CLEAN DEVELOPMENT MECHANISM
PROPOSED NEW BASELINE AND MONITORING METHODOLOGY FOR A/R (CDM-AR-NM)
(Version 04

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PROPOSED NEW BASELINE AND MONITORING METHODOLOGY
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1. Methodology title and history of submission

Methodology title

>>

History of submission *(to be completed by the secretariat)*

>>

A/R WG recommendation *(to be completed by the A/R WG)*

a) To approve this proposed A/R methodology as contained in an annex to the A/R WG meeting report.

>>

b) To reconsider this proposed A/R methodology, subject to required changes.
Major required changes.

>>

Other required changes.

>>

c) Not to approve the proposed A/R methodology
Reasons for non-approval.

>>

SECTION I. SOURCE, DEFINITIONS AND APPLICABILITY

1. Sources

If this methodology is based on a previous submission or an approved methodology, please state the relevant reference number (ARNMXXXX/AR-AMXXXX). Explain briefly the main differences and/or rationale for not using the approved methodology.

>>

This methodology refers to the latest approved versions of the following procedures, tools, guidance and guidelines:

- >>
- >>

All the above-mentioned procedures, tools, guidance and guidelines are available at: <http://cdm.unfccc.int/Reference/Procedures/index.html>, <http://cdm.unfccc.int/Reference/tools> and <http://cdm.unfccc.int/Reference/Guidclarif/ar/index_guid.html>.

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A/R WG assessment *(to be completed by the A/R WG)*

Relationship with approved or pending A/R methodologies (if applicable).

a) Does the proposed new A/R methodology include part(s) of one or more ~~an already~~ approved A/R methodology or an A/R methodology pending approval (see ~~recent~~ EB reports)? If so, please briefly note the relevant methodology reference numbers (AR-AMXXXX or ARNMXXXX), titles, and parts included.

>>

b) In particular, is the proposed new A/R methodology largely an amendment or extension of an approved A/R methodology? (i.e. the methodology largely consists of expanding an approved methodology to cover additional project contexts, applicability conditions, etc., and is thus largely comprised of text from an existing approved methodology).

>>

c) Please briefly note any significant differences or inconsistencies ~~(baseline net GHG removals by sink calculations, leakage methods, and boundary definitions, etc.)~~ between the proposed new A/R methodology and ~~already~~ approved A/R methodology(ies) of similar scope.

>>

d) To avoid potential repetition, feel free to provide one comprehensive answer here that covers question a) through c).

>>

2. Selected baseline approach from paragraph 22 of the A/R CDM modalities and procedures

Choose one (delete others)

☐ Existing or historical, as applicable, changes in carbon stocks in the carbon pools within the project boundary;

☐ Changes in carbon stocks in the carbon pools within the project boundary from a land use that represents an economically attractive course of action, taking into account barriers to investment;

☐ Changes in carbon stocks in the pools within the project boundary from the most likely land use at the time the project starts.

Explanation/justification of choice (if not self-explanatory)

>>

3. Definitions

For the purpose of this methodology, the following specific definitions apply:
>>

Explanation/justification of choice of the definitions (if not self-explanatory)

>>

4. Applicability

This methodology is applicable to the following type of project(s):
>>

The conditions under which this methodology is applicable to A/R CDM project activities are:
>>

Explanation/justification (if not self-explanatory)

>>

A/R WG assessment *(to be completed by the A/R WG)*

a) Please provide your assessment of the applicability conditions of the proposed new A/R CDM methodology. The language used in the description of the applicability conditions should follow the one used in the last version of ~~already~~ approved A/R CDM methodologies and any differences shall reflect differences in the substance. If necessary, explain any changes that should be made to the applicability conditions.

>>

b) Please specify whether this methodology can be applied to other type of potential A/R CDM project activities.

>>

c) Indicate whether an approved methodology exists for the same applicability conditions.

>>

d) State whether the approach/language applied by Project Participants (PPs) follows to the maximum possible extent the one used in the ~~already~~ approved A/R CDM methodologies and whether any differences reflect differences in the substance. If not, identify the inconsistencies.

>>

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SECTION II. BASELINE METHODOLOGY PROCEDURE

1. Project boundary and eligibility of land

The "project boundary" geographically delineates the afforestation or reforestation project activity under the control of the PPs. The A/R CDM project activity may contain more than one discrete area of land. Each discrete area of land shall have a unique geographical identification.

It shall be demonstrated that each discrete area of land to be included in the boundary is eligible for an A/R CDM project activity. PPs shall apply the latest version of the tool "Procedures to demonstrate the eligibility of lands for afforestation and reforestation CDM project activities" as approved by the CDM Executive Board.

The latest version of "Guidance on the application of the definition of project boundary to A/R CDM project activities" (available at: <http://cdm.unfccc.int/Reference/Guidclarif>) may be applied in identification of areas of land planned for an A/R CDM project activity.

The carbon pools included in or excluded from the project boundary are shown in Table 1.

Table 1: Selection and justification of carbon pools

Carbon pools	Selected (~~answer with~~ Yes or No)	Justification / Explanation
Above-ground biomass	>>	>>
Below-ground biomass	>>	>>
Dead wood	>>	>>
Litter	>>	>>
Soil organic carbon	>>	>>

The emission~~s~~ sources included in or excluded from the project boundary are shown in Table 2. An emission ~~nyone of these~~ source~~s~~ can be neglected, i.e. accounted as zero, if the application of the most recent version of the "Tool for testing significance of GHG emissions in A/R CDM project activities" leads to the conclusion that the emission source is insignificant.

Table 2: Sources of non-CO_2 greenhouse gases included in estimation of the actual net GHG removals by sinks and the leakage ~~Emissions sources included in or excluded from the project boundary~~ [add/delete gases and sources as needed]

Sources	Gas	Included/ excluded	Justification / Explanation of choice
>>	~~CO_2~~	~~>>~~	~~>>~~
	CH_4	>>	>>
	N_2O	>>	>>

Explanation/justification of choice (only if space in the tables above is not sufficient)

>>

A/R WG assessment *(to be completed by the A/R WG)*

a) State whether the selection of carbon pools is appropriate in the context of the applicability conditions and the determination of actual net GHG removals by sinks and baseline net GHG removals by sinks. If not, explain the shortcomings and required changes. Note that the same carbon pools should be considered for the actual net GHG removals by sinks and baseline net GHG removals by sinks.

>>

b) State whether the selection of emissions by sources is appropriate taking into account the applicability conditions of the proposed A/R methodology.

>>

2. Identification of the baseline scenario and demonstration of additionality

Methodology procedure

>>

Explanation/justification (if not self-explanatory)

>>

A/R WG assessment *(to be completed by the A/R WG)*

a) Explain whether the methodology provides for an appropriate step-wise procedure to identify the most plausible baseline scenario. Assess the appropriateness of this procedure, including the appropriateness of information to be presented in the resulting CDM-AR-PDD. Explain any shortcomings and list the required changes.

>>

b) Explain whether the methodology provides for an appropriate step-wise procedure for demonstration that the proposed A/R project activity is additional and therefore not the baseline scenario. Assess the appropriateness of this procedure, including the appropriateness of information to be presented in the resulting CDM-AR-PDD. Identify any shortcomings and list the required changes.

>>

~~***c) State whether and how national and/or sectoral policies and circumstances are taken into account and whether this is appropriate. Identify any shortcomings and list the required changes.***~~

>>

c) State whether the procedure to demonstrate additionality is consistent with the procedure to identify the most plausible baseline scenario. If not, identify the inconsistencies.

>>

d) State whether the approach/language applied by PPs follows to the maximum possible extent the one used in the ~~already~~ approved A/R CDM methodologies and whether any differences reflect differences in the substance. If not, identify the inconsistencies.

>>

3. Stratification

If the project activity area is not homogeneous, stratification should be carried out to improve the accuracy and the precision of biomass estimates. Different stratifications may be required for the baseline and the project scenarios in order to achieve optimal accuracy of the estimates of net GHG removal by sinks.

Methodology procedure

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Explanation/justification (if not self-explanatory)

>>

A/R WG assessment *(to be completed by the A/R WG)*

a) Explain whether the methodology provides for an appropriate ~~procedure~~ approach for stratification of the proposed A/R project activity. Identify any shortcomings and list the required changes.

>>

b) State whether the approach/language applied by PPs follows to the maximum possible extent the one used in the ~~already~~ approved A/R CDM methodologies and whether any differences reflect differences in the substance. If not, identify the inconsistencies.

>>

4. Baseline net GHG removals by sinks

Methodology procedure

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Explanation/justification (if not self-explanatory)

>>

A/R WG assessment *(to be completed by the A/R WG)*

a) State whether the methodology provides a complete approach for estimation of baseline net GHG removal by sinks. State whether the approach is appropriate and, if not, identify the shortcomings and list required changes.

>>

b) Provide an assessment of the appropriateness and correctness of the methodological procedure to calculate baseline net GHG removals by sinks, including an assessment of:

(i) The choice of algorithms/formulae and/or models used and correctness of their application (e.g., mathematical deficiencies, inconsistencies in calculus of dimensions).

>>

(ii) The appropriateness (adequacy, consistency, accuracy and reliability) of the parameters used in the methodology.

>>

~~***(iii) The appropriateness of procedures on how PPs should select any parameters.***~~

~~>>~~

~~***(iv) Any data gaps.***~~

~~>>~~

~~*(v)*~~***(iii)*** ***State, whether the procedure results in a conservative estimation of the sum of the changes in carbon stocks in the carbon pools within the project boundary that would have occurred in the absence of the proposed A/R CDM project activity, taking into account the uncertainties associated with the data and parameters used. Assess whether the procedure can be carried out in an unambiguous way, replicated, and subjected to a validation and/or verification study. Identify any shortcomings and list the required changes.***

>>

~~***c) State whether the potential baseline scenarios derived through the procedure for selection of the most plausible baseline scenario are consistent with the approaches used to calculate the baseline net GHG removals by sinks. If not, identify the shortcomings and list the required changes.***~~

>>

c) State whether the approach/language applied by PPs follows to the maximum possible extent the one used in the ~~already~~ approved A/R CDM methodologies and whether any differences reflect differences in the substance. If not, identify the inconsistencies.

>>

5. Actual net GHG removals by sinks

Methodology procedure

>>

Explanation/justification (if not self-explanatory)

>>

A/R WG assessment *(to be completed by the A/R WG)*

a) Provide an assessment of the appropriateness and mathematical correctness of the methodological procedure to calculate ~~ex ante~~ actual net anthropogenic GHG removals by sinks. Explain any shortcomings and list the required changes. Include an assessment of:

~~>>~~

(i) The choice of algorithms/formulae and/or models used and correctness of their application (e.g. mathematical deficiencies, inconsistencies in calculus of dimensions).

>>

(ii) The appropriateness (adequacy, consistency, accuracy and reliability) of the parameters used in the methodology.

>>

(iii) State, whether the procedure may lead to systematic overestimation of the actual net anthropogenic GHG removals by sinks, taking into account the uncertainties associated with the data and parameters used. Assess whether the procedure can be carried out in an unambiguous way, replicated, and subjected to a validation and/or verification study. Identify any shortcomings and list the required changes.

>>

b) State whether the approach/language applied by PPs follows to the maximum possible extent the one used in the ~~already~~ approved A/R CDM methodologies and whether any differences reflect differences in the substance. If not, identify the inconsistencies.

>>

6. Leakage

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Methodology procedure

>>

Explanation/justification (if not self-explanatory)

>>

A/R WG assessment *(to be completed by the A/R WG)*

a) State, whether the choice of leakage emission sources considered is appropriate. Indicate any important leakage emissions sources that have been neglected in the context of the applicability conditions.

>>

b) Provide an assessment of the appropriateness and mathematical correctness of the methodological procedure to calculate ex ante leakage emissions. Explain any shortcomings and list required changes.

>>

c) State whether the approach/language applied by PPs follows to the maximum possible extent the one used in the ~~already~~ approved A/R CDM methodologies and whether any differences reflect differences in the substance. If not, identify the inconsistencies.

>>

7. Net anthropogenic GHG removal by sinks

Methodology procedure

>>

A/R WG assessment *(to be completed by the A/R WG)*

a) Provide an assessment of the appropriateness and mathematical correctness of the methodological procedure to calculate ex ante actual net anthropogenic GHG removals by sinks. Explain any shortcomings and list the required changes.

>>

b) State whether the approach/language applied by PPs follows to the maximum possible extent the one used in the ~~already~~ approved A/R CDM methodologies and whether any differences reflect differences in the substance. If not, identify the inconsistencies.

>>

8. Data and parameters not monitored (default values used or possibly measured one time)

~~In addition to the parameters listed in the tables below, the provisions on data and parameters not monitored in the tools referred to in this methodology apply.~~

Data / Parameter:	>>
Description/unit:	>>
Used in equations:	>>
Source of data:	>>
Measurement procedures (if any):	>>
QA/QC procedures (if any):	>>
Any comment:	>>

A/R WG assessment ***(to be completed by the A/R WG)***

a) State whether the compilation of data and parameters not monitored is complete, appropriate, and justified. Identify any shortcomings and list the required changes.

>>

SECTION III. MONITORING METHODOLOGY

All data collected as part of monitoring should be archived electronically and be kept at least for 2 years after the end of the last crediting period. ~~One hundred percent of the data should be monitored if not indicated otherwise in the tables below.~~ All measurements should be conducted according to relevant standards, including ~~In addition,~~ the monitoring provisions contained in the tools referred to in this methodology ~~apply~~.

1. Monitoring of project implementation

Methodology procedure

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Explanation/justification (if not self-explanatory)

>>

A/R WG assessment ***(to be completed by the A/R WG)***

Assess the appropriateness of the procedure to monitor and document the implementation of the project on land~~s~~ areas within project boundary. Explain any shortcomings and list the required changes.

>>

2. Sampling design and stratification

Stratification of the project area into relatively homogeneous units can either increase the measuring precision without increasing the cost unduly, or reduce the cost without reducing measuring precision because of the lower variance within each homogeneous unit. PPs should present in the AR-CDM-PDD an *ex ante* stratification of the project area or justify the lack of it. The number and boundaries of the strata defined *ex ante* may change during the crediting period (*ex post*).

Methodology procedure

>>

Explanation/justification (if not self-explanatory)

>>

A/R WG assessment ***(to be completed by the A/R WG)***

Assess the appropriateness and correctness of the sampling design procedures for the ex post calculation of actual net GHG removals by sinks and determination of the ex post baseline net GHG removals by sinks (if required). The sampling design may~~,~~ include determination of number of plots, ~~and~~ plot distribution, etc. Identify any shortcomings and list the required changes.

>>

3. Data and parameters monitored

The following parameters should be monitored during the project activity. ~~When~~ While applying ~~all~~ the relevant equations provided in this methodology for the *ex ante* calculation of net anthropogenic GHG removals by sinks, PPs shall provide transparent estimations for the parameters that are monitored during the crediting period. ~~These estimates shall be based on measured or existing published data where possible.~~

Data / Parameter:	>>
Description/unit:	>>
Used in equations:	>>
Source of data:	>>
Measurement procedures:	>>
Monitoring frequency:	>>
QA/QC procedures:	>>
Any comment:	>>

A/R WG assessment ***(to be completed by the A/R WG)***

a) State whether the compilation of data and parameters monitored is complete, appropriate, and justified. Identify any shortcomings and list the required changes.

>>

4. Conservative approach and uncertainties

To help reduce uncertainties in the accounting of emissions and removals**,** this methodology uses whenever possible the proven methods from the GPG-LULUCF, GPG-2000, ~~and~~ the IPCC Revised 2006 Guidelines and tools and guidance approved by the CDM Executive Board on conservative estimation of emissions and removals.

It is recommended that PPs identify key parameters that would significantly influence the accuracy of estimates. ~~Local~~ V~~v~~alues that are specific to the project circumstances should ~~then~~ be obtained for these key parameters, whenever possible. These values should be based on:

- Data from well-referenced peer-reviewed literature or other well-established published sources;[1] or
- National inventory data or default data from IPCC literature that has, whenever possible and necessary, been checked for consistency against available local data specific to the project circumstances; or
- In the absence of the above sources of information, expert opinion may be used to assist with data selection. Experts will often provide a range of data, as well as a most probable value for the data. The rationale for selecting a particular data value should be briefly noted in the CDM-AR-PDD. For any data provided by experts, the CDM-AR-PDD shall also record the experts' name, affiliation, and principal qualification as an expert (e.g. that they are a member of a country's national forest inventory technical advisory group). ~~as well as of a~~ A ~~1~~one-page summary CV for each expert consulted~~,~~ should be included in an annex.

In choosing key parameters or making important assumptions based on information that is not specific to the project circumstances, such as the use of default data, PPs shall follow the most recent version of the "Guidelines on conservative choice and application of default data in estimation of the net anthropogenic GHG removals by sinks".

Methodology procedure (if any)

>>

Explanation/justification (if not self-explanatory)

>>

A/R WG assessment ***(to be completed by the A/R WG)***

[1] Typically, citations for sources of data used should include: the report or paper title, publisher, page numbers, publication date etc (or a detailed web address). If web-based reports are cited, hardcopies should be included as annexes in the CDM-AR-PDD if there is any likelihood that such reports may not be permanently available.

a) State, whether the methodology takes into account uncertainties by appropriate choice of monitoring methods, such as number of samples, to achieve reliable estimates of net anthropogenic greenhouse gas removals by sinks. State whether the methodology ensures that the net anthropogenic GHG removals by sinks are estimated in conservative manner, taking into account the uncertainties of the methodology. If not, identify the shortcomings and list the required changes.

>>

5. References

>>

A/R WG assessment ***(to be completed by the A/R WG)***

Assessment of the description and consistency of the methodology.

a) State whether the proposed A/R CDM methodology has been described in an adequate and transparent manner. If not, identify the shortcomings and list the required changes.

>>

b) State whether any other source of information (i.e. other than documentation on this proposed A/R methodology available on the UNFCCC CDM web site) has been used by you in evaluating this methodology. If so, please provide specific references.

>>

c) Indicate any further comments.

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