



SUSTAINABILITY BOOKLET

SERIES 3

FOREST AND PEATLAND



WRI INDONESIA

DO YOU KNOW?

Indonesia hosts the **3rd** largest tropical forests in the world.

Humans and economy are linked to forests.

Forest ecosystems play a critical role in providing:



Food



Water



Wood products



Vital medicines

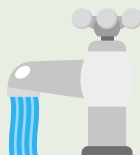


and stabilizing the climate

For Jakarta, for instance, forests provide:



Clean air



Clean water



Prevent flood

Forests provide livelihoods to local and indigenous communities all over Indonesia.

More than

25,000
villages

with over

9 million
residents

live within and around forest area. They depend on forests for livelihood.ⁱ



Forests are also home to **biodiversity**,
which balances the ecosystem.

But, deforestation rate in Indonesia is threatening.

We have lost **9.2 million hectares** of primary forest from 2001-2018.

That's almost **3x** the area of West Java province!



Aside from forests, there are other ecosystems
that we also need to pay attention to:

peatland.

What is peatland?

Peat swamp, also known as peatland, is a type of wetland that is rich in organic matter, formed by the accumulation of organic materials (plants and dead animals) for thousands of years.



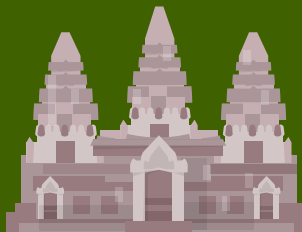
Peatland **must always be in wet condition**. When dried, it is easily got burned.

According to the World Bank, during forest fires season, peatland fire is responsible to up to **90% of the toxic smog**.



Indonesia's peatland area is vast. The most recent research in 2011 estimated that peatlands in Indonesia cover

14.9 million
hectares area



almost as big as the Kingdom of Cambodia.



Why should we care about peatland anyway?

First, carbon!

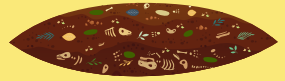
Indonesia harbors **36 percent** of the world's tropical peatlands, which store up to **20 times** more carbon than tropical rainforests:

Trees and leaf litter
as well as roots and
soil combined in
Brazilian Amazon



400 tons carbon
per hectares

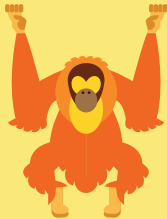
Tropical
peatlands



2,600 tons carbon
per hectares

Second, biodiversity.

The large peat deposits that formed beneath rich tropical rainforest support numerous globally threatened species, including:



45%
of
mammal

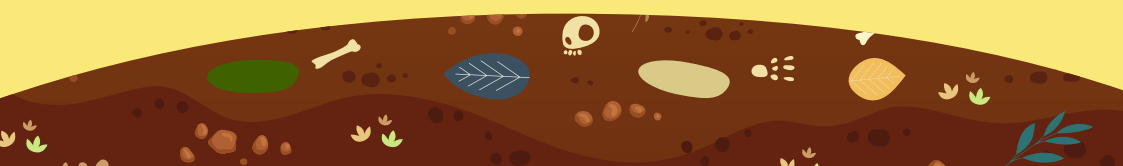


33%
of bird

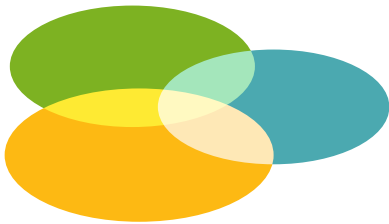
species
under threat.
(source: IUCN).

Third, livelihood and important ecosystem services

benefit both local and international communities, including flood and fire prevention, carbon sequestration and storage, provision of timber and non-timber forest products, as well as cultural and spiritual wellbeing.



Now that we know how much forests and peatland are valuable for our life, we should protect these ecosystems from deforestation.



Unclear land management and different maps from one institution to another have created overlapping of land licenses, which leads to an increased risk of deforestation and social conflicts.

To solve this, the government has been pushing One Map Policy, with the aim to collect thematic maps that is standardized using a single reference and integrated in one geoportal.



One of the main drivers of deforestation in Indonesia is **land use change**,

for instance
**for commodities
production** such as:

Palm oil



Paper



**Other timber
products**



Let's take palm oil as an example. Environmental and social problems are often associated with palm oil production.

Often times, before turning into products such as chocolate bar, palm oil experiences long, complicated journey.

PALM OIL EXPERIENCES COMPLICATED JOURNEY FROM FARM TO CHOCOLATE BARⁱⁱ

- 1** Palm fruit is harvested on a plantation



- 2** Harvested fruit is loaded onto a truck and driven to a local collection facility.



- 3** Fruit is mixed with fruit from dozens of other farms.



- 6** From the final collection point, fruit is loaded onto a truck and transported to a mill.



- 5** This process of collection and compilation can happen multiple times.



- 4** Mixed fruit is loaded onto a larger truck and transported to a larger collection facility.



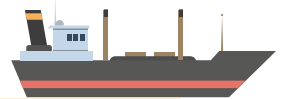
- 7** Palm fruit is crushed to create crude palm oil.



- 8** Crude palm oil is transported in tankers to a storage facility.



- 9** Crude oil is shipped overseas to a refinery.



- 11** The chocolate bar is ready to be sold to stores.



- 10** Palm oil is mixed into a chocolate bar.



The issue is not the commodities, but how such commodities are produced.
Deforestation-free commodities production is key.

SO, WHAT'S NEXT?

In the last two years, Indonesia made strong progress in reducing deforestation. But our efforts must be scaled up at a much faster pace.



1

First, change our food and land use system would ensure foods are available for all.

2



Second, enforce the permanent ban on issuance of license in forests and peatland areas.

3



Third, aim for higher targets in forest and peatland restoration. Recently, discussion has shifted from merely stopping deforestation to removing carbon dioxide emissions from the atmosphere.ⁱⁱⁱ

Sophisticated technologies to achieve this, such as carbon capture and storage, could be quite expensive,

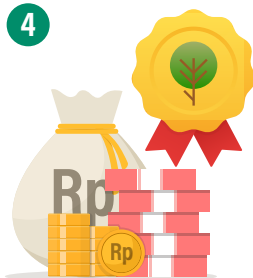


but natural ecosystems —**like tropical forests— are highly efficient, low-cost ways to sequester emitted carbon.**^{iv}



A solid business plan for enhancing forest and peatlands restoration efforts is key.

4



Finally, pursue an alternative development path in Indonesia's highly forested provinces, such as Aceh, North Kalimantan, Papua and West Papua. Financial support from the national government, in the form of **"ecological fiscal transfers"** rewarding positive environmental commitment to enable this alternative trajectory to be realized would make a wonderful contribution.



Join our community by following our social media, visit our website, send us an email at **indonesiaoffice@wri.org**.

 /wriindonesia

 wri-indonesia.org

 @wriindonesia

 indonesiaoffice@wri.org

 @wriindonesia



REFERENCES

ⁱ Source: “KLHK Identifikasi Ribuan Desa di Kawasan Hutan” from mediaindonesia.com, published on March 10, 2019

ⁱⁱ Source: “Palm Oil’s Complicated Journey from Farm to Chocolate Bar” from wri-indonesia.org

ⁱⁱⁱ Source: “The future of forests: How to balance development with conservation?” from eco-business.com, published on May 21, 2019

^{iv} Source: “Indonesia: The scars of El Nino” from straitstimes.com, published on June 9, 2019



WRI INDONESIA

Wisma PMI 7th Floor
Jl. Wijaya I No. 63, Kebayoran Baru
Jakarta 12170 Selatan
Indonesia

