CLEAN DEVELOPMENT MECHANISM
PROPOSED NEW BASELINE AND MONITORING METHODOLOGY FOR A/R (CDM-AR-NM) Version 03

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Section I. Summary and applicability of the baseline and monitoring methodology

1. Methodology title (for baseline and monitoring) and history of submission

Methodology title:

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If this methodology is a 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.

>>

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

>>

2. Selected baseline approach for A/R CDM project activities

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:

>>

3. Applicability conditions

Methodology procedure:

>>

Explanation/justification (if methodology procedure is not self-explanatory):

>>

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

a) Please provide your assessment of the suggested applicability conditions of the proposed new A/R methodology (e.g. project type, national and regional circumstances / policies, data and resource availability, environmental conditions, past land-use and land use changes, purpose of the activity and practices). If necessary, explain any changes that should be made to the applicability conditions.

>>

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

>>

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

>>

4. Selected carbon pools and emissions sources

Table A: Selected carbon pools

Carbon pools	Selected (answer with Yes or No)	Justification / Explanation of choice
Above ground		
Below ground		
Dead wood		
Litter		
Soil organic carbon		

Table B: 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
Use of fertilizers	CO_2		
	CH_4		
	N_2O		
Combustion of fossil fuels by vehicles	CO_2		
	CH_4		
	N_2O		

Explanation/justification of choice (only if space in the table is not sufficient).

>>

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

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.

>>

State whether the selection of emissions by sources is appropriate taking into account the applicability conditions of the proposed AR methodology.

>>

5. Summary description of major baseline and monitoring methodological steps

a. Baseline methodology:

>>

b. Monitoring methodology:

>>

A/R WG recommendation ***(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 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 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 of similar scope.

>>

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

>>

Section II. Baseline methodology description

1. Project boundary

Methodology procedure:

>>

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

Explain and assess the methodological procedure to identify the physical delineation of the land areas included in the project boundary. Explain the shortcomings and list the required changes (if any).

>>

2. Procedure for selection of the most plausible baseline scenario

Methodology procedure:

>>

Explanation/justification (if methodology procedure is not self-explanatory):

>>

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

a) State whether the methodology provides an appropriate stepwise approach for identifying various possible candidate baseline scenarios and a procedure for determining the most likely baseline scenario (taking into account paragraph 20 and 21 of the A/R modalities and procedures). Describe any shortcomings and required changes.

>>

b) State whether national and / or sectoral policies and circumstances are appropriately taken in to account in the stepwise approach for selecting the baseline scenario. If not, explain the shortcomings and list the required changes.

>>

c) State whether the determination of baseline scenario is consistent with the applicability conditions of the methodology and if not, why?

>>

3. Additionality

Methodology procedure:

>>

Explanation/justification (if methodology procedure is not self-explanatory):

>>

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

a) Explain whether the methodology provides for an appropriate step-wise procedure and how it can be demonstrated 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. Explain any shortcomings and list the required changes.

>>

b) State whether and how national and/or sectoral policies and circumstances are taken into account and whether this is appropriate. Explain 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, explain the inconsistencies.

>>

4. Estimation of baseline net GHG removals by sinks

Methodology procedure:

>>

Explanation/justification (if methodology procedure is not self-explanatory):

>>

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

a) State whether the methodology provides an ex-ante estimation of baseline net GHG removal by sinks. State whether the approach is appropriate and, if not, explain 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 provided by the methodology.

>>

(iii) The appropriateness of procedures on how project participants should select any parameters in cases where these are not provided in the methodology (e.g. from official statistics, expert judgment, proprietary data, IPCC Good Practice Guidance for LULUCF, commercial data and scientific literature.

>>

(iv) Any data gaps:

>>

(v) 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 CDM A/R 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. Explain 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 procedures and formulae used to calculate the baseline net GHG removals by sinks. If not, explain the shortcomings and list the required changes.

>>

5. *Ex ante* actual net GHG removals by sinks

Methodology procedure:

>>

Explanation/justification (if methodology procedure is not self-explanatory):

>>

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

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.

>>

6. Leakage

Methodology procedure:

>>

Table C: Emissions sources included in or excluded from leakage [add/delete gases and sources as needed]

Sources	Gas	Included/ excluded	Justification / Explanation of choice
Burning of biomass	CO_2		
	CH_4		
	N_2O		
Combustion of fossil fuels by vehicles	CO_2		
	CH_4		
	N_2O		

Explanation/justification (if methodology procedure is not self-explanatory):

>>

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

a) State and explain whether the choice of which leakage emission sources are 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 required changes.

>>

(Please note that even if the calculation of the leakage is to be performed ex post, the methodology should include the ex ante leakage estimate).

7. *Ex ante* net anthropogenic GHG removal by sinks

Methodology procedure:

>>

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

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.

>>

State whether the methodology ensures that the net anthropogenic GHG removals by sinks are estimated in conservative manner, taking into account the uncertainties associated with the data and parameters used. If not explain the shortcomings and list the required changes.
>>

8. Data needed for *ex ante* estimations

Data / Parameter	Unit	Description	Vintage	Data sources and geographical scale

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

State whether the compilation of data needed for ex-ante estimations of net anthropogenic GHG removals by sinks is complete, appropriate, and justified. Explain any shortcomings and list the required changes.
>>

9. Other information
>>

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

Assessment of the description and consistency of the methodology and its appropriateness for the proposed project activity

State whether the A/R baseline methodology has been described in an adequate and transparent manner. If not, explain the shortcomings and list the required changes.
>>

Any other comments:

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

b) Indicate any further comments:
>>

Section III: Monitoring methodology description

1. Monitoring of project implementation

Methodology procedure:

>>

Explanation/justification (if methodology procedure is not self-explanatory):

>>

A/R WG recommendation ***(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 areas within project boundary. Explain any shortcomings and list the required changes.

>>

2. Sampling design

Methodology procedure:

>>

Explanation/justification (if methodology procedure is not self-explanatory):

>>

A/R WG recommendation ***(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. Explain any shortcomings and list the required changes.

>>

3. Determination of *ex post* baseline net GHG removals by sinks, if required

Methodology procedure:

>>

Explanation/justification (if methodology procedure is not self-explanatory):

>>

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

a) Provide an assessment of the appropriateness and correctness of the methodological procedure to determine ex-post baseline net GHG removals by sinks, including an assessment of:

(i) The choice of algorithms/formulae 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 provided by the methodology.

>>

(iii) The appropriateness of procedures how project participants should select any parameters in cases where these are not provided in the methodology (e.g. from official statistics, expert judgment, proprietary data, IPCC Good Practice Guidance for LULUCF, commercial data and scientific literature),

>>

(iv) Any data gaps:

>>

(v) 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 CDM A/R 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. Explain any shortcomings and list the required changes.

>>

b) Assess the completeness and appropriateness of data compiled in the table, including the appropriateness of the indicated data sources, monitoring frequency, measurements procedures, etc. Assess whether the frequency of recording reflect the dynamics of the processes that would determine the changes in carbon stocks within the project boundary in the absence of the project activity. Explain any shortcomings and list the required changes.

>>

4. Data to be collected and archived for the determination of *ex post* baseline net GHG removals by sinks, if required

ID number	Data Variable	Data Unit	Data source	Measured (m) calculated (c) estimated (e)	Recording frequency	Proportion of data monitored	Comment

5. Calculation of *ex post* actual net GHG removal by sinks

Methodology procedure:

>>

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

a) Provide an assessment of the appropriateness and correctness of the methodological procedure to calculate ex-post actual net GHG removal by sinks, including an assessment of:

(i) The choice of algorithms/formulae 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 provided by the methodology.

>>

(iii) The appropriateness of procedures how project participants should select any parameters in cases where these are not provided in the methodology (e.g. from official statistics, expert judgment, proprietary data, IPCC Good Practice Guidance for LULUCF, commercial data and scientific literature).

>>

(iv) Any data gaps:

>>

(v) . Assess whether the procedure does not increase the net anthropogenic GHG removals by sinks. Explain any shortcomings and list the required changes.

>>

b) Assess the completeness and appropriateness of data compiled in the table, including the appropriateness of the indicated data sources, monitoring frequency, measurements procedures, etc. Assess whether the frequency of recording reflect the dynamics of the processes that determine the emissions of GHG or the changes in carbon stocks within the project boundary. Explain any shortcomings and list the required changes.

>>

6. Data to be collected and archived for *ex post* actual net GHG removals by sinks

ID number	Data Variable	Data unit	Data source	Measured (m) calculated (c) estimated (e)	Recording frequency	Proportion of data monitored	Comment

7. Leakage

Methodology procedure:

>>

Explanation/justification (if methodology procedure is not self-explanatory):

>>

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

a) Provide an assessment of the appropriateness and correctness of the methodological procedure to calculate ex-post leakage, including an assessment of:

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

>>

(ii) The appropriateness (adequacy, consistency, accuracy and reliability) of any parameters provided by the methodology.

>>

(iii) The appropriateness of procedures used by project participants to select parameters in cases where these are not provided in the methodology (e.g. from official statistics, expert judgment, proprietary data, IPCC Good Practice Guidance for LULUCF, commercial data and scientific literature).

>>

(iv) Any data gaps:

>>

(v) State, whether the procedure does not underestimate leakage effects. Assess whether the procedure can be carried out in an unambiguous way, replicated, and subjected to a validation and/or verification study. Explain any shortcomings and list the required changes.

>>

b) Assess the completeness and appropriateness of data compiled in the table, including the appropriateness of the indicated data sources, monitoring frequency, measurements procedures, etc. Explain any shortcomings and list the required changes.

>>

8. Data to be collected and archived for leakage

ID number	Data Variable	Data unit	Data source	Measured (m) Calculated (c) estimated (e)	Recording frequency	Proportion of data monitored	Comment

9. *Ex post* net anthropogenic GHG removal by sinks

Methodology procedure:

>>

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

State whether the formulae provided to calculate ex-post net anthropogenic GHG removals by sinks for the project activities using lCERs or tCERs are consistent with the latest guidance provided by the CDM Executive Board, and if not evaluate the validity of the formulae.

>>

10. Conservative approach and uncertainties

Methodology procedure:

>>

Explanation/justification (if methodology procedure is not self-explanatory):

>>

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

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 in to account the uncertainties of the methodology. If not explain the shortcomings and list the required changes.

>>

11. Other information

>>

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

Assessment of the description and consistency of the methodology

a) State whether this proposed A/R monitoring methodology is compatible and consistent with the proposed A/R baseline methodology and if not what are the inconsistencies?
>>

b) State whether the A/R monitoring methodology has been described in an adequate and transparent manner. If not, explain the shortcomings and list the required changes.
>>

c) 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:
>>

d) Indicate any further comments:
>>

Section IV: Lists of variables, acronyms and references

1. List of variables used in equations:

Variable	SI Unit	Description

2. List of acronyms used in the methodologies:

Acronym	Description

3. References:

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