

 <p>CDM: Proposed New A/R Methodology A/R Working Group Recommendation to the Executive Board (version 01) <i>(To be used by the A/R WG to make a recommendation to the Board regarding a proposed new A/R methodology)</i></p>	
<i>Date of A/R WG meeting:</i>	25-26 January 2005
<i>Related F-CDM-AR-NM document ID number (electronically available to EB members)</i>	F-CDM-AR-NM0001 “The Mountain Pine Ridge Reforestation Project”
<i>Related F-CDM-AR-NMex document ID number(s) (electronically available to EB members)</i>	F-CDM-AR-NMex:0001 Schlamadinger / Kapp
<i>Related F-CDM-AR-NMpu document ID number(s) (electronically available to EB members)</i>	F-CDM-AR-NMpu0001: Michelowa
<p><i>Note to those completing this form, as applicable: Please provide recommendations on the proposed new A/R baseline and A/R monitoring methodologies based on an assessment of CDM-AR-NMB and CDM-AR-NMM and of their application in sections A to G of the draft CDM-AR-PDD, desk reviews and public input. Please ensure that the form is entirely filled and that arguments and expert judgements are substantiated.</i></p>	
A. Final recommendations by the A/R WG	
I. Recommendation on the proposed new A/R baseline methodology: <i>(checkmark the choice made)</i>	
Title of proposed new A/R baseline methodology:>> Plantation establishment and management in a fire maintained ecosystem	
<p>a. To approve this proposed A/R methodology with minor changes</p> <p><input type="checkbox"/></p> <p>i. Conditions under which this proposed A/R methodology is applicable to other potential CDM A/R project activities (e.g. project type, national and regional circumstances/policies, data and resources availability, environmental conditions, past land-use and land-use changes, purpose of the activity and practices):</p> <p>>></p> <p>ii. Minor changes:</p> <p>>></p>	
<p>b. To reconsider this proposed A/R methodology, subject to required changes</p> <p><input type="checkbox"/></p> <p>i. Conditions under which the proposed methodology is applicable to other potential CDM A/R project activities (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):</p> <p>>></p> <p>ii. Required changes:</p> <p>>></p>	

(Project participants shall make required changes in the proposed new A/R methodology and send it back to the A/R WG. The proposed new A/R methodology will be reconsidered by the A/R WG if changes required are correctly made by the project participants. The Executive Board will only consider this proposed new A/R methodology after required changes proposed have been made and the revised proposed A/R methodology has been reconsidered by the A/R WG.)

c. Not to approve the proposed A/R methodology



i. Reasons for non-approval:

>> Basic functions of a methodology are anticipated as conditions for its applicability:

- The baseline methodology fails to provide means for determination of CDM eligibility of the area to be reforested. As CDM eligibility is intrinsically linked to additionality determination, it is not admissible to make area eligibility a condition for applicability;
- Lack of profitability of afforestation without the economic incentive of the sale of CERs and the limitation of “economically justifiable” alternative land uses are stated as conditions for applicability. This is an anticipation of the additionality test;
- Also fire frequency in intervals below 10 years in combination with a lack of fire-resistant seed sources is treated as a condition for the applicability of the methodology. Questions around fire management are not addressed in the methodology. There is no formula or algorithm given for the treatment of fires in the baseline. The treatment of data from fire frequency monitoring is not transparent.

The methodology does not make correct use of CDM A/R terminology:

- Formula do not relate to definitions in CDM A/R modalities and procedures;
- Leakage is not addressed correctly.

Uncertainties are not at all covered in the proposed methodology.

(A new proposal should be submitted in accordance with the procedures for submission and consideration of proposed new A/R methodologies of the Executive Board.)

II. Recommendation on the proposed new A/R monitoring methodology: (checkmark the choice made)

Title of proposed new A/R monitoring methodology: >> [Plantation monitoring through systematic plotting](#)

a. To approve this proposed A/R methodology with minor changes



i. Conditions under which the proposed A/R methodology is applicable to other potential projects (e.g. project type national and regional circumstances / policies, data and resource availability, environmental conditions, purpose of the activity and practices):

>>

ii. Minor changes:

>>

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



i. Conditions under which the proposed A/R methodology is applicable to other potential CDM A/R project activities (e.g. project type, national and regional circumstances / policies, data and resource availability, environmental conditions, purpose of the activity and practices):

>>

ii. Required changes:

>>

(Project participants shall make required changes in the proposed new A/R methodology and send it back to the A/R WG. The proposed new A/R methodology will be reconsidered by the A/R WG if changes required are correctly made by the project participants. The Executive Board will only consider this proposed new A/R methodology after required changes proposed have been made and the revised proposed A/R methodology has been reconsidered by the A/R WG.)

c. Not to approve the proposed A/R monitoring methodology



i. Reasons for non-approval:

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- The methodology is linked to an inappropriate baseline methodology
- Incompleteness of sampling design (sampling design should reflect the planned error margins)
- Partially unclear use of data collected (for example, how fire data feed in the baseline monitoring model)
- There is a lack of assessment of uncertainties

(A new proposal should be submitted in accordance with the procedures for submission and consideration of proposed new A/R methodologies of the Executive Board.)

B. Details of the evaluation of the proposed new A/R methodology by the A/R WG:

I. Proposed new A/R baseline methodology (specify title here): [Plantation establishment and management in a fire maintained ecosystem](#)

(1) Short description of the A/R methodology, including an assessment of which approach from paragraph 22 of the CDM A/R modalities and procedures was used:

a) *Provide a summary of the A/R baseline methodology:*

>> [The methodology consists of three basic stages:](#)

1. [Identification of the anthropogenic influences on successional trajectory of the area, including changes in these influences due to national and sector policies, economic viability of potential enterprises on the land base, and other influences.](#)
2. [Derivation of succession stages and timing, species, biomass, fire frequency, and other variables from known independent literature. Where estimates in existing literature are not available, completion with on the ground measurements in comparable ecosystems and successional stages.](#)
3. [Calculation of baseline carbon trajectory using the dataset developed in stage 2.](#)

b) *State the approach selected:*

>> [Approach as per paragraph 22\(c\) of the modalities and procedures for CDM Afforestation/Reforestation](#)

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

c) Indicate (in summary form) why the approach selected is the most appropriate. Please provide your expert judgement on the appropriateness of the selected approach to the A/R project type and regions/conditions:

>> Approach as per paragraph 22(a) of the modalities and procedures for CDM A/R project activities is ruled out for being significant, due to “harvest, fire control, or other measures”. “Existing or historical, as applicable, changes in carbon stocks in the carbon pools within the project boundary”. However there is no indication, why current stock changes should not be used for baseline projection.

Approach as per paragraph 22(b) of the modalities and procedures for CDM A/R project activities is ruled out, because of being “functionally identical with the third baseline approach”. “Changes in carbon stocks in the carbon pools within the boundary from a land use that represents an economically attractive course of action, taking into account barriers to investment”. As the lack of profitability for forestry activities is a condition for applicability, the methodology takes it as granted, without any further proof.

The choice of approach as per paragraph 22(c) of the modalities and procedures for CDM A/R project activities is only justified by assuming that a future economically attractive course of action may lead to a decrease in carbon stocks, while carbon variability at project start is assumed to remain constant. “Changes in carbon stocks in the pools within the project boundary from the most likely land use at the time the project starts”. Thus, approach as per paragraph 22(c) of the modalities and procedures for CDM A/R project activities would be functionally identical to approach as per paragraph 22(a) of the modalities and procedures for CDM A/R project activities.

The project developer argues that past carbon stock changes do not represent a realistic baseline. If the assumption that there is no economically attractive land uses can be proven, and succession vegetation is the most likely scenario, approach as per paragraph 22(c) of the modalities and procedures for CDM A/R project activities may be justified, which is restricted to the situation without intervention at the project start. However, in order to do this, approach as per paragraph 22(b) of the modalities and procedures for CDM A/R project activities needs to be discussed and credibly discarded. This should include rentability calculations for alternative area uses and the related opportunity costs of capital. E.g. has the company applied for the forest concession relying in the CDM eligibility of a fraction of the whole reforestation area?

(2) Basis for determining the A/R baseline scenario:

a) State whether the documentation provided explains how the A/R baseline scenario is to be chosen (taking into account paragraph 20 and 21 of the A/R modalities and procedures) and identified:

>> Not sufficiently explained. The main problem is that as a condition for applicability the project scenario is excluded from being the baseline. See NMB Section A.3 whose numeral 4 states “Economics of plantation forestry on the site do not justify establishment of plantations without economic incentives provided by sale of CERs”. This condition anticipates part of the baseline determination.

b) State the basic underlying rationale for algorithms/formulae and/or models used (see also section 5 below):

>> Incorrect use of terminology, no overall judgement possible. Non-CO₂ emissions should not be part of the baseline.

c) State whether the documentation explains how, through the use of the A/R methodology, it can be demonstrated that the proposed A/R project activity is additional and therefore not the baseline scenario. If so, what are the tools provided by the project participants?

>> Yes. The additionality tool is that developed by the CDM EB.

d) State whether the basis for determining the A/R baseline scenario and for assessing additionality is appropriate and adequate:

>> The additionality tool is correctly incorporated into the methodology.

(3) Assessment of the description of the proposed A/R methodology and its applicability

a) *State whether the A/R methodology has been described in an adequate manner:*

>> No. It remains unclear, whether baseline stock changes will be monitored or not (see NMB section A. 5. Including post facto adjustment of the baseline to reflect changes in these assumptions would make the CERs from the project difficult to sell, and the project impossible to finance” vs. section B “the methodology includes the establishment of systematic sample plots on selected unmanaged areas, to fine tune the baseline model”) and how measurement results will be used.

b) *Explain whether the application of the A/R baseline methodology could result in a baseline scenario that reasonably represents 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 (In evaluating this methodology, the expert could refer to the information contained in sections A-G of the draft CDM-AR-PDD).*

>> Looking at the baseline methodology in the draft CDM-AR-PDD, its application will not lead to a reasonable baseline scenario. The following flaws become evident:

- The planned activity is to occur in a national reserve, whose alternative land use is limited to forestry by law. This fact should be a condition for the applicability of the methodology;
- Not only the afforestation of the project area, but also the one of adjacent, larger and non-eligible areas within the national reserve are assumed to depend on the income generated by CERs from the project activity. This is a very specific situation, for which the methodology should provide an overall IRR assessment if it was to determine additionality.

The methodology does not provide a tool to determine area eligibility. Eligibility is among the conditions for use. Decision 11/CP.7 defines forest in the following manner: “[...] Young natural stands and all plantations which have yet to reach a crown density of 10-30 per cent or tree height of 2-5 metres are included under forest, as are areas normally forming part of the forest area which are temporarily unstocked as a result of human intervention such as harvesting or natural causes but which are expected to revert to forest”. Under this definition, some or all of the project areas may be considered forests.

Additionality is founded by a condition for applicability related to fire frequency, which in itself does not provide a tool for determination of this frequency.

- It is not specified in which way fire frequency measured in the control plots will help to “fine-tune” the fire frequency model, and in which intervals this baseline adaptation will have to take place;
- The selection of pools and sources is not appropriate, because it includes emissions of GHGs beyond changes in C stocks in the baseline, which is not provided for in Decision 19/CP.9. Doing so, it includes baseline emissions of N₂O from fire, but excludes N₂O project emissions from fertilization (mistake within a mistake).
- Method of stratification not explained.

(4) Definition of the project boundary related to the A/R baseline methodology:

a) *Assess the applicability of the A/R baseline methodology in relation to the definition of the project boundary, taking into account the selection of carbon pools:*

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- Although not explicitly described, the project boundary is probably confined to the planned reforestation area and project activities (compare equation 10). As explained above, the eligibility of the potential reforestation area has yet to be confirmed. The carbon pools are confined to above and below ground living biomass.
- Emissions from land clearing are not considered in the methodology.
- Emissions related to the CDM A/R project activity outside the project boundary, like transport or housing, should be accounted for as leakage.

(5) Key assumptions, parameters, formulae/algorithms, models and data sources:

a) *List the implicit and explicit key assumptions, parameters, formulae/algorithms, models and data sources:*

>>

- Stable relative values for commodities and services.
- Political, social and economic stability.
- Stable ecological setting.
- Stability in resource allocation nationally and internationally.
- Soil organic carbon content is not significantly affected by project activity.
- Litter and dead wood carbon pools are not negatively affected.
- Meaningful stratification at a reasonable scale.
- Extrapolatable growth rates and ecosystem dynamics.
- No significant changes in the presence and extent of exotics.
- No significant technological change.
- IPCC biomass expansion factors are applicable and interpretable.
- Normal distribution within bounds of disturbance event frequency and scale.
- No significant future risk to more pine bark beetle attacks if unfavourable growth conditions persist or recur such as through more drought events.

Note: Formulae do not make use of the terminology as defined in Decision 19/CP.9. Terms like “net sequestration” or “GHG balance” are misleading. The way “Leakage” is used conflicts with modalities and procedures for A/R project activities under the CDM.

b) *State whether the key assumptions/parameters are arrived at in a transparent manner:*

>>

- There is a confusion between E.3 (Conditions under which the methodology is applicable) and F.1 (Describe all parameters and assumptions). In particular, conditions need to have a high degree of inter-subjective evidence, while assumptions need to be derived in a transparent manner, and sensitivity tests should be carried out for major uncertainties.
- The assumption “No significant future risk to more pine bark beetle attacks if unfavourable growth conditions persist or recur such as through more drought events” is not intelligible at all.
- Most critical conditions and assumptions should be identified.
- General comment: The more conditions and assumptions underlying a methodology, the less likely is its applicability to any project.

c) *Are the key assumptions, parameters, formula/algorithm and or models adequate? Identify those, if any, that are inadequate and explain why:*

>> No, because:

- Extrapolation is questionable in some cases. E.g. the assumption of “normal distribution within bounds of disturbance event frequency and scale” is unfounded.
- Positive leakage cannot be accounted for
- GHG baseline emissions beyond changes in carbon stocks cannot be accounted for.
- Emissions from land preparation are not taken into account.

d) *Indicate which data sources are used (e.g. official statistics, expert judgement, proprietary data, IPCC Good Practice Guidance for LULUCF, commercial data and scientific literature). Is the data adequate to the scale of the project?*

- Current % cover by species layer per stratum: Systematic sampling of MPR strata and Biomass for each vegetation layer initially estimated from IPCC GPG for LULUCF 3A.1.13, fine tuned with ongoing research plots in unmanaged areas of the MPR.
- Soil mapping Compiled by: Selva Maya Ecoregional Planning Process (The Nature Conservancy).

Base maps: 1959, 1:250,000 hardcopy map developed by Wright. Base map creation: Base maps were created off aerial photography and extensive ground truthing. Funding and photography provided by UK-ODA.

- Ecosystem mapping compiled by: Jan Meerman and Wilber Sabido, Programme for Belize. Base maps: 1959 Wright vegetation map, 1994 Brokaw/Iremonger vegetation map, Bruce King's
- 1993 land-use maps, 1998, 1999, 2000 satellite imagery (composite).
- Base map creation: Ground surveys and refinement of existing vegetation classes. In addition to use of 1994 Brokaw/Iremonger digital coverage whose vegetation classes were modified based on UNESCO classification system and vegetation boundaries based on existing ground data and available satellite imagery.
- Forest cover mapping 1989/90 compiled by: J Sandom; base Maps: 1989/90 J Sandom, Johnson and Chaffey 1970 inventory. Base map creation: From photo interpretation of 1:12500 aerial photographs, ground checked with 300 – 40 by 50 m ground plots, systematically distributed
- Plantation species growth rates. Local study - Bredenkamp, 2002, supplemented by research in South Africa and Australia.
- Biomass expansion factors for the plantation species IPCC GPG for LULUCF 3A.1.10 and S.L.Brown and P.E. Schroeder. 1999: Spatial Patterns of Aboveground Production and Mortality of Woody Biomass for Eastern U.S. Forests. Ecological Applications, 9(3).
- GHG emissions from fuel use in power equipment: Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories
- Fire frequency – local records for unmanaged areas of the MPR area
- % Biomass consumed in fire: Initial estimate from IPCC GPG for LULUCF 3A.1.12, fine tuned with ongoing research plots in unmanaged areas of the MPR.
- Global warming potential conversion constants for CH₄ and N₂O: IPCC
- Carbon Fraction of Dry Matter: IPCC GPG for LULUCF default value
- Root to shoot ratio: IPCC GPG for LULUCF 3A.1.8
- Plantation species wood density: IPCC GPG for LULUCF, modified by measurements of local wood density for the planted species
- GHG releases by gas from savannah fires: IPCC GPG for LULUCF 3A.1.16

e) *Indicate the adequacy, consistency, accuracy and reliability of the data used. Evaluate, to the extent possible, the quality of the data:*

>> Data sources are considered widely adequate.

f) *State possible data gaps:*

>> Field data on fire frequency are not justified.

6) Assessment of uncertainties:

a) *State whether the A/R methodology includes an assessment of uncertainties regarding:*

i) *If applicable, the selection of the carbon pools and the information indicating that this choice will not increase the expected net anthropogenic greenhouse gas removals by sinks:*

>>No.

ii) *Assumptions:*

>>No.

iii) *Algorithms/formulae and/or models:*

>> No.

iv) *Data:*

>> No.

b) State whether the A/R baseline methodology includes tools for the assessment of uncertainties. Are these tools adequate?

>> No.

(7) Leakage:

a) Explain how the A/R baseline methodology addresses any potential leakage due to the A/R project activity:

>> Only land clearing due to the installation of firebreaks is accounted for as negative leakage. This is compensated by the expected prolonged rotations of neighbouring plantations due to local market effects of the project.

b) Indicate whether the treatment for leakage is appropriate and adequate:

>> No.

- According to Decision 19/CP.9, positive leakage shall not be accounted for.
- Market effects are likely to lead to a decrease of new afforestation activities outside the area, i.e. negative leakage.
- Project emissions from activities outside the project boundary, like transport or housing, need to be accounted for as leakage.

(8) Transparency and “conservativeness”:

a) Indicate whether the A/R baseline methodology was developed in a transparent way:

>> No, conditions for applicability anticipate results (see B 1 (2) above), and basic assumptions are unfounded (see B 1 (5) b) above).

b) State whether the A/R baseline methodology is conservative:

>> Due to the above, the methodology does not allow to assess conservativeness.

(9) Potential strengths and weaknesses of the proposed A/R baseline methodology

a) Indicate the strengths of the methodology, if any:

>>

Strengths:

- Use of the EB Consolidated Additionality Tool;
- Adequate selection of data sources;
- Proper and complete supporting documentation.

b) Indicate the weaknesses of the methodology, if any:

Weaknesses:

- Basic functions of a methodology anticipated as conditions for its applicability;
- CDM A/R terminology not used;
- Uncertainties not covered.

(10) Other considerations, such as a description of how national and/or sectoral policies and circumstances have been taken into account (please explain):

>> The sectoral policies and circumstances not adequately taken into account.

(11) Applicability of the proposed A/R methodology across project types and regions:

Please indicate the conditions under which this A/R baseline methodology applies (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) and whether this methodology can be applied to other potential CDM A/R project activities (if not, then the proposed new methodology will be considered as a A/R project-specific methodology):

>> The conditions and assumptions included in the methodology make to it difficult to generalize. The lack of quality impedes a detailed assessment of applicability.

(12) Any other comments:

a) 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 A/R methodology. If so, please provide specific references:

>> None.

b) Indicate any further comments:

>> No further comments.

II. Proposed new A/R monitoring methodology (specify title here): [Plantation monitoring through systematic plotting](#)

In respect of the proposed new A/R monitoring methodology, evaluate each section of CDM-AR-NMM. Please provide your comments section by section:

(1) Short description of the new A/R monitoring methodology:

a) Provide a summary of the A/R monitoring methodology:

>> The monitoring methodology consists of the following parts:

- 1) Stratification of the project area into homogenous units;
- 2) Measurement of the strata and fire protection areas using GPS;
- 3) Establishment of systematically distributed permanent fixed radius sample plots to measure changes in cover and biomass in the tree, shrub and grass/herb vegetation layers: Plot size 0.02 ha, 1 plot/ha and 5-30 plots per stratum. 10 plots are to be established in an unmanaged control area to provide ongoing improvement in baseline estimates. In the plots, all trees are counted, and cover percentage and average height of grass/herb and shrub layers is estimated. Measurements of height, DBH and health of 10 systematically selected trees per plot;
- 4) Litter, dead wood and soil organic carbon samples are taken for control purposes;
- 5) Fuel use in project management activities within the project area is recorded using equipment logs;
- 6) All data collected are subject to quality control procedures, and are integrated into a continuous quality improvement program.

(2) Assessment of the description of the proposed A/R monitoring methodology and its applicability:

a) State whether the proposed A/R monitoring methodology has been described in an adequate manner:

>> The methodology is specific to the submitted baseline and to the project (various references to the MPR project site). Therefore, the monitoring methodology cannot be judged separately from the baseline methodology submitted.

b) State whether the proposed A/R monitoring methodology is appropriate for the referred

proposed project activity and the referred project context (described in Sections A-G of the draft CDM-AR-PDD and submitted along with CDM-AR-NMM):

>> No, because i.e. the selection of the pools and sources is not appropriate. Emissions unrelated to carbon stock changes in the baseline are not covered by Baseline Net GHG Removals, as defined in Decision 19/CP.9.

c) State whether this proposed A/R monitoring methodology is compatible with the proposed baseline methodology described in the CDM-AR-NMB:

>> Seems to be widely compatible with the proposed baseline methodology.

(3) Key assumptions/parameters, data sources and data quality:

a) List the implicit and explicit key assumptions, parameters, formulae/algorithms and models:

>> See B I (5) a above.

b) State whether the key assumptions/parameters are arrived at in a transparent manner:

>> See B-I (5) b above.

c) Are the key assumptions, parameters, formula/algorithm and/or models adequate? Identify those, if any, that are inadequate and explain why:

>> See B I (5) c above.

d) Indicate which sources of data are used and how the data are obtained (e.g. official statistics, expert judgement, proprietary data, IPCC Good Practice Guidance for LULUCF, commercial data and scientific literature):

>> See CDM-AR-NMB F.2.

e) Are the data collected during the monitoring phase adequate for the estimation of the changes in the carbon pools and the emissions of greenhouse gases during the crediting period? Does the selection of the data take into account important processes for the project activity?

>> Data collected from the baseline is considered insufficient to properly estimate the changes in the carbon pools and the emissions of GHG. As stated in the draft CDM-AR-PDD (p. 38) the establishment of permanent sample plots in the unmanaged baseline comparison areas can only be done "as long as there are areas that are adequate in scope to be free of protection and are not reforested". However, without reliable baseline, the project carbon credits cannot be accounted properly.

f) Are the data collected for the selection of the carbon pool transparent and verifiable? (refer to A/R Modalities and procedures, paragraph 21)

>> Yes, the monitoring methodology is consistent with the carbon pools selected in the baseline methodology.

g) Does the frequency of recording reflect the dynamics of the processes that determine the changes in carbon stocks within the project boundary?

>> Yes. Recording frequencies of 1 and 5 years are consistent with the carbon change processes.

h) Does the frequency of recording reflect the dynamics of the processes that determine the emissions of greenhouse gases within the project boundary?

>> Yes, this is done every 1 or 5 years using equipment logs and considered to be sufficient.

i) Is the sampling design (e.g. intensity and frequency) adequate to the accuracy level expected in the reporting?

>> No. The sampling design should reflect the planned error margins and be definitely extended with

paired control plots on the baseline areas.

j) Are the key assumptions (including default values), parameters, formulae/algorithms, data and/or models used in monitoring methodology adequate?

>> Assumptions on fire frequency and their usefulness to prove emission reduction effects of the project remain dubious. Stratification criteria have not been presented yet. The other assumptions, parameters, formulae data and models seem adequate.

k) Is the overall plan for collection and archival adequate to successfully support the monitoring activities during the crediting period?

>> Collection and archiving (completely electronically) are considered adequate.

(4) Leakage (please list potential sources of leakage covered by the methodology and state if there is any other potential source that has not been covered):

>> As the leakage definition is inappropriate in the related baseline methodology (see above B.1 (7)), the monitoring methodology cannot be adequate. Negative market leakage is not covered.

(5) Quality assurance and control procedures

Does the A/R monitoring methodology include such procedures? Are they adequate?

>> Yes, the A/R monitoring methodology will include QA/QC procedures as ongoing elements in the project management system, integrated into a continuous quality improvement system run by the project team and assisted by project management. Data will be checked as follows:

- Data gathered in field plots: All field data and basic collation of field data will be subject to a random check by a supervising employee of not less than 5% of the plots established and collations done, with a maximum allowable error of 2% on collated data.
- Area measurements: All area measurements will be subject to standard assessments of GPS point location error, with average point location error not greater than 2 m planar position.
- Fuel usage within the project area: Equipment logs will be audited monthly to ensure completeness and accuracy.
- Data from outside sources: IPCC and other sources will be routinely monitored for updates in constants and variables produced from outside data. Updating IPCC sources may however induce problems of time series consistencies. Ongoing research within the MPR area will be used to fine tune estimates to local conditions. Specific research will be undertaken in vegetation and fire dynamics in unmanaged areas, using permanent sample plots in areas outside of the project area.

If this QA/QC system will be properly documented, it is considered to be widely adequate.

(6) Potential strengths and weaknesses of the proposed A/R monitoring methodology

a) Indicate the strengths of the methodology, if any:

>>The methodology uses standard sampling procedures (systematically distributed fixed radius plots, easy measurements, etc.) that is robust, avoids potential errors, and is easily to check and auditable. The use of fixed plots make the data easily comparable over the years.

b) Indicate the weaknesses of the methodology, if any:

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- Merchantable volume assumed by default (section B.5 mentions that they are defaults).
- The number of plots was not arrived to through statistical means. 10 plots are considered to be insufficient to undertake an assessment with statistical significance.
- Control plots being under the control of project participants will lead to skewed results.
- No social and political variables monitored, as these are fixed in the conditions for applicability.

(7) Applicability of the proposed A/R monitoring methodology across project types and regions.

Please indicate the conditions under which this A/R methodology applies (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) and whether this methodology can be applied to other potential projects (if not, then the proposed new methodology will be considered as a A/R project-specific methodology):

>> Methodology is project specific .

(8) Any other comments:

a) 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 A/R methodology. If so, please provide specific references:

>> None.

b) Indicate any further comments:

>> If this proposal is resubmitted, suggest they simplify presentation and avoid repetitions, and clearly articulate the concerns about eligibility, leakage, soil carbon, etc and include conclusive evidence for assumptions made about relative amounts of say the soil pools, and the ecology of these ecosystems in relation to role of fire control. Given that that droughts and climatic conditions in general can help predispose this species to insect pest infestation, it might be useful to mention projected climate change conditions for this region to help assess whether more stress can be expected in the forests, which might lead to a return of the insect problem.

Signature of A/R Working Group Chair:

Date: 4 February 2005



Signature of A/R Working Group Vice-Chair

Date: 4 February 2005


Information to be completed by the secretariat

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