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STOPPING MANGROVE DEFORESTATION

REASONS FOR CLIMATE CHANGE MITIGATION IN INDONESIA

1. INDONESIA HAS A WHOLE LOT OF MANGROVES

Indonesia has:

2,900,000

HECTARES OF MANGROVE FORESTS

AN AREA ALMOST THE SIZE OF

Belgium



Almost $\frac{1}{4}$ of all mangrove ecosystems on earth



Belgium = 3,053,000 ha

Map adapted from: earthobservatory.nasa.gov

2. MANGROVES STORE A WHOLE LOT OF CARBON

Per hectare, tropical mangrove forests store up to

3X

 the carbon of upland forests

Out of all carbon stored globally in coastal ecosystems, Indonesian mangroves store:

1/3

3.14 billion

Total carbon stored in Indonesian mangroves, in tonnes

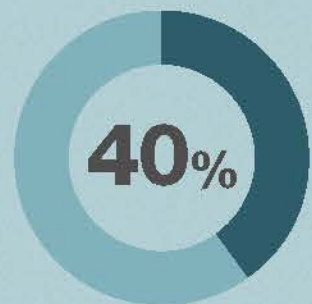
Number of years it would take Indonesia to emit that much carbon in fossil fuel usage, at 2011 levels:

20

3. A WHOLE LOT OF MANGROVES ARE DESTROYED EVERY YEAR

52,000ha

of Indonesian mangroves disappear every year, an area the size of **New York City** every 18 months



of Indonesian mangroves were destroyed in the last 3 decades, mainly due to **aquaculture**

WHAT IS AQUACULTURE?

Aquaculture is the *farming* of aquatic organisms. Any climate change mitigation efforts involving mangroves should include well-managed and conservative aquaculture development, as it plays an important role in sustainable coastal livelihoods.

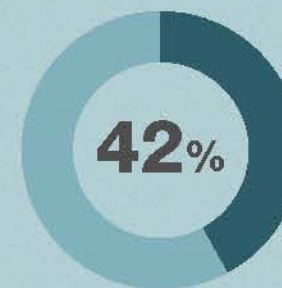
4. THIS DEFORESTATION RELEASES A WHOLE LOT OF CARBON

Annual emissions from Indonesian mangrove destruction:

190,000,000



That's the same amount of emissions as if **every car in Indonesia** drove around the world **twice** (at 2011 Indonesian passenger car levels)



of annual global emissions from the destruction of coastal ecosystems are from the destruction of Indonesian mangroves. 'Coastal ecosystems' includes marshes, mangroves & sea grasses

5. HALTING MANGROVE DEFORESTATION COULD MAKE A WHOLE LOT OF DIFFERENCE TO CLIMATE CHANGE

Stopping mangrove destruction could meet



of Indonesia's **26%** emissions reduction target for 2020...



...equivalent to **40,000,000** fewer cars on the road

FAST FACTS: MANGROVE FORESTS

MANGROVE CARBON STORAGE:
1,083,000 kg/Ha

Living biomass
20%

WHAT IS A MANGROVE FOREST?

Mangroves are a family of evergreen trees and shrubs that live on the coast, in the intertidal zone of some tropical and subtropical areas. Mangrove forests are best known for their dense tangle of roots, which can give the appearance of trees on stilts in the water.

2%
Dead & downed biomass



MANGROVE FORESTS PROVIDE MANY VALUABLE ECOSYSTEM SERVICES, SUCH AS:

MILLIONS OF MIGRATORY BIRDS

depend on mangroves for food during their journeys

Up to **75%**

of tropical commercial fish species spend part of their lives in mangroves

REGULATION

of factors such as pollution, flood and erosion

References:

Blog title

bloglink.goes.here

Available for download:

downloadlink-goes-here.com

Read more:

blog.cifor.org/wetlands

Additional references:

- nature.com/artides/ngeo1123
- earthobservatory.nasa.gov/IOTD/view.php?id=47427
- epa.gov/deanenergy/energy-resources/calculator.html
- quandl.com/data/STATS_INDONESIA/NUM_MOTOR_VHCL_TYPE_INDONESIA-Number-of-Motor-Vehides-by-Types-Indonesia

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