



WWF

FACTSHEET

2010

# Save Sumatra:

Protect some of the world's richest biodiversity,  
natural heritage and global climate

# Sumatra's Biodiversity



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## Sumatran Tiger (*Panthera tigris sumatrae*)

Sumatra is the only island where tigers remain in Indonesia.

Population: about 400 (12% of the global tiger population of 3,200)

IUCN Red List : Critically Endangered

## Sumatran Elephant (*Elephas maximus sumatranus*)

A subspecies of Asian elephant. Its long-term viability is jeopardized by rapid forest conversion.

Population: about 2,400 – 2,800

IUCN Red List: Endangered



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## Sumatran Rhinoceros (*Dicerorhinus sumatrensis*)

Found mainly in the northern and western provinces of Sumatra. Natural habitats are rapidly disappearing due to unsustainable agriculture and human settlements.

Population: between 6000 to 7000

IUCN Red List: Critically Endangered

## Sumatran Orangutan (*Pongo abelii*)

Found mainly in the northern and western provinces of Sumatra. Natural habitats are rapidly disappearing due to unsustainable agriculture and human settlements.

Population: between 6000 to 7000

IUCN Red List: Critically Endangered



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## Carrion Flower (*Amorphophallus titanum*)

An inflorescent flower formed with thousands of smaller flowers in its spadix. Can reach more than two meters in height. Endemic to the Sumatran forest.

## Rafflesia (*Rafflesia arnoldii*)

The world's largest single flower with a diameter of up to 1 meter and weighing up to 11 kilograms. Endemic to Indonesia.

Named after its discoverer, Sir Stamford Raffles.



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# Threats on Sumatra



Sumatra is the world's sixth-largest island and the third-largest Indonesian island, after Borneo and Papua. The island has diverse natural forest types and is the only place in the world where the Sumatran tiger, elephant, rhino and orangutan exist on one island. Experts have recorded a high diversity of species in Sumatra, namely 465 species of birds, 194 species of mammals, and 217 species of reptiles.

Sumatra's forests are important watersheds and provide livelihoods for millions of people. Many of these natural forests are important to protect deep peat soil underneath, which is concentrated mainly on the eastern coast of the island.

In the past decades Sumatra has lost vast area of its natural forest covers, which is the biggest threat to Sumatra's carbon rich peat soils, highly endangered species and eco-floristic diversity. Eighty-three percent of Sumatra's remaining forest areas overlap either with very carbon rich peat soils, are part of "critically endangered" or "endangered" eco-floristic sectors, and/or are used by at least one of Sumatra's four flagship species



Unsustainable production by pulp & paper companies threatens Sumatran natural forests to produce paper for the global market. Central Sumatra is home to one of the world's top pulp production centers with three huge mills.



Unsustainable plantation development has further promoted natural forest conversion

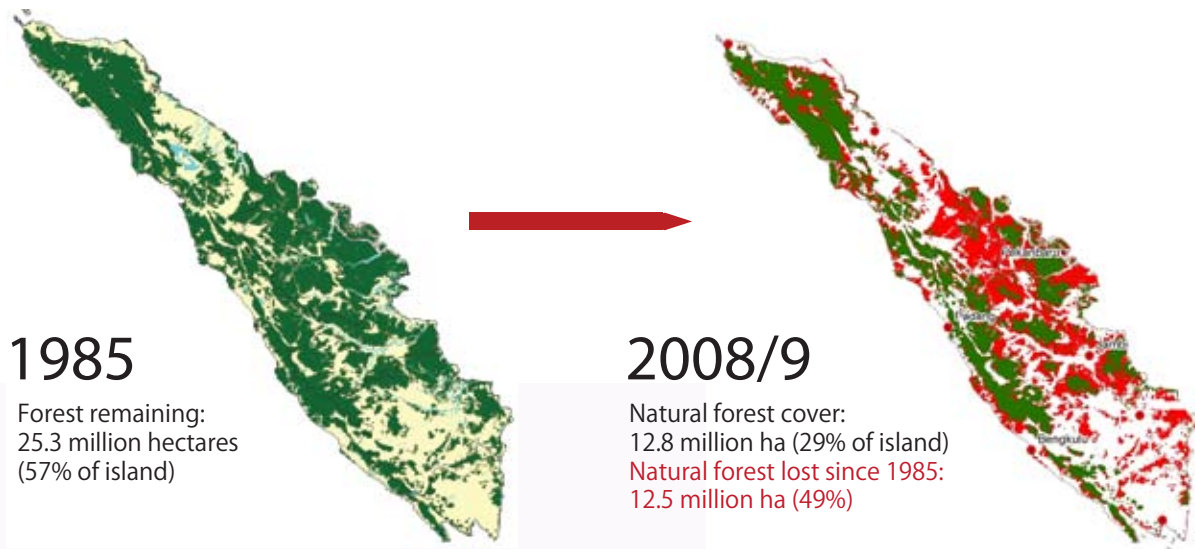


Habitat loss and fragmentation have pushed endangered species such as Sumatran tiger and Sumatran elephant into close contact with human. They roam around villages and plantations resulting in conflict with human, a major loss for both sides.



Poaching and illegal trading have threatened endangered species populations. In case of Sumatran tiger, a report by TRAFFIC, revealed that illegal trade in tiger parts still continued in a fairly open manner in Sumatra

# Sumatra Natural Forest Cover 1985 - 2008



Sumatra has one of the highest rates of natural forest loss in the world, among others due to forest conversion to unsustainable pulp & paper, palm oil, and other agriculture production, and illegal logging. Between 1985 and 2008, the island has lost 12.5 million hectares of natural forest, almost fifty percent loss in 23 years. By 2008, Sumatra Island had only 29% forest cover (12.8 million hectares) of its total area.

It is estimated that Sumatra forests contain the largest store of peat carbon in Southeast Asia with an estimated 19 gigatons of carbon under its peat forests. While in addition, its remaining natural forest may store 2 gigatons of carbon. As the consequences, the loss of 12.5 million ha Sumatran forest since 1985 may have caused 7.5 gigatons of CO<sub>2</sub> emissions, not including closely associated emissions from peat degradation. These emissions were equivalent to 20% of the IPCC estimate for global annual average CO<sub>2</sub> emissions associated with land-use change (primarily deforestation but without peat emissions) in the 1990s.

## What is a HCVF?

High Conservation Value Forest (HCVF) is defined as forests of outstanding and critical importance due to their environmental, socio-economic, cultural, biodiversity and landscape value. It should possess one or more of the following attributes:

1. Forest areas containing globally, regionally or nationally significant concentrations of biodiversity values
2. Forest areas containing globally, regionally or nationally significant large landscape level forests
3. Forest areas that are in or contain rare, threatened or endangered ecosystems.
4. Forest areas that provide basic services of nature in critical situations
5. Forest areas critical to local communities' traditional cultural identity
6. Forest areas fundamental to meeting basic needs of local communities

# WWF in Sumatra

WWF works in Sumatra Island to promote sustainable use of natural resources and conserve biodiversity for present and future generation. WWF, together with government, NGOs, scientists, and local communities has been:

- a) collecting and analyzing data on natural forest, wildlife and other biodiversity and environmental values on the island, to design and implement ecosystem-based land use plans and forest-carbon financed conservation projects;
- b) monitoring natural forest cover and land use by companies and communities to identify drivers of loss and fragmentation of natural forest, as well as, decomposition and burning of peat at ground level;
- c) engaging local, national and international stakeholders to convince drivers of deforestation to avoid such activities and supporting intervention and law enforcement efforts
- d) reducing human-wildlife conflict that results from loss of wildlife's forest habitat and promoting best management practices for various sectors

## WWF's Four Strategies in Sumatra

To support its work in Sumatra, WWF-Indonesia applies four integrated strategies to ensure effective conservation and sustainable resource use in Indonesia. The four strategies are:

### Conservation Management

WWF-Indonesia is committed to help improve management effectiveness in protected areas and priority landscapes, by working in partnership with local community, government, NGO, private sectors and other relevant stakeholder.

### Sustainable Land Use Planning

WWF initiates and facilitates large scale, sometimes cross administrative boundary land use, and resource use planning to ensure ecological connectivity and sustainable use of forest and natural resources

### Sector Reform

This intervention strategy is aimed at reform in the most critical natural resource based sectors in Indonesia such as forestry, palm oil, pulp & paper, and mining to adopt develop and implement Best Management Practices.

### Sustainable Financing

This approach strategy aims at providing sustainable financing mechanism options (such as trust fund or Payment for Environmental Services mechanism) for conservation management required by NGO or community and large scale application of Best Management Practices by stakeholders..

## Sumatran Vision 2020

Indonesian Government has announced Sumatra Vision 2020 and chosen Central Sumatra's RIMBA landscape as a demonstration location to model best practice for sustainable spatial planning and development with low carbon emissions.



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# Bukit Barisan Selatan & Tesso Nilo National Park

© WWF-Indonesia/Supriyanto



**Bukit Barisan Selatan National Park**

Covering 356,800 ha area in Lampung and Bengkulu Provinces and a home to three of the world's most charismatic and endangered large species: the Sumatran rhino, elephant and tiger. The park ecologically served as water catchment area and hydrology to settlements and farming areas. Bukit Barisan Selatan has been designated by UNESCO as the Cluster Mountainous Tropical Rainforest Heritage Site of Sumatra. Three main threats to the viability of BBS National Park are land encroachment, poaching and illegal logging.

WWF achievements in Bukit Barisan Selatan:

## Joint Community Patrol

WWF initiated and have been conducting Joint Community Patrol (JCP) with BBS National Park authority and local communities since 2004.

## Human - Animal Conflict Mitigation

WWF and partners in BBS National Park set up and run human-animal conflict mitigation and elephant patrol team. WWF also initiated the installment of GPS satellite collars to elephants that frequently cause conflicts before they are released back to the wild.

## Sustainable Coffee and Cacao Plantation

Ever since WWF launched "Gone in an Instant" report in 2007 and conducted several workshops with key stakeholders in coffee industry, WWF is successful to produce scheme and mechanism for sustainable coffee productions.

## Challenges

There are nine roads by passing BBS National Park, with most of the roads causing negative impact to BBS National Park, such as opening access to encroachment. After simultaneous work with The the Ministries of Forestry and Public Works since 2009, the ministries have agreed to review policy, regulation regarding road development in conservation areas. Completion of the review and implementation of the new policy remains to be challenge



**Tesso Nilo National Park**

© WWF-Indonesia/Fletcher-Baylis

The Tesso Nilo forest in Riau Province is one of Sumatra's last havens for elephants and tigers. With over 4,000 plant species recorded so far and over 200 plant species found per 200-square-meter plot, Tesso Nilo has one the highest level of vascular plant biodiversity known to science, with many species yet to be discovered. Only two decades ago, the forest covered half a million hectares. Today, less than 150,000 hectares remain. Of that, 83,068 hectares is protected as national park.

WWF achievements in Tesso Nilo:

## Flying Squad Elephant Patrol

WWF is running a successful human-elephant conflict mitigation operation called the Flying Squad at one site on the border of Tesso Nilo National Park and has been able to convince companies to adopt its approach.

## Tiger Conservation Unit

In Riau, WWF is collaborating with the Riau Forestry officials deploying video camera traps to help conduct presence/absence surveys that will provide a range map and density data for tigers in Sumatra's lowland rainforest. The team has obtained important documentation of Sumatran tiger in Riau including video of tiger and cubs.

## Eyes on the Forest

A partnership among WWF and local environmental groups that serves as a clearinghouse for information. Important investigation documents from 2004 up to recent can be accessed on [www.eyesontheforest.or.id](http://www.eyesontheforest.or.id)

## Challenges

Encroachment is the biggest threat to Tesso Nilo National Park. Some 28.600 ha of land or about 34.5% of the 83.000 ha of the total size of the park has been encroached. Though government and stakeholders are committed to handle it, law enforcement on handling encroachment and forest rehabilitation in Tesso Nilo National Park remains to be challenges

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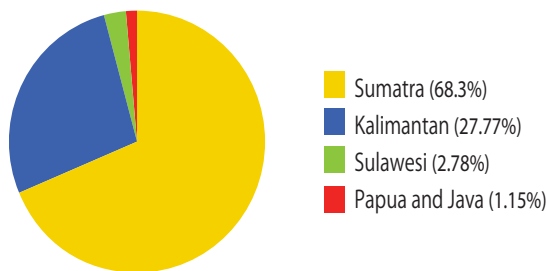


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# Market Contribution

Significant number volume of palm oil and pulp for paper in global markets derived from Sumatra. With massive land clearing for development of their plantations still occurring. WWF Indonesia is supporting responsible forest management, through close relationship with consumer countries, including Japan, US and Europe. WWF believes that a responsible and sustainable consumption that avoids forest products that attributes to destructive logging will help to halt deforestation rate and promote conservation of HCVFs in Indonesia.

## Indonesia's Palm Oil Plantation Area



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According to a 2010 palm oil report, 5.128 million ha or 68.30% of Indonesian Palm Oil plantations are located in Sumatra. India, Netherland, and Malaysia are main destinations for Indonesian palm oil export.

Palm oil is used all over the world in processed foods like chocolate bars, ice cream, ready-to eat meals and margarine. Palm oil derivatives are also found in cosmetics, soaps, shampoos and detergents

## Pulp and Paper



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The Indonesia Pulp and Paper Industry (APKI 2007) reported that all pulp and paper mills in Indonesia has total installed capacity of 6.48 million Adt (Air dried tonnes) in 2007. Of those capacities 86% were located in Sumatera.

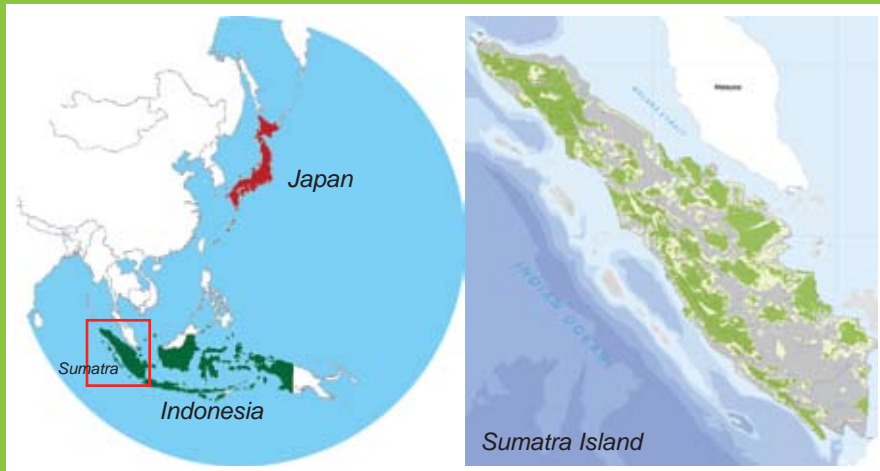
In 2007, Indonesia was the world's ninth largest pulp producer and the twelfth largest producer of paper. Total pulp production in 2007 was 4.88 million Adt with 2.43 million Adt being exported. In 2006, the main importers of pulp from Indonesia were China, Republic of Korea, Japan, Italy and India.

Indonesia is also exporter of paper products such as copy paper. In 2007, exportation volume was 1.67 million tons and the main importers were China, Japan, Malaysia, USA, and Australia

## How can buyers help Sumatra?

- Buyers must insist that Supplier of Pulp and Paper and Palm Oil and other agriculture product abide to WWF calls of stopping of natural forest conversion, stop the drainage of peat land and destruction of HCVF, To show that such practices are not acceptable in the Market.
- Support WWF's effort by showing that you will only accept products from environmentally responsible sources. Utilization or seeking for products certified by credible schemes, such as FSC and RSPO would be one of the ways to confirm environmental status of sources.

# Basic Facts About Sumatra



- Sumatra is the only place in the world where tigers, elephants, rhinos and orangutans exist in one island.
- It is home to the forest with the greatest vascular plant diversity of any lowland forest. The Sumatra's Tesso Nilo forest has more than twice as many as plant diversity recorded in the Amazon or any other forest studied.
- It contains six priorities "Tiger Conservation Landscapes" identified by experts as important habitat for Sumatran tigers.
- It is estimated to contain the largest store of peat carbon in Southeast Asia with an estimated 19 gigatons of carbon under its peat forests. While it's remaining natural forest may store 2 gigatons of carbon.
- It has lost more than 12 million hectares of forest between 1985 - 2008 with an average lost of 542,000 hectares per year.

## Related Website Information

WWF Indonesia: [www.wwf.or.id/savesumatra](http://www.wwf.or.id/savesumatra)

WWF Japan: [www.wwf.or.jp](http://www.wwf.or.jp)

Eyes on the Forest: [www.eyesontheforest.or.id](http://www.eyesontheforest.or.id)

GFTN-Indonesia: [www.wwf.or.id/gftn](http://www.wwf.or.id/gftn)

FSC: [www.fsc.org](http://www.fsc.org)

RSPO: [www.rspo.org](http://www.rspo.org)

## About WWF

WWF is one of the world's largest and most respected independent conservation organizations, with almost 5 million supporters and a global network active in over 100 countries.

## WWF Mission

WWF's mission is to stop the degradation of the earth's natural environment and to build a future in which humans live in harmony with nature, by conserving the world's biological diversity, ensuring that the use of renewable natural resources is sustainable, and promoting the reduction of pollution and wasteful consumption.

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