

# UN Environment's Perspective on REDD

With in the context to Paris Agreement : Implications for  
Indonesia

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# UN Environment Emission Gap Report

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- Moving towards implementation of the Paris Agreement: 2018 as a critical juncture.
- Looking beyond 2030: it is clear that if the emissions gap is not closed by 2030, it is extremely unlikely that the goal of holding global warming to well below 2°C can still be reached. Even if the current NDCs are fully being implemented, the carbon budget for limiting global warming to below 2°C will be about 80 percent depleted by 2030. Given currently available carbon budget estimates, the available global carbon budget for 1.5°C will already be well depleted by 2030.

# UN Environment Emission Gap Report (2)

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- Action by subnational and non-state actors, including regional and local governments and businesses, is key to enhancing future ambition. There is still limited evidence that non-state action will fill a significant part of the emissions gap, although there is significant potential for it to do so.
- Enhanced monitoring and reporting of non-state actions and the resulting emissions reductions will be essential to making pledged actions transparent and credible.

## Major strategies for negative emission technologies

### NATURAL

FORESTRY / AGRICULTURE



#### Afforestation/ Reforestation

Tree growth takes up CO<sub>2</sub> from the atmosphere



#### Biochar

Partly burnt biomass is added to soil absorbing additional CO<sub>2</sub>



#### Soil carbon sequestration

Land management changes increase the soil carbon content, resulting in a net removal of CO<sub>2</sub> from the atmosphere

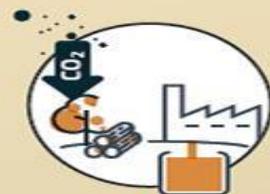


#### Other land-use/ Wetlands

Restoration or construction of high carbon density, anaerobic ecosystems

### COMBINED

NATURAL + TECHNOLOGICAL



#### Bioenergy with Carbon Capture and Storage (BECCS)

Plants turn CO<sub>2</sub> into biomass that fuels energy systems; CO<sub>2</sub> from conversion is stored underground.

### TECHNOLOGICAL

ENERGY / INDUSTRY



#### Accelerated Weathering

Natural minerals react with CO<sub>2</sub> and bind them in new minerals.



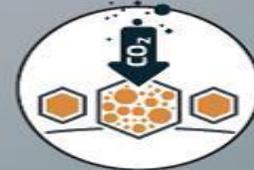
#### Direct Air Capture

CO<sub>2</sub> is removed from ambient air and stored underground.



#### Ocean Alkalinity Enhancement

Alkaline materials are added to the ocean to enhance atmospheric drawdown and negate acidification



#### CO<sub>2</sub> to durable carbon

CO<sub>2</sub> is removed from the atmosphere and bound in long-lived materials

- Less costly
- Closer to deployment
- More vulnerable to reversal

- More costly ←
- Greater R&D needs ←
- Less vulnerable to reversal ←

# Relevant Lesson Learnt to REDD+

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- The emissions reduction potential by 2030 at costs <US\$100/tCO<sub>2</sub>e, compared to the current policy trajectory, insufficient to close the emissions gap in 2030 under all cases assessed. It could in addition provide many benefits for other important environmental, social and economic goals
- Carbon dioxide removal from the atmosphere can provide an additional mitigation element to conventional
- emission abatement strategies. Biological CO<sub>2</sub> removal through afforestation, reforestation, forest management, restoration of degraded lands, soil carbon enhancement and biochar application in agriculture can play an immediate role, and can also significantly contribute to achieving several other Sustainable Development Goals.

# Implications for REDD++

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- Enhancing carbon removal through of all main sources of land based sequestration
- Widening policy intervention the scope of carbon removal through inclusion of production forest managed by smallholders and mangroves., through empowering different levels of government
- Move towards more progressive fiscal policies that provide a clear signal to sub national governments in terms of supporting CO2 removal action through for example the general purpose grant formula. Through the use of ecological appropriate forest definitions.

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*“That is why governments, private sector and civil society must bridge this catastrophic climate gap. Talking less about ‘fixing environmental problems’ and more about ‘grasping economic and social opportunities’ is crucial. I hope this report will nurture that change in mind set, to build a more prosperous future for this planet and its people”*

*(Erik Solheim, 2017)*