

## **Submission by Nepal on behalf of the Least Developed Countries Group on Methodological Issues under the Kyoto Protocol: Land Use, Land Use Change and Forestry under Article 3.3 and 3.4 of the Kyoto Protocol, and under the Clean Development Mechanism**

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This submission is in response to the decision of SBSTA39 agenda 12(b), paragraph 3 (FCCC/SBSTA/2013/L.26.) and SBSTA40 agenda item 12(c) paragraph 8 (FCCC/SBSTA/2014/L.7.) on the following topics:

- (a) Possible additional land use, land use change and forestry (LULUCF) activities under the CDM, and
- (b) Alternative approaches to addressing the risk of non-permanence under the CDM

### **(I) Possible additional LULUCF activities under the CDM**

The significance of LULUCF activities for food security, climate change mitigation, and adaptation has been widely recognized. Sustainable management of land resources is central to the national development priorities of the LDCs. Including additional LULUCF activities would enable LDCs and other Parties to harness climate finance for GHG mitigation while promoting the objectives of food security and sustainable land management. In this context, revision of the modalities and procedures of Afforestation/Reforestation (A/R) activities under the CDM (Decision 5/CMP.1) to include additional LULUCF activities is a priority.

This submission further elaborates on the elements of the submission made by the LDC Group in response to the SBSTA38 agenda item 11(b), paragraphs 4 and 5. The aspects covered under each activity can be adopted as part of the modalities and procedures or sector specific guidance approved under CDM for each of additional LULUCF activities included under the CDM.

#### **1. Crop production activities**

Cropland management represents low cost mitigation option with significant mitigation potential within the land sector. A significant part of this potential can be realized cost effectively in the LDCs. Soil carbon sequestration has the most mitigation potential in croplands. Inclusion of crop production under CDM contributes to mitigation objectives in two ways, (a) enhancement of GHG removals by sinks, (b) reduction or avoidance of GHG emissions. In addition, it also contributes to improved crop productivity and resilience of the crop production systems to climate variability.

*Enhancement of GHG removals by sinks:* Improved agronomic practices focusing on incorporation of crop residues into soil, use of cover crops, organic amendments, and crop rotation practices enhance crop yields. These practices reduce soil erosion, enhance soil carbon sequestration, water-holding capacity, biodiversity, and promote resilience of cropping systems.

*Reduction or avoidance of GHG emissions:* It is reported in *CCAFS Working Paper No 61* that a third of the GHG emissions from agriculture is from fertilizer use, a tenth of the emissions from burning of agricultural residues, and another tenth from methane emissions in rice production. Improved agricultural practices such as incorporation of agricultural residues into soil, and efficient management of water resources reduce or avoid GHG emissions. Promoting improved crop production is a major priority for LDCs, requiring policies and resources to support improved technologies and practices and to overcome barriers to their adoption. Inclusion of crop production under the CDM provides focus to crop production technologies and practices that

contribute to food security, and to demonstrate climate change mitigation and adaptation priorities.

## **2. Revegetation**

Revegetation includes human induced establishment of vegetation that does not meet the definition of forest. Revegetation improves sequestration of carbon, prevents soil erosion and loss of soil carbon. Degraded lands have large potential for carbon sequestration as they often start from a low carbon base in relation to undisturbed conditions and could function as a sink for several years. LDCs have large areas of degraded lands (e.g. saline, acidic, sodic, and eroded soils). Restoration of degraded lands through revegetation enhances soil organic carbon status and prevents marginal lands from degrading further. Restoring degraded lands through revegetation is therefore a priority for the LDCs as it is cost effective in enhancing biomass and soil carbon stocks of degraded lands. However, limited resources prevent most LDCs from investing in degraded lands. Inclusion of revegetation activities under the CDM would enable the LDCs to access public and private climate finance to restore the degraded lands, which if delayed will lead to higher costs of restoration in the future.

## **3. Existing CDM guidelines and modalities and procedures can be extended to additional LULUCF activities**

The existing modalities and procedures of CDM (decision 3/CMP.1) and A/R CDM (decision 5/CMP.1) can be extended to the additional LULUCF activities. In this context, the CDM project standard, validation and verification standard, and project cycle procedure and provisions related to baseline assessment, additionality, leakage, etc. can be extended to the additional LULUCF (crop production and revegetation) activities. Additionally, the provisions relating to the conduct of environmental impact assessment, sustainable development, stakeholder consultations under CDM can be applicable to additional LULUCF activities as well.

The deliberations of SBSTA in reference to the decision 2/CMP.7, can lead to adoption of alternative approaches to addressing the risk of non-permanence under the CDM, which can be applicable to crop production and revegetation, and other LULUCF activities. Methodologies and guidelines approved under the CDM and IPCC guidelines can be extended and revised for crop production and revegetation activities, and additional methodologies and guidance can be approved to support the mitigation actions in these land use categories.

## **4. Modalities and procedures for additional LULUCF activities**

Considering that several aspects of the modalities and procedures applicable to LULUCF activities are common, it is relevant to consider adopting common modalities and procedures for all LULUCF activities under the CDM by revising the existing modalities and procedures of afforestation and reforestation activities under the CDM (decision 5/CMP.1) to cover A/R activities and additional LULUCF activities proposed for inclusion. The modalities and procedures specific to each additional LULUCF activity can be included as the appendices to the common modalities and procedures for LULUCF activities. The common modalities and procedures for LULUCF under the CDM can facilitate scaling up of mitigation action involving one or more land use activities under the provisions of programme of activities.

### ***(i) Definitions of eligible additional LULUCF activities and practices within each activity***

The section on the modalities and procedures clarify the definitions of (a) crop production and (b) revegetation activities; and the practices covered under each of the additional LULUCF activities.

### ***(ii) Participation requirements for additional LULUCF activities***

Eligible thresholds of additional LULUCF activities: The eligible thresholds for crop production and revegetation activities need to be clarified under the participation requirements of these

activities. For example, the minimum area threshold of 0.05 ha defined for A/R project activities can be adopted for crop production and revegetation activities.

Scale of activities: The crop production and revegetation activities can be implemented as large scale project activities or small scale project activities or programme of activities.

Eligible practices: Considering that LULUCF activities have specific human induced changes in carbon stocks and GHG emissions, the eligible crop production and revegetation practices can be defined under the respective activities.

### ***(iii) Validation and registration***

The validation and registration requirements of decision 5/CMP.1 can be suitably revised to cover the provisions relevant to the practices of crop production and revegetation activities.

Baseline and monitoring methodologies: Simplified and cost effective methodologies for assessment of the baseline and monitoring of mitigation in crop production and revegetation activities are priorities. The IPCC 2003 Good Practices Guidance on LULUCF and IPCC 2006 AFOLU Guidelines; and methodologies approved under the CDM can be adopted for estimation of changes in the GHG removals by sinks and emissions of crop production and revegetation activities; and additional methodologies and guidance for additional LULUCF activities can be approved under the CDM.

#### Baseline and project scenarios

The provisions relating to baseline assessment and mitigation interventions of eligible crop production practices can be separate guidance on additional LULUCF activities or included in the common modalities and procedures for LULUCF activities or under the activity specific modalities and procedures adopted under the CDM.

#### *Crop production:*

Baseline scenario: Eligible baseline crop production practices (for example, tillage, cropping systems, input use (fertilizer, water, energy, etc.), management of crop residues and other prevailing cropping practices of crop production should be clarified.

Project scenario: Eligible mitigation practices (for example, conservation tillage, cropping systems (crop rotation, cover crops), efficient crop varieties, efficient management of inputs (nutrient, water, energy), crop residues (avoidance of burning, incorporation into soil) of crop production practices recognized under the modalities and procedures should be clarified.

#### *Revegetation:*

Baseline scenario: Types of eligible lands and prevailing practices on the eligible lands should be defined.

Project scenario: Eligible revegetation practices need to be defined.

Additionality: The requirements for demonstrating additionality of crop production and revegetation activities should be clarified to enable the project participants to transparently demonstrate the additionality and for a Designated Operational Entity (DOE) to validate the additionality of the activities.

Crediting period: The crediting period of each of the additional LULUCF activity (crop production and revegetation) should be defined. These can follow crediting periods specified for CDM projects, i.e. fixed crediting period of 10 years; and renewable crediting period of 7 years with the possibility of renewal up to two additional crediting periods.

Socioeconomic and environmental assessments: compliance with social and environmental safeguards, including consistency with existing UNFCCC guidelines and procedures on land use activities (e.g. REDD+, A/R) should be clarified.

Stakeholder consultations: Clarifications on the aspects of the LULUCF activities to be considered as part of stakeholder consultations need to be clarified.

#### *(iv) Monitoring*

Monitoring of activities under the CDM are carried as per the approved CDM methodologies and the guidance approved by the CDM Executive Board. The modalities and procedures need to recognize the guidance approved under the CDM for monitoring of projects or PoAs for unbiased assessment and estimation of GHG removals by sinks and emissions of the eligible practices of additional LULUCF activities.

Monitoring plan: The elements of the monitoring plan for each of the additional LULUCF activities should be clarified.

Collection and archival of data: As LULUCF activities are spread over different geographic scales, guidance on the use of sampling guidelines and other provisions approved under the CDM for unbiased assessment of GHG removals by sinks should be reflected.

Management of uncertainty: steps in uncertainty assessment and measures to be implemented to address uncertainty need to be clarified.

#### *(v) Verification and issuance*

The relevant paragraphs of the decision 5/CMP.1 should be revised by including the verification and issuance requirements specific to crop production and revegetation activities. The verification and certification requirements of crop production and revegetation should take into account the characteristics of GHG removals by sinks in these activities (e.g. periodicity of verifications during the crediting period).

#### *(vi) Approaches to address the risk of non-permanence*

Addressing the risk of non-permanence is a priority for land use mitigation activities. In this context, decision 5/CMP.1 should be revised to include a list of alternative approaches eligible for addressing the risk of non-permanence, risk of crop production, revegetation and other LULUCF activities proposed for inclusion under the CDM.

### **5. Recommendation**

Based on the above, LDC Group recommends the inclusion of (i) crop production, and (ii) revegetation as additional LULUCF activities to be eligible under the CDM for the second commitment period. For this the relevant sections of the decision 5/CMP.1 should be revised.

As a follow up to the inclusion of crop production and revegetation activities under the CDM, the project standard and validation and verification standard and other related applicable CDM documentation should be revised to cover additional LULUCF activities. The details of eligibility under each activity along with guidance relating to baseline assessment, project scenario, additionality, leakage, etc. covered in the project standard and other relevant CDM documentation should be revised to extend their applicability to crop production and revegetation activities.

#### **(II) Alternative approaches to address the risk of non-permanence**

LDC Group views that buffer backed by country guarantee facilitates risk sharing between a project and a government providing guarantee (host country or its designated third party; or an

Annex I country) and enhances the effectiveness of the combined approaches in addressing the risk of non-permanence.

In this submission, the LDC Group further elaborates on the previous submission made to SBSTA38 on the combination of buffer and country guarantee approaches, and presents suggestions for the revision of the decision 5/CMP.1 to include the combination of buffer and government guarantee as part of the alternative approaches to address the risk of non-permanence under the CDM.

## **1. Buffer backed by country guarantee**

The LDC Group's recommendation for the buffer backed by country guarantee for addressing the non-permanence risk of CDM A/R projects and other potential LULUCF project activities (e.g. crop production and revegetation) builds on the example of modalities and procedures approved for carbon capture and storage (CCS) in geological formations as CDM project activities (FCCC/KP/CMP/2011/10/Add.2), which provide for the use of buffer in association with government guarantee either by a host country or by an Annex I country for addressing the risk of non-permanence in CCS project activities<sup>1</sup>.

Considering the risk profiles of land sector project activities (A/R project activities and additional LULUCF activities) are different from those of the CCS project activities, the modalities and procedures should authorize the CDM Executive Board to approve the procedures to be followed for assessing risks to a project using a risk assessment and reporting templates approved for the purpose. The buffer set aside percent for an A/R project (and additional LULUCF activities) should be based on the risk profile of a project with low project risk translating into low buffer withholding rate (e.g., 10%) and high project risk into to high buffer withholding rate (e.g. 30%).

By design, buffer is expected to cover most of the project level risks, with country guarantee serving as a back up to cover the losses that go beyond the buffer and that country guarantee can be called upon in rare high risk events in order to ensure the integrity of the (permanent) CERs issued to A/R (and additional LULUCF) project activities of CDM.

For the use of buffer and country guarantee combination, a project is expected to comply with the requirements for establishing the buffer to address potential risks, while a government (host country or its designated third party; or an Annex I country) accepts the obligation to cover the risk of loss of credits exceeding the buffer amount.

The modalities and procedures of the decision 5/CMP.1 relating to the validation and registration (section G); monitoring (section H); verification and issuance (section I); issuance of CERs (section J) and addressing non-permanence risk (section K) should be revised to include the provisions for establishment and management of buffer; and implementation of country guarantee to address the non-permanence risk in A/R CDM activities and other potential LULUCF activities (e.g. crop production, revegetation) that can be included under the CDM.

### ***Buffer***

In order to adopt buffer as an approach to address the non-permanence risk, the modalities and procedures should provide guidance to project participants on the steps to be followed to conduct

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<sup>1</sup> The modalities and procedures for CCS project activities permit 5 percent of credits to be placed in a buffer account for 20 years subsequent to a CCS project's crediting period. In cases of reversal during this period, the CCS project is expected to compensate for a reversal through CERs or other Kyoto Protocol compliance units. If a CCS project buffer cannot cover reversal, (a) the host country is expected to cover the reversal exceeding the project buffer through the retirement of Kyoto Protocol compliance units; alternatively (b) credits issued to the CCS project are cancelled requiring Annex I country(ies) to cancel the credits associated a CCS project in their national registries to comply with the guarantee requirements.

risk assessment and to prepare a risk report as per the guidelines to be approved by the CDM Executive Board for the purpose.

For the buffer to be effective in addressing the non-permanence risk, the proportion of GHG removals by sinks to be set aside in the buffer account should be adequate to cover the potential losses when risks materialize. In this context, setting an appropriate buffer withholding rate in relation to risk profile of a project assume significance as a DOE is expected to assess the adequacy of buffer at verification. Buffer set aside based on risk assessment in each monitoring period facilitates a project to manage non-permanence risk in a proactive manner during entire project period.

### ***Country guarantee***

The country guarantee is an undertaking by a host country government or its authorized agency or Annex I country government that supports a project. The country guarantee will become effective upon loss of GHG removals by sinks from risk event(s) in excess of a project's buffer. The country guarantee allows a host country government (or its authorized agency such as insurance agency or multilateral agency<sup>2</sup>); and Annex I country government to assume liability for the loss of net anthropogenic GHG removals by sinks beyond a project's buffer.

The host country, its designated third party or Annex I country should be required to provide information on the guarantee in the letter of approval issued to a project. The modalities and procedures should outline the criteria and elements of a country guarantee for ensuring the consistency of guarantees provided by different countries and to enable a DOE to verify a country guarantee and its effectiveness in addressing non-permanence risk during a project or program's monitoring period. The modalities should also clarify a set of criteria for triggering the liability for the country providing guarantee or its authorized agency to replace the GHG removals by sinks lost in excess of a project's buffer as a consequent of a risk event.

## **2. Modalities and procedures for addressing the risk of non-permanence**

### ***(i) Definition of the terms***

The definitions of the terms associated with non-permanence risk (e.g. categories of risk, risk assessment, risk report, permanence period, liability etc.) should be clarified in the modalities and procedures.

### ***(ii) Validation and registration***

For project activities seeking to implement alternative approaches to address the non-permanence risk, the modalities and procedures should require the projects to assess non-permanence risk and prepare a risk report using a template approved by the CDM Executive Board for the purpose, and that the risk report needs to be included as an annex to the project design document and the monitoring plan<sup>3</sup>.

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<sup>2</sup> An example of multilateral guarantee is the insurance guarantee provided for Multilateral Investment Guarantee Agency (MIGA) of the World Bank Group for investments in developing countries. MIGA guarantee covers the risks of expropriation, war, civil disturbance, breach of contract, and non-honoring of financial obligations. The non-permanence risk of LULUCF project activities under the CDM can be made eligible under the guarantee. The MIGA guarantee is currently available for 15 to 20 year period, and can be extended to cover risks to a CDM project during its crediting period.

<sup>3</sup> Voluntary carbon standards (e.g. Verified Carbon Standard, American Carbon Registry) adopted procedures for assessing the risks of non-permanence. The information from risk assessment is used to establish the proportion of credits to be set aside in a buffer account for the purpose of replacing credits lost due to non-permanence risk.

As part of validation, the modalities and procedures should require a DOE to conduct risk assessment and that the risk report should be prepared by project participants taking into account relevant data and documentation. DOEs conducting validation should be required to include their opinion on a project's risk in the validation report and in verification reports.

#### Buffer

The modalities and procedures should clarify the steps to be followed by a DOE in the validation of buffer. Based on a DOE's validation of project's risk, a proportion of net anthropogenic GHG removals by sinks should be required to be withheld as buffer and the relevant information is to be included in the project design document and monitoring plan.

#### Country guarantee

The modalities and procedures should clarify the legal requirements of a country guarantee and the criteria of a country guarantee provided by a host country, its authorized agencies or Annex I countries, and the steps to be followed by a DOE in the validation of country guarantee.

#### ***(iii) Monitoring***

The modalities and procedures should clarify the monitoring requirements to assess risks during a monitoring period using template approved by the CDM Executive Board, and preparation of a report on the risk events occurred during a monitoring period for inclusion in the monitoring report. In situations of loss of GHG removals by sinks in a risk event, a project should be required to submit report on the reversal to the CDM Executive Board within a specified period subsequent to an event providing information on the area and carbon stock affected in an event.

#### ***(iv) Verification and certification***

The modalities and procedures should include provisions relating to a DOE's verification and certification of buffer and country guarantee, including the verification of event(s) and loss of GHG removals by sinks, if any, in each risk event reported in a project's monitoring report.

#### Buffer

The modalities and procedures should require a DOE to review the risk report included as an annex to the monitoring report and to assess the adequacy of buffer in relation to a project's risk profile and observations of DOE in field. DOE should be required to record its opinion on the project risk and adequacy of buffer in the verification and certification report. A project should be required to update the buffer withholding rate and revise the monitoring report as per the DOE verification report,

#### Country guarantee

The modalities and procedures should require a DOE to conduct verification of the country guarantee as part of verification and clarify the steps to be followed by DOE in this regard.

For a project that incurs loss of GHG removals by sinks in a risk event in excess of buffer, modalities and procedures should clarify the steps to be followed by the host country on cancellation of credits and transfer of equal amount of Kyoto compliance units (AAUs, CERs, ERUs or RMUs) to the CDM cancellation account specified for the purpose or to the national cancellation accounts of other parties.

In cases where a host country does not provide guarantee, the modalities and procedures should clarify the steps for cancellation of credits in excess of a project's buffer to facilitate the CDM Executive Board to notify the international transaction log and Annex I country registries associated with the project on the steps he followed for cancellation of credits.

***(v) Issuance of credits***

The modalities and procedures should clarify that the A/R (and additional LULUCF) project activities implementing alternative approaches should receive (permanent) CERs similar to those issued to the CDM projects in energy, waste, transport and other non-land use sectors.

It should be clarified that the CERs issued for A/R (and additional LULUCF) project activities do not expire and do not required to be replaced unlike the tCERs (expire at the end commitment period) / ICERs (expire at the end of crediting period), which need to be replaced upon their expiry.

The modalities and procedures should also clarify the provisions on issuance, accounting, reporting of CERs, management of CDM registry, and use of (permanent) CERs issued to A/R (and additional LULUCF) projects for compliance should follow the provisions of the section J of the modalities and procedures for a Clean Development Mechanism (decision 3/CMP.1) to ensure the integrity and equivalence of (permanent) CERs issued to A/R (and additional LULUCF) and the CERs issued to the projects in other sectors (e.g. energy, waster, transport) of the CDM.

***(vi) Addressing non-permanence risk***

The section K of the Decision 5/CMP.1 should be revised to include the list of alternative approaches approved under the CDM in addition to those that exist in the current modalities and procedures. It should also be clarified that the (permanent) CERs issued follow the accounting and reporting provision of CERs under the decision 3/CMP.1.

**3. Recommendation**

Based on the views elaborated above, LDC Group recommends the inclusion of buffer backed by country guarantee as an alternative approach to addressing the risk of non-permanence and requests the (permanent) CERs be issued to A/R (and additional LULUCF) project activities under CDM that implement alternative approaches to addressing the non-permanence risk. In this context, the LDC Group suggests the revision of relevant sections of decision 5/CMP.1.

25 August 2014