

SUBMISSION BY INDONESIA

Land Use, Land-Use Change and Forestry under Article 3, Paragraphs 3 and 4, of the Kyoto Protocol and under the Clean Development Mechanism

Subsidiary Body for Scientific and Technological Advice at its thirty-ninth session, recalling to its invitation in document FCCC/SBSTA/2013/3 paragraph 143, encouraged Parties and admitted observer organizations to continue submitting to the Secretariat, their views on specific possible additional LULUCF activities under the CDM and specific alternative approaches to addressing the risk of non-permanence under the CDM, by 28 February 2014.

A. Modalities and procedures for specific possible additional LULUCF activities under the clean development mechanism (CDM):

1. High density agroforestry with crown cover > 30%

This activity may be carried out on agricultural lands adjoining to villages, on margins of forests, and certain forest category.

Justification for inclusion under CDM: scientific management of these lands improves incomes of households from non-timber forest products. Management includes harvest of non-timber products, and planting of tree and shrub species to enhance crown cover needed for shade grown crops in the understory. Planting is also complemented with assisted natural regeneration. High density agroforestry provides forest products and may serve as buffer zones mitigating drivers of deforestation and forest degradation. Inclusion of this land use category also promotes biodiversity as these areas are a great source of species diversity.

Methodological guidance: approved CDM A/R methodologies can be revised by extending their applicability conditions

Potential in Indonesia: agroforestry system has long been practiced in Indonesia and has high attachment to livelihood issues. The multi-storey nature of agroforestry and long practices in combining trees and crops of different heights on the same piece of land in agroforestry systems have proven to be one of favourable options in addressing both sustainability of natural resources and in addressing livelihood issues for people living in and/or surrounding forest areas in Indonesia. High density agroforestry has great significance for GHG removals by sinks as it covers over 3 million Ha in Indonesia. High density agroforestry with crown cover greater than 30% is similar to forest management, and could be used to improve the management of protection forest where trees are not allowed to be cut, hence, people may harvest only non-timber forest products.

2. Restoration of wetlands

Restoration of wetlands includes actions implemented in degraded coastal and inland wetlands that result in the reestablishment of ecological processes and lead to their restoration.

Justification for inclusion under CDM: Coastal wetlands have high carbon stocks. CIFOR and USDA Forest Service 2011 recorded that mangrove forests have four times carbon density than high land tropical forests. Human induced drainage of coastal wetlands adversely affects salt marshes and

freshwater tidal marshes. Draining of coastal wetlands is a source of GHG emissions, leads to adverse impacts on water quality. Loss of mangroves is another major coastal wetland loss. Drainage and dredging of inland wetlands such as riparian wetlands, forested swamps and marshes for various purposes are contributors to the loss of inland wetlands. Restoration of coastal and inland wetlands in addition to increasing GHG removals by sinks, also improve biodiversity and ecological processes.

Methodological guidance: IPCC 2013 supplement to AFOLU 2006 guidelines on wetlands can be used to develop methodologies relevant to coastal and inland wetland restoration under the CDM context.

Potential in Indonesia: Indonesia accounts for 3.1 million Ha or approximately 22.6% of the global mangrove ecosystem. About 60% of the Indonesian population lives within radius of 50 km from coastal lines. Hence, mangrove forests play central roles in protecting coastal areas from erosion and abrasion, as the coastal green belt for settlement, and in preventing sea water intrusion to the settlement areas. Nevertheless, among the 3.1 million Ha area of Indonesia's mangrove forests, about 58% are degraded. The increase of degraded mangrove forests may increase vulnerability of the people to sea level rise. In both wetlands, the coastal and inland wetland restoration projects have great potential for mitigation while also providing livelihoods, water quality, and adaptation co-benefits.

3. Rewetting of drained peat land

Rewetting of drained peat lands leads to a reduction in carbon dioxide (CO₂) emissions due to decreased oxidation of soil organic material; and also reduction in nitrous oxide (N₂O) emissions in nutrient-rich peat lands.

Justification for inclusion under CDM: Tropical peat lands contain about 3% of the global soil carbon stocks and at least 20% of global peat carbon. The most significant emissions are from oxidation of drained peat lands. For Annex I countries, rewetting of peat lands drained by anthropogenic actions since 1990 have been included for compliance in the 2nd commitment period of the Kyoto Protocol.

Methodological guidance: IPCC 2013 supplement to AFOLU 2006 guidelines on wetlands; and methodologies under consideration for peat land rewetting for voluntary standards can be relevant.

Potential in Indonesia: Indonesia has more than 20 million Ha peat lands with carbon stocks of approximately 37 Gton and similarly can be the significant sources of GHGs emission. Rewetting can be the potential technique to restore severely degraded peat land where planting and assisted natural regeneration are not possible.

4. Revegetation

Revegetation activities include planting of trees, shrubs, grass or other non-woody vegetation to restore carbon stock of lands that do not qualify as forest land, cropland, grass land, and wetland. It is cost effective option to restore severely degraded lands, settlement, and other lands (e.g. Karst areas in Indonesian context).

Justification for inclusion under the CDM: Revegetation is a cost effective mitigation activity in areas that fall outside of forest land, cropland, grass land, and wetland categories. For example, karst ecosystem arises from rock solubility in natural water that is found elsewhere.

Methodological guidance: Methodologies on implementing revegetation activities need to be approved, taking into account the AFOLU 2006 guidelines.

Potential in Indonesia: Revegetation has potential to restore karst regions which spread over large area in Indonesia (approximately 10% of country land area). Revegetation in karst ecosystem provides co-benefits beyond increasing CO₂ sequestration, for example protection of karst ecosystem, and rehabilitation of degraded lands

B. Revisions to Modalities and Procedures of A/R Project Activities under the CDM (Decision 5/CMP.1) to cover Additional Land Use Activities

General. Modalities and procedures for A/R (Decision 5/CMP.1) should be expanded to include additional land use activities and the common modalities and procedures (M & P) to be applicable for all land use activities implemented under the CDM. Modalities and procedures specific to individual land use activities should be included as respective appendices to the modalities and procedures. The references to A/R activities in the M&P of A/R should be replaced with land use activities to cover all activities for which the M&P are expanded to cover.

Annex to M&P of A/R (Decision 5/CMP.1) - Section A. Definitions. M&P of A/R (Decision 5/CMP.1) needs to be revised to define all additional land use activities approved for inclusion under the CDM.

Annex to M&P of A/R (Decision 5/CMP.1) – Validation.

- Paragraphs 10 to 24 need to be revised and expanded to cover all additional land use activities defined under the M&P and M&P specific to a land use should be listed in an appendix to the M&P,
- The Appendix B (information to be presented in the project design document) needs to be revised to include information relevant for project activities implemented in all land use activities defined under the M&P.

Annex to M&P of A/R (Decision 5/CMP.1) – Monitoring. Paragraphs 25-26 should be revised to extend the Monitoring Plan of a CDM project activity to cover all land use activities under the M&P.

Annex to M&P of A/R (Decision 5/CMP.1) – Verification.

- Paragraphs 31-34 should be revised to extend the Monitoring Plan of a CDM project activity to cover all land use activities under the M&P.

C. Modalities and procedures for alternative approaches to addressing the risk of non-permanence under the CDM

Approaches to address permanence in other LULUCF projects should be explored for their possibility to be adapted in additional LULUCF-CDM activities, and for drawing lessons from their implementation, including strength and weaknesses of each approach, to allow project developer to choose the most appropriate approach for their projects.

Other than the weaknesses of the TCER approach in A/R CDM, a number of references stated the rationale for alternative approaches to address non-permanence, including as follows: (1) reversal risk profile can be assessed, for example, approaches to address non-permanence risk can be

integrated into monitoring system, (2) environmental integrity and economic viability of land use mitigation activities can be balanced with various approaches.

For technical paper prepared by UNFCCC Secretariat, Indonesia views that the following issues related to permanence should be addressed: (1) risk screening (mandatory/voluntary, exemption from risk screening etc), (2) scale of activities (project, program/sub-national, national), (3) permanence period, (4) types of risks, (5) liability for reversals, (6) sharing liability, (7) feasibility of approaches, (8) environmental integrity of approaches, (9) choice among approaches for implementing agencies, (10) consistency among approaches for non-permanence across land use activities, and (11) relation to broad LULUCF mitigation agenda.

Notes :

Source of supporting data and information : CIFOR and USDA Forest Service (2011); Darmawan, W.S (2013); Ministry of Forestry (2013); Haryono, E and Widyastuti, M (2013); Hilwan, I and Kusuma, C (2013); Reddy, R.C (2013); Wetlands International-Indonesia programme (2005, 2007).