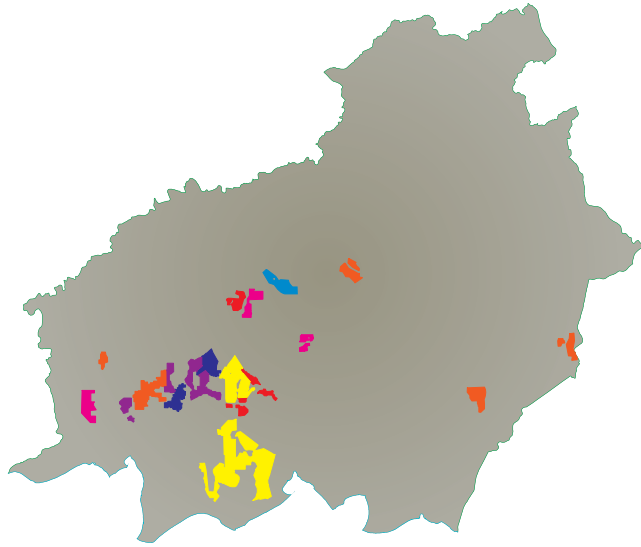


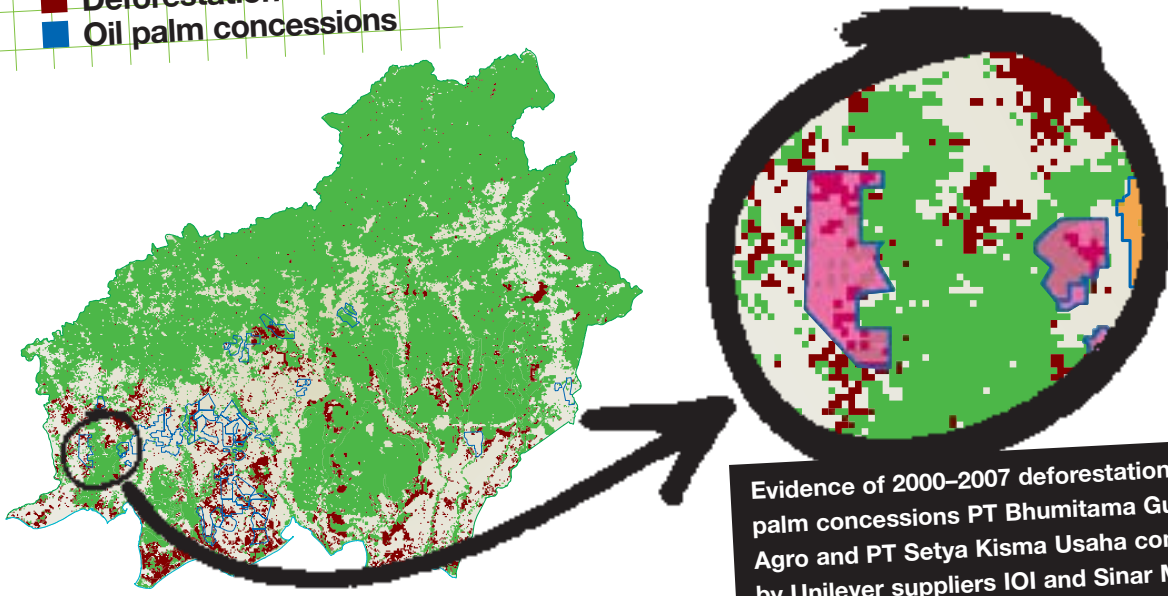
OIL PALM CONCESSIONS IN CENTRAL KALIMANTAN CONTROLLED BY UNILEVER SUPPLIERS



- Sinar Mas
- IOI
- ADM-Kuok-Wilmar
- Sime Darby
- Musim Mas
- Asian Agri
- Astra Agro

FOREST COVER IN CENTRAL KALIMANTAN: IMPACT OF OIL PALM CONCESSIONS CONTROLLED BY UNILEVER SUPPLIERS

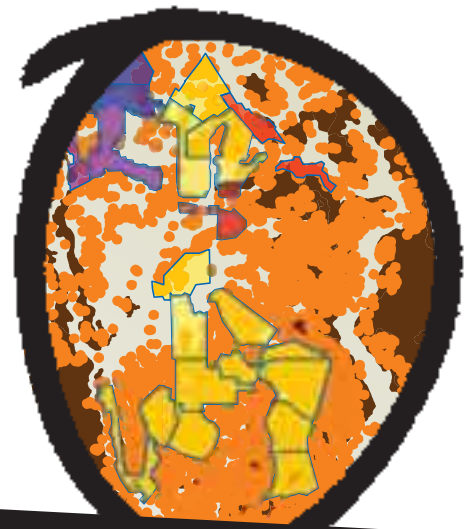
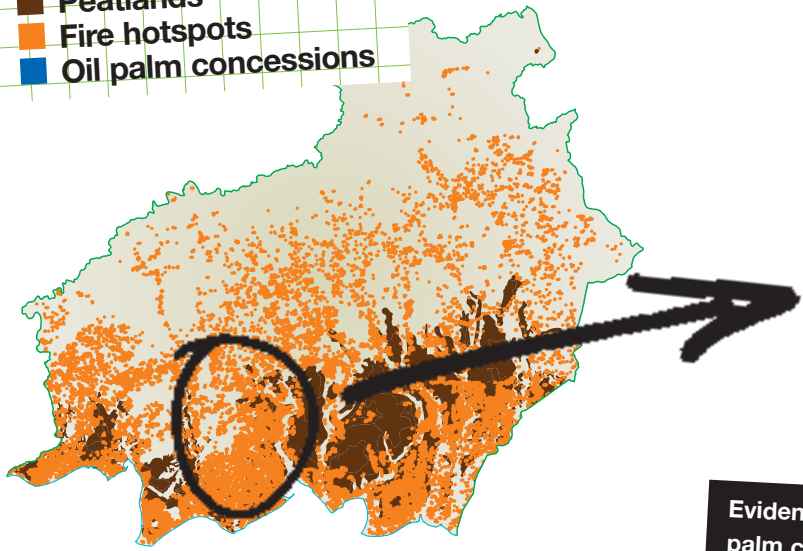
- Forest cover
- Deforestation
- Oil palm concessions



Evidence of 2000–2007 deforestation on oil palm concessions PT Bhunitama Gunajaya Agro and PT Setya Kisma Usaha controlled by Unilever suppliers IOI and Sinar Mas

PEATLANDS IN CENTRAL KALIMANTAN: IMPACT OF 2006-2007 FIRE HOTSPOTS IN RELATION TO OIL PALM CONCESSIONS CONTROLLED BY UNILEVER SUPPLIERS

- Peatlands
- Fire hotspots
- Oil palm concessions



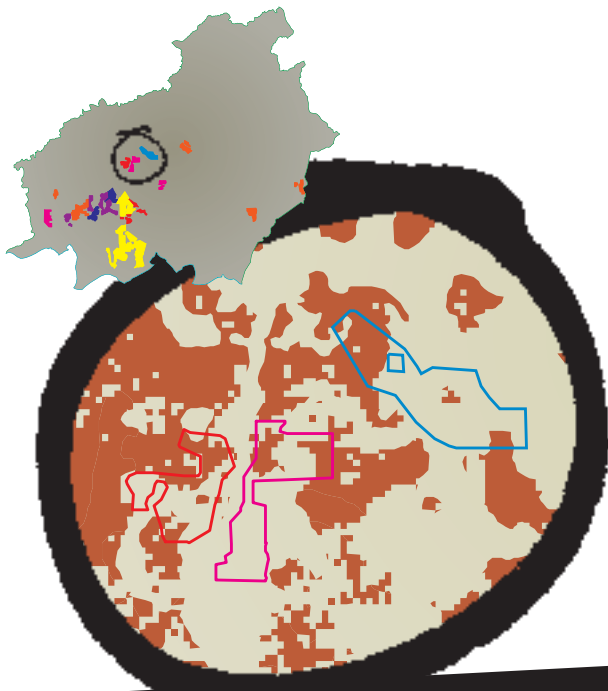
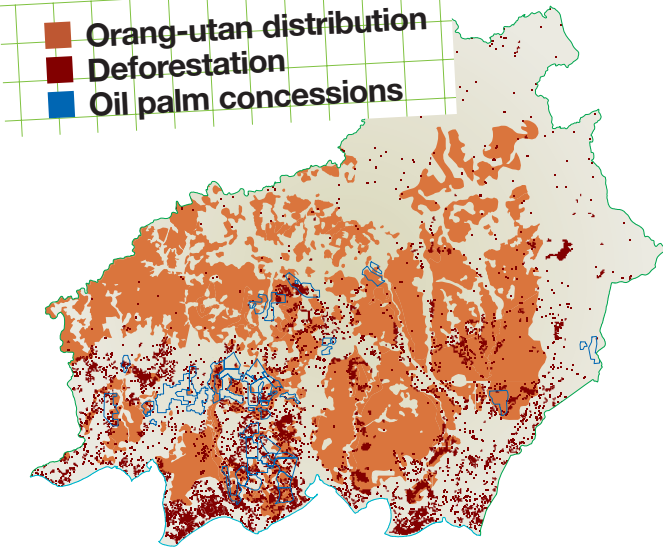
Evidence of 2006-2007 fire hotspots on oil palm concessions in the Lake Sembuluh area controlled by Unilever supplier Wilmar



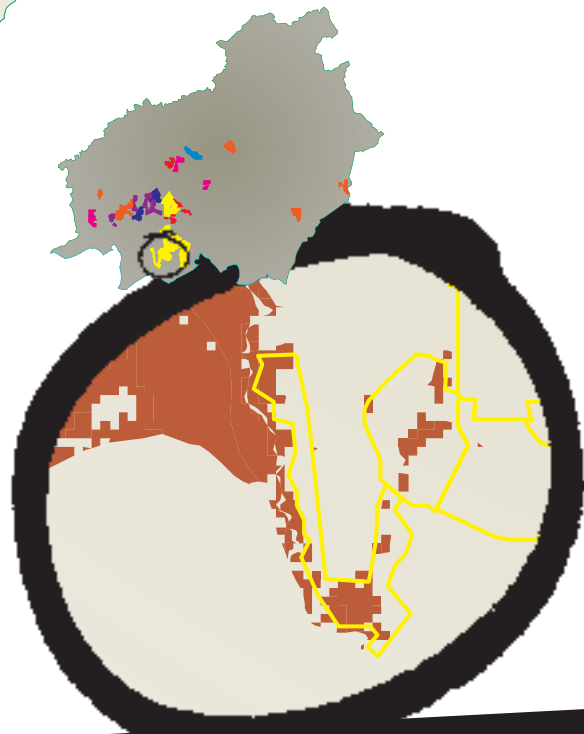
5 October 2006: Fire hotspots in Central Kalimantan as documented by MODIS satellite imagery - detail map shows multiple fire hotspots on concessions in the Lake Sembuluh area controlled by Unilever supplier Wilmar

ORANG-UTAN DISTRIBUTION IN CENTRAL KALIMANTAN: IMPACT OF OIL PALM CONCESSIONS CONTROLLED BY UNILEVER SUPPLIERS

- Orang-utan distribution
- Deforestation
- Oil palm concessions

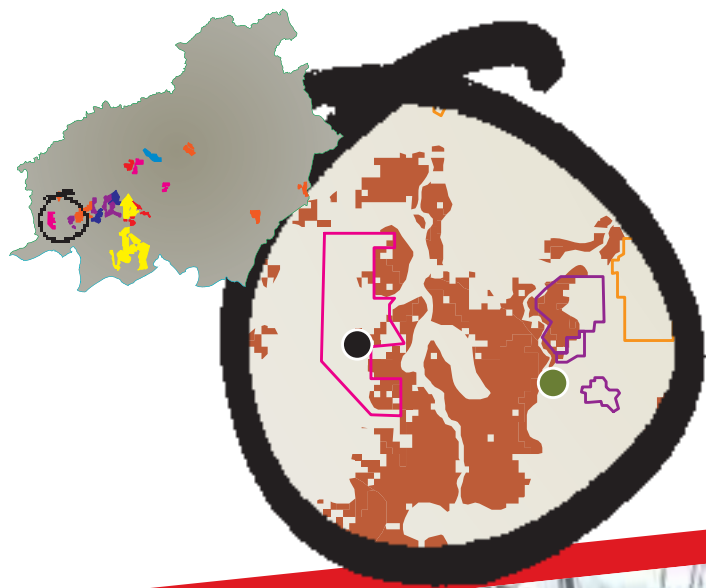


Oil palm concessions PT Unggul Lestari controlled by Unilever supplier Musim Mas, PT Karya Makmur Bahagia controlled by Unilever supplier IOI, and PT Karya Dewi Putra controlled by Unilever supplier Asian Agri shows significant overlap with orang-utan habitat.



Oil palm concessions PT Bawaal Sawit Tunas Belum and PT Alam Sawit Permai controlled by Unilever supplier Wilmar shows significant overlap with orang-utan habitat.





Oil palm concessions PT Bhunitama Gunajaya Agro controlled by Unilever supplier IOI and PT Setya Kisma Usaha controlled by Unilever supplier Sinar Mas. The map shows the concessions are located on orang-utan habitat. The photos taken during Greenpeace field investigations document active deforestation on the concessions and show the area is important orang-utan habitat. Coloured dots in the map locate where two of the photos were taken.

ORANG-UTAN NEST



TIME FOR ACTION: A MORATORIUM ON OIL PALM EXPANSION INTO INDONESIA'S RAINFORESTS AND PEATLANDS

to ensure the livelihoods of millions of people who depend on forests.

Forest destruction is responsible for about one fifth of global GHG emissions – Indonesia and the Amazon are by far the two largest sources of GHG emissions from deforestation. Emissions from Indonesia's degraded peatlands represent 4% of global GHG emissions, but the area of degraded peatlands involved is relatively small – about 10 million hectares or less than 0.1% of the Earth's land surface.

If we are to prevent dangerous global climate change, we need a global effort to halt forest destruction as well as bringing about a drastic reduction in our use of coal, oil and gas by using energy more efficiently and utilising cleaner sources of energy.

In order to help protect the climate, Greenpeace is calling for an end to deforestation in Indonesia – the largest source of GHG emissions from deforestation.

A halt to further rainforest destruction in Indonesia is also critical to ensuring the future for critically endangered species such as the orang-utan.

WHAT DOES THE INDONESIAN GOVERNMENT NEED TO DO?

STOP THE PROBLEM: ZERO DEFORESTATION

Establish a moratorium on forest clearance and peatland degradation and ensure enforcement of the moratorium.

START THE SOLUTION: CLIMATE PROTECTION

Prioritise protection of remaining peat swamp forests and other forest areas with high carbon storage capacity, biodiversity values and benefits for indigenous peoples and other local communities.

START THE SOLUTION: CUT ONGOING EMISSIONS

Rehabilitate degraded peatland areas with natural and native flora.

WHAT DO UNILEVER AND THE PALM OIL SECTOR NEED TO DO?

STOP THE PROBLEM: SUPPORT ZERO DEFORESTATION

Support a moratorium on forest clearance and peatland degradation.

START THE SOLUTION: CLEAN UP THE TRADE

Do not trade with those engaged in deforestation and peatland degradation.

Inform suppliers that purchasers will no longer buy from companies engaged in forest conversion and peatland degradation.

'A moratorium will be a strong signal. [It] can be a first step in countering peatland degradation [,] to buy time to maximise the new opportunity of carbon finance. A moratorium needs to be part of a longer-term strategy of land-use planning.'
Yogyakarta statement, endorsed by the Indonesian Minister of the Environment, August 2007



'The simplest and most effective measure to prevent a further increase in fires and CO₂ emissions is by conservation of remaining peat swamp forests and rehabilitation of degraded peat swamp forests.'

Wetlands International, 2006

PICTURE CAPTIONS**Cover**

16 October 2006: Fire on Central Kalimantan oil palm plantation

©www.films4.org

4 October 2007: Haze from plantation fires clouds the Kapuas River in Central Kalimantan ©[Greenpeace/Behring](http://Greenpeace.com)

13 November 2006: Orang-utan found on oil palm concession PT Mustika Sembuluh in Central Kalimantan now controlled by Unilever supplier Wilmar – rough treatment by plantation workers has left it with a broken arm

©[Greenpeace](http://Greenpeace.com)

6 August 2007: Digger at work on oil palm concession PT Sarana Titian Permata in Central Kalimantan now controlled by Unilever supplier Wilmar – the sign on tree reads 'Do not hunt the wildlife' ©www.films4.org

pp1-2

6 August 2007: Deforestation on oil palm concession PT Sarana Titian Permata in Central Kalimantan now controlled by Unilever supplier Wilmar ©www.films4.org

Unilever products ©[Greenpeace/Novis](http://Greenpeace.com)

pp6-7

25 August 2006: Two photos of burning peatland oil palm concession areas in Riau – use of fire for land clearance is illegal but common in the industry, and every year cause a thick smog-like haze over the entire region, threatening the health of millions of people and contributing to the problem of climate change ©[Greenpeace/Dithajohn](http://Greenpeace.com)

13 November 2006: Orang-utan baby trapped by workers on an oil palm plantation in Central Kalimantan – the baby's mother was found dead ©BOS Foundation

1 October 1997: Sumatran rainforest on fire due to climate change effects from El Niño ©[Lily/Greenpeace](http://Lily.com)

p9

26 September 2006: Orang-utan marooned on deforested oil palm concession in Central Kalimantan ©[BOS International](http://BOS.com)

p11

13 April 2008: Crane draining peatland in the vicinity of oil palm concession PT Tapan Nadenggan controlled by Unilever supplier Sinar Mas ©[Greenpeace](http://Greenpeace.com)

p12

Google image of the Cargill refinery in Rotterdam ©[Google Earth](http://Google.com)

p13

February 2008: Oil palm concession PT Setya Kisma Usaha in Central Kalimantan controlled by Unilever supplier Sinar Mas shows clear evidence of burning – the concession has peatland areas and is located on orang-utan habitat ©[Greenpeace](http://Greenpeace.com)

13 April 2008: Road building in the vicinity of oil palm concession PT Tapan Nadenggan in Central Kalimantan controlled by Unilever supplier Sinar Mas ©[Greenpeace](http://Greenpeace.com)

p14

12 April 2008: Crane clearing forest area on oil palm concession PT Bhunitama Gunajaya Agro in Central Kalimantan controlled by Unilever supplier IOI ©[Greenpeace](http://Greenpeace.com)

p15

6 August 2007: Female agile gibbon with broken nose captured by plantation workers on oil palm concession PT Kerry Sawit Indonesia in Central Kalimantan controlled by Unilever supplier Wilmar – the species is listed as endangered by the IUCN ©www.films4.org

p16

Google image of the Unimills refinery in Rotterdam ©[Google Earth](http://Google.com)

p17

27 December 2007: Orang-utan baby caught by plantation workers on oil palm concession PT Globalindo Alam Perkasa in Central Kalimantan controlled by Unilever supplier Musim Mas – the baby died soon after this image was taken ©[Greenpeace](http://Greenpeace.com)

Google image of oil palm concession PT Globalindo Alam Perkasa in Central Kalimantan controlled by Unilever supplier Musim Mas – remaining forested orang-utan habitat on peatland area is clearly visible ©[Google Earth](http://Google.com)

p20

Google image of the Lake Sembuluh region of Central Kalimantan overlaid with concession areas controlled by Unilever's palm oil suppliers ©[Google Earth](http://Google.com)

p23

5 October 2006: Fire hotspots in Central Kalimantan as documented by MODIS satellite imagery ©[Jeff Schmaltz, Earth Observatory/MODIS Rapid Response team](http://Jeff.com)

p25

February 2008: PT Bhunitama Gunajaya Agro oil palm concession in Central Kalimantan controlled by Unilever supplier IOI shows clear evidence of drainage – the concession has peatland areas and is located on orang-utan habitat ©[Greenpeace](http://Greenpeace.com)

15 April 2008: Baby orang-utan captured in the Pangkalan Bun area near palm oil concessions controlled by Unilever suppliers IOI and Sinar Mas ©[Greenpeace](http://Greenpeace.com)

13 April 2008: Isolated orang-utan nest in Central Kalimantan in the vicinity of oil palm concession PT Tapan Nadenggan controlled by Unilever supplier Sinar Mas ©[Greenpeace](http://Greenpeace.com)

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14 April 2008: Sunset over threatened orang-utan habitat inside a concession controlled by Unilever supplier Sinar Mas ©[Greenpeace](http://Greenpeace.com)

Back cover

15 April 2008: Baby orang-utan captured in the Pangkalan Bun area near palm oil concessions controlled by Unilever suppliers IOI and Sinar Mas ©[Greenpeace](http://Greenpeace.com)

ENDNOTES

- 1 Unilever uses 1.3Mt of palm oil or palm oil derivative every year. Of this, about 800,000 tonnes is for food use and the remainder is for industrial use, of which approximately 300,000 tonnes comes from palm kernel oil (Personal communication, 10 April 2008). This represents about 3% of global palm and palm kernel oil production in 2007 (42.4Mt). Source: Oilworld ISTA Mielke (2008) 'Oilworld statistics update' 14 March 2008' together with an estimate of palm kernel oil based on FAO 2006 figures.
- 2 Clay (2005)
- 3 Clay (2005)
- 4 See table in this document
- 5 Adam Harrison, WWF, letter to Greenpeace, 19 October 2007; this is equivalent to 17Mt given that global production for 2007 is 38.13Mt (Source: Oilworld ISTA Mielke (2008) 'Oilworld statistics update' 14 March 2008)
- 6 FAO (2006): 56
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- 8 of Annual Reports of Sinar Mas, Asian Agri (RGM), Wilmar, Musim Mas, Genting, IOI and others
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- 18 See *Cooking the climate*
- 19 Hooijer et al (2006): 29
- 20 IPCC WGIII (2007): 3
- 21 Based on emissions from deforestation of 8.52Gt. IPCC WGIII (2007): 104 'Figure 1.2: Sources of global CO₂ emissions, 1970-2004 (only direct emissions by sector)'. Indonesia's peatland emissions are 1.8Gt/year. Hooijer et al (2006): 29. There are 27.1 million hectares of peatlands in SE Asia, 83% of this is in Indonesia. 10.6 million hectares (39%) of peatland in SE Asia was deforested in 2000. Accounting for continued deforestation at a rate of 1.5%/year, the deforested peatland area in 2006 is around 45% of total peatland area, or 12.1 million hectares. 83% of 12.1 = 10 million of peatland deforested and degraded. Source: Hooijer et al (2006): 9, Wetlands International (2006a, 2006b). CIA (2007) gives global land area as 15 billion hectares. So Indonesia's degraded peatlands equal 0.07% of the Earth's land surface.
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