

# Forest Reference Emission Level towards Full Implementation of REDD+ : Experiences from Indonesia



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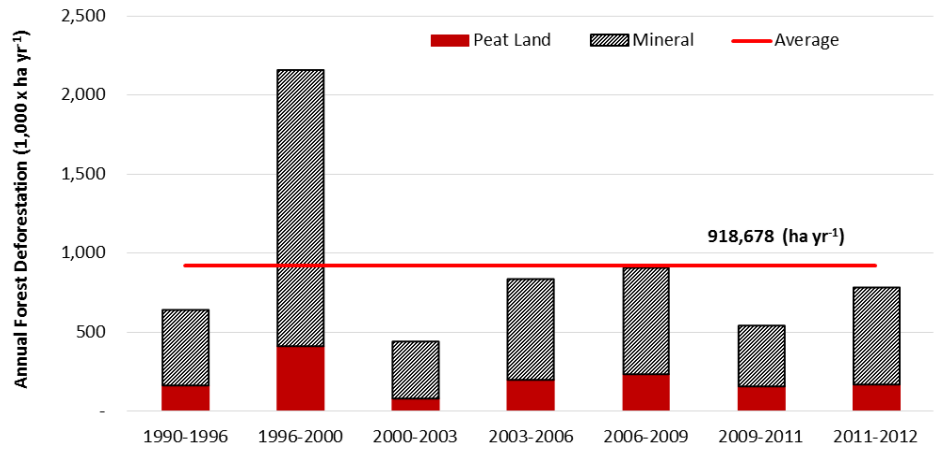
# Indonesia's National FREL

Reference period	1990 – 2012
Activities	(1) Deforestation; (2) forest degradation
Ref. emission calculation	Historical emission from deforestation and forest degradation, i.e. <b>average annual emission</b> from 1990 to 2012
Emission calculation method	<ul style="list-style-type: none"><li>• <b>Deforestation</b> : carbon stock different (gross deforestation – <i>emission were derived from the total loss of forest biomass regardless biomass gain</i>)</li><li>• <b>Degradation</b> : carbon stock different</li><li>• Peat emission : emission from peat decomposition (adopted from IPCC, 2013) where deforestation or degradation occurred</li></ul>
Pool	Above Ground Biomass (AGB), and Soil Carbon in Peatland
Area of Calculation	All land ( <b>mineral and peat lands</b> ) area that was covered by <b>natural forest (primary &amp; secondary)</b> in year 1990, accounted for 113.2 million ha or 60% of the country land area (187 mill.ha)
Gas	Carbondioxide (CO2)

FREL submitted to UNFCCC has to complete the concept of TACCC - “**Transparency, Accuracy, Completeness, Consistency, Comparability**”, as well as concept of “practicability and cost-effectiveness” when implementing MRV

Warsaw REDD+ Framework : the importance of consistency – need to use a consistent data for FREL and BUR (especially for the same activity)

# Result : National FREL of Indonesia

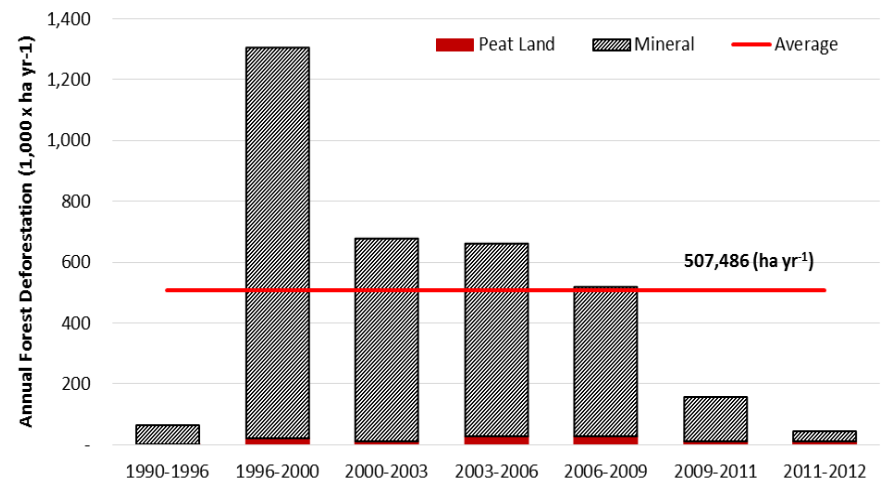


## DEFORESTATION

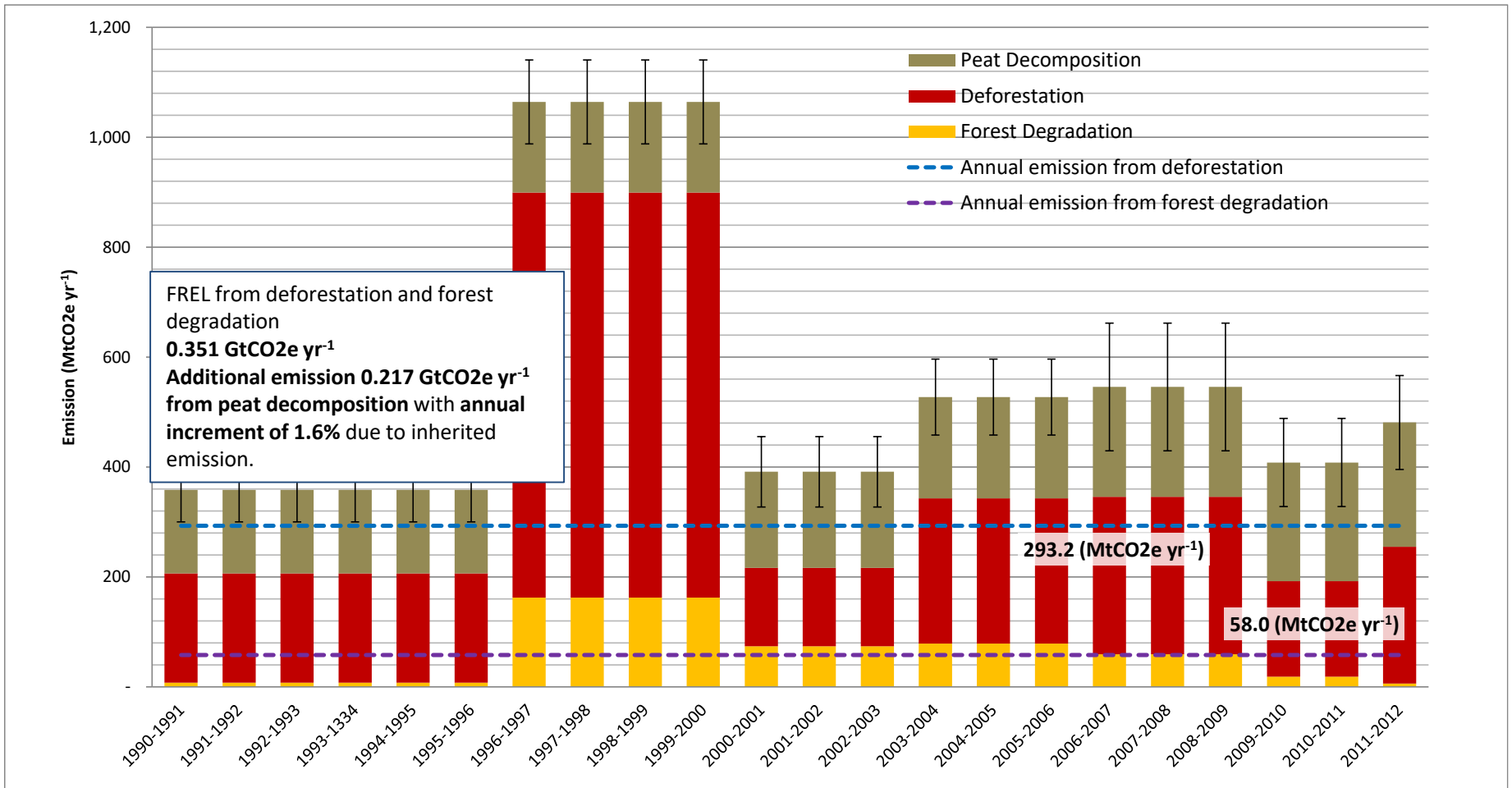
- annual rate of deforestation in the period of 1990 – 2012 : 918,678 ha
- 723,628 ha from mineral soil and 195,050 ha from peat (organic) soil
- 78% deforestation in Sumatra and Kalimantan, 8% Sulawesi and Papua
- High rate (1996-2000) : caused by large fire events (El Nino), IL, HTI, palm oil expansion
- Low rate (2000-2003) : soft landing policy (reduct. of AAC – from 200m<sup>3</sup>/thn to 70m<sup>3</sup>/thn); Gerhan, OMOT
- The average of historical **emission** from AGB due to **DEFORESTATION** in period 1990-2012 acc.for approx. 293 MtCO<sub>2</sub>/yr (238 + 55)

## FOREST DEGRADATION

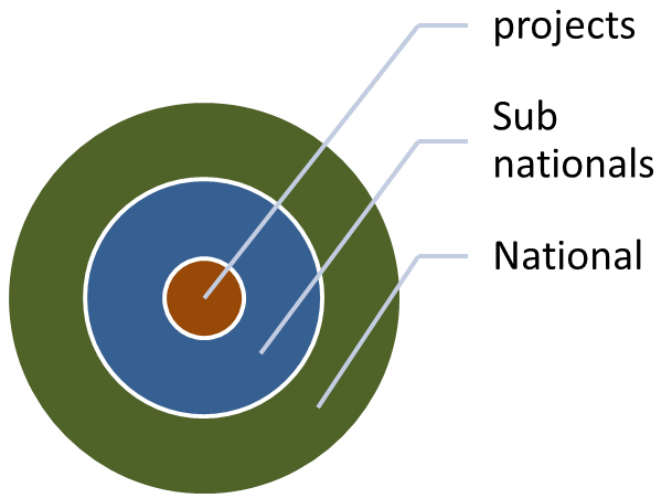
- Annual rate 1990-2012 : about 507,486 ha
- 490,329 Ha on mineral soil, and 17,157 ha on peat soil
- Very high rate (1996-2000) : 1.3 million ha, and reduced gradually to 44 thousands ha (2012)
- The proportion at island level varied dynamically
- The average of historical **emission** from AGB due to **FOREST DEGRADATION** in period 1990-2012 acc.for approx. 58 MtCO<sub>2</sub>/yr (56 + 2)



# National FREL of Indonesia



Contribution in general, the emissions : from deforestation (51%), from peat decomposition (39%), from forest degradation(10%)



## Why sub national for the implementation of REDD+ in Indonesia ?

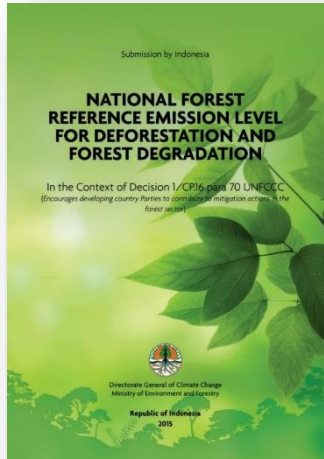
- Bridging missing-link between REDD+ at projects level and national
- Play role in REDD+ readiness preparation – scaling up from projects experiences
- Policy (decision made) and it’s implementation at subnational level will determine long-term strategy for national REDD+ & LEDS
- Roles of su national are varied : aspect of programme, institution, tehcnical-methodology, capacity building, etc.
- Implication : the need for **consistency** between national (central) and subnational (local) – i.e. displacement of emission among subnationals are responsibility of national
- Sub national : synergy between REDD+ strategy with subnational development policy and planning

# Reference level : national – subnational

- ✓ *“In accordance with national circumstances, national forest reference emission levels and/or forest reference levels could be a combination of subnational forest reference emissions levels and/or forest reference levels.”*
- ✓ *“should be transparent, taking into account historic data and be flexible so as to accommodate national circumstances and capabilities, while pursuing environmental integrity and avoiding perverse incentives”*
- ✓ *“Having an assessed national reference level or, as an interim measure, subnational reference levels in place is one of the requirements in order to be eligible for results-based payments in accordance with decision 9/CP.19”*

- A national FREL for REDD+ has been submitted and reviewed through TA; Provinces also develop baseline emission as basis for measuring achievement ER
- Different methodologies including activities in setting up REL are applied → aggregation of sub-national REL may exceed national REL
- Process of achieving agreement for defining the Sub-National REL → guidance for subnational is needed
- Consistency in FREL is a challenge towards full implementation of REDD+ → Consistency across different potential scale of implementation (national, subnational, project levels); Consistency and credibility of estimates for FREL/FRL (data)

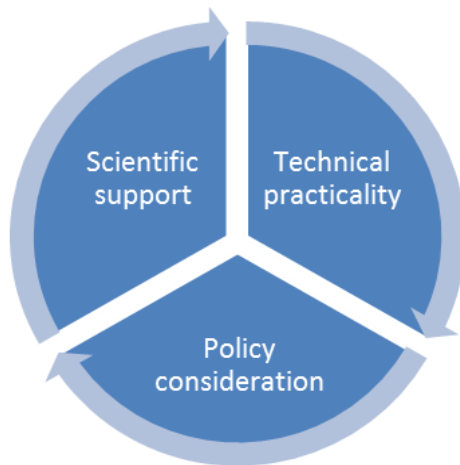
# Lessons learned :



Indonesia national FREL : an important figure for REDD+ implementation, established through step-by-step analysis and exercises; involving national and local experts and consultation with multistakeholders

During the process, Indonesia national FREL provide broader audience and stakeholders with **clear, transparent, accurate, complete and consistence** basis of emissions projection as a basis for further discussion with other agencies who have expressed an interest in supporting Indonesia in this undertaking

Such process followed in order to approach the entrance of full REDD+ implementation on the basis of result-based payment (i.e. Issue of levels/scales : national – su national – projects level), need sinergic combination of 3 dimensions : **science – practice - policy**





**terima kasih**

*thank you!*