

CDM-EB65-A05-STAN

Standard

CDM project standard

Version 09.0



United Nations
Framework Convention on
Climate Change

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1. Introduction

1.1. Background

1. The Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (hereinafter referred to as the CMP), at its first session, established the basis of the regulatory framework for the clean development mechanism (hereinafter referred to as the CDM) to implement Article 12 of the Kyoto Protocol through the following:
 - (a) Annex to decision 3/CMP.1: Modalities and procedures for a clean development mechanism (hereinafter referred to as the CDM M&Ps);
 - (b) Annexes to decision 4/CMP.1, including annex II: Simplified modalities and procedures for small-scale clean development mechanism project activities (hereinafter referred to as the CDM SSC M&Ps);
 - (c) Annex to decision 5/CMP.1: Modalities and procedures for afforestation and reforestation project activities under the clean development mechanism (hereinafter referred to as the CDM A/R M&Ps);
 - (d) Annex to decision 6/CMP.1: Simplified modalities and procedures for small-scale afforestation and reforestation project activities under the clean development mechanism (hereinafter referred to as the CDM SSC A/R M&Ps);
 - (e) Decision 7/CMP.1;
 - (f) Annex to decision 10/CMP.7: Modalities and procedures for carbon dioxide capture and storage in geological formations under the clean development mechanism (hereinafter referred to as the CDM CCS M&Ps).
2. The CMP revised some of the provisions in these decisions through new decisions in subsequent sessions.
3. Pursuant to its mandate from the CMP to operationalize the CDM, the Executive Board of the clean development mechanism (hereinafter referred to as the Board) has adopted various standards (including methodologies, tools and standardized baselines), procedures, guidelines, clarifications and forms, and revised them, as appropriate, with a view to improving the CDM process.

1.2. Objectives

4. The objectives of the “CDM project standard” (hereinafter referred to as this Standard) are to:
 - (a) Enhance consistency and clarity of requirements applicable to all types of CDM project activities and CDM programmes of activities (PoAs), and facilitate and promote a clear and common understanding by all parties involved in the CDM;
 - (b) Improve the quality of project design documents (PDDs), PoA design documents (PoA-DDs), component project activity (CPA) design documents (CPA-DDs) and monitoring reports prepared by project participants and submitted in the CDM project cycle;
 - (c) Enhance the overall efficiency and integrity of the CDM.

2. Scope, applicability and entry into force

2.1. General

5. This Standard provides project participants and coordinating/managing entities with a starting point for those wishing to design and implement a CDM project activity or PoA and seeking issuance of certified emission reductions (CERs). It specifies requirements for project participants and coordinating/managing entities to comply with in designing as well as implementing any type of CDM project activity or PoA and monitoring greenhouse gas (GHG) emission reductions by sources or GHG removals by sinks.

2.2. Application

6. The principles set out in chapter 5 and the requirements in chapters 6 and 7 of this Standard apply to any type of CDM project activity and PoA.
7. In addition to the requirements in chapters 6 and 7, the requirements in chapters 8, 9, 10, 11 and 12 specifically apply to small-scale project activities, large-scale afforestation and reforestation (A/R) project activities, small-scale A/R project activities, carbon dioxide capture and storage (CCS) project activities and PoAs, respectively.

2.3. Entry into force

8. Version 09.0 of this Standard enters into force on 1 April 2015.

3. Normative references

9. The following referenced documents are indispensable for the application of this Standard:
 - (a) “CDM project cycle procedure” (hereinafter referred to as the Project cycle procedure);
 - (b) “Glossary of CDM terms”.

4. Terms and definitions

10. In addition to the definitions contained in the “Glossary of CDM terms”, the following terms apply in this Standard:
 - (a) “Shall” is used to indicate requirements to be followed;
 - (b) “Should” is used to indicate that among several possibilities, one course of action is recommended as particularly suitable;
 - (c) “May” is used to indicate what is permitted;
 - (d) “Standardized baseline that standardizes additionality” is a standardized baseline established for a Party or a group of Parties to facilitate the determination of additionality (e.g. by providing a positive list of technologies, fuel or feedstock) for CDM project activities or PoAs, while providing assistance for assuring environmental integrity;

- (e) “Standardized baseline that standardizes baseline scenario” is a standardized baseline established for a Party or a group of Parties to facilitate the determination of the baseline scenario (e.g. by providing a description of the baseline scenario) for CDM project activities or PoAs, while providing assistance for assuring environmental integrity;
- (f) “Standardized baseline that standardizes baseline emissions” is a standardized baseline established for a Party or a group of Parties to facilitate the calculation of one or several sources of baseline emissions (e.g. by providing standardized values of parameters such as emission factors) for CDM project activities or PoAs, while providing assistance for assuring environmental integrity.

5. Principles

5.1. General

- 11. The following principles¹ guide project design as well as project implementation and monitoring of GHG emission reductions by sources or GHG removals by sinks, and contribute to enhancing the environmental integrity of CDM project activities and PoAs.

5.2. Relevance

- 12. Select the GHG sources, GHG sinks, GHG reservoirs, data, methodologies and all other information appropriate to the needs of the intended user.²

5.3. Completeness

- 13. Include all relevant GHG sources and sinks, and information to support compliance with all requirements.

5.4. Consistency

- 14. Enable meaningful comparisons in project-related information.

5.5. Accuracy and conservativeness

- 15. Reduce bias and uncertainties as far as is practical/cost-effective, or otherwise use conservative assumptions, values and procedures to ensure that GHG emission reductions by sources or GHG removals by sinks are not over-estimated.

¹ This text is adapted to the CDM and is taken from ISO 14064-2:2006 - Greenhouse gases -- Part 2: Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions or removal enhancements; it is reproduced with the permission of the International Organization for Standardization, ISO. This standard can be obtained from any ISO member and from the website of the ISO Central Secretariat at the following address <<http://www.iso.org>>. Copyright remains with ISO.

² “Intended users” include project participants, coordinating/managing entities, designated operational entities (DOEs), the Executive Board of the CDM, the UNFCCC secretariat, designated national authorities (DNAs) and local and other stakeholders.

5.6. Transparency

16. Disclose sufficient and appropriate project-related information in a truthful manner to allow intended users to make decisions with reasonable confidence. Do not disclose proprietary or confidential information marked as such by project participants or coordinating/managing entities without the written consent of the provider of the information, except as required by national law. In this context, information used to determine additionality, to describe the baseline methodology and its application, and to support an environmental impact assessment shall not be considered proprietary or confidential.

6. General requirements

6.1. Use of and compliance with applicable standards

17. While designing as well as implementing and monitoring a CDM project activity or PoA, project participants or the coordination/managing entity shall consider and use, in addition to this Standard, all applicable methodologies, standardized baselines, tools and documents adopted by the CMP or the Board.³
18. Project participants or the coordination/managing entity shall ensure that the proposed CDM project activity or PoA complies with all requirements in the CDM M&Ps applicable to the project activity or PoA, as presented in paragraph 1 above, all applicable requirements in this Standard and all other applicable CDM rules and requirements adopted by the CMP and the Board.

6.2. Identification of project type

19. Project participants or the coordinating/managing entity shall determine the type of CDM project activity or PoA they want to design and implement:
 - (a) Large-scale project activity;
 - (b) Small-scale project activity;
 - (c) Large-scale afforestation or reforestation project activity;
 - (d) Small-scale afforestation or reforestation project activity;
 - (e) CCS project activity;
 - (f) Programme of activities.

6.3. Selection of methodology

20. Project participants or the coordinating/managing entity shall select a baseline and monitoring methodology that has been approved by the Board and that is applicable to the proposed CDM project activity or PoA (hereinafter referred to as selected methodology).

³ These documents are available on the UNFCCC CDM website.

21. In their consideration of baseline and monitoring methodologies applicable to the proposed CDM project activity or PoA, in accordance with the applicable guidelines and/or procedure, project participants or the coordinating/managing entity may:
- (a) Develop and propose a new methodology;
 - (b) Submit a request for revision to an approved methodology through a designated operational entity (DOE) or directly to the UNFCCC secretariat (hereinafter referred to as the secretariat);
 - (c) Submit a request for clarification on an approved methodology or methodological tool through a DOE or directly to the secretariat;
 - (d) Submit a request for deviation from an approved methodology through a DOE before or during validation of the proposed project activity or PoA.⁴

6.4. Selection of standardized baseline

22. Project participants may select an approved standardized baseline (hereinafter referred to as selected standardized baseline) if the approved standardized baseline is valid and applicable to the proposed CDM project activity or PoA and to the selected methodology in accordance with its applicability section.
23. However, project participants shall select an approved standardized baseline (hereinafter referred to as selected standardized baseline) if:
- (a) The approved standardized baseline is valid and applicable to the proposed CDM project activity or PoA and to the selected methodology in accordance with its applicability section;
 - (b) The selection of the applicable approved standardized baseline is mandatory.⁵
24. Notwithstanding the provisions in paragraphs 22 and 23 above, project participants shall not select an applicable approved standardized baseline that standardizes additionality if the start date of the proposed CDM project activity or PoA is before the date when the approved standardized baseline becomes valid.
25. If the PDD or PoA-DD has been published for global stakeholder consultation when no applicable approved standardized baseline was valid, and if after the publication of the PDD or PoA-DD for global stakeholder consultation but before the submission of a request for registration of the proposed CDM project activity or PoA an applicable approved standardized baseline whose selection is mandatory has become valid, the request for registration may be submitted without selecting the standardized baseline within 240 days after the standardized baseline became valid.
26. In their consideration of an approved standardized baseline applicable to the proposed CDM project activity or PoA, project participants shall follow the “Procedure:

⁴ See the relevant provisions in the “CDM validation and verification standard” (CDM-EB65-A04-STAN) for examples of deviation in project-specific situations.

⁵ Such standardized baselines include ASB0001 and ASB0003 that state in their applicability section that the latest approved and valid values of the standardized baseline are the only values of the carbon dioxide (CO₂) emission factor(s) that shall be applied for the project electricity system.

Development, revision, clarification and update of standardized baselines”, if they wish to:

- (a) Propose a new standardized baseline;
- (b) Request a revision(s) to an approved standardized baseline;
- (c) Seek clarification on an approved standardized baseline; or
- (d) Propose an updated standardized baseline.

6.5. Demonstration of prior consideration of the clean development mechanism

- 27. If the start date of a proposed CDM project activity, as determined in paragraph 66 below, is prior to the date of publication of the PDD for the global stakeholder consultation, project participants shall demonstrate that the CDM benefits were considered necessary in the decision to undertake the project as a proposed CDM project activity.
- 28. For a proposed CDM project activity with a start date on or after 2 August 2008, project participants shall inform the host Party's designated national authority (DNA), if such DNA exists, and the secretariat of their intention to seek CDM status in accordance with the Project cycle procedure.
- 29. For a proposed CDM project activity with a start date before 2 August 2008 and prior to the date of publication of the PDD for global stakeholder consultation, project participants shall demonstrate that the CDM was seriously considered in the decision to implement the proposed project activity. Such demonstration requires the following elements to be satisfied:
 - (a) Project participants shall provide evidence of their awareness of the CDM prior to the start date of the proposed project activity, and that the benefits of the CDM were a decisive factor in the decision to proceed with the project;⁶
 - (b) Project participants shall provide evidence that continuing and real actions were taken to secure CDM status for the proposed project activity in parallel with its implementation;⁷

⁶ Evidence to support this could include, inter alia, minutes and/or notes related to the consideration of the decision by the board of directors, or equivalent, of the project participants, to undertake the project as a CDM project activity.

⁷ Evidence to support this should include one or more of the following: contracts with consultants for CDM/PDD/methodology/standardized baseline services; draft versions of PDDs and underlying documents such as letters of authorization, and, if available, letters of intent; emission reduction purchase agreement (ERPA) term sheets, ERPAs, or other documentation related to the sale of the potential CERs (including correspondence with multilateral financial institutions or carbon funds); evidence of agreements or negotiations with a DOE for validation services; submission of a new methodology or standardized baseline, or requests to the Board for clarification or revision of existing methodologies or standardized baselines; publication in a newspaper; interviews with DNA; earlier correspondence on the project with the DNA or the secretariat. Letters, e-mail exchanges and other documented communications may help to substantiate the evidence.

- (c) Project participants shall provide an implementation timeline of the proposed CDM project activity. The timeline should include, where applicable, the date when the investment decision was made, the date when construction works started, the date when commissioning started and the date of start-up (e.g. the date when commercial production started). Project participants shall provide a timeline of events that have occurred and actions that have been taken to achieve CDM registration, with a description of the evidence used to support these actions.
30. The requirements in paragraphs 27–29 above do not apply to CDM PoAs. However, the coordinating/managing entity may notify the DNA(s) of the host Party(ies) of the PoA and the secretariat of the intention to seek CDM status for the PoA in accordance with the Project cycle procedure for the purpose of determining the start date of the PoA.

7. Design requirements for all project types

7.1. Description of project activity or programme of activities

31. Project participants or the coordinating/managing entity shall provide a description of the proposed CDM project activity or PoA in the PDD or PoA-DD respectively that provides an understanding of the nature of the project activity or PoA and its implementation.
32. When describing the proposed CDM project activity or PoA, project participants or the coordinating/managing entity shall provide, inter alia, the following information:
- (a) A title for the project activity or PoA;
 - (b) The sectoral scope(s) of the project activity or PoA;
 - (c) The purpose and provide a general description of the project activity or PoA, including how it contributes to the sustainable development of the host Party;
 - (d) The physical/geographical location of the project activity, or the physical/geographical boundary of the PoA;
 - (e) A description of the technologies and measures to be employed and/or implemented by the project activity or the CPAs in the PoA. Include a description of how the technologies, measures and know-how to be used are transferred to the host Party, where applicable;
 - (f) The facilities, systems and equipment in operation under the existing scenario prior to the implementation of the project activity and in the baseline scenario as established in accordance with section 7.2.5 below. Clearly explain how the same types and levels of services provided by the project activity would have been provided in the baseline scenario;
 - (g) The types and levels of services provided by the systems and equipment that are being modified and/or installed under the project activity and their relation, if any, to other manufacturing/production equipment and systems outside the project boundary. Include in the description information on the age and average lifetime of the equipment based on the manufacturer's specifications and industry standards, and existing and forecast installed capacities, load factors and

efficiencies. Provide energy and mass flows and balances of the systems and equipment included in the project activity if necessary.

33. Project participants or the coordinating/managing entity shall identify:
- (a) Parties involved in the proposed CDM project activity or PoA, including the host Party(ies);
 - (b) Project participants of the proposed CDM project activity or PoA;
 - (c) The coordinating/managing entity in the case of a proposed CDM PoA.
34. Project participants or the coordinating/managing entity shall provide information on sources of public funding for the proposed CDM project activity or PoA. In cases where public funding from Parties included in Annex I to the United Nations Framework Convention on Climate Change (hereinafter referred to as the Convention) is involved, project participants or the coordinating/managing entity shall provide an affirmation obtained from Parties included in Annex I that such funding does not result in a diversion of official development assistance, is separate from, and is not counted towards the financial obligations of those Parties.
35. The project participants or the coordinating/managing entity shall confirm that the proposed CDM project activity or CPA is not a CPA that has been excluded from a registered CDM PoA as a result of erroneous inclusion of CPAs.

7.2. Application of selected approved baseline and monitoring methodology and selected standardized baseline

7.2.1. General

36. Project participants or the coordinating/managing entity shall use the valid version(s) of the selected approved methodology(ies) and, where applicable, of the selected standardized baseline(s), i.e. the latest version, or the previous version if the submission of the request for registration of the CDM project activity or PoA, to the secretariat in accordance with the Project cycle procedure, is still within the grace period of the previous version for use.
37. Project participants or the coordinating/managing entity shall apply the selected methodology(ies) and, where applicable, the selected standardized baseline(s), to the proposed CDM project activity or CPAs in the proposed CDM PoA including any tools, standards or guidelines required by the methodology(ies).

7.2.2. Reference of methodology and standardized baseline

38. Project participants or the coordinating/managing entity shall specify the reference (number, title and version) of the selected methodology(ies) and, where applicable, of the selected standardized baseline(s) that is(are) applied to the proposed CDM project activity or CPAs in the proposed CDM PoA, including any other methodologies or tools to which the selected methodology(ies) refers.

7.2.3. Applicability of methodology and standardized baseline

39. Project participants or the coordinating/managing entity shall demonstrate why the selected methodology(ies) and, where applicable, the selected standardized baseline(s), is(are) applicable to the proposed CDM project activity or CPAs in the proposed CDM PoA by showing that all applicability conditions of the methodology(ies) and, where applicable, the standardized baseline(s) are met.

7.2.4. Project boundary

40. Project participants or the coordinating/managing entity shall define the boundary of the proposed CDM project activity or PoA, including the physical delineation of the project activity or each CPA, and which sources and GHGs are included in the project or CPA boundary, in accordance with the selected methodology(ies) and, where applicable, the selected standardized baseline(s).
41. In cases where the selected methodology(ies) allows project participants or the coordinating/managing entity to choose whether a source or gas is to be included in the project or CPA boundary, project participants or the coordinating/managing entity shall explain and justify the choice.

7.2.5. Establishment and description of baseline scenario

42. Project participants or the coordinating/managing entity shall establish a baseline scenario for the proposed CDM project activity or CPA in accordance with the selected methodology(ies) or the PoA.
43. When establishing the baseline scenario, and where “future anthropogenic emissions by sources are projected to rise above current levels due to the specific circumstances of the host Party”, project participants or the coordinating/managing entity may follow the “Guidelines on the consideration of suppressed demand in CDM methodologies” to propose a revision to an approved methodology to cover such scenario if it is not covered in the methodology.
44. As a general principle, national and/or sectoral policies and circumstances shall be taken into account in the establishment of a baseline scenario, without creating perverse incentives that may impact host Parties’ contributions to the ultimate objective of the Convention.
45. When establishing a baseline scenario, project participants or the coordinating/managing entity shall take into account the following two types of national and/or sectoral policies:
- (a) National and/or sectoral policies or regulations that give comparative advantages to more emissions-intensive technologies or fuels over less emissions-intensive technologies or fuels;⁸
 - (b) National and/or sectoral policies or regulations that give comparative advantages to less emissions-intensive technologies over more emissions-intensive technologies (e.g. public subsidies to promote the diffusion of renewable energy or to finance energy efficiency programmes).⁹

⁸ Such policies, which increase GHG emissions, are called E+ policies.

⁹ Such policies, which decrease GHG emissions, are called E- policies.

46. Project participants or the coordinating/managing entity shall address the two types of policies described in paragraph 45 above as follows:
- (a) Only national and/or sectoral policies or regulations described in paragraph 45(a) above that have been implemented before the adoption of the Kyoto Protocol by the Conference of the Parties (hereinafter referred to as the COP) (decision 1/CP.3, 11 December 1997) shall be taken into account when establishing a baseline scenario. If such national and/or sectoral policies were implemented since the adoption of the Kyoto Protocol, the baseline scenario should refer to a hypothetical situation without the national and/or sectoral policies or regulations being in place;
 - (b) National and/or sectoral policies or regulations described in paragraph 45(b) above that have been implemented since the adoption by the COP of the CDM M&P (decision 17/CP.7, 11 November 2001) need not be taken into account in establishing a baseline scenario (i.e. the baseline scenario could refer to a hypothetical situation without the national and/or sectoral policies or regulations being in place).
47. Project participants or the coordinating/managing entity shall describe the established baseline scenario for the proposed CDM project activity or CPA, including the technology(ies) that would be employed and/or the activities that would take place in the absence of the project activity or CPA.
48. The following applies to a proposed CDM project activity or CPA using an approved standardized baseline that standardizes the baseline scenario instead of paragraphs 42–47 above and 130–133 below: Project participants shall describe the baseline scenario(s) as per the selected standardized baseline(s).

7.2.6. Demonstration of additionality

49. Project participants shall demonstrate, in accordance with the selected methodology(ies) and the requirements relating to prior consideration of the CDM contained in section 6.5 above, that the anthropogenic emissions of GHG by sources are reduced below those that would have occurred in the absence of the proposed CDM project activity.
50. For demonstration of additionality of the proposed CDM project activity, and if it is required by the selected methodology and/or any tool referenced in the methodology, project participants or the coordinating/managing entity shall follow:
- (a) “Guidelines on the assessment of investment analysis”;
 - (b) “Guidelines for objective demonstration and assessment of barriers”.
51. In the demonstration of additionality of the proposed CDM project activity, project participants or the coordinating/managing entity should also consider the following:
- (a) “Guidelines on additionality of first-of-its-kind project activities”;
 - (b) “Guidelines on common practice”.
52. The following applies to a proposed CDM project activity using an approved standardized baseline that standardizes additionality instead of paragraphs 49–51 above and 111 and 136 below: Project participants shall demonstrate that the proposed CDM

project activity meets the additionality criteria (e.g. positive lists of technologies) identified in the selected standardized baseline(s) as well as the requirements relating to prior consideration of the CDM contained in section 6.5 above.

7.2.7. Emission reductions

53. Project participants or the coordinating/managing entity shall provide ex ante calculations of baseline, project and leakage GHG emissions as well as GHG emission reductions of the proposed CDM project activity or CPA for each year of the crediting period, in accordance with the selected methodology(ies) and, where applicable, the selected standardized baseline(s). Project participants or the coordinating/managing entity shall describe all steps undertaken for these calculations and provide all results.
54. If the selected methodology(ies) and, where applicable, the selected standardized baseline(s) includes different scenarios or cases or provides different options and/or default values to choose, project participants or the coordinating/managing entity shall justify which ones are applied to and/or chosen for the proposed CDM project activity or CPA.
55. Project participants or the coordinating/managing entity shall, in accordance with the selected methodology(ies), provide the data and parameters that are not monitored during the crediting period but are determined before the registration of the CDM project activity or PoA and remain fixed throughout the crediting period. These data and parameters shall be available at the time of validation.
56. In cases where the selected methodology(ies) and, where applicable, the selected standardized baseline(s) allows the use of sampling for the determination of parameter values for calculating GHG emission reductions, project participants or the coordinating/managing entity may use sampling. In such cases, project participants or the coordinating/managing entity shall develop and describe the sampling plan in accordance with the "Standard for sampling and surveys for CDM project activities and programme of activities".
57. The project participants or the coordinating/managing entity shall use the global warming potentials (GWPs) adopted by the CMP at its seventh session, in accordance with decision 4/CMP.7, to calculate the emission reductions and removals achieved by CDM project activities and PoAs in the second commitment period of the Kyoto Protocol. This requirement shall apply from 1 January 2013, notwithstanding any GWPs stated to be applicable in the relevant procedures, standards, guidelines, approved baseline and monitoring methodologies, methodological tools and other rules being used in relation to that project activity or PoA.
58. The project participants or the coordinating/managing entity shall apply the GWPs valid for the second commitment period for the purposes of demonstrating additionality and ex-ante calculation of emission reductions or removals, if the PDDs and PoA-DDs to be published for global stakeholder consultation or requests for registration of project activities or PoAs are submitted on or after 1 January 2013. Requests for registration submitted before 1 January 2013 that have applied the GWPs valid for the first commitment period in relation to additionality demonstration are not required to re-assess additionality or re-do ex-ante calculation of emission reductions or removals applying the GWPs valid for the second commitment period.

59. The PDDs for project activities and the PoA-DDs for PoAs registered before 1 January 2013 are not required to be amended, re-published for global stakeholder consultation, or re-validated using the GWPs as applied by decision 4/CMP.7.
60. All references in baseline and monitoring methodologies and methodological tools to one or more GWPs, including specific references to GWPs valid for the first commitment period, from 1 January 2013, shall be read as references to the relevant GWPs valid for the second commitment period.

7.2.8. Monitoring plan

7.2.8.1. General

61. Project participants or the coordinating/managing entity shall develop and describe the monitoring plan for the proposed CDM project activity or CPA in accordance with the selected methodology(ies), where applicable, the selected standardized baseline(s) and all other applicable CDM rules and requirements.
62. Project participants or the coordinating/managing entity may choose to submit the monitoring plan for the proposed CDM project activity, PoA or CPA either at the time of validation or:
 - (a) At any time prior to the submission of request for issuance for the first monitoring period; or
 - (b) Together with the request for issuance for the first monitoring period.
63. In cases where the project participants or the coordinating/managing entity choose to make a delayed submission of a monitoring plan for the proposed CDM project activity, PoA or CPA in accordance with paragraph 62 above, the project participants or the coordinating/managing entity shall clearly state that the submission of the monitoring plan is delayed and that the PDD, PoA-DD or CPA-DD submitted for registration do not contain information related to the monitoring plan.

7.2.8.2. Data and parameters monitored

64. The monitoring plan shall include all data, parameters and related information required by the selected methodology(ies) and, where applicable, the selected standardized baseline(s).

7.2.8.3. Other elements of monitoring plan

65. The monitoring plan shall include the following:
 - (a) The operational and management structure to be put in place to implement the monitoring plan;
 - (b) Provisions to ensure that data monitored and required for verification and issuance be kept and archived for two years after the end of the crediting period or the last issuance of CERs, whichever occurs later;
 - (c) Definition of responsibilities and institutional arrangements for data collection and archiving;

- (d) Quality assurance and quality control (QA/QC) procedures;
- (e) Uncertainty levels, methods and the associated accuracy level of measuring instruments to be used for various parameters and variables;
- (f) Specifications of the calibration frequency for the measuring equipments. In cases where neither the selected methodology and, where applicable, the selected standardized baseline, nor the Board's guidance specify any requirements for calibration frequency for measuring equipments, project participants or the coordinating/managing entity shall ensure that the equipments are calibrated either in accordance with the local/national standards, or as per the manufacturer's specifications. If local/national standards or the manufacturer's specifications are not available, international standards may be used.

7.3. Duration and crediting period

7.3.1. Duration of project activity

- 66. Project participants shall determine the start date of the proposed CDM project activity and provide a description of how this start date has been determined as per the definition of start date provided in the "Glossary of CDM terms".
- 67. Project participants shall define the expected operational lifetime of the proposed CDM project activity.

7.3.2. Crediting period

- 68. Project participants shall select the type (fixed or renewable) and duration of the crediting period for the proposed CDM project activity considering that:
 - (a) Each renewable crediting period shall be at most seven years and may be renewed at most two times, for a maximum total length of 21 years;
 - (b) A fixed crediting period shall be at most 10 years.
- 69. Project participants shall determine the start date¹⁰ of the crediting period of the proposed CDM project activity considering that the crediting period shall only start on or after the date of registration of the proposed project activity as a CDM project activity.
- 70. Project participants shall determine only one start date for the crediting period, even in cases of phased implementation of the proposed CDM project activity.
- 71. Project participants shall state the start date of the crediting period in the format dd/mm/yyyy, and shall not attach any qualifications to the start date, such as "expected".

¹⁰ The start date of the crediting period provided in the CDM-PDD by the project participants is an indicative date and if it is prior to the date of registration of the project activity, it will be updated by the secretariat as the effective date of registration in accordance with the Project cycle procedure. This update will not affect the specified length of the crediting period, nor does this affect the rights of the project participants to subsequently request a change of the start date in accordance with the same procedure.

7.4. Environmental impacts

72. Project participants or the coordinating/managing entity shall carry out an analysis of the environmental impacts of the proposed CDM project activity or PoA, including transboundary impacts. Project participants or the coordinating/managing entity shall provide a summary of the analysis and references to all related documentation.
73. If project participants or the coordinating/managing entity or the host Party consider the environmental impacts of the proposed CDM project activity or PoA significant, the project participants or the coordinating/managing entity shall carry out an environmental impact assessment in accordance with the host Party's procedures. Project participants or the coordinating/managing entity shall provide all conclusions and references to all related documentation.

7.5. Local stakeholder consultation

74. Project participants or the coordinating/managing entity shall invite local stakeholders to provide comments on the proposed CDM project activity or PoA/CPA and shall demonstrate how due steps/actions were taken to appropriately engage stakeholders and solicit comments.
75. Project participants or the coordinating/managing entity shall invite comments from local stakeholders in an open and transparent manner, in a way that facilitates comments to be received from local stakeholders and allows for a reasonable time for comments to be submitted. Project participants or the coordinating/managing entity shall conduct the local stakeholder consultation in accordance with applicable national regulations, if any. Project participants or the coordinating/managing entity shall describe the proposed CDM project activity or PoA in a manner that allows the local stakeholders to understand the project activity or PoA, taking into account confidentiality provisions of the applicable CDM M&Ps.
76. Project participants or the coordinating/managing entity shall prepare a summary of the comments provided by local stakeholders.
77. Project participants or the coordinating/managing entity shall demonstrate that they considered all comments received for the proposed CDM project activity or PoA. The project participants or the coordinating/managing entity shall request the DNA(s) of the host Party(ies) to forward comments from local stakeholders, if any, to them.
78. Project participants or the coordinating/managing entity shall complete the local stakeholder consultation process before the start date of the project activity, PoA or CPA, as defined in the "Glossary of CDM terms" and submitting the PDD or PoA-DD of the proposed CDM project activity or PoA to a DOE for validation.
79. If, during the validation of the proposed CDM project activity or PoA, complaints submitted to the DNA(s) on the handling of the outcome of the local stakeholder consultation are forwarded to the project participants or the coordinating/managing entity through the DOE in accordance with the Project cycle procedure, the project participants or the coordinating/managing entity shall take due account of such complaints and modify the PDD, PoA-DD or CPA-DD as appropriate before the DOE concludes the validation.

80. If significant changes to the project design occur after the invitation of comments from local stakeholders, the project participants or the coordinating/managing entity shall conduct local stakeholder consultation with relevant stakeholders.

7.6. Approval and authorization

81. Project participants or the coordinating/managing entity shall obtain a letter of approval¹¹ from the DNA of each Party involved in the proposed CDM project activity or PoA confirming that:¹²
- (a) The Party is a Party to the Kyoto Protocol;
 - (b) Participation in the proposed CDM project activity or PoA is voluntary;
82. Each project participant shall obtain a letter of approval from at least one Party involved in the proposed CDM project activity confirming that the project participant is authorized to participate in the proposed CDM project activity.
83. In addition to the requirement in paragraph 81 above, the letter of approval from the host Party shall also confirm that the proposed CDM project activity or PoA assists the host Party in achieving sustainable development.
84. A CDM project activity, a bundle of small-scale CDM project activities or a CPA shall have only one host Party, which is the Party in which the project activity(ies) is located as set out in the PDD or CPA-DD.
85. Where the methodology applied to the proposed CDM project activity or PoA provides for the application of a system, such as an electricity grid, and that the system extends across more than one Party, a letter of approval is required from the host Party and all other Parties involved as indicated in the PDD or PoA-DD.¹³

7.7. Modalities of communications

86. Project participants or the coordinating/managing entity shall define for the proposed CDM project activity or PoA their modalities of communication with the Board and present them in a “Modalities of communication statement” (MoC statement), with the following content:
- (a) The title of the proposed CDM project activity or PoA (and UNFCCC reference number if available);

¹¹ Project activities from multilateral funds involving many host Parties do not necessarily require letters of approval from the DNA of each Party. However, those not providing a letter may be giving up some of their rights and privileges in terms of being a Party involved in the proposed project activity.

A letter of approval from a Party may cover more than one proposed CDM project activity, provided that projects are clearly listed in the letter.

¹² At the time of making the PDD public at the stage of validation, a Party involved may or may not have provided its approval of the proposed CDM project activity, but by the time of requesting registration, approval from all Parties involved including the host Party shall be obtained.

¹³ This requirement replaces the clarification provided by the Board at its twenty-eighth meeting, as recorded in paragraph 14 of the meeting report.

- (b) The date of submission of the MoC statement (to a DOE for inclusion in the request for registration or to the secretariat for changes after registration);
- (c) The designation of a focal point for each scope of authority, contact details and specimen signatures of the authorized signatories of each focal point entity;
- (d) A list of all project participants, contact details and specimen signatures of their authorized signatories;
- (e) The signature of an authorized signatory (electronic if available) of all project participants confirming their agreement with the MoC statement.

7.8. Validation

- 87. The project participants or the coordinating/managing entity wishing to submit a CDM project activity for validation shall prepare a PDD , or a PoA-DD and a CPA-DD using the valid version of the applicable CDM-PDD form, taking into account the grace period of the form if it has been revised.¹⁴
- 88. When completing the PDD, PoA-DD or CPA-DD, project participants or the coordinating/managing entity shall provide all necessary information and documentation to demonstrate compliance of the proposed CDM project activity with all applicable requirements in this Standard and other CDM rules and requirements.
- 89. When completing the PDD, PoA-DD or CPA-DD, the project participants or the coordinating/managing entity shall follow the applicable guidelines instructions for completing PDD, PoA-DD or CPA-DD forms as contained in the form.
- 90. Project participants or the coordinating/managing entity shall select a DOE for the validation of the proposed CDM project activity or PoA that is accredited for the validation function and sectoral scopes(s)¹⁵ of the project activity. Project participants shall have a contractual arrangement with the DOE for the validation.
- 91. Project participants or the coordinating/managing entity shall submit the completed PDD of the proposed CDM project activity or completed PoA-DD and CPA-DD of proposed PoA, together with supporting documentation, to the selected DOE for validation.
- 92. If a PDD or PoA-DD contains confidential or proprietary information, the project participants or the coordinating/managing entity shall submit documentation in two versions:
 - (a) One version where all parts containing confidential/proprietary information are made redacted (e.g. by covering those parts with black ink) so that the version can be made publicly available without displaying confidential/proprietary information;
 - (b) A version containing all information that is to be treated as confidential /proprietary by all parties handling this documentation (DOEs and applicant

¹⁴ All the various PDD forms are available on the UNFCCC CDM website.

¹⁵ The list of all 16 sectoral scopes, the DOEs accredited in each scope as well as the approved baseline and monitoring methodologies linked with these sectoral scopes are provided on the UNFCCC CDM website.

entities (AEs); Board members and alternate members; CDM panel/committee and working group members; external experts requested to consider such documents in support of the work of the Board; and the secretariat).

93. Information used to demonstrate additionality, describe the application of the selected methodology and, where applicable, the selected standardized baseline, and support an environmental impact assessment shall not be considered proprietary or confidential. Any data, values and formulae included in electronic spreadsheets provided shall be made accessible and verifiable.
94. Before publishing the PDD for the proposed CDM project activity or the PoA-DD for the proposed CDM PoA for global stakeholder consultation, in accordance with the Project cycle procedure, project participants or the coordinating/managing entity may request the DOE to seek guidance from the Board on the acceptability of a deviation from:
 - (a) The selected methodology(ies); or
 - (b) A section (or sections) in the selected methodology that is(are) not standardized by the selected standardized baseline(s), if the proposed CDM project activity uses an approved standardized baseline.
95. The project participants or the coordinating/managing entity shall prepare a revised PDD or PoA-DD and submit it to any DOE for publication for a new global stakeholder consultation in accordance with the Project cycle procedure, and request the DOE to restart the validation if the project participants or the coordinating/managing entity have changed the approved baseline and monitoring methodology or the combination thereof applied in the PDD or PoA-DD.
96. The project participants or the coordinating/managing entity may request the DOE to withdraw the request for registration in accordance with the Project cycle procedure.
97. The project participants or the coordinating/managing entity may request the DOE to withdraw the published PDD or PoA-DD and CPA-DD before the submission of a request for registration of the proposed CDM project activity or PoA in accordance with the Project cycle procedure.

8. Specific design requirements for small-scale project activities

8.1. General requirements

98. Project participants designing a small-scale CDM project activity following the CDM SSC M&Ps shall only use small-scale methodologies and, where applicable, standardized baselines. However, project participants may use a large-scale methodology and, where applicable, a standardized baseline for a project activity that is within the small-scale project activity thresholds if the project activity follows the CDM M&Ps.

8.2. Project activity type and eligibility

99. Project participants shall indicate, from among the following below, the project type of the proposed small-scale CDM project activity, and shall demonstrate that the project activity qualifies as this type:

- (a) Type I: Renewable energy project activities with a maximum output capacity of 15 MW (or an appropriate equivalent). In this context:
 - (i) “Output” is the installed/rated capacity as indicated by the manufacturer of the equipment or plant, irrespective of the actual load factor of the plant. The installed/rated capacity for renewable electricity generating units that involve turbine generator systems shall be based on the installed/rated capacity of the generator;
 - (ii) Regarding the “appropriate equivalent” of 15 MW, decision 17/CP.7, paragraph 6(c)(i), refers to MW, but the project participants may refer to MW(p)¹⁶, MW(e) or MW(th). As MW(e) is the most common denomination, MW is defined as MW(e), and otherwise an appropriate conversion factor is to be applied;
 - (iii) For biomass, biofuel and biogas project activities, the maximal limit of 15 MW(e) is equivalent to a 45 MW thermal output of the equipment or the plant (e.g. boilers). For thermal applications of biomass, biofuels or biogas (e.g. cookstoves), the limit of 45 MWth is the installed/rated capacity of the thermal application equipment or device(s) (e.g. biogas stoves). For electrical or mechanical applications, the limit of a 15 MW installed/rated output shall be used. In the case of co-firing renewable and fossil fuels, the rated capacity of the system when using fossil fuel shall apply;
 - (iv) For thermal applications of solar energy projects, “maximum output” shall be calculated using a conversion factor of 700 Wth/m² of aperture area of glazed flat plate or evacuated tubular collector, i.e. the eligibility limit in terms of aperture area is 64,000 m² of the collector.¹⁷ The project participants may also use other conversion factors determined as per the requirements in paragraph 106 below, but shall then justify why the chosen conversion factor is more appropriate to the project activity;
- (b) Type II: Energy efficiency improvement project activities that reduce energy consumption, on the supply and/or demand side, with a maximum output of 60 GWh per year (or an appropriate equivalent) in any year of the crediting period. In this context, for thermal energy efficiency project activities, the maximum energy saving of 60 GWh(e) per year is equivalent to 180 GWh(th) per year saving; or
- (c) Type III: Other project activities not included in Type I or Type II that result in GHG emission reductions not exceeding 60 kt CO₂e per year in any year of the crediting period.

100. Project participants shall consider that:

- (a) The three types referred to in paragraph 99 above are mutually exclusive;

¹⁶ For solar photovoltaic applications, 15 MW(p) may be defined by manufacturers’ specifications under testing conditions of 1000 W/m² and 25 deg C or 600 W/m² and 35 deg C.

¹⁷ This conversion is not applicable for solar thermal parabolic and trough type collectors used for high grade solar thermal energy applications.

- (b) A small-scale CDM project activity may contain more than one component, each belonging to one of the three project types referred to in paragraph 99 above. In this case, the sum of the size of components belonging to the same project type shall not exceed the limits of the project type.

8.3. Bundling of project activity

- 101. If project participants bring together more than one small-scale CDM project activities as a bundle, project participants shall follow the “General principles for bundling”.

8.4. Debundling for project activity

- 102. Project participants shall demonstrate that the proposed small-scale CDM project activity is not a debundled component of a large-scale project activity.
- 103. Project participants shall follow the applicable provisions in the “Guidelines on assessment of debundling for SSC project activities”.

8.5. Description of project activity

- 104. If the project participants wish to include in the proposed small-scale CDM project activity more than one component by presenting them in the same PDD, the project participants shall provide the information regarding the sections covering the type and technology/measure of the project activity and application of the selected methodology separately for each component.

8.6. Application of selected baseline and monitoring methodology and selected standardized baseline

8.6.1. General

- 105. If the proposed small-scale CDM project activity involves more than one component, project participants shall provide ex ante calculations of baseline, project and leakage GHG emissions as well as GHG emission reductions for each year of the crediting period and for each component separately.
- 106. To determine the performance of equipment used in the proposed small-scale CDM project activity, project participants shall use:
 - (a) The appropriate value specified in the selected methodology or, where applicable, the selected standardized baseline;
 - (b) The national standard for the performance of the equipment type (project participants shall identify the standard used) if the value specified in subparagraph (a) above is not available;
 - (c) An international standard for the performance of the equipment type, such as International Organization for Standardization (ISO) and International Electrotechnical Commission (IEC) standards (project participants shall identify the standard used) if the values specified in subparagraphs (a) and (b) above are not available;

- (d) The manufacturer's specifications, provided that they are tested and certified by national or international certifiers, if the values specified in subparagraphs (a)–(c) above are not available;
 - (e) Performance data from test results conducted by an independent entity for equipment installed under the project activity if the values specified in subparagraphs (a)–(d) are not available.
107. In cases where leakage is to be considered in the proposed small-scale CDM project activity, project participants shall consider leakage only within the boundaries of non-Annex I Parties.
108. In case of replacement of existing equipment, project participants shall estimate the point in time where the existing equipment would be replaced in the absence of the proposed small-scale CDM project activity in accordance with the "Tool to determine the remaining lifetime of equipment".
109. For household devices/appliances, project participants may disregard the remaining lifetime.
110. Project participants shall consider that norms, specifications, standards and test procedures cited in the selected methodology and, where applicable, the selected standardized baseline refer to the valid version of the documentation available at the time of submission of the PDD to the DOE for validation.

8.6.2. Demonstration of additionality

111. For demonstration of additionality of a proposed small-scale CDM project activity, project participants shall apply or use one of the following:
- (a) "Guidelines on the demonstration of additionality of small-scale project activities". In such cases, project participants should also follow the "Non-binding practice examples to demonstrate additionality for SSC project activities";
 - (b) Any applicable additionality tool; or
 - (c) "Guidelines for demonstrating additionality of microscale project activities", if the proposed project activity meets one of the following criteria:
 - (i) Type I: Project activities up to 5 MW that employ renewable energy as their primary technology;
 - (ii) Type II: Energy efficiency project activities that aim to achieve energy savings at a scale of no more than 20 GWh per year; or
 - (iii) Type III: Other project activities not included in Type I or Type II that aim to achieve GHG emissions reductions at a scale of no more than 20 kt CO₂e per year.

8.6.3. Monitoring plan

112. In developing the monitoring plan for the proposed small-scale CDM project activity, project participants shall consider the following:

- (a) Data variables that impact the GHG emission reductions continuously (e.g. quantity of the fuel inputs, amount of heat or electricity produced, gas captured) shall be measured continuously and recorded at appropriate intervals. Data elements that are generally constant (e.g. emission factors, calorific value, system efficiencies) shall be measured or calculated at least once a year, unless other specifications are provided in the selected methodology or, where applicable, the selected standardized baseline;
 - (b) Measuring equipment shall be certified to national or IEC standards;
 - (c) The calibration of measuring equipments shall be carried out by an accredited person or institution;
 - (d) Measured data with high levels of uncertainty or without adequate calibration shall be compared with location/national data and commercial data to ensure consistency.
113. For parameters to be measured in accordance with the selected methodology or, where applicable, the selected standardized baseline, project participants shall include in the monitoring plan the following:
- (a) The measurement methods and procedures, including accepted industry standards or national or international standards that will be applied; the measuring equipments that will be used; how the measurements will be undertaken; the accuracy of the measurement methods; the measurement intervals and the responsible person/entity who will undertake the measurements;
 - (b) The calibration procedures to be applied and the responsible person/entity who will perform the calibration.

8.7. Environmental impacts

114. Paragraph 115 below shall apply instead of paragraphs 72 and 73 above.
115. If required by the host Party, the project participants shall carry out an analysis of the environmental impacts of the proposed small-scale CDM project activity, and provide a summary of the analysis and the reference to all related documentation.

9. Specific design requirements for afforestation and reforestation project activities

9.1. Description of project activity

116. When describing a proposed A/R CDM project activity, project participants shall:
- (a) Describe the present environmental conditions of the area planned for the project activity, including the climate, hydrology, soils and ecosystems;
 - (b) Describe the presence, if any, of rare and endangered species and their habitats;
 - (c) Describe the species and varieties selected for the project activity;

- (d) Describe the technologies and know-how that will be transferred to the host Party(ies), if applicable;
- (e) Describe or list the legal title(s) to the land, current land tenure and rights enabling determination of the owner of the temporary CERs (tCERs) or long-term CERs (ICERs) to be issued for the project activity.

9.2. Project boundary

- 117. Project participants shall define the project boundary that geographically delineates the proposed A/R CDM project activity under the control of the project participants, including information allowing the unique identification(s) of the project activity. If the proposed A/R CDM project activity contains more than one discrete area of land, each discrete area of land shall have a unique identification.
- 118. Project participants shall demonstrate that, for all areas of land planned for the proposed A/R CDM project activity, the control over afforestation or reforestation as required by the CDM A/R M&Ps is already established or is expected to be established. The control of the project participants over afforestation or reforestation shall be considered as established if the project participants have the exclusive right to perform the proposed A/R CDM project activity, defined in a way that is acceptable under the legal system of the host country.
- 119. When submitting the PDD to a DOE for validation, project participants shall have established the control over afforestation or reforestation for at least two-thirds of the total area of land planned for the proposed A/R CDM project activity.
- 120. When submitting the PDD to a DOE for validation, project participants shall demonstrate that all areas of land planned for the proposed A/R CDM project activity comply with all requirements, except those related to the control.
- 121. If the control over afforestation or reforestation is not established for all areas of land planned for the proposed A/R CDM project activities when submitting the PDD to a DOE for validation, project participants shall:
 - (a) Demonstrate additionality separately for:
 - (i) The area of land for which control over the project activity is already established by the project participants;
 - (ii) The entire area of land;
 - (b) Estimate the baseline net GHG removals by sinks separately for:
 - (i) The area of land for which control over the project activity is already established by the project participants;
 - (ii) The entire area of land.
- 122. Project participants shall express each of the estimates of baseline net GHG removals by sinks on a per hectare basis. The largest of these estimates shall be used to determine the baseline net GHG removals by sinks for the proposed A/R CDM project activity.

123. For all areas of land for which control over the A/R CDM project activity has not yet been established when the PDD is submitted to a DOE for validation, the project participants shall provide evidence of control at the latest by the time of submitting the first monitoring report to a DOE for verification.
124. When submitting the first monitoring report to a DOE for verification, the project boundary shall be fixed in such a way that it geographically delineates exclusively the registered CDM A/R project activity under the control of the project participants.

9.3. Eligibility of land

125. Project participants shall demonstrate that each discrete area of land to be included in the project boundary is eligible for an A/R CDM project activity, in accordance with the selected methodology, the “A/R methodological tool: Demonstration of eligibility of lands for A/R CDM project activities” or, where applicable, the selected standardized baseline. For such demonstration, for both large- and small-scale A/R CDM project activities, it is sufficient to follow this tool and it is not essential to differentiate between afforestation and reforestation project activities.

9.4. Addressing non-permanence

126. Project participants shall specify which of the following approaches to address non-permanence has been selected for the proposed A/R CDM project activity, considering that the selected approach shall remain fixed for the crediting period including any renewals:
 - (a) Issuance of tCERs; or
 - (b) Issuance of ICERs.

9.5. Application of selected baseline and monitoring methodology and selected standardized baseline

9.5.1. General

127. Project participants shall select the carbon pools and GHGs to account for the proposed A/R CDM project activity in accordance with the selected methodology.
128. If the selected methodology allows the exclusion of certain carbon pools and project participants do so, they shall justify the exclusion.
129. Project participants shall ensure that the application of default data in estimation of the net anthropogenic GHG removals by sinks for the proposed A/R CDM project activity results in conservative estimates.
130. Project participants shall establish the baseline scenario separately for each stratum of the proposed A/R CDM project activity in accordance with the selected methodology.
131. Paragraphs 132, 133, 134 and 135 below shall apply instead of paragraphs 44–46, 47, 53 and 56 above respectively.
132. In establishing a baseline scenario, the project participants shall take into account relevant national and/or sectoral policies and circumstances, such as historical land use

practices, without creating perverse incentives that may impact host Parties' contributions to the ultimate objective of the Convention in the following manner: national and/or sectoral land-use policies or regulations, which give comparative advantages to afforestation/reforestation activities and have been implemented since the adoption by the COP of the CDM M&Ps (decision 17/CP.7, 11 November 2001), need not be taken into account in developing a baseline scenario (i.e. the baseline scenario could refer to a hypothetical situation without the national and/or sectoral policies or regulations being in place).

133. Project participants shall describe the baseline scenario established for each stratum of the proposed A/R CDM project activity, including the land use that would occur in the absence of the project activity.
134. Project participants shall calculate and provide an estimate of the ex ante baseline net GHG removals by sinks, ex ante actual net GHG removals by sinks, leakage, and net anthropogenic GHG removals by sinks for the proposed A/R CDM project activity for each year of the crediting period, in accordance with the selected methodology and, where applicable, the selected standardized baseline.
135. In cases where the selected methodology allows the use of sampling for the determination of parameter values for calculating net GHG removals, project participants may use sampling, in accordance with the requirements of the methodology and any applicable tool referenced in the methodology.

9.5.2. Demonstration of additionality

136. The project participants shall not apply paragraphs 49 above. Instead, the project participants shall demonstrate, in accordance with the selected methodology and the requirements relating to prior consideration of the CDM contained in section 6.5 above, that the actual net GHG removals by sinks are increased above 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.

9.5.3. Monitoring

137. Project participants shall plan management activities, including harvesting cycles, and verifications such that a systematic coincidence of verification and peaks in carbon stocks is avoided.
138. Project participants shall monitor forest establishment and management, if required for compliance with the applicability conditions of the selected methodology.
139. Project participants shall describe how the geographic coordinates of the project boundary, including boundaries of strata if any, are determined and recorded.
140. Project participants shall describe, or provide reference to, standard operating procedures (SOPs) and QA/QC procedures implemented for data monitoring, as required by the selected methodology.
141. Project participants shall identify measures to minimize potential leakage and describe how these will be implemented.

142. Project participants shall specify the procedures for the periodic review of implementation of activities and measures to minimize leakage, if required by the selected methodology.

9.6. Duration and crediting period

143. Paragraph 67 above shall not apply to A/R CDM project activities.
144. Paragraph 145 below shall apply instead of paragraph 68 above.
145. The project participants shall select a crediting period for the proposed A/R CDM project activity, either renewable or fixed, considering that:
- (a) Each renewable crediting period shall be at most 20 years and may be renewed at most two times, for a maximum total length of 60 years;
 - (b) A fixed crediting period shall be at most 30 years;
 - (c) The provisions of paragraphs 12 and 13 of decision 17/CP.7 do not apply to A/R CDM project activities. An A/R project activity starting after 1 January 2000 can also be validated and registered after 31 December 2005 as long as the first verification of the project activity occurs after the date of registration of this project activity. Given that the crediting period starts on the same date as the starting date of the project activity, projects starting in 2000 onwards can accrue tCERs/ICERs as of the starting date.

9.7. Environmental impacts

146. Paragraphs 147–149 below apply instead of paragraphs 72 and 73 above.
147. Project participants shall carry out an analysis of the environmental impacts of the proposed CDM A/R project activity, including impacts on biodiversity and natural ecosystems and impacts outside the project boundary. Project participants shall provide a summary of the analysis and references to all related documentation.
148. If project participants or the host Party consider the environmental impacts of the proposed A/R CDM project activity significant, project participants shall carry out an environmental impact assessment in accordance with the host Party's procedures. Project participants shall provide all conclusions and references to all related documentation.
149. If the environmental impacts of the proposed A/R CDM project activity are considered significant, project participants shall provide a description of the planned monitoring and remedial measures to address these significant impacts.

9.8. Socio-economic impacts

150. Project participants shall carry out an analysis of the major socio-economic impacts of the proposed A/R CDM project activity, including impacts outside the project boundary. Project participants shall provide a summary of the analysis and references to all related documentation.
151. If project participants or the host Party consider any negative impact as significant, project participants shall carry out a socio-economic impact assessment, in accordance

with the host Party's procedures. Project participants shall provide all conclusions and references to all related documentation.

152. If the socio-economic impacts of the proposed A/R CDM project activity are considered significant, project participants shall provide a description of the planned monitoring and remedial measures to address these significant impacts.

10. Specific design requirements for small-scale afforestation and reforestation project activities

153. Project participants shall demonstrate that the proposed small-scale A/R CDM project activity:
- (a) Complies with the definition and limit for small-scale A/R CDM project activities specified in decision 9/CMP.3.¹⁸ as follows: "Small-scale afforestation and reforestation project activities under the CDM" are those that are expected to result in net anthropogenic greenhouse gas removals by sinks of less than 16 kt of carbon dioxide (CO₂) per year and are developed or implemented by low-income communities and individuals as determined by the host Party. If a small-scale afforestation or reforestation project activity under the CDM results in net anthropogenic greenhouse gas removals by sinks greater than 16 kt of CO₂ per year, the excess removals will not be eligible for the issuance of tCERs or ICERs";
 - (b) Complies with one of the types of small-scale A/R CDM project activities defined in appendix B of the annex to decision 6/CMP.1 and qualifies to apply one of the simplified baseline and monitoring methodologies for small-scale A/R CDM project activities;
 - (c) Is not part of a debundled large-scale A/R CDM project activity, in accordance with the rules defined in appendix C of the annex to decision 6/CMP.1.
154. Project participants shall provide a written declaration that the proposed small-scale A/R CDM project activity is developed or implemented by low-income communities and individuals as determined by the host Party.

11. Specific design requirements for carbon dioxide capture and storage project activities

11.1. Definitions for CCS project activities

155. **Carbon dioxide capture and storage:** the capture and transport of carbon dioxide from anthropogenic sources of emissions, and the injection of the captured carbon dioxide into an underground geological storage site for long-term isolation from the atmosphere.
156. **Geological storage site:** a paired geological formation, or a series of such formations, consisting of an injection formation of relatively high porosity and permeability into which carbon dioxide can be injected, coupled with an overlying cap rock formation of low

¹⁸ Decision 9/CMP.3 revised the limit for small-scale A/R CDM project activities defined in the annex to decision 5/CMP.1.

- porosity and permeability and sufficient thickness which can prevent the upward movement of carbon dioxide from the storage formation.
157. **Operational phase:** the period that begins when carbon dioxide injection commences and ends when carbon dioxide injection permanently ceases.
158. **Closure phase:** the phase that follows the operational phase and is the period that begins when carbon dioxide injection permanently ceases and ends when the geological storage site has been closed.
159. **Closure of a geological storage site:** the completion of the sealing of the geological storage site, including the appropriate plugging of wells relating to the geological storage site.
160. **Post-closure phase:** the phase that follows the closure phase and is the period that begins when the geological storage site has been closed.
161. **Seepage:** a transfer of carbon dioxide from beneath the ground surface or seabed ultimately to the atmosphere or ocean.
162. **Site development and management plan:** the documented description of how a geological storage site will be operated and managed.
163. **History matching:** the process of comparing observed results from the monitoring and measurement of a geological storage site with the results of the predictive numerical modelling of the behaviour of carbon dioxide injected into the geological storage site, and the use of the observed results to calibrate and update numerical models and modelling results. It can involve multiple iterations.
164. **Liability:** the legal responsibility arising from the CCS project activity or the relevant geological storage site, with the exception of the obligations arising from a net reversal of storage as set out in section "Addressing non-permanence in CCS project activities" of the Project cycle procedure but including all obligations related to the operation of the storage site (e.g. monitoring, remedial measures, etc.), to compensate for or remedy any significant damages, including damage to the environment, such as ecosystem damage, other material damages or personal injury.
165. **Remedial measures:** actions and measures intended to stop or control any unintended physical leakage or seepage of carbon dioxide, to restore the integrity of a geological storage site, or to restore long-term environmental quality significantly affected by a CCS project activity.
166. **Net reversal of storage of carbon dioxide** means that:
- (a) For a verification period during the crediting period, the accumulated verified reductions in anthropogenic emissions by sources of GHGs that have occurred as a result of a registered CDM project activity are negative (i.e. the seepage from the geological storage site of the CCS project activity exceeds the remainder of the emission reductions achieved by the CCS project activity);
 - (b) For a verification period after the end of the last crediting period, seepage has occurred from the geological storage site of the CCS project activity.

11.2. Description of project activity

167. In addition to the requirements mentioned in section 7.1 above, for CCS project activities the project participants shall:
- (a) Provide a description and analysis of the environmental conditions in the area of the geological storage site prior to any storage of carbon dioxide, including a description of the following:
 - (i) The hydrology, aquifer and groundwater properties, such as acidity and dissolved gases;
 - (ii) Where appropriate, the soils and soil gas properties, such as a carbon dioxide isotope analysis and carbon dioxide flux rate;
 - (iii) The ecosystems and the possible presence of rare or endangered or sensitive species and their habitats;
 - (iv) Climatic data;
 - (b) Demonstrate that the proposed project activity¹⁹ does not involve:
 - (i) The transport of carbon dioxide from one country to another; and/or
 - (ii) A geological storage site that is located in more than one country.

11.3. Host Party participation requirements

168. Project participants implementing a CCS project activity shall demonstrate that the host Party of the CCS project activity has:
- (a) Submitted an expression of its agreement to the UNFCCC secretariat to allow the implementation of CCS project activities on its territory; and
 - (b) Established laws or regulations in accordance with the host Party participation requirements set out in section “Participation requirements of host Party for CCS project activities” of the Project cycle procedure, which state that, prior to hosting CDM CCS project activities on its territory, a host Party shall ensure that it has established laws and/or regulations which:
 - (i) Set procedures that include provisions for the appropriate selection, characterization and development of geological storage sites, recognizing the project requirements for CCS project activities under the CDM set out in section 11.4 below;
 - (ii) Define means by which rights to store carbon dioxide in, and gain access to, a subsurface pore space can be conferred to project participants;

¹⁹ As per paragraphs 10 and 41 of decision 5/CMP.8; the CMP decided that the eligibility of these types of project activities shall be considered by the Subsidiary Body for Scientific and Technological Advice at its forty-fifth session, and also decided that although these types of project activities would merit inclusion under the CDM, more practical experience of carbon dioxide capture and storage project activities in geological formations under the CDM would be beneficial.

- (iii) Provide for timely and effective redress for affected entities, individuals and communities for any significant damages, such as environmental damage, including damage to ecosystems, other material damages or personal injury, caused by the project activity, including in the post-closure phase;
- (iv) Provide for timely and effective remedial measures to stop or control any unintended seepage of carbon dioxide, to restore the integrity of a geological storage site, and to restore long-term environmental quality significantly affected by a CCS project activity;
- (v) Establish means for addressing liability arrangements for carbon dioxide geological storage sites, taking into account the provisions set out in section 11.9 below;
- (vi) For a host Party that accepts the obligation to address a net reversal of storage, establish measures to fulfil such an obligation.

169. In addition to the requirements for approval and authorization set out in section 7.6 above, project participants shall seek written confirmation of the following from the DNA of the host Party:

- (a) That the right to store carbon dioxide in, and gain access to, the proposed geological storage site has been conferred to them;
- (b) That the host Party agrees to the financial provision described in the PDD (see section 11.8 below);
- (c) That the host Party accepts the allocation of liability as proposed in the PDD and the transfer of liability (see section 11.9 below);
- (d) Whether the host Party accepts the obligation to address a net reversal of storage in the situation referred to in the section “Addressing non-permanence in CCS project activities” of the Project cycle procedure.

11.4. Selection and characterization of the geological storage site

170. The project participants shall describe the selection and characterization of geological storage site. Projects participants shall demonstrate that the they have selected a geological storage site:

- (a) In which, under the proposed conditions of use:
 - (i) There is no significant risk of seepage (as evidenced by the results of the risk and safety assessment carried out in accordance with section 11.6 below);
 - (ii) No significant environmental or health risks exist (as evidenced by the risk and safety assessment carried out in accordance with section 11.6); and
 - (iii) The selected geological storage site complies with all laws and regulations of the host Party, as applicable;
- (b) That is not located in international waters.

171. When selecting a geological storage site, projects participants shall evaluate:
- (a) All available evidence, such as data, analysis and history matching, indicating that the injected carbon dioxide will be completely and permanently stored such that, under the proposed or actual conditions of use, no significant risk of seepage or risk to human health or the environment exists. The results of this evaluation should be supported by, and consistent with, the results of the risk and safety assessment carried out in accordance with section 11.6 below;
 - (b) Whether the geological storage site is suitable for potable water supply.
172. If the proposed geological storage site is suitable for potable water supply, a decision about whether the site is eligible for geological storage shall be made by the host Party, taking into account the results of the site characterization and the risk and safety assessment of the proposed geological storage site, following the procedures outlined in the CCS modalities and procedures.
173. When characterizing the geological storage site, project participants shall take the following steps:
- (a) Step 1: data and information collection, compilation and evaluation. The project participant shall collect sufficient data and information to characterize the geological storage site and determine potential seepage pathways. The project participant shall evaluate (i) the collected data and information in order to make a preliminary assessment of the site's storage capacity and to assess the viability of monitoring and (ii) the quality of the data and information and, where required, collect new data;
 - (b) Step 2: characterization of the geological storage site architecture and surrounding domains. The project participant shall assess the known and inferred structures within the injection formation(s) and cap rock formation(s) that would act as barriers to, or facilitators of, the migration of injected carbon dioxide. The project participant shall compile a numerical three-dimensional static earth model (or models) of the geological storage site. The project participant shall assess the uncertainty associated with key parameters used to build the model. The model shall be used by the project participant to characterize, inter alia:
 - (i) The structure of the geological containment;
 - (ii) All relevant geological properties of the injection formation(s);
 - (iii) The cap rock formation(s) and overburden;
 - (iv) The fracture system;
 - (v) The areal and vertical extent of the geological storage site (e.g. the injection formation, the cap rock formation, overburden, secondary containment zones and surrounding domains);
 - (vi) The storage capacity in the injection formation(s);
 - (vii) The fluid distribution and physical properties;
 - (viii) Other relevant characteristics;

- (c) Step 3: characterization of dynamic behaviour, sensitivity characterization and risk assessment. The project participant shall assess how the injected carbon dioxide can be expected to behave within the geological storage site architecture and surrounding domains, with a particular focus on the risk of seepage. The project participant shall utilize numerical dynamic modelling of the injected carbon dioxide using the static model developed in step 2 above to assess:
 - (i) Coupled processes (i.e. the interaction between each single process in the model);
 - (ii) Where possible, reactive processes (e.g. the interaction of injected carbon dioxide with in situ minerals in the numerical model); and
 - (iii) Short-term and long-term simulations.

Such numerical modelling shall be used to provide insight into the pressure and extent of carbon dioxide in the geological storage site over time, the risk of fracturing the cap rock formation(s) and the risk of seepage. Multiple simulations shall be conducted to identify the sensitivity of the assessments to assumptions made. The simulations carried out in this step shall form the basis for risk and safety assessments, detailed in section 11.6 below;

- (d) Step 4: establishment of a site development and management plan. Drawing on steps 1–3 above, the project participant shall establish a site development and management plan. The development and management plan shall address the proposed conditions of use for the geological storage site and include, inter alia, descriptions of:
 - (i) The preparation of the site;
 - (ii) Well construction, such as materials and techniques used, and the location, trajectory and depth of the well;
 - (iii) Injection rates and the maximum allowable near-wellbore pressure;
 - (iv) Operating and maintenance programmes and protocols;
 - (v) The timing and management of the closure phase of the proposed CCS project activity, including site closure and related activities.

174. When characterizing and selecting a geological storage site, project participants shall use a wide range of data and information, including, inter alia:

- (a) Geological information, such as descriptions of the overburden and cap rock formation(s) and injection formation(s), locations of mapped faults, subsurface well and wellbore information, permeability and porosity, which are important in determining the injectivity of the injection formation, and the cap rock formation containment capacity, and information about regional tectonics, including the stress field and historical seismic activity;
- (b) Geophysical information, such as the thickness and lateral extent of the storage and cap rock formation(s), pressure, temperature, the existence of faults, and reservoir heterogeneity. Sources of data may include, inter alia, well logs, sonic logs and seismic surveys;

- (c) Geomechanical information, such as the stress state and the rock fracture pressure within the injection formation(s) and the cap rock formation(s). Sources of data include borehole data, such as breakouts inferred from calliper and televiewer logs, minifrac results, information about anisotropy within the reservoir, and mud loss events;
 - (d) Geochemical information, such as information on rock and fluid properties and mineralogy. Fluid properties, such as the brine salinity, should also be used to determine dissolution trapping rates;
 - (e) Hydrogeological information, such as aquifer characteristics and aquifer flow direction and rates within the geological storage site, the overburden and surrounding domains.
175. Project participants shall demonstrate that they have selected and characterized the geological storage site in accordance with the requirements referred to in paragraphs 170–174 above and provide all relevant supporting documents. Project participants shall describe and document transparently the methods, assumptions and models used, the type and sources of information and data used, as well as the process and steps taken to characterize and select the geological storage site, including the findings and outcomes from each step.

11.5. Project boundary

176. The following applies in addition to paragraphs 40 and 41 above. The project participants shall define the boundary of a CCS project activity to include:
- (a) Where applicable, the following:
 - (i) The installation where the carbon dioxide is captured;
 - (ii) Any treatment facilities;
 - (iii) Transportation equipment, including pipelines and booster stations along a pipeline, or offloading facilities in the case of transportation by ship, rail or road tanker;
 - (iv) Any reception facilities or holding tanks at the injection site;
 - (v) The injection facility;
 - (vi) Subsurface components, including the geological storage site and all potential sources of seepage, as determined during the characterization and selection of the geological storage site;
 - (b) The vertical and lateral limits of the carbon dioxide geological storage site that are expected when the carbon dioxide plume stabilizes over the long term during the closure phase and the post-closure phase.

11.6. Risk and safety assessment

177. Project participants shall carry out a comprehensive risk and safety assessment in order to assess the integrity of the geological storage site and potential impacts on human health and ecosystems in proximity to the proposed CCS project activity. The risk and

safety assessment shall also be used to inform environmental and socioeconomic impact assessments. The risk and safety assessment shall:

- (a) Consider specific risks associated with containment failure resulting in emissions of greenhouse gases from above-ground installations and seepage from subsurface installations, and the potential effects on, inter alia:
 - (i) The contamination of underground sources of drinking water;
 - (ii) The chemical properties of seawater;
 - (iii) Human health and ecosystems (e.g. as a result of carbon dioxide accumulations at dangerous levels in non-turbulent air);
- (b) Consider the risk of continuous slow seepage from a geological storage site. This type of event can arise due to, inter alia:
 - (i) Seepage along injection well(s) or abandoned well(s);
 - (ii) Seepage along a fault or fracture;
 - (iii) Seepage through the cap rock formation;
- (c) Consider the risk of sudden mass release of carbon dioxide from surface CCS installations, for example due to pipeline rupture;
- (d) Cover the full chain of CCS, including surrounding environments;
- (e) Provide assurance of safe operational integrity regarding the containment of carbon dioxide, based on site-specific information about the geological storage site, potential seepage pathways, and secondary effects of storing carbon dioxide in the geological storage site, such as brine migration;
- (f) Be used to determine operational data for the application of the site development and management plan, such as to set the appropriate maximums of injection pressure that will not compromise the confining cap rock formation(s) and the overburden of the geological storage site;
- (g) Take account of the effects of potential induced seismicity or other geological impacts, as well as any other potential consequences for the environment, including on local ecosystems, property and public health, and global environmental effects on the climate directly attributable to the CCS project activity, including effects due to seepage;
- (h) Be used to help prioritize locations and approaches for enhanced monitoring activities;
- (i) Provide a basis for remedial measures, including plans for responses that can stop or control any unintended emissions from surface CCS installations and seepage of carbon dioxide, restore the integrity of a geological storage site, and restore long-term environmental quality significantly affected by a CCS project activity. Such measures and plans shall accompany monitoring plans;
- (j) Include a communication plan.

178. In order to assess the potential risks of carbon dioxide capture, transportation and storage in a geological storage site, project participants shall take the following steps:
- (a) Step 1: hazard characterization. The project participant shall analyse the following:
 - (i) Potential hazards resulting from the capture, transportation and injection of carbon dioxide;
 - (ii) Potential seepage pathways from the geological storage site;
 - (iii) The magnitude of potential seepage for identified potential seepage pathways;
 - (iv) Critical parameters affecting potential seepage, such as the maximums of injection formation pressure, injection rates and temperature;
 - (v) The sensitivity to various assumptions made during numerical modelling;
 - (vi) Any other factors which could pose a hazard to human health and the environment;
 - (b) Step 2: exposure assessment. The project participant shall undertake an exposure assessment based on the characteristics of surrounding populations and ecosystems, the potential fate and behaviour of any seeped carbon dioxide, and other factors;
 - (c) Step 3: effects assessment. The project participant shall undertake an effects assessment based on the sensitivity of species, communities or habitats linked to potential seepage events identified during the hazard characterization and the effects of elevated carbon dioxide concentrations in the atmosphere, biosphere and hydrosphere;
 - (d) Step 4: risk characterization. The project participant shall assess the safety and integrity of the geological storage site in the short-, medium- and long-term, including an assessment of the risk of seepage under the proposed conditions of use set out in the site development and management plan;
 - (e) Step 5: contingency plan for large incidents, including seepage. The project participant shall prepare all the necessary plans that are to be put in place in case of large incidents, including availability of trained personnel, materials and equipment and financial means to mitigate adverse impacts of the incident and teams prepared to act as swiftly as possible.
179. Project participants shall provide:
- (a) A detailed description of the risk and safety assessment referred to in paragraphs 177 and 178 above;
 - (b) A copy of the communications and contingency plans referred to in paragraphs 177 and 178 above; and
 - (c) References to all relevant supporting documents.

11.7. Monitoring

180. Project participants shall include in the PDD provisions for monitoring the proposed CCS project activity that meet the following objectives:
- (a) To provide assurance of the environmental integrity and safety of the geological storage site;
 - (b) To confirm that the injected carbon dioxide is contained within the geological storage site and within the project boundary;
 - (c) To ensure that injected carbon dioxide is behaving as predicted in order to minimize the risk of any seepage or other adverse impacts;
 - (d) To ensure that good site management is taking place, taking account of the proposed conditions of use set out in the site development and management plan, established in step 4 of section 11.4 above;
 - (e) To detect and estimate the flux rate and total mass of carbon dioxide from any seepage;
 - (f) To determine whether timely and appropriate remedial measures have been carried out in the event of seepage;
 - (g) To determine the reductions in anthropogenic emissions by sources of greenhouse gases that have occurred as a result of the registered CCS project activity.
181. In developing the monitoring plan for the proposed CCS project activity, project participants shall meet the objectives set out above by:
- (a) Reflecting the principles and criteria of international good practice for the monitoring of geological storage sites and consider the range of technologies described in the relevant sections of the Intergovernmental Panel on Climate Change (IPCC) 2006 Guidelines for National Greenhouse Gas Inventories and other good practice guidance;
 - (b) Transparently specifying which parameters and information will be monitored and collected, and the location and frequency of application of different monitoring techniques during the operational phase, closure phase and post-closure phase;
 - (c) Providing for specific techniques and methods that can:
 - (i) Detect and estimate the quantity of the carbon dioxide stored in the geological storage site;
 - (ii) Detect potential seepage via pathways in the cap rock formation(s) and in the overburden and surrounding domains in the geological storage site;
 - (iii) Estimate the flux rate and total mass of carbon dioxide from any seepage;
 - (d) Including provisions for history matching, by using the monitoring results to calibrate and update the numerical models that were used to characterize the geological storage site;

- (e) Providing for measurement of the carbon dioxide stream and composition, including impurities, at various points in the carbon dioxide capture, transportation and storage chain, including at the point(s) of injection into the geological storage site, at an appropriate frequency;
 - (f) Providing for measurement of the temperature and pressure at the top and bottom of the injection well(s) and observation well(s), at an appropriate frequency;
 - (g) Providing for the monitoring and measurement of various geological, geochemical and geomechanical parameters, such as fluid pressures, displaced fluid characteristics, fluxes and microseismicity, at an appropriate frequency;
 - (h) Providing for the monitoring and measurement of relevant parameters in the overburden and surrounding domains of the geological storage site, such as the monitoring of groundwater properties, soil gas measurements and measurements of the surface concentrations of carbon dioxide in the air, which shall be calibrated to detect signs of seepage, at an appropriate frequency;
 - (i) Providing for the detection of corrosion or degradation of the transport and injection facilities;
 - (j) Providing for an assessment of the effectiveness of any remedial measures taken in the event of seepage.
182. Project participants shall, for each verification period, carry out history matching and, where necessary, update the numerical models used to characterize the geological storage site by conducting new simulations using the monitored data and information. Project participants shall adjust the numerical models if significant deviations (as defined in the approved CCS methodology used by the CCS project activity) occur between observed and predicted behaviour. The project participants shall immediately notify the host Party and the Board in writing if a significant deviation occurs at any stage of the project cycle.
183. Where significant deviations are observed during history matching or when requesting a renewal of the crediting period, the project participants shall, as appropriate:
- (a) Recharacterize the geological storage site, in accordance with section 11.4 above;
 - (b) Revise the project boundary;
 - (c) Update the risk and safety assessment, in accordance with section 11.6 above;
 - (d) Update the environmental and socioeconomic impact assessments, referred to in section 11.10 below;
 - (e) Revise the monitoring plan, in order to improve the accuracy and/or completeness of data and information, taking into account observed deviations determined during history matching, changes to the project boundary, changes to the risk and safety assessment, changes to the environmental and socioeconomic impact assessments, new scientific knowledge and improvements in the best available technology;

- (f) Update the site development and management plan, taking account of the results of the activities described in subparagraphs (a–e) above, where appropriate.
184. Where the information prepared in accordance with paragraph 183 above indicates that the geological storage site no longer meets the requirements set out in paragraphs 170 and 171 above, the issuance of CERs shall cease.
185. Project participants shall account for any seepage that occurs during the crediting period(s) of a CCS project activity as project or leakage emissions in the calculation of the monitored reductions in anthropogenic emissions by sources of greenhouse gases that have occurred as a result of the registered CDM CCS project activity. Any seepage that occurs after the end of the last crediting period shall be quantified and reported in monitoring reports.
186. The monitoring of the geological storage site shall:
- (a) Begin before injection activities commence, to ensure adequate time for the collection of any required baseline data;
 - (b) Be conducted at an appropriate frequency during and beyond the crediting period(s) of the proposed CCS project activity;
 - (c) Not be terminated earlier than 20 years after the end of the last crediting period of the CDM project activity or after the issuance of CERs has ceased, whichever occurs first;
 - (d) Only be terminated if no seepage has been observed at any time in the past 10 years and if all available evidence from observations and modelling indicates that the stored carbon dioxide will be completely isolated from the atmosphere in the long term. This may be demonstrated through the following evidence:
 - (i) History matching confirms that there is agreement between the numerical modelling of the carbon dioxide plume distribution in the geological storage site and the monitored behaviour of the carbon dioxide plume;
 - (ii) Numerical modelling and observations confirm that no future seepage can be expected from the geological storage site.
187. The project participant(s) liable for the geological storage site, or an entity that is under contract to the project participant(s), shall conduct the monitoring of the geological storage site unless and until the transfer of liability to the host Party is effected in accordance with section 11.9 below.

11.8. Requirements for financial provision

188. Project participants shall establish a financial provision that:
- (a) Meets all obligations in accordance with the laws and regulations of the host Party arising from the establishment and operation of the proposed CCS project activity;
 - (b) Allows for the ongoing safe operation of the geological storage site in accordance with the laws and regulations of the host Party;

- (c) Addresses the risk of project participant insolvency in accordance with the laws and regulations of the host Party;
- (d) Offers a means of redress for affected communities and ecosystems in the event of seepage from a geological storage site of a CCS project activity in accordance with the laws and regulations of the host Party;
- (e) Enables the host Party to discharge its obligations arising in connection with the transfer of liability.

189. The financial provision shall cover:

- (a) The cost of ongoing monitoring, at an appropriate frequency, of the geological storage site and of verification and certification by a DOE for at least 20 years after the end of the last crediting period of the CCS project activity or after the issuance of CERs has ceased, whichever occurs first;
- (b) In the event of seepage, the cost associated with the obligations set out in section “Addressing non-permanence in CCS project activities” of the Project cycle procedure;
- (c) The cost of any remedial measures required by laws and regulations of the host Party;
- (d) Any other requirements determined by the host Party that are agreed at the time of the host Party approval and described in the PDD.

190. Project participants shall describe the type and amount of the financial provision and provide a detailed cost estimate for each of the requirements referred to in paragraph 189 above, including underlying assumptions and justifications.

191. The financial provision shall, in accordance with the laws and regulations of the host Party, be transferable to the host Party upon fulfilment of all obligations of the project participants in accordance with the CDM rules and requirements and the laws and regulations of the host Party, or upon insolvency of the project participant(s).

11.9. Liability

192. Project participants shall clearly document in the PDD how the liability obligations arising from the proposed CCS project activity or its geological storage site are allocated during the operational phase, closure phase and post-closure phase.

193. Relevant provisions of laws and regulations of the host Party, including those referred to in section 11.3 above, shall apply to matters related to liability.

194. During the operational phase and any time thereafter until a transfer of liability to the host Party has been effected in accordance with paragraph 195 below, liability shall reside with the project participants.

195. A transfer of liability from a project participant(s) to the host Party shall be effected after:

- (a) The monitoring by the project participant of the geological storage site has been terminated in accordance with the conditions for such termination, as set out in section 11.7 above;

- (b) The host Party has established that the conditions set out by the DNA in its letter of approval, referred to in section 11.3 above, and those set out in the relevant laws and regulations applicable to the geological storage site, have been complied with.

196. Project participants shall notify the Board in writing, through the relevant DNA, not less than six months before the transfer of liability is scheduled to occur.

11.10. Environmental and socioeconomic impact assessments

197. The following applies instead of paragraphs 72 and 73 above: The project participants shall carry out comprehensive environmental and socioeconomic impact assessments in accordance with the laws and regulations of the host Party, including with regard to potential transboundary impacts, drawing upon the risk and safety assessment referred to in section 11.6 above. Such assessments shall:

- (a) Include a detailed description of the planned monitoring and remedial measures to address any environmental and socioeconomic impacts identified, and be compiled in accordance with procedures as required by the host Party;
- (b) Analyse thoroughly and exhaustively air emissions (e.g. nitrogen oxides, sulphur oxides, dust, mercury, polycyclic aromatic hydrocarbons), solid waste generation, and water use associated with current CCS technologies;
- (c) Be conducted applying the best available techniques in order to facilitate a high level of protection for the environment as a whole and for communities;
- (d) Include at least a comprehensive analysis of the environmental and socioeconomic impacts including consideration of the potential impacts of carbon dioxide storage on potable water supply.

198. Project participants shall provide a detailed summary of the environmental and socioeconomic impact assessment and provide references to all relevant supporting documents.

11.11. Verification and certification

199. Project participants may select the time for the initial verification and certification of a CCS project activity by a DOE, taking into account that subsequent verification and certification reports shall be submitted by the DOE to the Board not later than five years after the end of the previous verification period.

200. Verification and certification of a CCS project activity shall continue, in accordance with paragraph 196 above, beyond the end of the last crediting period by the DOE appointed by project participants and until such time as the monitoring of the geological storage site has been terminated in accordance with the conditions for the termination of monitoring, as set out in paragraph 186 above.

12. Specific design requirements for programmes of activities

12.1. General

201. The coordinating/managing entity shall develop generic CPA-DDs and specific-case CPA-DDs referring to the relevant requirements in sections 7 and 8, 9 or 10 above as well as the relevant requirements in section 12 below.

12.2. Selection of methodology and standardized baseline

202. In selecting an approved methodology(ies) and, where applicable, an approved standardized baseline(s), the coordinating/managing entity shall consider that any approved methodology and approved standardized baseline are applicable to CPAs under a PoA.²⁰

12.3. Description of programme of activities

203. The coordinating/managing entity shall develop a framework for the implementation of the proposed CDM PoA and inclusion of CPAs under the PoA.
204. The coordinating/managing entity shall describe the policy/measure or stated goal that the proposed CDM PoA seeks to achieve.
205. The coordinating/managing entity shall confirm that the proposed CDM PoA is a voluntary action by the coordinating/managing entity.
206. The coordinating/managing entity shall define the boundary for the proposed CDM PoA in terms of a geographical area (e.g. municipality, region within a country, country or several countries) within which all CPAs to be included in the PoA will be implemented. The coordinating/managing entity shall take into consideration all applicable national and/or sectoral policies and regulations within the chosen boundary in the establishment of the baseline.
207. As part of the proposed CDM PoA, the coordinating/managing entity shall prepare generic CPA-DDs with generic information applicable to all CPAs that will be included in the PoA. For PoAs applying more than one technology/measure or more than one

²⁰ See EB 68 meeting report, paragraph 97.

methodology, the coordinating/managing entity shall prepare a generic CPA for each technology/measure, each methodology and each combination thereof.²¹

208. The coordinating/managing entity shall consider any specific guidance in applied methodologies regarding the requirement to prepare separate generic CPA-DDs for each different technology/measure, taking into account differences in the means of demonstration of additionality, emission reduction calculations, and monitoring methods applicable to the technologies/measures being implemented. As an exception, when the technologies/measures are included in the positive lists for additionality demonstration under the “Guidelines on demonstration of additionality of small-scale project activities” or “Guidelines on demonstration of additionality of microscale project activities” the generic CPA-DD may cover more than one technology/measure. However, the coordinating/managing entity shall still include all the information related to eligibility criteria, emission reduction calculations and monitoring requirements for each technology/measure separately taking into account any specific guidance in the applied methodologies.
209. Also as part of the proposed CDM PoA, the coordinating/managing entity shall develop specific-case CPA-DDs²² under the PoA as follows:
- (a) For PoAs applying the same technology/measure under the same methodology across all CPAs, at least one specific-case CPA-DD shall be provided;
 - (b) For PoAs applying more than one technology/measure or more than one methodology, at least one specific-case CPA-DD for each generic CPA-DD shall be provided. In cases where not all specific-case CPA-DDs to cover all generic CPA-DDs can be provided at the time of the publication of the PoA-DD for global stakeholder consultation, at least one specific-case CPA-DD corresponding to any of the generic CPA-DDs shall be provided at the time of the publication of the PoA-DD for global stakeholder consultation. In this case, at least one specific-case CPA-DD shall be provided for each of the remaining generic CPA-DDs at the time of request for registration of the PoA or after the registration of the PoA. In the latter case, the specific-case CPA-DDs shall be provided for approval by the Board in accordance with the post-registration change process as defined in the Project cycle procedure. If the generic CPA-DD contains more than one technology/measure in accordance with paragraph 208 above, the specific-case

²¹ For instance a PoA for efficient residential lighting applying more than one methodology will need more than one generic CPA-DD (e.g. a generic CPA-DD for efficient residential lighting under AMSII.C and a generic CPA-DD for efficient residential lighting under AMSII.J). Similarly a PoA for energy efficiency activities applying a single methodology but including different technologies will need more than one generic CPA-DD (e.g. a generic CPA-DD for efficient street lighting under AMSII.C and a generic CPA-DD for efficient water pumping under AMSII.C). Furthermore, a PoA for treatment of domestic manure would need more than one generic CPA-DD for applying more than one combination of methodologies (e.g. a generic CPA-DD for applying the combination AMSIII.R.+AMSI.E.+AMSI.I. and a generic CPA-DD for applying the combination AMSIII.R.+AMSI.I.). However, separate generic CPA-DDs are not required to cover cases that do not differ in terms of emission reduction calculations (e.g. separate generic CPA-DDs are not required for installing prefabricated project stoves of efficiency N under methodology AMSII.G by manufacturer M1 versus installing prefabricated project stoves of efficiency N under methodology AMSII.G by manufacturer M2).

²² Also referred to as actual-case or real-case CPA-DDs.

CPA-DD(s) to be submitted may correspond to any one of the technologies/measures or their combination.

- (c) For PoAs hosted in more than one Party, one specific-case CPA-DD for each host Party shall be provided at the time of the publication of the PoA-DD for global stakeholder consultation. In this case, if the PoA-DD defines more than one generic CPA-DD, the specific-case CPA-DD for a host Party may correspond to any generic CPA-DD. However, the requirements in subparagraph (b) above shall still apply to the PoA as a whole.
210. The coordinating/managing entity shall establish and implement, and provide a description of, the operational and management arrangements for the implementation of the proposed CDM PoA. These arrangements may be integrated with the management system required in the “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities”.

12.4. Description of component project activities

211. The coordinating/managing entity shall provide the geographic reference or other means of identification²³ of the CPAs.
212. The coordinating/managing entity shall identify the entity/individual responsible for the operation of the CPAs (name and contact details).
213. The coordinating/managing entity shall confirm that all CPAs are neither registered as a CDM project activity nor included in another registered PoA.

12.5. Eligibility criteria

214. The coordinating/managing entity shall define in the proposed CDM PoA the eligibility criteria for inclusion of a CPA under the PoA, in accordance with the “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities”.

12.6. Application of selected baseline and monitoring methodologies and selected standardized baselines

12.6.1. General requirements

215. The coordinating/managing entity applying combinations of technologies/measures and/or approved CDM methodologies among CPAs of a PoA shall apply the combinations in accordance with the “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities” and the Project cycle procedure.

12.6.2. Demonstration of additionality

216. Paragraph 217 below shall apply instead of paragraphs 49- 52 above.

²³ For example: the geographic reference for stationary CPAs; the registration number or GPS devices for mobile CPAs.

217. The coordinating/managing entity shall demonstrate the additionality of the proposed CDM PoA in accordance with the “Standard: Demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programmes of activities”.

12.6.3. Sampling

218. If the coordinating/managing entity utilizes sampling for the determination of parameter values for calculating GHG emission reductions, the coordinating/managing entity shall develop and describe the sampling plan in accordance with the “Standard for sampling and surveys for CDM project activities and programme of activities”.
219. If the request for issuance of the PoA is done as per paragraph 315(c)(ii) and (iii), the sampling shall be conducted at the level of the batch or CPA.

12.7. Debundling of small-scale component project activities

220. The coordinating/managing entity shall demonstrate that the proposed small-scale CPA is not a debundled component of a large-scale activity, in accordance with the “Guidelines on assessment of debundling for SSC project activities”.

12.8. Duration and crediting period

12.8.1. Duration of programme of activities and component project activities

221. Paragraphs 222–230 shall apply instead of paragraphs 66–67 above.
222. The coordinating/managing entity shall determine the start date of the proposed CDM PoA and provide a description of how the start date has been determined. The start date of a PoA shall be either of the two dates below:
- (a) The date of notification of the intention to seek the CDM status by the coordinating/managing entity to the DNA(s) of the host Party(ies) and the secretariat; or
 - (b) The date of publication of the PoA-DD for global stakeholder consultation.
223. The coordinating/managing entity shall specify the duration of the proposed CDM PoA, which shall not exceed 28 years (60 years for a proposed CDM A/R PoA), counting from the start date of the PoA.
224. The coordinating/managing entity shall determine the start date and expected operational lifetime of any proposed CPA and provide a description of how the start date has been determined. The start date of a CPA is the earliest date at which either the implementation or construction or real action of the CPA begins.

225. The coordinating/managing entity shall confirm that the start date of any proposed CPA is on or after the start date of the PoA.²⁴

12.8.2. Crediting period

226. Paragraphs 227–230 below shall apply instead of paragraphs 68–71 above.
227. The coordinating/managing entity shall renew the PoA every seven years (every 20 years for an A/R PoA) counting from the date of its registration.
228. The coordinating/managing entity shall select the type (fixed or renewable) and duration of the crediting period of a proposed CPA, considering:²⁵
- (a) The start date of the crediting period for the CPA shall be on or after:
 - (i) The date of registration of the PoA, if the corresponding CPA-DD is submitted together with the request for registration;
 - (ii) The date of approval of the CPA, if the specific-case CPA-DD is correspondingly submitted for approval by the Board in accordance with paragraph 209(b)168(b) above;
 - (iii) The date when the CPA was included in accordance with the Project cycle procedure;
 - (b) If a renewable crediting period type is chosen for a CPA, each renewable crediting period shall be at most seven years (20 years for an A/R CPA) and may be renewed at most two times, for a maximum total length of 21 years (60 years for an A/R CPA). The first renewal of the crediting period of the CPA shall be conducted no later than seven years after the start date of the crediting period of the CPA;
 - (c) A fixed crediting period shall be at most 10 years;
 - (d) The duration of the crediting period of a CPA shall not exceed the duration of the PoA, regardless of the crediting period type (renewable or fixed) of the CPA;
 - (e) Where ICERs are expected to be issued for a PoA, the dates of renewal of the crediting periods of all CPAs included in the PoA are to be aligned with the date of renewal of the PoA.
229. The coordinating/managing entity shall determine only one start date for the crediting period of the proposed CDM CPA, even in cases of phased implementation of the CPA.

²⁴ Exceptions indicated for A/R project activities under paragraph 145(c) also apply to A/R CPAs, i.e. any A/R project activity that started after 1 January 2000, but has not been registered as a CDM project activity may be included as a CPA in an A/R PoA after 31 December 2005 as long as the first verification of the A/R CPA occurs after the date of inclusion of this CPA, and the A/R CPA can accrue temporary certified emission reductions (tCERs) or long-term certified emission reductions (ICERs) as of the starting date.

²⁵ See footnote 23 above.

230. The coordinating/managing entity shall state the start date of the crediting period of the proposed CDM CPA in the format dd/mm/yyyy, and shall not attach any qualifications to the start date, such as “expected”.

12.9. Environmental impacts

231. Paragraph 232 below shall apply for the cases referred to in these paragraphs instead of paragraphs 72 and 73 above. For all other cases, paragraphs 72 and 73 above shall apply. The analysis of the environmental impacts and the environmental impact assessment, as per sections 7.4, 8.7 and/or 9.7 above, may be carried out for the whole PoA or at the CPA level. The coordinating/managing entity shall reflect and describe the level applied.
232. If the proposed CDM PoA will include only small-scale non-A/R CPAs, the coordinating/managing entity shall carry out an analysis of the environmental impacts of the proposed CDM PoA, if required by the host Party(ies). The coordinating/managing entity shall provide a summary of the analysis and references to all documentation.

12.10. Local stakeholder consultation

233. The local stakeholder consultation, as per section 7.5 above, may be carried out for the whole PoA or at the CPA level. The coordinating/managing entity shall specify the level of consultation applied.
234. For the specific-case CPAs, of which CPA-DDs are to be published together with the PoA-DD for global stakeholder consultation of the proposed CDM PoA, the local stakeholder consultation shall be completed before the submission of the PoA-DD to a DOE for validation. If the local stakeholder consultation is carried out at the CPA level, for CPAs to be included after the registration of the PoA, the local stakeholder consultation shall be completed before their inclusion in the PoA.

12.11. Approval and authorization

235. Each project participant shall be authorized to participate in the proposed CDM PoA by at least one Party involved in the proposed PoA.
236. The CPA implementers responsible for the operation of individual CPAs are not required to be project participants. CDM project participation is only recorded at the PoA level.

12.12. Modalities of communications

237. Paragraph 238 below shall apply instead of paragraph 86(e) above.
238. The MoC statement shall be signed only by an authorized signatory of the coordinating/managing entity.

13. Implementation and monitoring requirements for all project types

13.1. General requirements

- 239. Project participants or the coordinating/managing entity shall implement the registered CDM project activity or PoA in accordance with the description in the registered PDD, PoA-DD or CPA-DD including all physical features.
- 240. Project participants or the coordinating/managing entity shall operate the registered CDM project activity or PoA in accordance with the description in the registered PDD, PoA-DD or CPA-DD.
- 241. Project participants or the coordinating/managing entity shall monitor the registered CDM project activity or PoA and its GHG emission reductions or net GHG removals in accordance with the monitoring plan as described in the registered PDD, PoA-DD or CPA-DD (hereinafter referred to as the registered monitoring plan).
- 242. All monitoring, verifications and requests for issuance of CERs in respect of emission reductions and removal enhancements achieved by CDM project activities and PoAs in the second commitment period (from 1 January 2013) shall be calculated using the GWPs as applied by decision 4/CMP.7.

13.2. General description

- 243. Project participants or the coordinating/managing entity shall provide the following information regarding the implemented registered CDM project activity or PoA:
 - (a) Title and number;
 - (b) Project participants involved;
 - (c) Location;
 - (d) Reference of applied methodology(ies), tool(s) and, where applicable, standardized baseline(s);
 - (e) Type, duration and start date of the crediting period;
 - (f) Number and date of the monitoring period.

13.3. Description of implemented registered project activity or programme of activities

- 244. Project participants or the coordinating/managing entity shall provide a description of the implemented registered CDM project activity or PoA as follows:
 - (a) Description of the installed technology, technical processes and equipment;
 - (b) Information on the implementation and actual operation of the project activity, including relevant dates (e.g. construction, commissioning, start of operation, etc.). For project activities that consist of more than one site, project participants shall describe the status of implementation and start date of operation for each

site. For project activities with phased implementation, project participants shall indicate the progress of the project activity achieved in each phase;

(c) Description of:

- (i) The events or situations that occurred during the monitoring period that may impact the applicability of the applied methodology and, where applicable, the applied standardized baseline;
- (ii) How the issues resulting from these events or situations have been addressed.

245. Project participants or the coordinating/managing entity shall indicate whether any request for prior approval by the Board of changes to the registered CDM project activity or PoA has been submitted, in accordance with the Project cycle procedure, and, if applicable, the date of approval.

13.4. Description of monitoring system

246. Project participants or the coordinating/managing entity shall describe the monitoring system and provide line diagrams (graphical schemes) showing all relevant monitoring points. This description may include data collection procedures (information flow including data generation, aggregation, recording, calculations and reporting), organizational structure, roles and responsibilities of personnel, and emergency procedures for the monitoring system.

13.5. Data and parameters

247. Project participants or the coordinating/managing entity shall provide all parameters used to calculate baseline, project, and leakage GHG emissions by sources or GHG removals by sinks as well as other relevant parameters required by the applied methodology, the registered monitoring plan for the monitoring period and, where applicable, the applied standardized baseline. Project participants or the coordinating/managing entity shall provide information on how data and parameters have been monitored.
248. For each parameter, project participants or the coordinating/managing entity shall:
- (a) Provide the values of the monitored parameter for the purpose of calculating GHG emission reductions or net GHG removals. Where data are measured continuously, they shall be presented using an appropriate time interval (e.g. monthly for a monitoring period of six months or more; weekly if the monitoring period is less than six months; daily if the monitoring period is one month or less). For default values where they are not fixed at validation, the most recent value shall be applied;
 - (b) Describe the equipment used to monitor each parameter, including details on accuracy class, and calibration information (frequency, date of calibration and validity), if applicable per monitoring plan;
 - (c) Describe how the parameters are measured/calculated and the measurement and recording frequency;

- (d) Provide and/or identify the source of data (e.g. logbooks, daily records, surveys, etc.);
 - (e) Provide the calculation method of the parameter, where relevant;
 - (f) Describe the QA/QC procedures applied (if applicable per monitoring plan);
 - (g) Provide information about appropriate emission factors, IPCC default values and any other reference values that have been used in the calculation of GHG emission reductions or net GHG removals.
249. If data and parameters monitored are determined by a sampling approach, the project participants or the coordinating/managing entity shall describe how the sampling has been conducted in accordance with the sampling plan in the registered PDD, PoA-DD or CPA-DD.
250. Project participants or the coordinating/managing entity shall indicate whether any request for temporary deviations or permanent changes from the registered monitoring plan, applied methodology or applied standardized baseline has been submitted, in accordance with the Project cycle procedure, and, if applicable, include the date of approval.
251. For a registered CDM project activity using an approved standardized baseline that standardizes baseline emissions, project participants shall apply, in the first monitoring report of the first crediting period, the version of the applied standardized baseline that contains the more conservative standardized value(s)²⁶ of the parameter(s) (e.g. emission factors) between the latest version²⁷ applicable at the first day of the first monitoring period and the latest version applicable at the last day of the first monitoring period.²⁸ In the subsequent monitoring reports for the first crediting period, project participants shall apply:
- (a) The same version as the one applied in the first monitoring report, where the registered CDM project activity applies:
 - (i) An approved constant standardized baseline that standardizes baseline emissions and that does not require an ex post application of the standardized values; or

²⁶ A more conservative value(s) provides lower baseline emissions. However, if a standardized parameter(s) (e.g. the grid emission factors) as an approved standardized baseline is(are) also used for the purpose of determining the project emissions and/or leakage emissions, a more conservative value(s) provides lower emission reductions.

²⁷ The latest version of the applied standardized baseline(s), referred to in paragraphs 251 and 252, does not refer to the previous version(s) that is(are) still valid after a major and/or minor revision(s) in accordance with the "Procedure: Development, revision, clarification and update of standardized baselines" but refers to the latest version only.

²⁸ See EB 70 meeting report, paragraph 45(c). For example, if version 01.0 is the latest version of the applied standardized baseline at the first day of the first monitoring period while version 02.0 is the latest version at the last day of the first monitoring period and contains more conservative values, version 02.0 applies to the first monitoring report. However, if version 01.0 is the latest version both at the first and last days of the first monitoring period, then version 01.0 applies to the first monitoring report.

- (ii) An approved dynamic standardized baseline²⁹ that standardizes baseline emissions; or
 - (b) The latest version applicable at the first day of each monitoring period, where the registered CDM project activity applies an approved constant standardized baseline that standardizes baseline emissions and that requires an ex post application of the standardized values.³⁰
- 252. For a registered CDM project activity using an approved standardized baseline that standardizes baseline emissions, if the selected type of crediting period is renewable, project participants shall apply, in the first monitoring report for the second or third crediting period, the version of the applied standardized baseline that contains the more conservative standardized value(s) of the parameter(s) (e.g. emission factors) between the latest version applicable on the submission date of the notification of their intention to request a renewal of the crediting period and the latest version applicable on the first day of the first monitoring period in the new crediting period.³¹ In the subsequent monitoring reports for the second or third crediting period, project participants shall apply:
 - (a) The same version as the one applied in the first monitoring report of the respective crediting period, where the registered CDM project activity applies:
 - (i) An approved constant standardized baseline that standardizes baseline emissions and that does not require an ex post application of the standardized values; or
 - (ii) An approved dynamic standardized baseline that standardizes baseline emissions; or
 - (b) The latest version applicable at the first day of each monitoring period, where the registered CDM project activity applies an approved constant standardized baseline that standardizes baseline emissions and that requires an ex post application of the standardized values.

13.6. Calculation of emission reductions or net removals

- 253. Project participants or the coordinating/managing entity shall identify the formulae used and provide the calculations of the following for the monitoring period of the registered CDM project activity or PoA:

²⁹ See EB70 meeting report, paragraph 45(f). A “constant standardized baseline” refers to a standardized baseline without a dynamic factor(s) such as approved standardized baselines ASB0001, ASB0002, ASB0003 and ASB0004. On the other hand, a “dynamic standardized baseline” refers to a standardized baseline with a dynamic factor(s) (e.g. autonomous improvement factors). For example, one option in the calculation of baseline emissions in the approved methodology AM0070 requires that a specific electricity consumption of a certain class and design of refrigerators be reduced annually by a fixed percentage of autonomous improvement factors. Therefore, a standardized baseline developed using the methodological approach of AM0070 can be a dynamic standardized baseline.

³⁰ This refers to an approved standardized baseline that requires project participants to use the latest standardized value(s) of baseline emission parameter(s) in the latest version of the standardized baseline for the monitoring reports subsequent to the first monitoring report.

³¹ See EB 70 meeting report, paragraph 45(d).

- (a) Baseline GHG emissions or baseline net GHG removals;
 - (b) Project GHG emissions or actual net GHG removals;
 - (c) Leakage GHG emissions;
 - (d) GHG emission reductions or net anthropogenic GHG removals.
254. If the monitoring period starts before 31 December 2012 and ends anytime thereafter, the project participants or the coordinating/managing entity shall calculate GHG emission reductions or removals based on a pro-rata approach in the following manner:
- (a) The amount of (raw) emission reductions or removals achieved in the monitoring period for each GHG shall be allocated proportionally to the duration of the period up to 31 December 2012 and the period from 1 January 2013 onwards before multiplying with the GWPs for the respective periods in accordance with paragraph 58 above;
 - (b) If annual caps are applied in the calculation of GHG emission reductions or removals, the annual caps shall be pro-rated to the periods before and after 31 December 2012. In cases where further apportionment is required, the total emission reductions shall be pro-rated.
255. If the monitoring report covers the first date of the renewed crediting period, and where there was a delay in the submission of notification of intention to renew the crediting period, the project participants or the coordinating/managing entity shall determine the first day in which CERs are claimed in accordance with the Project cycle procedure.
256. Project participants or the coordinating/managing entity shall provide a comparison of actual GHG emission reductions or net anthropogenic removal of the registered CDM project activity or PoA with estimates in the registered PDD, PoA-DD or CPA-DD.
257. For any registered CDM project activity or PoA, except A/R project activities, project participants or the coordinating/managing entity shall explain the cause of any increase in the actual GHG emission reductions achieved during the current monitoring period (e.g. higher water availability, higher plant load factor, etc.), including all information (i.e. data and/or parameters) that is different from that stated in the registered PDD, PoA-DD or CPA-DD.

13.7. Verification of implemented registered project activity or programme of activities and monitored emission reductions or net removals

258. Project participants or the coordinating/managing entity wishing to report, for verification and certification by a DOE, on the GHG emission reductions or net GHG removals of the implemented registered CDM project activity or PoA shall prepare a monitoring report for the relevant monitoring period using the latest version of the monitoring report form (CDM-MR-FORM or CDM-POA-MR-FORM) applicable to the project activity, taking into account the grace period of the form if it has been revised.
259. When completing a monitoring report form, project participants shall provide all necessary information and documentation to demonstrate compliance of the implemented registered CDM project activity or PoA and monitored GHG emission

reductions or net GHG removals with all applicable requirements in this Standard and other applicable CDM rules and requirements.

260. When completing a monitoring report form, project participants shall follow the instructions for filling out the monitoring report form attached to the form.
261. Project participants or the coordinating/managing entity shall select a DOE for the verification of the implemented registered CDM project activity or PoA and monitored GHG emission reductions or net GHG removals for the relevant monitoring period that is accredited for the verification function and sectoral scope(s) of the project activity. Project participants or the coordinating/managing entity shall have a contractual arrangement with the DOE for the verification.
262. Project participants or the coordinating/managing entity shall submit the completed monitoring report of the implemented registered CDM project activity or PoA for the relevant monitoring period, together with supporting documentation, to the selected DOE for publication and verification.
263. The project participants or the coordinating/managing entity may request the DOE to withdraw the published monitoring report in accordance with the Project cycle procedure.
264. The project participants or the coordinating/managing entity may request the DOE to withdraw the request for issuance in accordance with the Project cycle procedure. In this case, the project participants or the coordinating/managing entity may prepare a revised monitoring report with the same, reduce or extended monitoring period for publication and verification by the same or different DOE.
265. If the DOE's verification of the monitoring report has been selected by the secretariat as a performance assessment under the "Procedure for accrediting operational entities by the Executive Board of the clean development mechanism (CDM)", project participants or the coordinating/managing entity shall facilitate access to the project site for the CDM assessment team.
266. In case of an A/R CDM project activity and PoA, the project participant or the coordinating/managing entity may select a time for the DOE to undertake the initial verification and certification. In case where tCERs are issued, subsequent verification and certification may be carried out at most once in each subsequent commitment period, at a time selected by the project participants or the coordinating/managing entity. In case where ICERs are issued, subsequent verification and certification shall be carried out within eight years of the date when the previous certification report was submitted until the end of the crediting period.³²

13.8. Post-registration changes

13.8.1. General requirements

267. Project participants or the coordinating/managing entity shall identify and document any actual or proposed changes to the operation, implementation and/or monitoring of the registered CDM project activity or PoA taking into account the types of changes

³² Decision 4/CMP.10 revised the timing of verification for A/R CDM project activities defined in the annex to decision 5/CMP.1.

described in the appendix, which describes the types of changes that do not require prior approval by the Board.

- 268. If there is any change regarding the modalities or information in the MoC statement or its annexes after a request for registration has been submitted, project participants or the coordinating/managing entity shall revise the MoC statement in accordance with the Project cycle procedure.
- 269. Project participants or the coordinating/managing entity shall ensure that any DOE referred to in paragraphs 273, 276, 280, 282, and 296 below is accredited for the validation function and sectoral scope(s) of the registered CDM project activity or PoA.
- 270. The project participants or the coordinating/managing entity wishing to submit a request for approval of changes shall prepare a revised PDD, PoA-DD or CPA-DD (in both track-change and clean versions) using the valid version of the applicable PDD, PoA-DD or CPA-DD form, taking into account the grace period of the form if it has been revised. The project participants or the coordinating/managing entity shall provide a summary of the changes, including the reasons for the changes and any additional information relating to the changes to the PDD, PoA-DD or CPA-DD.
- 271. Apart from the types of changes described in the appendix, project participants or the coordinating/managing entity shall take into account the types of changes described in the sections below, which describe the types of changes that require prior approval by the Board.

13.8.2. Temporary deviations from the registered monitoring plan, applied methodology or applied standardized baseline

- 272. If project participants or the coordinating/managing entity are temporarily unable to monitor the registered CDM project activity or PoA in accordance with the registered monitoring plan, the applied methodology or the applied standardized baseline, project participants or the coordinating/managing entity shall describe the nature, extent and duration of the non-conforming monitoring and the proposed alternative monitoring of the project activity or PoA in the monitoring report.
- 273. In such cases, project participants or the coordinating/managing entity shall either:
 - (a) Inform the DOE contracted to perform a verification for the monitoring period during which they were unable to monitor the registered CDM project activity or PoA in accordance with the registered monitoring plan, the applied methodology or the applied standardized baseline; or
 - (b) Request any DOE at any time prior to the commencement of verification of a monitoring period to assess the proposed alternative monitoring of the project activity or PoA.
- 274. Project participants or the coordinating/managing entity shall apply conservative assumptions or discount factors to the calculations to the extent required to ensure that GHG emission reductions will not be over-estimated as a result of the deviation.

13.8.3. Permanent changes

13.8.3.1. Corrections

275. If project participants or the coordinating/managing entity make any corrections to project information or parameters fixed at validation as described in the registered PDD, PoA-DD or CPA-DD, project participants shall document these corrections in a revised PDD, PoA-DD or CPA-DD.
276. In such cases project participants or the coordinating/managing entity shall either:
- (a) Inform the DOE contracted to perform a verification regarding the corrections; or
 - (b) Request any DOE at any time prior to the commencement of verification to assess the corrections.

13.8.3.2. Changes to the start date of the crediting period

277. Project participants or the coordinating/managing entity of a registered CDM project activity or PoA may not request any changes to the start date of the crediting period of the project activity or included CPA if the start date of the crediting period was prior to the date of registration.
278. Project participants or the coordinating/managing entity of a registered CDM project activity or PoA may not request any changes to the start date of the crediting period of the project activity or included CPA of more than two years, or more than four years for project activities hosted by a least developed country.
279. Project participants or the coordinating/managing entity of a registered CDM project activity or PoA are not required to request prior approval from the Board for the following changes of the start date of the crediting period, but shall notify the secretariat of the changes in accordance with the Project cycle procedure:
- (a) Bringing forward the start date up to one year earlier than that indicated in the registered PDD or included CPA-DD, taking into account that the start date shall not be earlier than the effective date of registration of the project activity or inclusion of the CPA;
 - (b) Postponing the start date by up to one year, – or by up to two years for project activities hosted by a least developed country – later than that indicated in the registered PDD or included CPA-DD.
280. Where the proposed change of the start date of the crediting period of a registered CDM project activity or included CPA constitutes a difference between one and two years – or between two and four years for project activities hosted by a least developed country – project participants or the coordinating/managing entity shall:
- (a) Demonstrate that no changes have occurred to the project activity or CPA that would result in a less conservative baseline, and that substantive progress has been made by the project participants or the coordinating/managing entity to start the project activity or CPA;
 - (b) Submit this demonstration to a DOE for assessment prior to making a request for approval by the Board in accordance with the Project cycle procedure.

13.8.3.3. Delay in submission of monitoring plan

281. The project participant or the coordinating/managing entity may submit the monitoring plan of a registered CDM project activity, PoA or CPA in accordance with section 7.2.8.1 above.
282. If the proposed monitoring plan of a registered CDM project activity, PoA or CPA is submitted for validation at any time prior to the submission of the request for issuance for the first monitoring period, then the project participants or the coordinating/managing entity shall request any DOE to validate the monitoring plan. The monitoring plan shall be approved by the Board prior to the approval of request for issuance for the project activity or PoA.
283. If the project participants or the coordinating/managing entity wish to submit a proposed monitoring plan together with the request for issuance for the first monitoring period, then the project participants or the coordinating/managing entity shall request the DOE contracted to perform verification for the first monitoring period to also perform validation of the monitoring plan.

13.8.3.4. Permanent changes to the registered monitoring plan, applied methodology or applied standardized baseline

284. If project participants or the coordinating/managing entity are unable to implement the registered monitoring plan and it will not be possible to monitor the registered CDM project activity in accordance with a monitoring plan that would comply with the applied methodology, any applicable tools and, where applicable, the applied standardized baseline, project participants or the coordinating/managing entity shall describe the nature and extent of the non-conforming monitoring in a revised PDD, PoA-DD or CPA-DD and the proposed alternative monitoring of the project activity (unless the registered PDD, PoA-DD or CPA-DD already contains this description).
285. If the proposed changes to the monitoring plan refer to a later version of the applied methodology in the registered PDD, PoA-DD or CPA-DD, the project participants or the coordinating/managing entity shall justify that all the requirements in the later version of the methodology have been met and that the application of the later version of the applied methodology does not impact the conservativeness of the monitoring and verification process, including the related emission reduction or removal calculations.
286. In such cases, project participants or the coordinating/managing entity shall request any DOE at any time prior to the commencement of verification of a monitoring period to assess the proposed alternative monitoring of the project activity or PoA.
287. Project participants or the coordinating/managing entity shall apply conservative assumptions or discount factors to the calculations to the extent required to ensure that GHG emission reductions will not be over-estimated as a result of the change.

13.8.3.5. Changes to the project design of a registered project activity or programme design of a registered programme of activities

288. Where there are changes to the project design of a registered CDM project activity, or programme design of a registered PoA or CPA, project participants or the coordinating/managing entity shall prepare a revised PDD, PoA-DD or CPA-DD which describes the nature and extent of the proposed or actual changes.

289. Changes to a registered CDM project activity may include, but not be limited to:
- (a) Changes in the effective output capacity due to increased installed capacity or increased number of units, or installation of units with lower capacity or units with a technology which is less advanced than that described in the PDD;
 - (b) Addition of component or extension of technology;
 - (c) Removal or addition of one site (or more) of a project activity registered with multiple sites;
 - (d) Actual operational parameters which are within the control of project participants differing from the expected parameters;
 - (e) Any consequential changes to the baseline methodology and/or the standardized baseline resulting from subparagraphs (a)–(d) above, including changing or adding another baseline methodology and/or another standardized baseline or applying a baseline scenario that is more appropriate as a result of the proposed or actual modifications to the project activity.
290. Changes to a registered CDM PoA shall be limited to:
- (a) Changes to programme boundary to expand geographical coverage or to include additional host Parties;
 - (b) The following revisions to the eligibility criteria:
 - (i) If the version of a methodology applied by the PoA is revised or replaced subsequent to being placed on hold;
 - (ii) If the revision of the eligibility criteria of a registered PoA is initiated by the Board at any time during the lifetime of the PoA if an issue related to environmental integrity is identified;
 - (iii) If the use of positive lists is introduced based on the “Guidelines on the demonstration of additionality of small-scale project activities” or the provisions of “the Guidelines on demonstrating additionality of microscale project activities”;
 - (c) If a PoA includes more than one generic CPA-DD, the addition of specific-case CPA-DDs corresponding to generic CPA-DDs for which a specific-case CPA-DD has not been submitted at the time of request for registration of the PoA;
 - (d) Removal of methodologies and/or standardized baseline from the registered PoA;
 - (e) Addition or change of technologies/measures with or without addition or change of applied methodologies in the registered PoA-DD as follows:

- (i) Changes that allow a shift to more efficient, less GHG-intensive or at least equivalent technologies/measures;³³
 - (ii) Changes that introduce complementary measures/technologies involving mass and/or energy transfer to/from the originally registered technology/measure (e.g. addition or change of Type I methodologies in a registered PoA primarily applying Type III methodologies).³⁴
- 291. In the cases referred to in paragraph 290(e) above, the scope of changes shall not cover adding technologies/measures and methodologies that are not related to the technologies and methodologies included in the originally registered PoA.³⁵
- 292. Project participants or the coordinating/managing entity shall report in the revised PDD, PoA-DD or CPA-DD the impacts of the proposed or actual changes to the registered CDM project activity, PoA or CPA on the following:
 - (a) The applicability and application of the applied methodology and, where applicable, the applied standardized baseline under which the project activity or PoA has been registered;
 - (b) Compliance of the monitoring plan with the applied methodology and, where applicable, the applied standardized baseline;
 - (c) The level of accuracy and completeness in the monitoring of the project activity or PoA;
 - (d) The additionality of the project activity, PoA or CPA;
 - (e) The scale of the project activity or CPA;
 - (f) The eligibility criteria of PoA.
- 293. If the change to a registered CDM PoA is to include additional host Parties in accordance with paragraph 290(a) above, the coordinating/managing entity shall provide a specific-case CPA-DD for the additional host Parties. In this case, the specific-case CPA-DD may correspond to any generic CPA-DD if the PoA defines more than one generic CPA-DD. The coordinating/managing entity shall obtain a letter of approval from each DNA of new host Parties in accordance with the requirement in section 7.6.
- 294. In cases where the proposed or actual changes affect the additionality of the registered CDM project activity, PoA or CPA, as referred to in paragraph 292(d) above, the

³³ Examples of this are shifting to light emitting diode (LED) lighting from compact fluorescent lamp (CFL) lighting, introducing LED lamps with the Solar Home System (SHS) instead of CFL lamps with the same SHS, shifting from AMS-II.G to AMS-I.E to distribute renewable biomass-burning cookstoves instead of efficient cookstoves using non-renewable biomass, introducing institutional cookstoves for a registered household cookstoves PoA, introducing charcoal-burning stoves (fully accounting for production emissions of charcoal) in a registered PoA that distributes household wood-burning stoves.

³⁴ An example of this is changing the utilization of recovered methane (e.g. from flaring to heat generation, from heat generation to electricity generation). This may involve the addition/change of Type I methodologies to registered PoAs applying Type III waste/wastewater methodologies.

³⁵ An example of this is a PoA registered for biogas digesters providing biogas for cooking in households intending to implement mass rapid transport technologies; this will not be eligible.

demonstration of the impacts of changes shall be based on all original input data. In addition:³⁶

- (a) In the case of investment analysis, project participants or the coordinating/managing entity shall only modify the key parameters in the original spreadsheet calculations affected by the proposed or actual modifications to the project activity or PoA;
 - (b) In cases where only barriers have been claimed to demonstrate additionality, project participants or the coordinating/managing entity shall demonstrate that the barriers are still valid under the new circumstances.
295. The following applies to a registered CDM project activity using an approved standardized baseline that standardizes additionality instead of paragraph 294 above: In cases where the proposed or actual changes affect the additionality of the registered CDM project activity, as referred to in paragraph 292(d) above, the demonstration of the impacts of changes shall be based on the additionality criteria (e.g. positive lists of technologies) identified in the applied standardized baseline(s).
296. Where project participants or the coordinating/managing entity cannot demonstrate compliance with the requirements of the applied methodology and, where applicable, the applied standardized baseline under which the CDM project activity or PoA has been registered, project participants or the coordinating/managing entity shall:
- (a) Revise the PDD, PoA-DD or CPA-DD applying:
 - (i) The latest version of the methodology and/or the standardized baseline; or
 - (ii) Another methodology and/or another standardized baseline that is(are) applicable to the project activity or PoA; and
 - (b) Demonstrate compliance with the requirements of the selected methodology and/or the selected standardized baseline.
297. In such cases, project participants or the coordinating/managing entity shall either:
- (a) Submit the revised PDD, PoA-DD or CPA-DD, together with a monitoring report, to the DOE contracted to perform the verification for the monitoring period of the relevant project activity; or
 - (b) Request any DOE at any time prior to the commencement of verification of a monitoring period to validate the revised PDD, PoA-DD or CPA-DD.

13.9. Renewal of crediting period or programme

298. Project participants wishing to renew the crediting period of a registered CDM project activity or renewal of PoA shall notify the secretariat of their intention in accordance with the Project cycle procedure.
299. The project participants or the coordinating/managing entity shall ensure that the names of the project participants included in the request for renewal of crediting period are

³⁶ If a proposed or actual modification adversely impacts the additionality of the project activity, subsequent requests for issuance based on such modifications will be rejected.

consistent with the names of the registered project participants for the CDM project activity or PoA.

13.9.1. Renewal of crediting period of project activities

300. To support a request for renewal of crediting period of a registered CDM project activity, the project participants shall, using the valid version of the applicable PDD form, taking into account the grace period of the form if it has been revised, update the sections of the PDD of the project activity relating to the baseline, estimated GHG emission reductions or net anthropogenic GHG removals, the monitoring plan and the crediting period using a baseline and monitoring methodology. The project participants are not required to reassess the additionality of the project activity and update the section relating to additionality. The required updates are as follows:
- (a) Project participants shall use the valid version of the approved methodology applied in the original PDD, i.e. the latest version or the previous version if the submission of the revised PDD for the renewal of the crediting period is still within the grace period of the previous version for use;
 - (b) If the methodology applied in the original PDD was withdrawn after the registration of the project activity and replaced by a consolidated methodology, project participants shall use the valid version of the respective approved consolidated methodology, i.e. the latest version or the previous version if the submission of the revised PDD for the renewal of the crediting period is still within the grace period of the previous version for use; or
 - (c) If the registered project activity does not meet the applicability criteria of the options provided for in subparagraphs (a) or (b) above, due to their revision or due to the update of the baseline, project participants shall either:
 - (i) Select another applicable methodology; or
 - (ii) Request, through the DOE, a deviation from the valid version of the methodology (including a consolidated methodology thereof) applied in the registered PDD, or from any other selected methodology, for the purpose of the renewal of the crediting period.
301. In updating the PDD of the registered CDM project activity in accordance with paragraph 300 above, project participants shall consider the application of an approved standardized baseline to the project activity as follows:
- (a) Project participants shall use the valid version of an approved standardized baseline if:
 - (i) An approved standardized baseline is applied in the original PDD and the valid version of the standardized baseline is applicable to the project activity and to the methodology applied in accordance with paragraph 300 above; or
 - (ii) An approved standardized baseline is not applied in the original PDD but the valid version of an approved standardized baseline whose selection is

mandatory³⁷ is applicable to the project activity and to the methodology applied in accordance with paragraph 300 above;

- (b) If the valid version of the standardized baseline applied in the original PDD is no longer applicable to the project activity and/or to the valid version of the methodology applied in the original PDD due to a revision of the standardized baseline after the registration of the project activity, project participants shall:
 - (i) Select another applicable approved standardized baseline; or
 - (ii) Use only the valid version of the methodology that is applied in the original PDD, that is still applicable to the project activity and that can be used independently for estimating emission reductions without using the standardized baseline applied in the original PDD;
 - (c) Project participants may use the valid version of an applicable approved standardized baseline if:
 - (i) An approved standardized baseline is not applied in the original PDD;
 - (ii) The valid version of an approved standardized baseline that standardizes baseline emissions only and does not require mandatory selection is applicable to the project activity and to the methodology applied in accordance with paragraph 300 above;
 - (d) Project participants shall not use an applicable approved standardized baseline if:
 - (i) An approved standardized baseline is not applied in the original PDD;
 - (ii) The valid version of an approved standardized baseline that standardizes additionality and/or the baseline scenario and does not require mandatory selection is applicable to the project activity and to the methodology applied in accordance with paragraph 300 above; or
 - (e) If the updated PDD has been submitted for the notification of the intention to request a renewal of crediting period when no applicable approved standardized baseline was valid, and if after the submission of the updated PDD for the notification of the intention to request a renewal of crediting period but before the submission of a request for renewal of crediting period, an applicable approved standardized baseline whose selection is mandatory has become valid, the request for renewal of crediting period may be submitted without selecting the standardized baseline within 240 days after the standardized baseline became valid.
302. To demonstrate the validity of the original baseline or its update, project participants are not required to re-assess the baseline scenario. Instead, project participants shall assess the GHG emission reductions that would have resulted from that scenario.
303. Project participants shall assess and incorporate the impact of national and/or sectoral policies and circumstances existing at the time of requesting renewal of the crediting

³⁷ For an explanation on the standardized baseline whose selection is mandatory, see footnote 5 above.

period on the current baseline GHG emissions, without reassessing the baseline scenario.

304. The requirements contained in paragraph 303 above are not applicable to a registered CDM project activity using the valid version of an applicable approved standardized baseline that standardizes the baseline scenario in accordance with paragraph 301 above.
305. Where data and parameters used for determining the original baseline that was determined ex ante (and not monitored during the crediting period) are no longer valid, project participants shall update such data and parameters in accordance with the “Tool to assess the validity of the original/current baseline and to update the baseline at the renewal of a crediting period”.
306. Project participants shall commence the next crediting period on the day immediately after the expiration of the current crediting period.
307. Project participants or the coordinating/managing entity wishing to combine a request for approval of any types of changes to the project activity, or PoA or specific-case CPA with the request for renewal of the crediting period may submit the request in accordance with the Project cycle procedure.
308. Project participants shall engage a DOE to undertake a validation of the updated PDD of the registered CDM project activity.

13.9.2. Renewal of programme of activities

309. To support a request for renewal of a registered CDM PoA, the coordinating/managing entity shall comply with the requirements in paragraphs 300–308 above, with the following exceptions:
 - (a) The coordinating/managing entity shall update the eligibility criteria for inclusion of CPAs in the PoA as per the latest applicable version of methodology(ies) and, where applicable, standardized baseline(s) and include them in new versions of the PoA-DD and its generic CPA-DD part;
 - (b) The coordinating/managing entity shall prepare an updated PoA-DD including updated generic CPA-DDs;
 - (c) If the version of the PoA has been revised in accordance with the Project cycle procedure, because the applied methodology and/or the standardized baseline has(have) been revised or replaced after having been placed on hold or withdrawn, the renewal shall occur seven years (or 20 years for A/R project activities) after the approval of the revised version(s) of the methodology and/or the standardized baseline.
310. The result of the process presented in paragraph 309 above defines a new version of the PoA-DD and its generic CPA-DD part.
311. The coordinating/managing entity shall engage a DOE to undertake a validation of the new version of the PoA-DD and the generic CPA-DD.
312. To renew the crediting period of a CPA, the coordinating/managing entity shall submit the updated CPA-DD to a DOE, after having ensured that the CPA meets all

requirements in the latest version of the registered PoA-DD and generic CPA-DDs including eligibility criteria.

13.9.3. Withdrawal of request for renewal of crediting period or renewal of programme of activities

313. At any time before the adoption of the decision on the request of renewal of crediting period or renewal of programme of activities, the project participants or the coordinating/managing entity may contact the DOE to withdraw the request for renewal of crediting period or renewal of programme of activities.

13.10. Specific requirements for small-scale projects activities

314. The project participants shall ensure that the registered small-scale CDM project activity or the sub-bundle of small-scale project activities remains, for every year during the crediting period, within the limit of the type of the project activity or the sub-bundle defined in paragraph 99 above. If, during its implementation and monitoring, the project activity goes beyond the limit of the type in any year of the crediting period, the GHG emission reductions that can be claimed during that particular year shall be capped at the amount calculated with the limit of the type.

13.11. Specific requirements for programme of activities

13.11.1. Monitoring reports

315. The coordinating/managing entity shall:
- (a) Maintain all monitoring results of all CPAs in accordance with the record-keeping system identified in the registered PoA-DD;
 - (b) Prepare, for each monitoring period, either a single monitoring report or 10 separate monitoring reports at the most, whereby:
 - (i) In the case of a single monitoring report, the report shall contain all monitoring results of all CPAs included in the PoA;
 - (ii) In the case of multiple separate monitoring reports, each CPA shall only be included in one of the monitoring reports and all the monitoring reports shall together contain all monitoring results of all CPAs included in the PoA (i.e. all the monitoring reports shall contain mutually exclusive batches of CPAs);
 - (c) Request the issuance of CERs, tCERs or ICERs, through a DOE, as follows:
 - (i) In a single request, if only one monitoring report has been published covering all CPAs except for the case in paragraph 315 (c)(ii) below; or
 - (ii) In 10 separate requests at the most, if originally there were fewer monitoring reports published, but during the course of verification the coordinating/managing entity decided to separate the monitoring results into several monitoring reports. In this case, the number of the requests for issuance shall not be less than the number of monitoring reports published and separate monitoring reports shall be prepared and submitted;

- (iii) In 10 separate requests at the most, with each request corresponding to each monitoring report that is prepared by the coordinating/managing entity;
- (d) Separate the monitoring results of individual CPAs and group the monitoring results by CPA type defined by the relevant generic CPA-DD;
- (e) Make available the monitoring report and all monitoring results requested by a DOE for verification purposes.

13.11.2. Changes of coordinating/managing entity

316. If the coordinating/managing entity of a registered CDM PoA changes after the registration of the PoA, the new coordinating/managing entity shall:
- (a) Obtain a new letter of authorization from each host Party stating the change and confirming the authorization of coordination of the new coordinating/managing entity of the PoA;
 - (b) Provide a confirmation that the registered PoA will be developed and implemented with the same framework as described in the registered PoA-DD;
 - (c) Demonstrate compliance with requirements related to the operational and management arrangements described in paragraph 210 above.
317. The new coordinating/managing entity shall submit the documentation referred to in paragraph 316 above to a DOE for validation.

13.11.3. Inclusion of component project activities in a programme of activities

318. The coordinating/managing entity may include a CPA in a registered CDM PoA at any time during the duration of the PoA provided that the requirements in paragraphs 319–320 below are met.
319. To include a CPA in a registered CDM PoA, the coordinating/managing entity shall ensure that the proposed CPA meets all applicable requirements, including the eligibility criteria for inclusion of a CPA under the PoA specified in the latest version of the registered CDM PoA.
320. The coordinating/managing entity shall then submit to a DOE a completed CPA-DD specific to the proposed CPA demonstrating compliance of the CPA with all applicable requirements.

13.11.4. Voluntary deregistration of registered CDM project activity³⁸ and voluntary exclusion of component project activities from a programme of activities

321. At any time after the registration of a CDM project activity or inclusion of a CPA, the project participants or the coordinating/managing entity may request the secretariat to deregister the project activity or exclude a CPA from a registered PoA in accordance with the Project cycle procedure.

³⁸ For related information, see EB 81 report, paragraph 79.

- 322. The coordinating/managing entity shall not re-include an excluded CPA in the registered CDM PoA.
- 323. The coordinating/managing entity shall confirm that the proposed CDM project activity or CPA is not a CPA that has been voluntarily excluded or excluded as a result of erroneous inclusion from a registered CDM PoA.

Appendix 1. Changes that do not require prior approval by the Executive Board of the clean development mechanism

1. Corrections

1. Any corrections to project information¹ of a registered clean development mechanism (CDM) project activity or programme of activities (PoA) that do not affect the design of the project activity or the PoA do not require prior approval by the CDM Executive Board (the Board).

2. Temporary deviations from the registered monitoring plan, applied methodology or applied standardized baseline

2. If project participants or the coordinating/managing entity have temporarily not monitored parameters related to baseline greenhouse gas (GHG) emissions or are unable to produce evidence related to such monitoring, prior approval by the Board is not required if project participants or the coordinating/managing entity report these parameters as zero.
3. If project participants or the coordinating/managing entity have temporarily not monitored parameters related to project GHG emissions or are unable to produce evidence related to such monitoring, prior approval by the Board is not required if project participants or the coordinating/managing entity estimate these parameters assuming that the source of the GHG emissions operated at maximum capacity for the full period of the missing data. In the case of project GHG emissions related to the consumption of electricity, the estimate shall include an addition of 10 per cent to account for transmission and distribution losses.

3. Permanent changes from the registered monitoring plan, applied methodology or applied standardized baseline

4. If the monitoring equipment actually installed has a lower accuracy level than the one stipulated in the applied methodology, where applicable, the applied standardized baseline and/or the registered monitoring plan, and the monitoring equipment is under the control of the project participants or the coordinating/managing entity, prior approval by the Board is not required if project participants or the coordinating/managing entity adjust the value measured with the equipment as follows:
 - (a) If the parameter is used for calculating baseline GHG emissions, the difference between the accuracy level of the installed monitoring equipment and the accuracy prescribed by the applied methodology, where applicable, the applied

¹ Such corrections may include typographical errors, location, names and numbers of components, etc.

standardized baseline and/or the registered monitoring plan is deducted from the measured value;²

- (b) If the parameter is used for calculating project GHG emissions, the difference between the accuracy level of the installed monitoring equipment and the accuracy prescribed by the applied methodology, where applicable, the applied standardized baseline and/or the registered monitoring plan is added to the measured value.³

5. Changes to the monitoring of the registered CDM project activity or PoA of a type listed below do not require prior approval by the Board:

- (a) Change of calibration frequency or practice for monitoring equipment not within the control of project participants or the coordinating/managing entity;
- (b) Change of accuracy/type/model of meter(s) as per a power purchase agreement (PPA); or
- (c) Change of location of meter(s) as per a PPA;
- (d) Change of location of electricity meters if the transmission loss is taken into account;
- (e) Change of location of substation not within the control of the project participants or the coordinating/managing entity;
- (f) Change of calibration frequency or practice for monitoring equipment as per the applied methodology or national standard; or
- (g) Change of frequency of monitoring certain parameters as per the applied methodology.

4. Changes to the project design of a registered project activity or programme design of a registered programme of activities

6. Proposed or actual changes to the project design of a registered CDM project activity that do not adversely impact any of the following do not require prior approval by the Board:

- (a) The applicability and application of the applied methodology and, where applicable, the applied standardized baseline under which the project activity has been registered;
- (b) The additionality of the project activity;
- (c) The scale of the project activity.

² For example, if the accuracy level required by the monitoring plan is 0.2s and the accuracy level of the installed equipment is 0.5s, the measured value shall be adjusted as follows: adjusted value = measured value - measured value * 0.003.

³ For example, if the accuracy level required by the monitoring plan is 0.2s and the accuracy level of the installed equipment is 0.5s, the measured value shall be adjusted as follows: adjusted value = measured value + measured value * 0.003.

7. For PoAs, the use of a positive list for demonstrating additionality based on the latest approved version of the “Guidelines on the demonstration of additionality of small-scale project activities” or the “Guidelines on demonstrating additionality of microscale project activities” does not require prior approval.
5. **Types of changes specific to afforestation or reforestation project activities**
8. Types of changes listed in the “Guidelines on accounting of specified types of changes in A/R CDM project activities from the description in registered project design document” do not require prior approval by the Board.

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Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
09.0	20 February 2015	<p>EB82, Annex 13</p> <p>Revision to reflect decision 4/CMP.10 on voluntary deregistration of CDM project activities and the flexibility in the timing of verifications for A/R CDM project activities.</p>
08.0	28 November 2014	<p>EB 81, Annex 3</p> <p>Revision includes:</p> <ul style="list-style-type: none"> • Clarification of information to be included in prior consideration of the CDM and removal of exemption of notification of prior consideration; • Elaboration of rules for cases where various changes have occurred after the publication of the PDD or PoA-DD for global stakeholder consultation; • Introduction of requirements allowing withdrawal of published monitoring report; • Introduction of requirements for withdrawal of request for issuance; • Clarification of continuity of crediting periods and consequence where notification of intention to renew the crediting period is delayed; • Introduction of requirements for combining the submission of post-registration changes and request for renewal of crediting period; • Restructuring of sections related to the programme of activities, post-registration changes and renewal of crediting period; • Elaboration of requirements for requesting approval of the same DOE doing both validation and verification for the same project activity or PoA; • Improvement of requirements related to global and local stakeholder consultation processes; • Introduction of requirements for delayed validation of monitoring plan; • Changes to the rules on PoAs (more flexible batched issuance requests, increased number of specific case CPAs that may be submitted at the time of request for registration or post-registration change); • Introduction of requirements related to the application of materiality. <p>This document, along with the “CDM validation and verification standard” (CDM-EB65-A04-STAN) and the “CDM project cycle procedure” (CDM-EB65-A32-PROC), supersedes and replaces the following documents on the date when these three documents above enter into force:</p>

Version	Date	Description
		<ul style="list-style-type: none"> • Amendment to version 07.0 of the CDM project standard (CDM-EB80-A04-AMEN) • Amendment to version 07.0 of the CDM validation and verification standard (CDM-EB80-A05-AMEN) • Amendment to version 07.0 of the CDM project cycle procedure (CDM-EB80-A06-AMEN) • Standard for application of the global warming potentials to clean development mechanism project activities and programmes of activities for the second commitment period of the Kyoto protocol (version 01.0) (EB 69 report, annex 3) • Further guidance related to the registration fee for proposed A/R clean development mechanism project activities (EB 36 report, annex 21) • Clarification: Validation of informing about the progress of a project activity after notification of prior consideration of the CDM (CDM-EB73-A15-CLAR) • Clarification: Verification of reporting of the status of registered project activity or programme of activities (CDM-EB77-A13-CLAR) • Clarification: Implementation of the prior consideration of the CDM requirement in the absence of the host Party DNA (CDM-EB72-A05-CLAR) • Clarification: Host Party for project activities and bundled project activities (CDM-EB70-A38-CLAR) • Clarification: Validation of post-registration changes and verification by the same DOE for the same project activity or programme of activities (CDM-EB77-A12-CLAR)
07.0	1 June 2014	<p>EB 79, Annex 3</p> <p>The document title changed from “<i>Clean development mechanism project standard</i>” to “<i>CDM project standard</i>”. Revision also includes provisions on standardized baselines and batched issuance requests for a PoA.</p>
06.0	11 April 2014	Revision to incorporate the amendment to the requirements for carbon dioxide capture and storage in CDM-EB78-A03.
05.0	4 October 2013	<p>Revision to incorporate the amendment to the requirements for programme of activities in CDM-EB75-A04 which includes:</p> <ul style="list-style-type: none"> • To enable two issuance requests for the same monitoring period.
04.0	29 July 2013	<p>Revision to incorporate the amendment in CDM-EB74-A03 which includes:</p> <ul style="list-style-type: none"> • Integration of clarification in paragraph 48(a) of the meeting report of the seventy-third meeting of the Board; • Integration of clarification CDM-EB73-A16-CLAR; • An option for proposing changes to CPAs of a registered

<i>Version</i>	<i>Date</i>	<i>Description</i>
		PoA.
03.0	12 April 2013	Revision to paragraphs 24 and 25 to align with relevant provisions in the “Procedure: Development, revision and clarification of baseline and monitoring methodologies and methodological tools” (CDM-EB70-A36-PROC) to allow project participants to, through a DOE or directly, submit to the secretariat a request for revision or a request for clarification for any type of methodologies or methodological tools.
02.1	3 December 2012	Updated to include footnote numbers 18 and 19 and editorial changes to paragraphs 144(b) and 163(b) and footnote 15.
02.0	23 November 2012	EB 70, Annex 2 Revision to reflect revised requirements for PoAs.
01.0	25 November 2011	EB 65, Annex 5 Initial adoption. This document, along with the “Clean development mechanism validation and verification standard” and the “Clean development mechanism project cycle procedure”, supersedes and replaces the following documents on the date when these three documents above enter into force: <ul style="list-style-type: none"> • Clean development mechanism validation and verification manual (version 01.2) • Procedures for requesting post-registration changes to the start date of the crediting period (version 02.0) • Procedures for modalities of communication between project participants and the Executive Board (version 01.0) • Procedures for registration of a programme of activities as a single CDM project activity and issuance of certified emission reductions for a programme of activities (version 04.1) • Procedures for renewal of the crediting period of a registered CDM project activity (version 06.0) • Procedures for notifying and requesting approval of changes from the project activity as described in the registered PDD (version 01.0) • Procedures for revising monitoring plans in accordance with paragraph 57 of the modalities and procedures for the CDM (version 02.0) • Guidelines on the demonstration and assessment of prior consideration of the CDM (version 04.0) • Guidance related to monitoring requirements (EB23, paragraph 24) • Guidance related to project activity with more than one component (EB28, paragraph 57) • Guidance on application of the definition of the project

<i>Version</i>	<i>Date</i>	<i>Description</i>
		<p>boundary to A/R CDM project activities (version 01.0)</p> <ul style="list-style-type: none"> • Guidance on A/R CDM project activities starting after 1 January 2000 (prompt start) (EB 21, paragraph 64) • Guidance on programme of activities (PoA) (EB35, paragraph 15) • Guidelines on assessment of different types of changes from the project activity as described in the registered PDD (version 01.0) • Guidelines for assessing compliance with the calibration frequency requirements (version 01.0) • Clarification on elements of a written approval (version 01.0) • Clarifications on the consideration of national and/or sectoral policies and circumstances in baseline scenarios (version 02.0) • Clarifications on the treatment of national and/or sectoral policies and regulations (paragraph 45 (e) of the CDM Modalities and Procedures) in determining a baseline scenario (version 01.0) • Clarifications relating to bundling of small-scale CDM project activities (EB 20, paragraphs 60-62) • Clarification on demonstration of the eligibility of land (applicable for both large- and small-scale A/R CDM project activities) (EB 38, paragraph 28) • National and/or sectoral policies and circumstances in the baseline scenario for afforestation and reforestation project activities (EB23, annex 19) • Clarification regarding the "Procedures for registration of a programme of activities as a single CDM project activity and issuance of certified emission reductions for a programme of activities (version 01.0) • Clarifications on procedures and documentation which need to be used for the renewal of a crediting period (EB 20, annex 7)
<p>Decision Class: Regulatory Document Type: Standard Business Function: Issuance, Registration Keywords: programme of activities, project activities, requirements for programme of activities, requirements for project activities, standardized baselines</p>		