SERIES 3
FOREST AND PEATLAND
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.
Aside from forests, there are other ecosystems that we also need to pay attention to:

**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.
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:

<table>
<thead>
<tr>
<th>Trees and leaf litter as well as roots and soil combined in Brazilian Amazon</th>
<th>400 tons carbon per hectares</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tropical peatlands</td>
<td>2,600 tons carbon per hectares</td>
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</table>

**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.
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.
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.
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

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