

FORESTRY POLICY FOR ADDRESSING CLIMATE CHANGE IN INDONESIA

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Forestry Research and Developmen Agency

INDONESIA : CC relevance



- 1. Country land area : app. 187 millions ha, population : app. 230 millions
- 2. 7 major islands (from total of > 16 thousands islands), > 300 tribes,
- 3. 33 provinces, > 300 districts, autonomous governance system
- 4. ±60 % of the country area are forest land/state forest (± 37 % of them are degraded at various levels)
- 5. Forest transition from the east (Papua : low historical DD) to the west (Sumatera : high historical DD, Java : forest cover increases)
- 6. The Law No. 41/1999 on Forestry and Law No. 5/1990 on Biodivesity Conservation are the main references for managing forest.



ROLE OF FORESTS

- 1. Support national economy development through the provision of timber and other forest products,
- 2. Watershed protection (protection forest)
- 3. Livelihood of local people,
- 4. Global importance :
 - Biodiversity Conservation : forest is the home of mega biodiversity,
 - Climate change mitigation and adaptation: through reducing emissions from deforestation and forest degradation, sustainable management of forest, carbon conservation, and enhancement of carbon stocks





PRIORITY POLICIES IN FORESTRY (2010 – 2014)

- 1. Strengthening forest designation to secure forest areas,
- 2. Rehabilitation of degraded forest and watershed,
- 3. Forest Protection and Fire management,
- 4. Conservation of biological diversity,
- 5. Revitalization of forest utilization and forest industries,
- 6. Empowerment of indigenous peoples and local communities
- 7. Mitigation of and adaptation to climate change,
- 8. Strengthening Forest Institutions







FORESTRY AND NATIONAL TARGET TO REDUCE GHGs EMISSIONS

Indonesia has voluntarily set target to reduce emissions from all sectors ~ 26 % by 2020, through the following activities (Indonesian submission to UNFCCC 2010) :

- 1. Sustainable peatland management
- 2. Reduction in rate of deforestation and land degradation
- 3. Development of carbon sequestration projects in forestry and agriculture
- 4. Promotion of energy efficiency
- 5. Development of alternative and renewable energy sources
- 6. Reduction in solid and liquid waste
- 7. Shifting to low-emission transportation mode.





FORESTRY IN NATIONALTARGET TO REDUCE GHGs EMISSIONS

- 1. Part of activities 1, 2, 3 : sustainable peat forest management, reduction in rate of deforestation, development of carbon sequestration programme in forestry.
- 2. Climate Change Action Plan in Forestry sector (RENSTRA):
 - Reduction in rate of deforestation and forest degradation : avoiding/reducing forest conversion for other uses, illegal logging, forest fire, forest encroachment,
 - Carbon sequestration programme : RHL, HTI, HR,
 - Sustainable forest management (including peat forest): RIL and other SFM practices, avoiding/reducing forest fire.
- 3. External financial resources is needed to achieve beyond RENSTRA target, e.g. through REDD-plus scheme.



Policy interventions to address challenges in forest management in the context of climate change (REDD-plus Strategy 2009-2014)



- 1. Develop more effective conservation and management of protected areas
- 2. Develop more effective management of production forest
- 3. Options for supplying the requirement of the oil palm industry (MoForestry and MoAgriculturea)
- 4. Develop Strategy for sustainable peat land management (coordinated by BAPPENAS)
- 5. Capacity enhancement of local people, including indigenous people, in forest management related to REDD-plus





I. DEVELOPED MORE EFFECTIVE CONSERVATION AND MANAGEMENT OF PROTECTED AREA

- 1. Completion of legal gazettal process of protected area boundaries,
- 2. Training and professional capacity building,
- 3. Collaborative management and ecosystem restoration,
- 4. Implementation of REDD-plus demonstration activities involving a range of protected area types





II. Develop more effective production forest management

- 1. Enhance implementation of FLEG and VPA measures,
- 2. Establishment of production forest management unit,
- 3. Forest management certification,
- 4. Enhance investment in RIL,
- 5. Establishment of community based plantation forest,
- 6. Establishment of timber plantation in degraded forest land,
- 7. Training and professional capacity building for production forest management unit (production FMU/KPHP) managers.



III Options of supplying the requirement of the oil palm industry (Ministry of Forestry - Ministry of Agriculture)



- Introduce way to avoid establishment of new oil palm plantation on forested land through provision for establishment by small holders in degraded lands.
- Rationalize the relationships between forest land (especially the functional zone of convertible forest) and non-forest land subject to land use decisions



Policy guidance on land use for agriculture (source : MoAgr-MoF, 2009)

- Agriculture expansion (including oil palm plantation) is directed to area with mineral soils,
- Peat land uses for agriculture must comply with Minister of Agriculture Regulation (Permentan) No.14/2009,
- The use of convertible peat land forest for agriculture (including oil palm plantation) shall comply with forest land use policy_ shall meet the requirement and criteria for peat land utilization and based on recommendation resulted from environmental impact assessment.



IV. Develop Strategy for sustainable peat land management (source : BAPPENAS, 2009)

BAU scenario : following the current trend, all peat areas that have been allocated to companies in APL, HPK, and HP, regardless of peat thickness are used; Estimated increase in emissions to 1,387 Mt CO_2 yr⁻¹ by 2025

| Policy | Mitigation Action | Emission Reduction | Cost Type | Emissions in 2025 (Mt CO2/yr) | % Incremental Emissions reduction from BAU | % Cumulative Emission Reduction from BAU |
|---------------------------------------|---|-------------------------|-----------|-------------------------------------|---|---|
| (1) Best Practice | 1. Compliance <3m | F,Ox,AD | T* | 1351 | 2.6 | 2.6 |
| | 2. No burning & improved water management | F, Ox | I,T | 1117 | 16.9 | 19.5 |
| | 3. Ameliorant | Ox | l,T | 1049 | 4.9 | 24.4 |
| (2) Peat Rehab. | 4. Peat land rehabilitation | F,Ox,AGB | I,T | 619 | 31.0 | 55.4 |
| (3) Land Allocation and Permits | 5. Conserve forest in non- forestry development area | Avoided (F, Ox, AGB) | О,Т | 372 | 17.8 | 73.2 |
| | 6. Protect unlicensed peat land | Ox,AGB | О,Т | 175 | 14.2 | 87.4 |
| | 7. Land swap unused licenses to mineral land | F,Ox,AGB | O,I,T | 106 | 5.0 | 92.4 |

Source: Team analysis. <u>Abbreviations</u>: Emission reduction: F = fire, Ox = oxidation, AGB = increase in above ground biomass, AD = avoided deforestation and degradation. Cost types: O = opportunity cost, I = intervention costs, T = transaction cost. * Legal compliance is not considered to incur an opportunity cost.

Cumulative Emission Reduction from Peat Land 2000-2025 (Excluding Wild Fire)





CLOSING REMARKS

- 1. Indonesian Forestry is a land use sector which heavily affected by the need of other sector development for forest land (e.g. agriculture, public works, energy),
- As part of national target to reduce emissions ~ 26 % by 2020, mitigation action plan in forestry is already in the mainstream of forestry sector development planning,
- 3. Emissions reduction target from forestry sector need to be set in the national development context,
- 4. Domestic funding will not sufficient to achieve the target set for forestry sector, especially to cover the costs to address drivers of deforestation and forest degradation, and so
- 5. REDD-plus scheme is expected to provide financial resources to cover the costs of actions and incentivies actions which result in emissions reduction, carbon stock conservation and carbon stock enhancement.



THANKYOU

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