Indonesia, meaning the threat from this sector should have receded since 2011 (see APP website 'Sustainability'). However, the next-largest pulp and paper group, APRIL, stands out as a key threat.
- 17 Sunarto et al (2012)
- 18 WWF Indonesia (2013), Gaveau & Salim (2013a)
- 19 81% for Sumatra; 87% in Riau. Source: Greenpeace mapping analysis.
- 20 58,000ha of 237,000ha. Source: Greenpeace mapping analysis.
- 21 Greenpeace mapping analysis
- 22 Duta Palma was expelled from the RSPo in 2013 (source: RSPo (2013e)).
- 23 63%. The largest shares of this protected forest habitat were in Aceh (36%) and West Sumatra (17%). Source: Greenpeace mapping analysis.
- 24 Roundtable on Sustainable Palm Oil (RSPO) website, 'Who is RSPO'
- 25 RSPO website, 'Why RSPO certification'
- 26 RSPO website, 'RSPO Worldwide Impact'
- 27 Ancrenaz et al (2008), Singleton et al (2008)
- 28 53,000ha. Source: Greenpeace mapping analysis.
- 29 Ministry of Forestry (2009)
- 30 Ministry of Forestry (2007)
- 31 Ministry of Forestry (2009): 20
- 32 Wibisono et al (2011)
- 33 Wibisono et al (2011)
- 34 Government of Indonesia (2007): 165
- 35 Forum Harimau Kita (2012): 11-12
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- 44 Shepherd & Magnus (2004): Appendix 2
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- 66 Covering 50% of global production in 2012. Source: Mielke (2013).
- 67 Ministry of Agriculture (2013a)
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- 86 RSPO website, 'PT Jatim Jaya Perkasa'
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- 101 175,000ha. Source: Greenpeace mapping analysis.
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- 114 Dinerstein et al (2006)
- 115 WWF Indonesia (2013)
- 116 WWF Indonesia (2013): 4
- 117 The Tesso Nilo forest complex consists of Tesso Nilo National Park, PT Hutani Sola Lestari and PT Siak Timber Raya logging concessions.
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- 119 Within the TCL as a whole, less than 80,000ha of forest remained in 2011.
- 120 32,000ha. Source: Greenpeace mapping analysis.
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- 124 Griffith (1994)
- 125 A minimum of 25 breeding females, according to Global Tiger Initiative (2012)
- 126 WWF Indonesia (2013): 3
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- 128 The average smallholding is 2ha, according to Ministry of Agriculture (2013a). Legally, smallholders are defined as plantations with less than 25ha (source: Ministry of Agriculture (1996)).
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- 132 RSPO website, 'PT Inti Indosawit Subur Ukui'
- 133 For instance, WWF documents three mills owned by PT Citra Riau Sarana (Wilmar Group) near the Tesso Nilo forest complex receiving FFB grown illegally inside the Tesso Nilo forest complex, including within the park itself, from there the CPO was traded to Wilmar's Nabati Indonesia facility in Dumai. Source: WWF Indonesia (2013): 16-20. These Wilmar Group mills were scheduled to be certified by the RSPO in 2013 (source: RSPO (2013d): 9-10) but it is not known whether this has gone ahead.
- 134 WWF Indonesia (2013): 10
- 135 WWF Indonesia (2013)
- 136 Pustadin (2013)
- 137 Tempo (2013): 68

- 138 RSP0 (2013c)
- 139 RSP0 (2013c)
- 140 Wilmar (2013d)st
- 141 Wilmar (2013e)
- 142 Ministry of Agriculture (2009)
- 143 Data compiled by WWF Indonesia (2013): 6. Data sources: Statistics of Riau Plantation Service 2009 and June 2011, Plantation Service and Environment Agency of Kampar District, Rokan Hulu District, Pelalawan District, Indragiri Hulu District, Kuantan Singingi District, Bengkalis District, Rokan Hilir District, Dumai City, Siak District, Indragiri Hilir District and Pekanbaru City 2011. As WWF Indonesia notes in footnote 14, of the 1.56 million ha of private concessions identified by the Riau Forestry Service (2006), the Ministry of Forestry (2010) only mapped 1.18 million ha as holding definitive licenses (HGU and IUP), ie having been granted all necessary permits to operate.
- 144 Gaveau & Salim (2013a)
- 145 PT Agrindo Indah Persada (AIP) (2009a): 8
- 146 Greenpeace mapping analysis
- 147 PT AIP (2009a): 3 gives 370ha of HCV but analysis of the maps suggests the actual area covers 417ha.
- 148 Jennings et al (2003): 9
- 149 PT AIP (2009a): 4
- 150 Jennings et al (2003): 13
- 151 PT AIP (2009a): 4
- 152 Jennings et al (2003): 16
- 153 PT AIP (2009a): 4
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- 155 Wilmar (2013e)
- 156 Wilmar website, 'Corporate Profile'
- 157 Lubis (2013)
- 158 Wilmar website, 'Corporate Profile'
- 159 The latter defined as comprising palm kernel and coconut oil (for their high content of lauric acid). Source: Wilmar website, 'Merchandising & Processing, Palm & Laurics'
- 160 Ho (2012)
- 161 Wilmar (2013c)
- 162 Wilmar (2013b)
- 163 Wilmar (2008)
- 164 Wilmar (2013b). Note that these figures are higher than those implied by the statement elsewhere in the report (referred to just above) that just 4% of the Group's 255,648ha of plantations are in Africa – it is possible that some of these plantations have been acquired or planted since the end of 2012, the date given for the percentage figures.
- 165 Wilmar (2013b)
- 166 2012 CPO global production of 53.7Mt (source: Oil World). Wilmar production of CPO in 2012: 1.9 million tonnes (source: Wilmar (2013a)).
- 167 Wilmar (2013a)
- 168 Wilmar (2013b)
- 169 Including Sasol Yihai (Lianyungang) Alcohol Industries Co Ltd, a joint venture between Wilmar International and the German-based Sasol Olefins and Surfactants (see http://www.sasol.com/sasol_internet/frontend/navigation.jsp;jsessionid=LWGVUDUCFAHKCBG5N4EZSF EQ?articleTypeID=2&articleId=27800011&navid=600001&rootid=600001); Jiangxi Yichun Yuanda Chemical Co, indirectly owned by Wilmar International (see http://en.yuandahuacn.com/comContent_detail/&FrontComContent_list01-001ConId=eb788d38-d5e7-4ab1-ab9f-19b9053645b&comContentId=eb788d38-d5e7-4ab1-ab9f-19b9053645b&comp_stats=comp-FrontComContent_list01-001.html), and a member of the Yihai group of companies (including Qinhuangdao Goldensea Industry and Qinhuangdao Goldensea Specialty Oils and Fats Industries Co Ltd), a joint venture between Wilmar International and ADM (see <http://www.golden-sea.cn/yihai/en/main.html>; http://www.golden-sea.cn/yihai/en/tz_13.html; http://www.golden-sea.cn/yihai/en/tz_5.html).
- 170 Including Rajshri Packagers Ltd, Acalmar Oils and Fats Ltd and Krishnapatnam Oils & Fats Pte Ltd (see <http://www.icra.in>), and its 50%-owned subsidiary Adani Wilmar Limited (see <http://www.dnaindia.com/print710.php?cid=1768311>).
- 171 In Germany (Wilmar Edible Oils GmbH – see Wilmar (2012a)), the Netherlands (Wilmar Edible Oils BV – see <http://www.wilmareurope.nl/index.htm>) and Ukraine (Delta Wilmar CIS – see <http://www.deltawilmar.com>).
- 172 Wilmar is currently setting up an edible oils processing and storage facility at Stockton, California, due to become operational during 2013 (see Wilmar (2013b)).
- 173 Wilmar (2013b)
- 174 Wilmar (2013b)
- 175 Wilmar (2013b): 30
- 176 See for example Warc (2013); Minto (2013); Wilmar website, 'About Us'; Wilmar (2010a, b); and Wilmar (2013b): 30
- 177 Wilmar website, 'About Us'
- 178 Olenex website, 'Company Profile'
- 179 Clariant (2012); Wilmar/Clariant (2013)
- 180 Huntsman Corp (2011)
- 181 PZ Cussons website, 'PZ - Wilmar joint venture'
- 182 ICIS (2008)
- 183 Kellogg Company (2012)
- 184 Wilmar (2012c)
- 185 PT Cahaya Kalbar (2013)
- 186 Martin (2013)
- 187 Godrej (2013)
- 188 Several non-US Wilmar subsidiaries or palm oil customers claim to supply Kraft (see <http://www.golden-sea.cn/yihai/en/main.html>, <http://www.rspo.org/en/member/876>, <http://www.deltawilmar.com/events>); confidential information, copy held by Greenpeace.
- 189 Neste Oil (2013)
- 190 Wilmar is reported to supply Procter & Gamble globally with soap noodles, and as of November 2012 Adani Wilmar was setting up a plant to supply them to Procter & Gamble (and Unilever) within India (source: Anand (2012)). Greenpeace has identified a number of specific instances of RBD palm stearin being supplied to Procter & Gamble US via the port of San Francisco in 2012-13 by Wilmar's Indonesian subsidiary PT Multi Nabati Sulawesi (source: US customs data, via Trademining, accessed 25 February 2013).
- 191 Confidential information, copy held by Greenpeace
- 192 US customs data, via Trademining, downloaded October 2013
- 193 Wilmar (2012b): 36
- 194 Wilmar (2012b): 4
- 195 Wilmar (2012b): 51
- 196 RSP0 (2103f)
- 197 RSP0 (2012)
- 198 Wilmar Executive Deputy Chairman Martua Sitorus has been claimed to be part owner of the Ganda Group (CAO (2009)), which was co-founded by his brother Ganda Sitorus. Jakarta Globe (2012).
- 199 Forest Peoples Programme (2013)
- 200 OCBC (2009)
- 201 Sizer et al (2013b) (the concession PT Jatim Jaya Perkasa was attributed to Wilmar by the authors, although ownership changed to the Ganda Group in 2005); Sizer et al (2013a)
- 202 'Our Group is largely dependent on two major customers, the Wilmar Group and the Sinar Mas Group, for a substantial portion of our sales. Sales to the Wilmar Group and the Sinar Mas Group accounted for, in aggregate, 56.8% and 25.3% of our Group's sales of CPO and PK for FY2011.' Source: Bumitama Agri Ltd (2012): 50.
- 203 Bumitama Agri Ltd (2012): 10
- 204 PT Nabatindo Karya Utama, Central Kalimantan (sources: http://www.rspo.org/en/status_of_complaint&cpid=32; http://www.rspo.org/file/NKU_Final_Decision_CP_1July2013.pdf), and PT Ladang Sawit Mas, West Kalimantan (sources: IARI (2013); http://www.rspo.org/file/LSM_Final_Decision_CP1July2013.pdf)
- 205 PT Andatan Sukses Makmur – according to its location permit (izin lokasi), the company is registered under the same office address as Bumitama Agri Ltd. (Jl. Melawai Raya No. 10, Kebayoran Baru Jakarta 12160, Indonesia).
- 206 For instance, WWF documents three mills owned by PT Citra Riau Sarana (Wilmar Group) near the Tesso Nilo forest complex receiving FFB grown illegally inside the complex, including within the park itself; from there the CPO was traded to Wilmar's Nabati Indonesia facility in Dumai. Source: WWF Indonesia (2013): 16-20. These Wilmar Group mills were scheduled to be certified by the RSP0 in 2013 (source: RSP0 (2013d): 9-10), but it is not known whether this has gone ahead.
- 207 WWF Indonesia (2013): 10
- 208 CGF (2010)
- 209 Martin (2013)
- 210 Several non-US Wilmar subsidiaries or palm oil customers claim to supply Kraft (see <http://www.golden-sea.cn/yihai/en/main.html>, <http://www.rspo.org/en/member/876>, <http://www.deltawilmar.com/events>); confidential information, copy held by Greenpeace.
- 211 Wilmar is reported to supply Procter & Gamble globally with soap noodles, and as of November 2012 Adani Wilmar was setting up a plant to supply them to Procter & Gamble (and Unilever) within India (source: Anand (2012)). Greenpeace has identified a number of specific instances of RBD palm stearin being supplied to Procter & Gamble US via the port of San Francisco in 2012-13 by Wilmar's Indonesian subsidiary PT Multi Nabati Sulawesi (source: US customs data, via Trademining, accessed 25 February 2013).
- 212 Confidential information, copy held by Greenpeace
- 213 Kellogg Company (2012)
- 214 Such a policy would ensure forest and peatland protection in company and supplier concession areas. It would include the following elements: assessment and protection of high conservation value (HCV) and high carbon stock (HCS) lands; free, prior and informed consent of all affected local communities for all new development; development and implementation of conservation plans that take account of the surrounding landscape; responsible plantation management; and transparent reporting of the policy's implementation. Both Golden Agri-Resources (GAR) and Asia Pulp & Paper (APP) are working toward the implementation of such policies.
- 215 The final POIG charter is due to be launched in November 2013. A draft charter can be viewed at <http://www.greenpeace.org/international/Global/international/photos/forests/2013/Indonesia%20Forests/POIG%20Statement%2028%20June%202013.pdf>
- 216 One Map is a mapping system that standardises disparate accounts of forest cover, land use and administrative boundaries used by various ministries and local governments – see more at <http://insights.wri.org/news/2013/05/conversation-nirarta-koni-samadhi-indonesias-forests#sthash.dh95bKFM.dpuf>.
- 217 An appropriate HCS approach that is additional to a robust HCV assessment can be used as a proxy for identifying degraded land that was previously forest. Criteria for degraded lands should include the identification and exclusion of HCS forests and peatland. HCS forest is above the level between naturally regenerating secondary forest and degraded lands that have the vegetation of young scrub or grassland. The HCS approach effectively combines both biodiversity and carbon conservation through the goal of conserving ecologically viable areas of natural forest. See Golden Agri-Resources website, 'High carbon stock forest conservation', and Greenpeace International (2013).



Sungai Sembilang Nature Conservation Park
1°46'7"S 104°27'7"E



Riau
25 August 2006



Sumatra

- ▶ Sungai Sembilang Nature Conservation Park. ©Jufri/ Greenpeace
- ▶ Burnt remains of forest on peatland that has recently been cleared in preparation for plantation establishment. ©Greenpeace/ Dithajohn
- ▶ A young oil palm plantation on peatland. ©Sutton-Hibbert/ Greenpeace

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Acronyms etc.

Asia-Pacific Resources International Limited (APRIL)

Asia Pulp & Paper (APP)

Consumer Goods Forum (CGF)

Crude palm oil (CPO)

Fire hot spot (FHS)

Fresh fruit bunches (FFB)

Gigatonne (Gt)

Golden Agri-Resources (GAR)

Greenhouse gas (GHG)

Hectare (ha)

High conservation value (HCV)

Mt (megatonnes)

PT Agrindo Indah Persada (PT AIP)

PT Jatim Jaya Perkasa (PT JJP)

PT Rokan Adiraya (PT RAR)

Riau Andalan Pulp & Paper (RAPP)

Roundtable on Sustainable Palm Oil (RSPO)

Royal Golden Eagle (RGE)

Sinarmas Forestry (SMF)

Tiger Conservation Landscape (TCL)

Tonne (t)

World Business Council for Sustainable Development (WBCSD)

World Wildlife Fund (WWF)

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Ministry of Forestry (2013b)
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Ministry of Forestry (2013c)

Peatlands:
Wahyunto & Subagjo (2003)

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NASA (2013)

HTI concessions:
Ministry of Forestry (2010a)

Palm oil concessions:
Ministry of Forestry (2010a)

Tiger habitat:
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